Demographic Portrait of Hungary

2012

DEMOGRAPHIC RESEARCH INSTITUTE, HCSO

DEMOGRAPHIC PORTRAIT OF HUNGARY
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Report on the Conditions of the Hungarian Population

DEMOGRAPHIC RESEARCH INSTITUTE, HCSO
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PREFACE

Three years have passed since the researchers of the Demographic Research Institute at the HCSO wrote and published the previous demographic portrait of Hungary, which discussed the demographic processes characterizing the country. The aim of the 2012 issue is similar: to offer basic knowledge and accurate interpretations supported by data and based on solid scientific analyses for the benefit of all interested in the subject and to do it in a concise and easily understandable way.

Our present volume is basically characterized by continuity, i.e., it relies on the previous one preserving its subject matter and structure but it also has considerable novelties. The volume similarly consists of 12 chapters covering all major fields of demography, i.e., fertility, nuptiality, mortality, ageing, and migration. The individual articles dealing with these topics concentrate on introducing and interpreting the fundamental processes of the Hungarian society. Others like those dealing with family policy or retirement aim at introducing the current state of the relevant institutional system. Last but not least, we do not omit population projection, either, which is probably the most popular and most debated issue of demography.

The structure of the individual articles is uniform this time, too, as far as it is made possible by the limitations posed by the subject and the available data. All topics are discussed in international comparison as we are convinced that this perspective is indispensable for the better understanding of Hungarian phenomena. We find it especially important to compare the Hungarian results not only with those in the Western European countries but also with those of the former socialist ones. Although we are interested in current processes (i.e., those of the previous two or three years), it is often indispensable to refer to earlier developments as well, mostly to the period beginning with 1989–90. Tendencies of still earlier periods are mentioned only in certain special cases.

The continuity of topics and perspective raises, however, the problem of whether our previous volume of 2009 is known to the Reader or not. If we postulate previous knowledge, it may be enough to concentrate on the developments of the previous five years. If, however, we want the present volume to be an independent reading in itself, we may often need to repeat ourselves. As we decided for the second option thinking that the volume should be an autonomous summary, several articles contain the extended versions of tables, trends, and interpretations present also in the previous book. At the same time, every chapter contains a substantial amount of new information and interpretations.

There are two major new approaches that were still missing in the 2009 issue. The first one is the emphasis on regional

differences within the country, aided by maps for an easier understanding.

The second one is the novel context of the recession in world economy since 2008. Every author in the volume tried to take this unique circumstance into consideration and examined its impact on demographic processes.

Our old principle remaining unchanged, we do not back our every statement by inserting technical references and do not enumerate all relevant theories and methods. We do think that they would rather hinder comprehension in a volume issued for the general public. Those interested in the Hungarian situation more deeply can find further information under the headings References and Further Readings at the end of each article. References and Further Readings do not aim to offer a comprehensive overview of the given topic, but are more limited in their scope: they provide insight into the Hungarian demographic situation through English-language literature. Hungarian articles, books are referred to only if they are used as the sources of data and tables. The English Home Page of the DRI (www.demografia.hu/en) may be also used for providing further information. If the Reader needs more detailed information on a given topic researchers of the DRI can be also contacted.

This volume serves, namely, to make demographic issues widely available.

Similarly to the previous volume, not only the objective processes, events and relations are revealed but also their subjective aspect, i.e., the way the people concerned think about these issues, as well as their motives and values.

Although we analyse demographic processes mostly on the basis of time series and statistical correlations, we do not intend to pour data on the readers. The interested public can find them in the Demographic Yearbook (Demográfiai évkönyv) published by the Hungarian Central Statistical Office (HCSO). The present volume shows merely the most important trends, illustrated mostly by diagrams.

As it is common in similar volumes, the content of the individual chapters is summed up at the beginning of each chapter under the heading Major Findings.

Demography can be considered a 'lucky discipline' of empirical social science as it can rely on a huge number of data, and the events it deals with are relatively standardized and can be easily interpreted in international comparison. For our present purposes we used three basic types of sources that are different in nature. As regards births, marriages, divorces, and deaths we relied on the vital statistics regularly produced and published by the HCSO. The second important source was the census taken every ten years. Unfortunately, the results of the 2011 census are not available yet. Waiting for them would have considerably postponed the publication of the present volume and we could not have fulfilled our promise to publish a similar publication every three years. Our third source is the survey Turning Points of the Life Course by the Demographic Research Institute of the HCSO. This project of data collection and research enables us to make a dynamic analysis by following a certain group of people and taking a survey of the changes in their living conditions and values every three or four years. This project is part of the international Generations and Gender Program (GGP) in the framework of which the major demographic phenomena are studied in several European countries using the same methodology. Further sources were used as well, e.g., the European Social

Survey the findings of which can be met with in several chapters. All references are, naturally, duly indicated.

We hope that the present publication will meet the demands of the representatives of several fields and professions. It can be useful for decision makers in socio-political matters, researchers, university professors, students, the press, and, hopefully, for the general public interested in population issues.

Zsolt Spéder – Péter Őri

1.

CHARACTERISTICS OF PARTNERSHIP

Marietta Pongrácz

MAJOR FINDINGS

- The past two decades were characterized by a decrease in the number of marriages. Between 1990 and 2011 the number of first marriages decreased by 50 per cent and that of remarriages by 36 per cent. The total first marriage rate for women is 0.39, which means that the majority of women (61%) will never get married should this tendency prevail.
- The average age at the time of a person's first marriage is steadily rising. In 2010 it was 28.7 years with women and 31.4 years with men, which means a rise of 6.7 years with regard to both sexes as compared to the data of 1990.
- The regional distribution of first marriages is varied. In general it can be established that the willingness to get married is higher in Transdanubia than in the Great Plains. In Budapest more marriages are contracted than the national average, especially in the Buda districts.
- The number of remarriages also decreased, though to a smaller extent than that of first marriages. Divorced persons remarry much more frequently than widows and widowers, and the same applies to men. Divorced men are inclined to remarry to the greatest extent and widows are the least inclined (or have less possibilities) to do so.
- Representative data from the survey Turning Points of the Life Course concerning cohabitation lead us to the conclusion that the majority of the couples does not intend to legalize their relationship. It is mostly the younger generations living in a kind of 'trial marriage' that include marriage among their plans for the future.
- Public opinion considers trial marriage the most recommended form of partnership for young people and the preference of marriage without previous cohabitation is gradually decreasing. Cohabitation as the final form of partnership is slightly increasing but it still cannot be regarded as overly popular.
- Raising children safely in a family by parents living in matrimony is no longer a primary issue in the assessment of the various forms of partnership. While earlier the overwhelming majority of the population deemed the legalization of the parents' relationship necessary and important, today this view is definitely a minority opinion.

CHANGING FORMS OF PARTNERSHIP

The past two decades are characterized by a steady decrease in the number of newly contracted marriages. As compared to the 66,405 marriages in 1990, the year 2011 can boast of a mere 35,520. The decline was the most conspicuous in the case of first marriages (50%), while the number of remarriages fell only by 36 per cent.

This highly unfavourable trend is best illustrated by the changes in the total first marriage rate for women.

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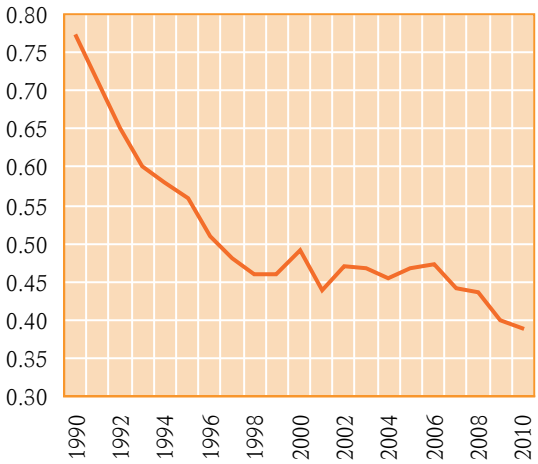
Fig. 1. ***Changes of the total first marriage rate for women, 1990–2010***



Source: Demográfiai évkönyvek, 1990–2010. (Demographic Yearbooks, 1990–2010).

Whereas in the 1960s almost every woman got married at least once in her lifetime (and about three quarters of them still in 1990), the present tendencies indicate that 61% of all women living in Hungary today will remain unmarried throughout their lives, should these tendencies prevail.

Also the age structure of people getting married changed significantly in these years, which means that both first brides and first grooms are older by 7 years today than at the beginning of the period. While in 1990 the average age of women at their first marriage was 22 years and that of men was 24.7 years, in 2010 women got married at the age of 28.7 years and men at the age of 31.4 years.

Table 1. ***First marriages by age groups (per thousand) in 1990, 2000, 2010***

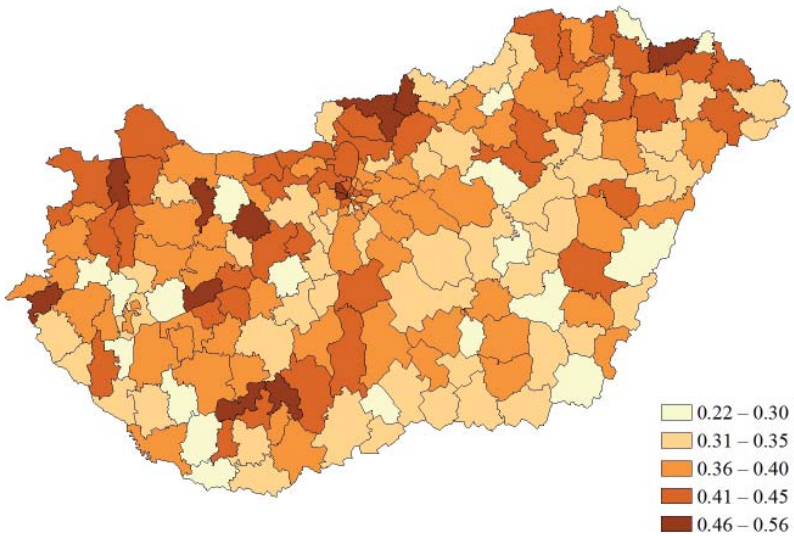
Age group	Men			Women		
	1990	2000	2010	1990	2000	2010
–19	9.3	2.3	0.9	50.7	12.3	3.3
19–24	121.0	32.5	7.4	185.4	60.7	18.1
25–29	122.1	71.1	30.1	114.3	80.5	48.5
30–34	49.4	55.8	41.0	50.7	42.5	41.4
35–39	21.8	23.2	26.9	25.2	19.8	21.5
40–	16.2	16.2	16.2	13.3	10.6	12.5

Source: HCSO vital statistics, 1990–2010.

First marriage rates tend to decrease dramatically in all age groups among men and women alike between 1990 and 2010 but the change in the age structure of the persons to be married caused a considerable shift in the rates. While in 1990 first marriages were the most frequent in the age group 19–24 (185.4), by 2010 the respective figure fell to the quarter of the previous one and the mode shifted to the age group 25–29. In 2010 practically no marriages were contracted in the age group below 19 which was still popular in 1990 (50.7). Significant changes have occurred in the practice and timing of first marriages below 20 years of age. In 1990 20.3 per cent of the women got married after they turned thirty, while in 2010 this rate was already 52 per cent.

The regional distribution of first marriages differs considerably.

Fig. 2. ***Regional distribution of total first marriage rates among women***



Source: HCSO vital statistics.

The frequency of marriages is above the national average of 0.39 in Northern Transdanubia and in Central Hungary along the Danube, as well as in certain regions of Northern Hungary. However, the blocs showing specially high rates are interspersed with patches with extremely low ones, so there are no homogeneous regions in this respect. In general it can, however, be established that the willingness to get married is lower in the Great Plains than in Transdanubia. In Budapest the rate of marriages is relatively favourable as compared to the national average, though there are considerable differences among the districts of the capital. Whereas in the Buda districts the total first marriage rate is around 0.50 (in District XII it is even 0.56), in the Pest District VIII it is only 0.32, and in Csepel it is 0.33. The majority of the districts is, however, around or above the very unfavourable national average.

There is a difference also in the relationship of first marriages and remarriages within the total number of marriages in 1990 and 2010. Both figures decreased but whereas the number of first marriages decreased during the 20 years concerned by 50 per cent, the decrease in the number of remarriages was only 36 per cent. In other words, the rate three quarters to one quarter of first marriages and remarriages in 1990 changed to two thirds to one third in 2010.

Remarriage is much more frequent among divorced persons than among widowed ones, and the same is true for men.

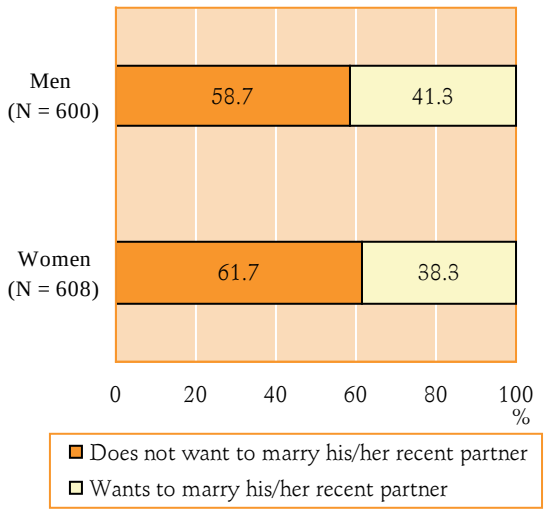
Table 2. ***Remarriages by sex and family status (per thousand) in 1990, 2000, 2010***

Year	Divorced		Widowed	
	men	women	men	women
1990	46.4	32.4	10.3	2.1
2000	29.1	19.7	4.9	0.9
2010	21.3	14.0	3.4	0.6

Source: HCSO vital statistics.

Whereas in 1990 almost half of the divorced men got married anew, in our days only one fifth of this group attempts a second marriage. It is primarily the young generations (those below 30) that tend to remain single after divorce, while the willingness of the older generations to remarry decreased to a smaller extent. Women – because of their differing age-structure – are in a less favourable position with respect to the chances of remarrying which decrease to a great extent especially in the higher age-groups.

Fig. 3. ***Marriage plans of cohabiting men and women in 2008 (per cent)***

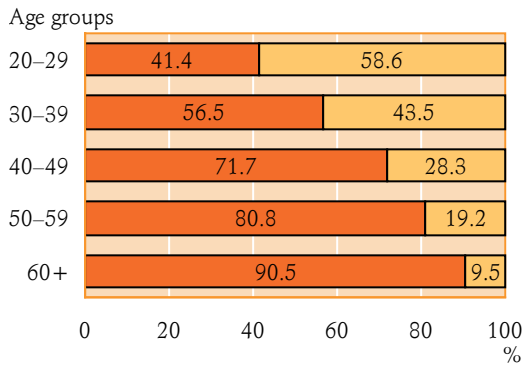


Source: Turning Points of the Life Course. Survey by the Demographic Research Institute, 2008–9, 3rd wave.

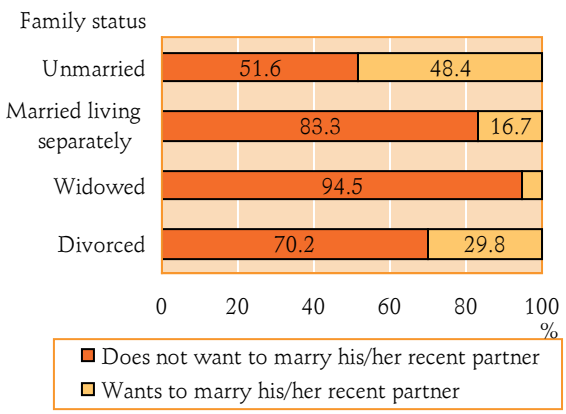
The considerable fall in the number of divorces is primarily due to the spreading of cohabitation. The detailed analysis of cohabitation will be possible only after processing the 2011 census results, so we are going to rely here more on the findings of the representative panel survey Turning Points of the Life Course according to which 84 per cent of all persons living in partnership in 2004 and followed by the survey were married and 16 per cent of them (1191 persons) lived in cohabitation. The repeated survey of 2008 revealed that a mere 15 per cent of the latter got married in the meantime. 63 per cent were still living in cohabitation five years later, and 20 per cent terminated their partnership between the two surveys.

Fig. 4–5. ***Marriage plans of persons living in cohabitation***

By age groups (per cent)



By family status (per cent)



Source: Turning Points of the Life Course. Survey by the Demographic Research Institute, 2008–9, 3rd wave.

The overwhelming majority of those living in cohabitation in 2008 did not want to marry their partners at all. In contrast with common beliefs, there is no considerable difference between the plans of men and women concerning marriage. 59 per cent of men and 62 per cent of women living in cohabitation do not want to legalize their partnerships. The survey does not offer reasons, so it cannot be told whether the refusal of marriage is due to the partners' satisfaction with their way of life or to their dissatisfaction with the relationship. The intention to legalize the partnership is the highest among couples younger than 30 but is still high in the age group 30–39 for both sexes, which corroborates the assumption that the cohabitation of young people can be considered as temporary trial marriage.

The willingness to remarry among divorced and widowed persons living in cohabitation is rather low. Non-marital partnership seems to be their final choice.

CONDITIONS IN THE REST OF EUROPE

The diversification of the forms of partnership is a tendency in most European countries but the process takes place at a different pace and to a different degree. Prior to the early 1990s the East Central European countries, Hungary included, were characterized by a high rate of marriages concluded at a young age unlike Western Europe where this rate was much lower and the age at first marriage much higher.

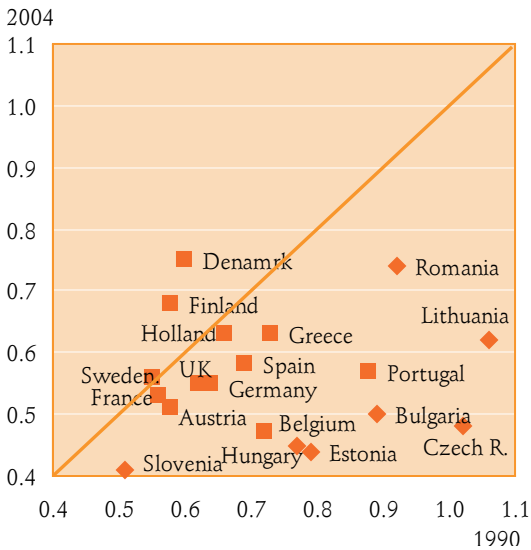
As a result of the radical decrease in the number of marriages in the past decade and a half the East Central European countries feature the lowest marriage rate in Europe today (Fig. 6).

The downward change was less drastic in Western Europe, and in certain Northern European countries (e.g., in Denmark and Finland) the willingness to get married even increased. Consequently, the East Central European rates tend to reach the initially lower rates in Western and Northern Europe or even drop below them.

In the past decade and a half the average age of women at first marriage was rising all over Europe (Fig. 7).

In the East Central European region the rise was unquestionably higher than in the rest of Europe but the traditional differences persisted and the marital patterns of the two regions continue to differ. As a result the general tendency is that in Western Europe people usually get married for the first time at a later age but to a greater degree than in most eastern countries.

Fig. 6. ***Total first marriage rate for women in Europe in 1990 and 2004***

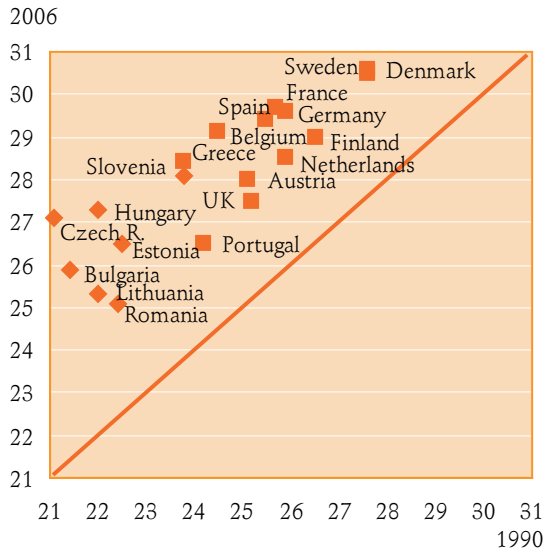


Source: Demográfiai évkönyvek (Demographic Yearbooks).

The spreading of cohabitation is a universal tendency in Europe but there are considerable differences in the degree of its popularity, and

in the length and outcome of the relationship. It is highly popular in Northern Europe and is almost exclusive as regards first partnership. Its rate is as high as 30 per cent among those who consider it a final arrangement.

Fig. 7. ***Average age of women at first marriage in Europe in 1990 and 2006***



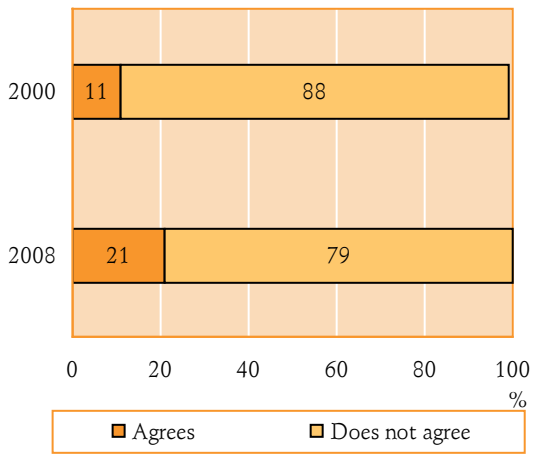
Source: Demográfiai évkönyvek (Demographic Yearbooks).

As a contrast, in some Southern European countries (Italy, Greece or Cyprus) non-marital unions are less wide-spread and marriages no longer concluded at a definitely young age are generally not preceded by a period of cohabitation. In these countries cohabitation is no real alternative to marriage. Poland, Slovakia and Lithuania show similar tendencies, which indicates that the shared values of the Catholic Church play a great role in influencing marital behaviour. Hungary takes place mid-field. Non-marital union is common mainly in the case of first partnership but the rate of those choosing it as a lasting form of conjugal union is definitely increasing.

THE POPULARITY OF THE INDIVIDUAL FORMS OF PARTNERSHIP

Public opinion polls conducted by the Demographic Research Institute testify that despite the fundamental changes in marital behaviour the institution of marriage is still regarded as something positive (Fig. 8).

Fig. 8. ***Distribution of opinions about the statement „marriage is an outdated institution"***



Source: Turning Points of the Life Course. Survey by the Demographic Research Institute, 2008–9, 3rd wave.

Although the rate of those rejecting the institution of marriage almost doubled by the end of the 2000s, the group is still a minority. Four fifths of the people interviewed do not consider marriage outdated.

As regards the recommended form of partnership, young people are especially pro-marriage. The question „What way of life would you recommend young couples?" was posed several times between 1990 and 2009.

Table 3. ***Changes of opinion about the preferred form of union (Men and women between 18 and 50 years of age, 1991, 2001, 2004, 2009) (per cent)***

Recommended way of life	1991	2001	2004*	2009
Marriage	87.8	84.9	83.5	80.0
following previous cohabitation	55.6	67.3	69.9	69.7
without previous cohabitation	32.2	17.6	13.6	10.3
Cohabitation	7.7	9.7	11.8	15.0
Other or uncertain opinions	4.5	5.4	4.6	5.0
Total	100.0	100.0	100.00	100.0
Number of cases	569	10,089	7,424	1,515

* Persons between 21 and 50.
Source: Demographic Research Institute data surveys for 1991, 2001, 2004, and 2009.

Marriage is still a highly preferred way of life for young people. However, there is a great difference in the attitude to its realization, namely in the growing acceptance of previous cohabitation, i.e., trial marriage. The rate of those recommending cohabitation as a lasting or final form of partnership is still very low despite its rising tendency. It can be established that although the Hungarian society does not consider cohabitation as an optimal way of life, it tolerates its existence and growing frequency to an ever greater degree.

Earlier it was a social requirement that couples got married when pregnancy occurred. The legalization of the relationship was important not only from the point of view of the child's future status but also from that of the parents, and especially because of the society's moral judgement of the mothers.

Table 4. ***"There is nothing wrong in a young couple living together without wanting to get married" (Men and women between 18 and 50 years of age, 1991, 2001, 2009) (per cent)***

Opinion	1991	2000	2009
Agrees	25.4	70.7	75.7
Disagrees	59.5	26.1	7.9
Uncertain	15.1	3.2	16.4
Total	100.0	100.0	100.0
Number of cases	569	1,776	1,515

Source: Demographic Research Institute data surveys for 1991, 2000, and 2009.

Unmarried mothers were not tolerated at all or only to a small degree. This social norm could still be observed in the 1990s, which is proved by the fact that in those years 23 to 25 per cent of the brides were pregnant at the time of marriage and the rate of births out of wedlock was merely 13 per cent in contrast with the 40 per cent of today. The public opinion polls of 1991 and 1997 revealed that about two thirds of the people interviewed found it important that couples expecting children should get married before the child is born.

Today both public opinion and the actual demographic situation are totally different.

The rate of those considering marriage important and not important has become balanced. The slackening of the earlier social norms can be seen also in the behaviour of couples, namely in the fact that in 2010 the rate of brides getting married during pregnancy fell to about half of the previous rate, i.e., to 11.6 per cent.

Table 5. ***"How important is it to get married in the event of pregnancy?" (Opinions of men and women between 18 and 50 years of age, 2001, 2009) (per cent)***

Getting married is…	2001	2009
Important	57.7	50.2
before birth	83.3	65.2
after birth	14.7	10.9
does not matter when		23.8
Total	100.0	100.0
Not important	41.1	49.0
Does not know	1.2	0.8
Total	100.0	100.0
Number of cases	10,089	1,616

Source: Demographic Research Institute data surveys for 2001 and 2009.

One or two decades ago public opinion found the status 'married mother' important also from the point of view of the stable status of the child to be born.

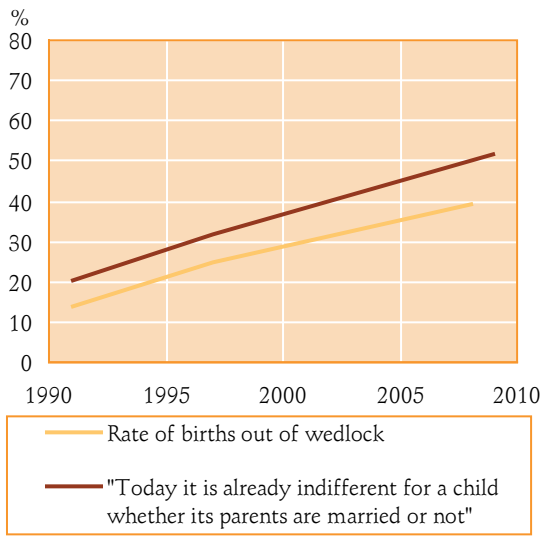
Table 6. ***"Today it is already indifferent for a child whether its parents are married or not" (Opinions of men and women between 18 and 50 years of age, 1990, 1997, 2009) (per cent)***

	1991	1997	2009
Agrees	20.4	30.7	51.7
Partly agrees	17.2	14.2	23.1
Disagrees	62.4	55.0	24.3
Does not know	–	–	0.8
Total	**100.0**	**100.0**	**100.0**
Number of cases	569	889	1,616

Source: Demographic Research Institute data surveys for 1991, 1997, and 2009.

The ever growing rate (around 40 per cent today) of births out of wedlock has transformed public opinion also as regards the attitude towards these children. While earlier it was found important from the point of view of the child's status in the kindergarten or at school that the parents should be married and the child be legitimate, the last twenty years have brought about a drastic turn in this respect and the opinion of those finding the married status of the parents of secondary importance prevails.

Fig. 9. ***Rate of births out of wedlock and the change in the opinion "it is indifferent from the point of view of children…", 1991–2009***



Source: S. Molnár E. (2010).

To sum up, it can be established that the negative tendency in the attitude towards marriage, i.e., the continuous decrease in the number of marriages since 1990 has not stopped. The fall is greater in the case of first marriages than in the case of remarriages. The change of values as regards partnership does not so much come from the people's views as to the justification of marriage but rather from the growing acceptance of the alternative forms of partnership. The emphasis on the legalization of the child with respect to its growing up in a stable family so important earlier has been pushed to the background that calls attention to individualization getting an ever greater ground and to the falling into the background of the traditional values.

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2.

DIVORCE

Erzsébet Földházi

MAJOR FINDINGS

- Between 1990 and 2011, the number of marriages fell almost by half, more precisely, from 66,405 to 35,750. The number of marriages contracted in 2011 was by 5,000 smaller than in 2007. However, the number of divorces fell to a smaller extent in the same period, from 24,888 to 23,200, which is a decrease of less than 2,000 as compared to 2007.
- The total divorce rate, which is an estimate of marriages ending in divorce, steadily increased between 1990 and 2007, reaching 0.45, then practically stagnated till 2010. This means that almost half of the marriages contracted in 2007 and in the following years are likely to break up.
- The age of the divorcees is also steadily increasing from 1990. In 2010 the average age of women at the time of divorce was 39.3 years, while that of men was 42.1, which means an increase of more than one year in the last three years for both sexes.
- The average duration of dissolved marriages is rising, too. In 2010 couples broke up after having been married for 12.9 years, so the duration of dissolved marriages grew by six months as compared to 2007. The rate of divorces following a long marriage similarly increases. While in 1990 only 14.6 per cent of all divorces terminated a marriage of 20 years or more, in 2000 this rate was already 21.6 per cent, and in 2010 it reached 27.5 per cent. Between 2007 and 2010 the increase was 3 per cent.
- There are minor children in about 60 per cent of the families broken up by divorce. In one third of the marriages dissolved in 2010 there was one, in one fifth there were two, and in 7 per cent of such families there were three or more children under age. These rates remained basically unchanged in the last three years.
- Public opinion polls indicate that the attitude towards dissolved partnerships changed considerably in the past decade and a half. The requirement that parents should stay together in the interest of their children even after the breakdown of their partnership has definitely lost its force. In 1994 nearly one fifth of the persons interviewed fully accepted this view and every second person dismissed it, while in 2009 only every eighth person agreed and two thirds of the interviewed definitely disagreed with the idea.
- Cohabitation is more likely to be broken up than marriage. Every third cohabitation terminates within five years, while only 10 per cent of all marriages are dissolved in the first five years. Twenty-eight per cent of couples living in cohabitation still live in consensual union in the fifth year of their partnership but nearly 40 per cent marry their partners in the meantime.
- Divorce as a judicial act and actual separation do not necessarily coincide. Most couples go to live separately before the sentence for divorce is pronounced. Moving apart is the most frequent in the year and a half around the date of the divorce.

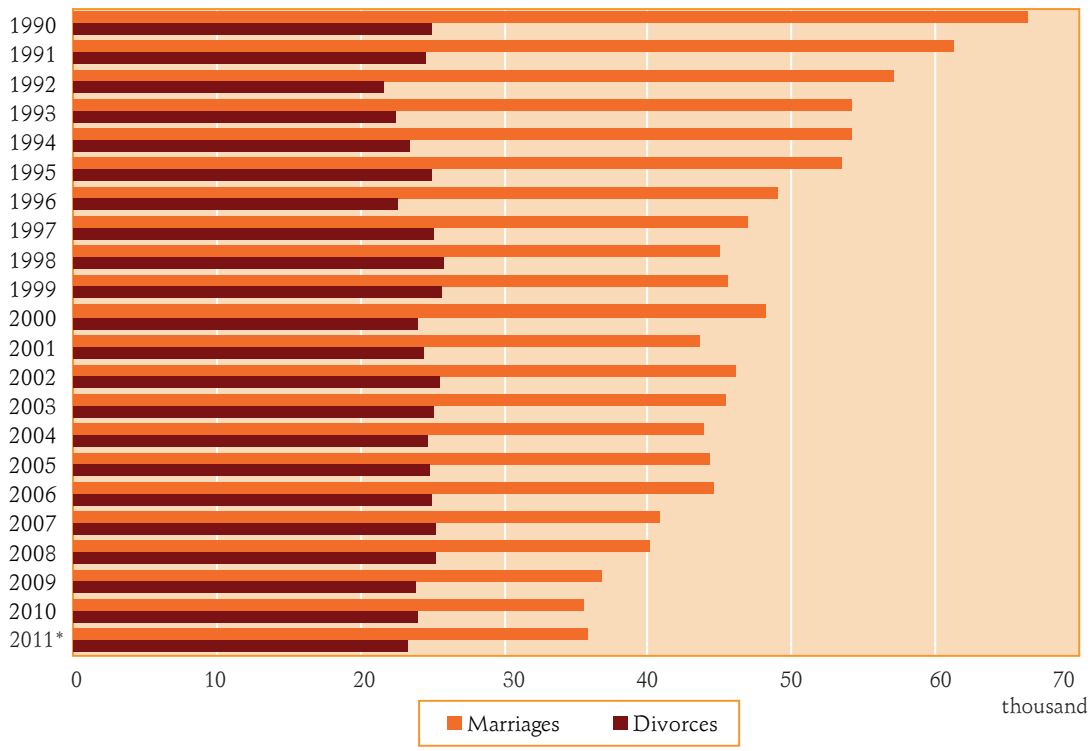
MARRIAGE AND DIVORCE

Divorce is the legal dissolution and annulment of a marriage by a valid decision of a judge. The data on divorce slightly underestimate the instability of marriages as there are couples[1] – two to three per cent of all couples – who live separately without being divorced.

Partnerships underwent a considerable change as to their form in the past few decades. Cohabitation is gaining ground and ever fewer marriages are contracted. The full survey of dissolved partnerships takes, therefore, into consideration both cohabitation and marriage. In the present study we speak first about the dissolution of marriages by divorce for which we have a great number of statistical data.[2]

In the past two decades, the number of newly contracted marriages decreased considerably. In 1990 it was still over 66,000, while in 2011 it did not quite reach 36,000. Taking the last four years into consideration we find that the decrease was the greatest in 2009 with 3,500 marriages less than in the previous year. The willingness to get married displays a falling tendency, though in 2011 a slight rise could be observed (Fig. 1).

Fig. 1. ***The number of marriages and divorces, 1990–2011***



* Preliminary data, partly estimates. Source: Statisztikai tükör, 2012:17.
Source: KSH Demográfiai Évkönyv (Demographic Yearbooks) for the years 2000 to 2010.

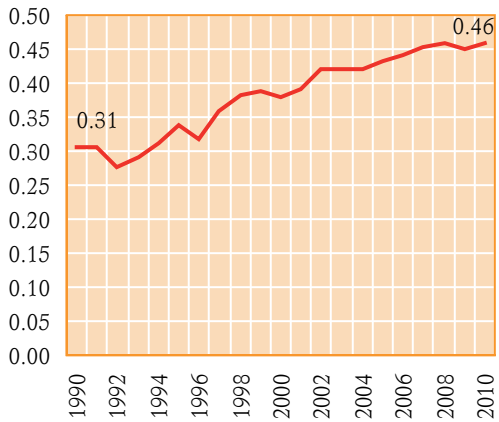
[1] *Turning Points of the Life Course. Demographic Panel Survey, 1st and 2nd waves. Demographic Research Institute of the Hungarian Central Statistical Office.*

[2] *The respective data on cohabitation will be dealt with later.*

The number of divorces between 1990 and 2011 fluctuated between 22,000 and 26,000 every year, the lowest ones being in 1992 and 1993. Between 2009 and 2011 the situation improved a bit (in 2011 the respective figure was 23,200), whereas the number of marriages was gradually falling from 2006 onwards (Fig. 1).

Beginning with the late 1970s, more marriages terminated every year – either by divorce or by the death of one of the partners – than were contracted. In the past three years the number of terminations was twice as high as that of newly contracted marriages.

Fig. 2. ***Total divorce rate, 1990–2010***



Source: KSH Demográfiai Évkönyv, (Demographic Yearbooks) 2000 to 2010.

The frequency of divorce is measured by various rates. The total divorce rate takes into account both the number and the duration of marriages, eliminating by this the bias resulting from the changes of these factors year by year. This rate compares the number of divorces granted in a given calendar year to the number of marriages contracted in the same year and, on the basis of the divorce rate by the duration of the marriage, it estimates the percentage of the marriages most probably ending in divorce. In 1990 this rate was 31 per cent, while in 2010 it already reached 46 per cent, which meant that almost every second marriage ended before the divorce court. Throughout the discussed period this estimate was steadily growing but between 2007 and 2011 it stagnated on 45 or 46 per cent (Fig. 2). Besides the growing social acceptance of divorce and its becoming easier as a legal procedure, the growing rate can be attributed also to the fact that couples today expect their marriage to fulfil primarily their emotional needs and are apt to break up once these needs are not fulfilled.

The total divorce rate is the best for an international comparison of the frequency of divorce (Table 1). In Hungary, more marriages ended with divorce than the European average for a long time but in the recent years the divorce rate was more around the average. Between 1990 and 2010 the frequency of divorce increased almost in all countries but recently the tendencies have changed. In Scandinavia divorce is traditionally frequent but between 2004 and 2010 Norway and Denmark witnessed a considerable drop in the number of divorces. Although the rate was slightly increasing in Southern Europe (Bulgaria, Cyprus, Italy, Greece, Romania) and in Poland, these countries still produce the lowest divorce rates in Europe. Spain witnessed a growth from 31 in 2004 to 46 per cent in 2010, so this country also belongs to the middle section by now.

The situation in East Central Europe is varied. The frequency and dynamics of divorce differs from country to country. In Poland and Romania the willingness to get divorced is low but while in Poland it rises towards the end of the period, in Romania it remains on the same level. The total divorce rate of Slovakia is moderately high but shows an upward tendency. In Hungary and in the Czech Republic the divorce rate is high but while in Hungary it is steadily

rising, in the Czech Republic it remains the same throughout the period 2004–2010 after a sharp rise in the previous years. These differences are caused by a number of factors, e.g., by economic, religious, and legal ones.

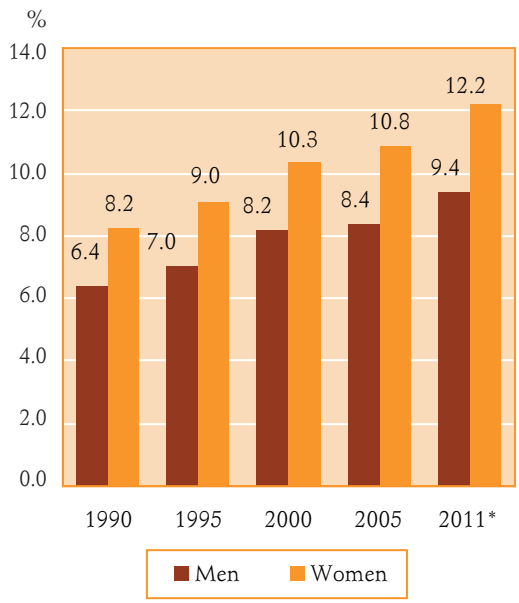
Table 1. ***Total divorce rates in some European countries***

Country	1990	1995	2000	2004–2005	2009–2010
Austria	0.33	0.38	0.43	0.46	0.43
Belgium	0.31	0.55	0.45	0.56[a]	0.62
Bulgaria	0.17	0.18	0.21	0.31	0.28
Cyprus	0.07	0.15	0.21	0.24	0.27
Czech Republic	0.38	0.38	0.41	0.49	0.50
Denmark	0.44	0.41	0.45	0.47	0.40
Estonia	0.46	0.66	0.47	n.d.	0.41
Finland	0.42	0.48	0.51	0.50	0.49
France	0.32	0.36	0.38	0.43[c]	0.45
Germany	0.29	0.33	0.41	0.46	0.43
Greece	0.12	0.15	n.d.	n.d.	0.2[e]
Hungary	**0.31**	**0.34**	**0.38**	**0.42**	**0.46**
Italy	0.08	0.07	nd.	n.d.	0.17
Latvia	0.44	0.35	0.34	0.36	0.56
Lithuania	n.d.	0.30	0.39	0.45	0.42
Luxembourg	0.36	0.33	0.47	0.49	0.50
The Netherlands	0.30	0.36	0.38	0.35	0.35
Norway	0.43	0.45	0.45	0.49	0.44
Poland	0.15	0.14	0.17	0.23	0.26
Portugal	0.12	0.16	0.26	0.33	0.36[d]
Romania	0.19	0.20	0.19	0.21[a]	0.20
Russia	0.40	0.50	n.d.	n.d.	n.d.

[a]2003; [b]2001; [c]2002; [d]2007; [e]2008.
nd: no data.
Source: Demográfiai évkönyv (Demographic Yearbooks) 2007; Eurostat, author's calculations.

The distribution of the population by marital status is determined most of all by the rate of marriages and divorces but it is influenced also by the rate of widowed persons and remarried ones. Between 1990 and 2010, the rate of divorcees in the population grew slowly but steadily, that of divorced women always preceding that of divorced men (Fig. 3). The rate of divorced men grew in the given period from 6.4 to 9.4 per cent, and that of divorced women rose from 8.2 to 12.2 per cent, so the rate rose by half in both cases. Divorced men are more likely to remarry than divorced women. This phenomenon is partly caused by the fact that due to the higher mortality of men there are more females than males in advanced age groups. Being divorced does not necessarily mean that a person does not have a partner since cohabitation is popular among divorcees.

Fig. 3. ***The rate of divorced persons within the total population by sex***

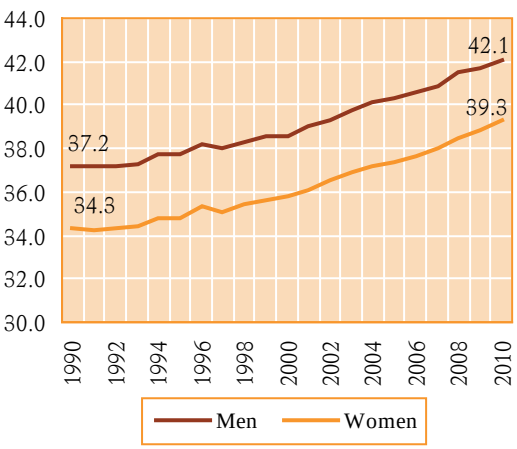


* Estimated data for January 1, 2011.
Source: KSH Demográfiai Évkönyv ((Demographic Yearbooks) for the years 2000 to 2010.

DISSOLVED MARRIAGES

Following a stagnation between 1990 and 1993, the mean age of just divorced persons has been steadily increasing. From 2000 onwards the increase has been even more abrupt than before for both women and men (Fig. 4). The average age of men at the time of divorce in the discussed period rose from 37.2 to 42.1 years, and that of women rose from 34.3 to 39.3, i.e., on average, the couples were five years older at the time of divorce than twenty years earlier.

Fig. 4. ***Average age of men and women at the time of divorce, 1990–2010***

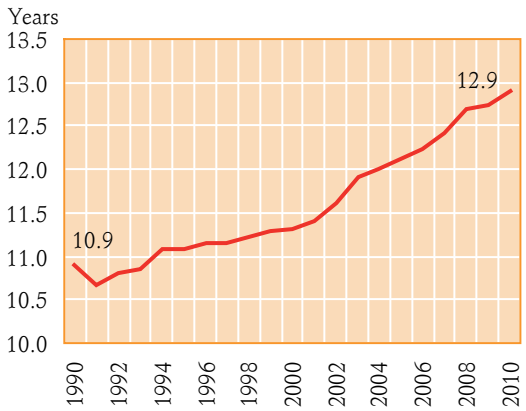


Source: KSH Demográfiai Évkönyv ((Demographic Yearbooks) for the years 2000 to 2010.

In the last three years, between 2007 and 2010, the mean age at divorce rose by 1.2-1.3 years regarding both sexes. The difference in age between divorced spouses remained almost unchanged, it was about three years. The process runs roughly parallel with the rise in the age at marriage. The only difference is that the latter rose faster before 2000 than the age at divorce.[3] The rising age at divorce can be attributed to the fact that the number of divorces increased among the middle-aged and the elderly, while it decreased among those under 30.

With the exception of 1991, the average duration of dissolved marriages was rising throughout the whole period, from 10.9 years in 1990 to 12.9 years in 2010 (Fig. 5). The accelerated increase in 2007 and 2008 was followed by a more moderate one in the next two years.

Fig. 5. ***Average duration of marriages at the time of divorce, 1990–2010***



Source: KSH Demográfiai Évkönyv ((Demographic Yearbooks) for the years 2000 to 2010.

Whereas the number of divorces wavered only moderately in the period in question, the distribution of dissolved marriages by duration did change. The rising duration of marriages at the time of divorce is caused by a decreasing rate of divorces following shorter marriages, and by an increasing rate of divorces after longer marriages. The rate of divorce in the case of marriages lasting less than 5 years fell from 27 per cent in 1990 to 18.6 per cent in 2010. A similar decrease occured in the category 5 to 10 years. There is, however, an increase in the case of marriages lasting longer than 20 years. Their share in 2010 was by

3 See Chapter 1 in the present volume.

13 percentage points higher than their value of 14.6 per cent in 1990. In the past three years the rate of marriages dissolved after 5 to 9 years is definitely decreasing, while that of those lasting 20 years or longer is clearly increasing (Table 2).

Table 2. ***Distribution of marriages dissolved in a given year by duration, 1990–2010 (per cent)***

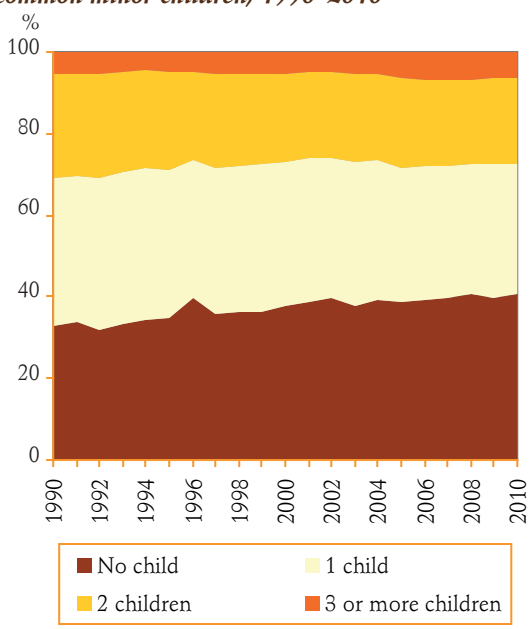
Year	Duration				
	0–4 years	5–9 years	10–14 years	15–19 years	20–x years
1990	27.0	24.1	19.5	14.8	14.6
1991	28.0	24.6	18.0	14.9	14.6
1992	26.5	24.9	18.3	15.5	14.9
1993	26.2	25.1	17.5	15.4	15,8
1994	25.2	24.5	17.5	15.4	17.4
1995	23.8	25.6	17.5	15.3	17.7
1996	23.9	25.2	17.6	13.5	19.8
1997	22.5	25.6	18.5	14.2	19.2
1998	23.0	24.8	18.1	13.6	20.6
1999	22.1	24.8	18.3	13.6	21.1
2000	21.6	24.6	19.0	13.2	21.6
2001	21.7	23.7	18.8	13.6	22.1
2002	20.9	23.3	18.8	14.2	22.7
2003	19.7	22.4	19.6	15.2	23.1
2004	20.2	21.6	19.3	15.4	23.5
2005	19.3	21.9	19.7	15.9	23.3
2006	19.5	21.7	18.7	16.0	24.0
2007	19.2	21.5	18.1	16.3	24.9
2008	18.6	21.6	17.5	16.2	26.1
2009	18.4	22.2	16.9	16.0	26.5
2010	18.6	20.8	17.2	15.9	27.5

Source: KSH Demográfiai Évkönyv ((Demographic Year-books) for the years 2000 to 2010.

The dissolution of a marriage bears down hard on the children of the couple. Cases of divorce affecting minor children are especially important to examine. The rate of such divorces fell from 67 per cent in 1990 to 60 per cent in 2010 (Fig. 6). The rate of those with one child under age dropped from 36 to 32 per cent and that of those with two dropped from 26 to 21 per cent. However, the percentage of those with three or more children rose slightly, from 5.3 to 6.7 per cent. These rates were practically unchanged in the past three years.

The rate of couples with no children at the time of divorce increased in the period in question, which is due to the fact that the age at the birth of the first child is increasing, too, so many couples break up before having a child.

Fig. 6. ***Distribution of divorces by the number of common minor children, 1990–2010***



Source: KSH Demográfiai Évkönyv ((Demographic Year-books) for the years 2000 to 2010.

The decrease in the frequency of divorce among couples with children is primarily due to demographic causes rather than to the society's negative approach to the phenomenon. Public opinion became far more permissive in this respect in the period

between 1994 and 2009. The traditional requirement that parents should stay married in the interest of the children until they grow up practically disappeared.

Public opinion polls in 1994 and 2009[4] wanted to know whether people still agree with the statement that even unhappy marriages should not be dissolved in the interest of the children (Table 3).

Table 3. ***"Parents should stay together even if they are no longer happy"***
Opinions of men and women between 18 and 50 years of age, 1994, 2009 (per cent)

	Year	Men	Women	To-gether
Agrees	1994	21.0	15.8	18.4
	2009	13.1	11.4	12.2
Partly agrees	1994	35.0	26.6	30.5
	2009	24.7	19.3	22.0
Disagrees	1994	43.9	58.3	51.1
	2009	60.8	68.6	68.8

Source: S. Molnár 2010:46.

The requirement that parents with children should stay together even if they are no longer happy in the interest of their children definitely slackened in the period of fifteen years between the two polls. Whereas in 1994 nearly one fifth of the interviewed agreed with this view and only every second person disagreed with it, in 2009 only every eighth person agreed and two thirds of the interviewed definitely rejected the idea. The change of opinion was more marked in the case of men but women tended to reject staying in an unhappy relationship for the sake of the children to a greater degree already in 1994. The cause of this might be that women are more affected with the situation as children mostly stay with their mothers after the dissolution of a partnership.

DISSOLUTION OF COHABITATION

Data collection with regard to cohabitation began already during the 1970 census and has been going on on an even larger scale ever since.

However, the duration, i.e., the beginning and the end of cohabitation cannot be determined as easily as in the case of marriage since it is not signified by a legal act, cohabitation being a consensual relationship[5]. Consequently there are no statistical data available either as to their beginning or as to their termination. A census or microcensus is able only to determine their number and duration up to that date. The longitudinal panel data survey Turning Points of the Life Course makes it, however, possible to estimate the rate of the dissolution of cohabitations.

The stability of marriages and cohabitations differs considerably. Cohabitation tends to terminate within a relatively short time or turns into marriage. Every third cohabitation comes to an end within 5 years, whereas the rate of marriages broken up within 5 years is below 10 per cent. Twenty-eight per cent of all cohabiting couples continue to live in this kind of partnership after 5 years, while nearly

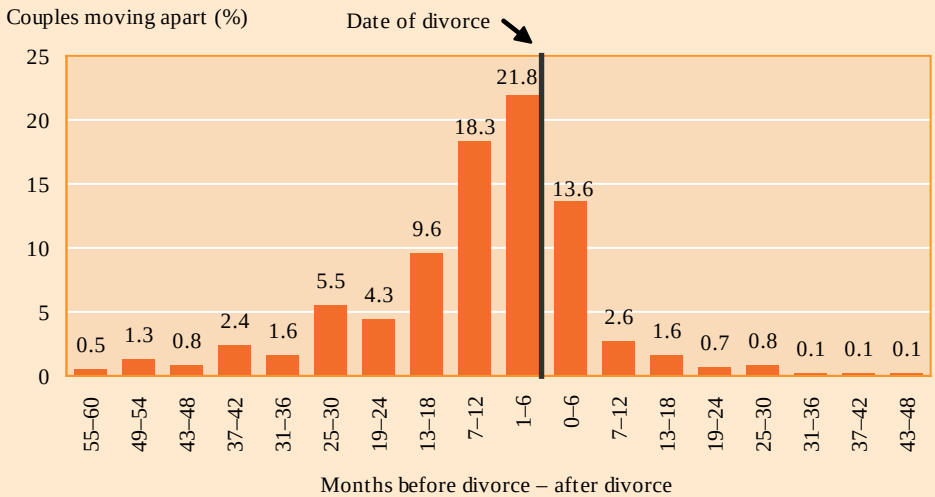
4 DRI public opinion poll from 1994, for the results see Pongrácz 2011:92; OTKA research project A családi értékek és a demográfiai magatartás változása (Changing family values and demographic attitudes), KSH NKI (2009)

5 There are two ways of making cohabitation official. In the case of couples of different sexes the relationship can be registered following a declaration of intention in the presence of a notary public, while in the case of couples of the same sex there is a legal form named „registered cohabitation", which is similar to legal marriage although the differences are also numerous, e.g., they are not allowed to use one another's name or adopt children.

DISSOLUTION OF MARRIAGE. THE TIMING OF LEGAL AND ACTUAL SEPARATION

The date of divorce is the date when the marriage is finally and legally dissolved by the court. It is, however, well known that the actual termination of living under the same roof, i.e., moving apart, rarely coincides with the legal act, though it usually takes place some time in the year or a year and a half around it. According to a survey about men and women divorced in 2000 , 40 per cent of the interviewed had moved apart some time in the year before the sentence for divorce was pronounced and another 14 per cent did so within six months following it. The number of separations beginning more than a year before divorce was hardly more than 30 per cent and that of persons moving apart later than six months following it was 7 per cent. (It is interesting to note that 6.2 per cent of the interviewed did never move apart possibly due to housing problems. No data are available for 4 per cent of the interviewed in this respect.) This means that the actual day of pronouncing the divorce found merely 25 per cent of the divorcees under the same roof.

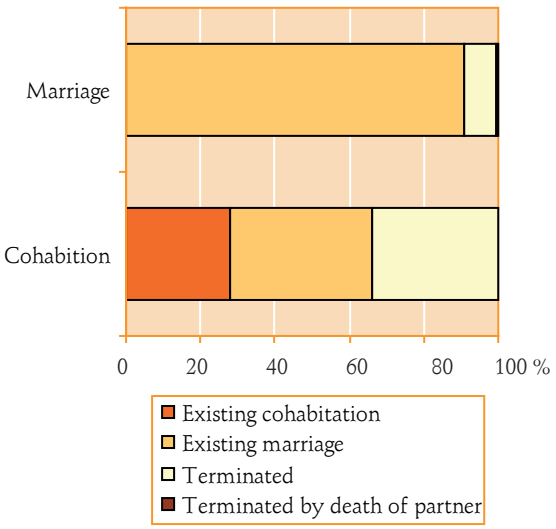
The timing of moving apart as compared to the date of divorce (months)
Men and women divorced in 2000 (per cent)



The available statistical data on divorce contain only the actual address of the couple at the time of filing for divorce, making the examination of the rate and timing of separation prior to or following actual divorce impossible. The ratio of persons to be divorced can, however, be established by the various types of settlements due to their moving apart prior to divorce. Between 1990 and 2010 the average rate of such separations was 19 to 23 per cent, which is much less than the one established by the survey referred to above. The reason for this can be partly that information is available only to the period prior to the legal act of divorce and partly the fact that this type of calculation cannot take into account movements within the same settlement and migration between settlements of the same legal status (e.g., within a village or from a town to another). Unregistered migration can similarly not be followed.

40 per cent of them marry their partners in the meantime. (0.2 per cent of the marriages contracted after cohabitation came to an end in the first five years due to the death of one of the spouses, while the respective figure for those marrying without previous cohabitation was 0.6 per cent.)

Fig. 7. ***Partnership status 5 years after their beginning****



*All partnerships established between 1970 and 1999. Data from the survey Turning Points of the Life Course, author's calculations.

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3.

FERTILITY

Balázs Kapitány – Zsolt Spéder

MAJOR FINDINGS

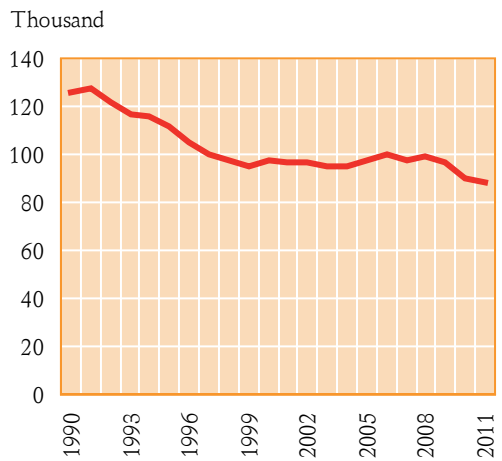
- At present, fertility in Hungary is the lowest in Europe and, in fact, in the whole world.
- The past three years witnessed a considerable decrease in the number of live births (10 per cent), comparable only to the one in the second half of the 1990s.
- The rate of having children out of wedlock is already 42 per cent. The majority of children arriving out of wedlock are born to parents living in cohabitation.
- The tendency of having children at an ever higher age continued in the discussed period. The mean age of mothers at birth reached 30 years in 2011, which is the average also for the countries of the European Union.
- The key factors contributing to the postponement of childbearing are the longer period of education, the shift in the forms of partnership, the decreasing popularity of marriage, and the difficulties of making an independent livelihood.
- The rate of those having a degree is rapidly growing among mothers, which is one of the causes of the fact that reconciliation of work and motherhood is more important than ever.
- It is highly probable that the rate of parents with two children will decrease in the future and that of those remaining without a child will grow just as that of those with one or three children.
- A significant portion of planned children are not likely to be born. Only one third of future parents are able to fulfil their intentions in the short run (within three years) in Hungary today. This rate is much lower than the similar one in Western Europe.

CHANGES IN THE WILLINGNESS TO HAVE CHILDREN IN TIME AND SPACE

In 2011 88,050 children were born in Hungary, which was the lowest figure of all times. In 2008 the number of births still exceeded 99,000 but a considerable decrease can be observed ever since. The past three years witnessed a drop of 11 per cent. A decrease of similar magnitude last occurred in the period 1995–98.

The drastic fall started in May, 2010 as a shock and the following months fell behind the figures for the same months of previous years by about 10 per cent. Comparing the period between May, 2009 and April, 2010 with that between May, 2010 and April, 2011, the fall is 9.5 per cent, which is the largest 12 months/12 months decrease in the past fifty years (See KSH 2011).

Fig. 1. ***Number of live births in Hungary***



Source: Central Statistical Office Demographic Yearbooks.

One of the primary aims of this chapter in the Demographic Portrait for 2012 is to show the background of this unexpected and unprognosticated fall in the willingness to have children and the factors contributing to it. First we intend to evaluate the Hungarian data in international comparison, then analyze the demographic and social circumstances changing the young people's attitude towards having children.

What are 88,000 live births 'enough for' in Hungary today? The answer lies in various demographic indicators. The most easily understandable of them is the so-called total fertility rate which has to exceed 2 if a society wants to be able to reproduce itself. In 2010 the total fertility rate in Hungary was 1.25. For the year 2011 no detailed data are available for the time being but it is likely to be around 1.24 (KSH 2012).

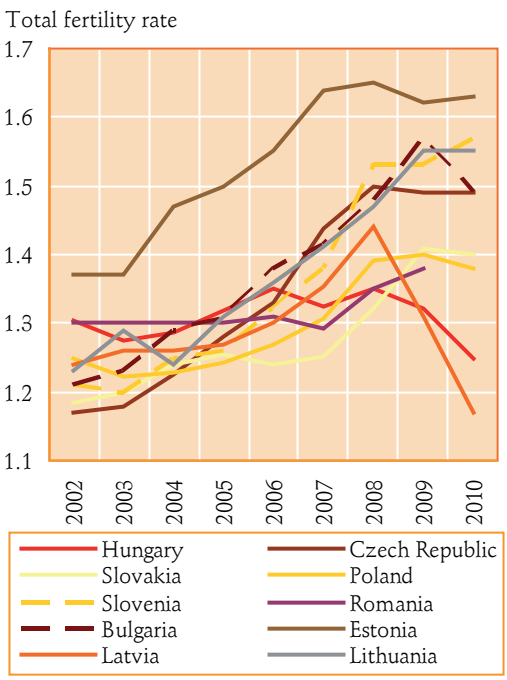
The total fertility rate falls below 1.3 only very rarely but this is not unique. Demographers call the phenomenon lowest-low fertility.

The significance of the problem is indicated by the fact that should a total fertility rate of 1.3 last for many years in a stable population where the average age at childbearing is 30, the number of the given population would drop to half in every 45 years. Although the population of Hungary has been steadily decreasing for over thirty years, this radical decline has not ensued yet. The reason for this is that the Hungarian population cannot be considered a stable one from demographic respect in that childbearing is postponed to a later age, life expectancy is growing, and the number of immigrants exceeds that of emigrants. These three factors are, however, not demographic laws, consequently a possible change can result in the acceleration of the population decrease. A lasting improvement can be expected only if fertility starts to grow in this country.

Lowest-low fertility is not unprecendented in Europe. Around the turn of the millennium both East Central European and Southern European countries were characterized by fertility below 1.3. Hungary produced similar

results for a few years at that time but they were still higher than those of the surrounding countries. For example, in 2002 it was only in Hungary and Estonia that the total fertility rate exceeded 1.3 among the ten newly accessing member states of the European Union (Fig. 2). However, in most countries with low fertility the willingness to have children started to rise in the middle of the first decade of the new millennium, followed by a period of stagnation since 2008. The fact that fertility has been stagnating in Hungary since 1999 gives rise to justified pessimism. The past two or three years did not bring with them the long-expected rise (the start of the recuperation period) but a drastic drop took place instead. There were such recession-stimulated drops in some other countries (e.g., Latvia) as well.

Fig. 2. ***Total fertility rate (TFR) in the ten new EU member states***



Source: Eurostat.

According to the latest international data from 2010, fertility in Hungary is one of the lowest in Europe and the world. Taking the 27 EU states into consideration, we are last but one, preceding only Latvia.

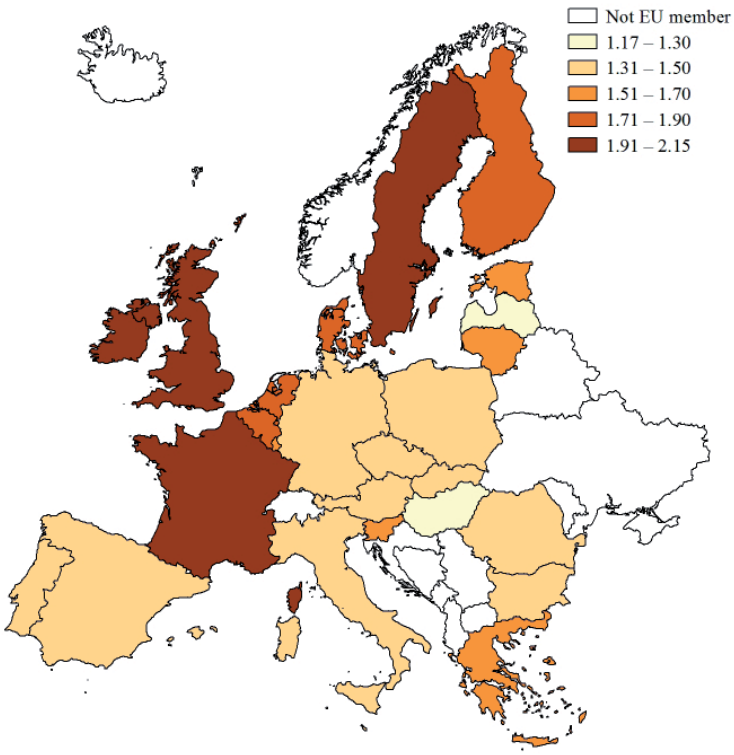
With a slight simplification, one might say that about one third of the European countries (France and the northern states) does not have serious fertility problems, the continental states of Western Europe have an average rate of 1.6, while the southern states, the German-speaking countries, and the former socialist ones are characterized by fertility rates around 1.4 or 1.5 (Map 1).

In several economically developed countries, the decreasing fertility of the past few years is generally attributed primarily to the economic world crisis. Although current research has proved that the crisis (mainly the resulting unemployment) can really influence the willingness to have children negatively, seeing the overall picture of Europe one would say that blaming exclusively the economic world crisis for the decreasing fertility of the population is definitely a simplification of the problem.

On the one hand, it is an undeniable fact that in the two countries most effected by the decrease in fertility (Latvia and Hungary), the GDP dropped to a great degree, on the other hand there are countries – namely Lithuania and Ireland – where economic crisis did not lead to fertility decline. Taking the whole of Europe together, the decrease of fertility is minimal. The economic crisis beginning in 2008 probably influenced the willingness of the people to have children negatively but this effect was not general and failed to influence the majority of the European societies or did so only to a far smaller extent than in Hungary.

Map 1.
Total fertility rates in the EU member states, 2010 (or the latest available data)

Latvia	1.17
Hungary	1.25
Portugal	1.36
Spain	1.38
Malta	1.38
Poland	1.38
Romania	1.38
Germany	1.39
Slovakia	1.40
Italy	1.41
Austria	1.44
Bulgaria	1.49
Czech Republic	1.49
Greece	1.51
Cyprus	1.51
Lithuania	1.55
Slovenia	1.57
Estonia	1.63
Luxembourg	1.63
The Netherlands	1.79
Belgium	1.84
Denmark	1.87
Finland	1.87
United Kingdom	1.94
Sweden	1.98
France	2.03
Ireland	2.07



Source: Eurostat.

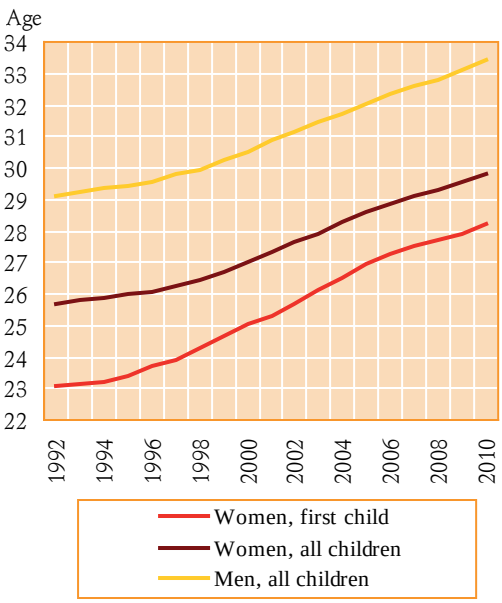
INCREASING MEAN AGE AT CHILDBIRTH AND THE CHANGING FAMILY SETTING

The dramatically low level of the willingness to have children goes back to a great degree to the postponement of childbearing. The earlier pattern of having children at a young age ceased to exist and Hungarian women increasingly follow the West European model of postponing the birth of their first children to their late twenties or early thirties. This abrupt shift in the timing of births decreased the fertility rates of the individual calendar years to a great extent. The first signs of the slowing down of this process could be observed also in Hungary in the years 2006–2008 but since then – in parallel with the decrease in fertility – the pace of postponement has started to increase again.

The most evident indicator of the growing age of parents is the 'mean age of women at

first birth' and 'at childbearing' (Fig. 3). In 2011, the average age of first mothers was between 28 and 29 years, while the mean age at childbirth is presumably over 30. The age of fathers at childbearing is steadily rising, too. A „typical" father today is 33 or 34 years old, while around the change of regimes about twenty years ago this figure was 28 or 29 years.

Fig. 3. ***Mean age of women and men at childbearing***



*Known fathers.
Source: Central Statistical Office, Demographic Yearbooks, authors' calculations.

The question is how far the limit of postponement can be pushed from biological point of view. It is, namely, a fact that female fertility decreases with age. According to the calculations of the French demographer Henri Leridon, the chance of a healthy woman of thirty to become pregnant in a year is 75 per cent, five years later it is 66 per cent, and at forty it is merely 44 per cent. The rate of couples unable to have children at all despite their intentions might be 7 to 12 per cent when the woman is thirty, 13 to 22 per cent five years later, and 24 to 46 per cent when the woman reaches forty (in detail see Kapitány 2010).

Consequently, the postponement of childbearing to the thirties will most probably decrease the number of births otherwise planned. In January, 2011, the number of women in their thirties having no children was about 213,000, most of whom planned to have children. The respective figure around the turn of the millennium was below 100,000.

Although the postponement of having the first child makes the growth of Hungarian fertility difficult, it does not make it impossible on the whole. The mean age of first mothers is still below the EU average (though only with about half a year) and there are countries (France and Ireland) where the total fertility rate is above 2 even though the mean age at birth is above thirty.

When examining the changes in fertility in the past few years, one has to take also the changing social status of mothers into consideration. As it has already been mentioned, a typical mother today is around thirty, i.e., she was born around 1980. This generation is the first among those affected by the expansion of higher education after the change of regimes. Consequently, the year 2010 was the first when women with university or college degrees represented the largest group among young mothers (35.0%), surpassing the rate of high school graduates (31.8%) and those finishing only primary school or a vocational school (31.5%). For the sake of comparison, we have to note that around the turn of the millennium the share of the first category was 15.1 per cent and that of the last was 48.4 per cent.

This is important because the mothers' level of education greatly determines their conditions on the labour market at the time

of their decision to have a child. It has been a tendency in Hungary for a long time that women having university or college degrees had their first children while still employed (or in the case of further children they had been employed when having the first child and enjoyed family allowance since then). This model has not changed ever since. In 2000 91 per cent of women with degrees were employed at the time of birth, and in 2010 this figure was 90 per cent. In the case of less educated women the situation is different. In 2010 80 per cent of high school graduates and 39 per cent of mothers with primary school or vocational school certificates had had jobs before childbirth. (In the case of higher parity we included also those enjoying childcare allowance.) So it is natural that with the changing social environment and with the growing level of education among women the reconciliation of work and motherhood has become ever more important for would-be mothers and it has become less likely that a woman should decide for having a child without having a job first.

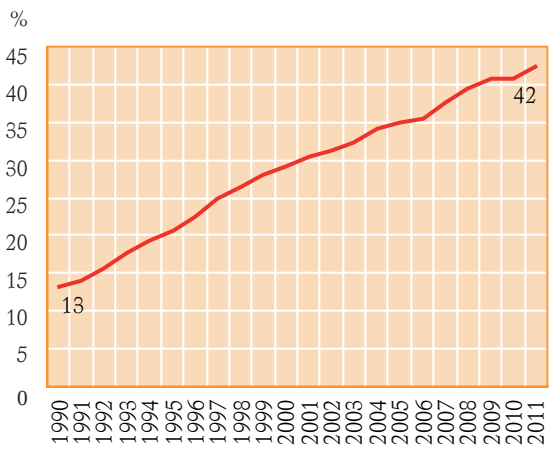
However, while there is a growing need for women to have children when they are employed, data of the labour market show that the employment rate of women of the age group 25–49 having no children fell from 82.6 per cent in 2007 to 80,6 per cent in 2010 due to the economic crisis. The increasing importance of being safely employed is indicated by the fact that the same rate for women with children aged 0 to 2 years rose from 10.2 to 12.1 per cent in the same period. The repeated modifications of the family support system in the past few years did not make the situation of women planning to have children easier, either (see chapter 4 in this volume).

CHILDREN BORN OUT OF WEDLOCK

One of the most interesting changes of the past few years was that the increase in the rate of children born out of wedlock broke in 2009. From that year onwards it has been stagnating at a level of 41 per cent. The latest data from 2011 indicate that this was not a turn in the trend but we can speak only of a short-term stop as the rate of extramarital births continued to increase in 2011, reaching a level of 42.3 per cent according to preliminary data.

Having children out of wedlock is largely determined by the social status of mothers. As the data in Demographic Yearbook for 2010 testify, nearly three quarters of mothers with primary school and almost half of those with vocational training gave birth without being married, while the respective rate for high school graduates was 39 per cent, and for those with higher education was merely 19 per cent.

Fig. 4. ***Rate of births out of wedlock in Hungary***



Source: Central Statistical Office, Demographic Yearbooks.

Regional differences are also considerable, indicating that giving birth to legitimate children has become the 'privilege' of regions enjoying relatively good economic conditions. Births out of wedlock are around or below 25 per cent only in the 'elite' districts of Buda characterized by a generally high level of education, in the sub-regions of Budaörs and Pilisvörösvár close to Budapest, and along the western border (in the sub-regions of Sopron and Kapuvár–Beled).

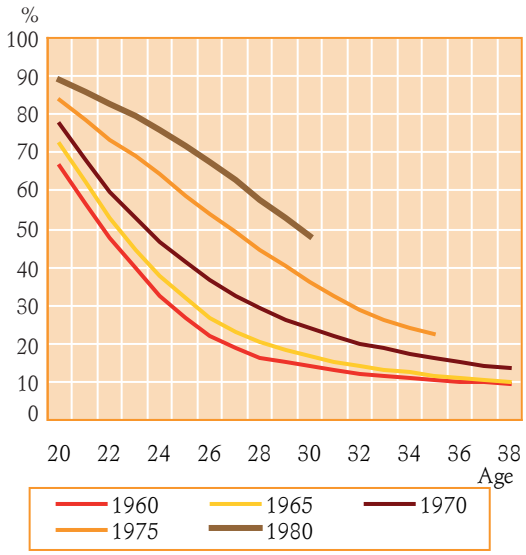
The other extreme is represented by strongly rural territories along the borders other than the western one. In the Sellye sub-region in Southern Transdanubia 72 per cent of all children were born out of wedlock, and in the Bácsalmás sub-region this figure was 69 per cent. In 2010 there were 64 sub-regions in Hungary where the majority of children were born to unwed parents.

The changing pattern of fertility is largely influenced by the transformation of partnership, i.e., the postponement of establishing partnerships, the spreading of cohabitation, and the growing instability of partnerships. All these factors contribute to the ever smaller probability of having children and to the smaller number of children in general. There is, however, a new phenomenon that might help increase fertility, namely the growing number of new, lasting partnerships after the failure of the former one (i.e., after divorce and separation). New couples tend to wish to seal their partnerships by giving birth to a common child even though the members might have one or more children by their former partners.

It is not easy to discover which is the cause and the effect, though. It is, namely, well known that prior to 1990 many couples got married just because the baby was on the way. Today, this phenomenon is considerably less frequent, though it is still existing. Anyway, it seems that the shift in the forms of partnership played an important role in the decrease of fertility rates.

Our data on the number of children in families indicate that the predominant family model of the 1980s, i.e., a couple with two children, is deteriorating. Although final results can be obtained only about age groups above 45, it can be rightly presumed that the rate of childless women (Fig. 5) and of those with one child will most probably grow among those in their thirties at present, while the rate of those with three or more children will not decrease or will even rise slightly. Due to the growing instability of partnerships, the rate of those among women with two children whose offsprings are by different fathers will probably grow in the future.

Fig.5. ***Rate of childless women in a given age, by birth cohort in Hungary***

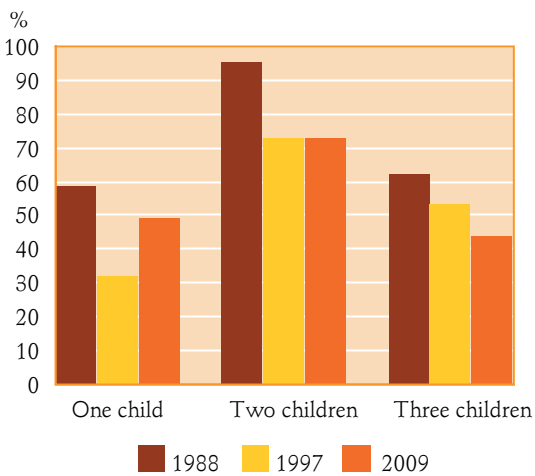


Source: Central Statistical Office Demographic Yearbooks, authors' calculations.

The shift in the number of children is mirrored also by the couples' preferences as to the desirable number of children, although the changes in this respect do not seem to be very pronounced. As compared to the period before the change of regimes, the rate of those

among people in their fertile years who agree with the statement "it is very good or good for a married couple to have two children" (see Fig. 6) decreased by 20 per cent. At first, the popularity of the single-child family model decreased but started to increase again, whereas that of families with three children seems to decrease throughout the whole period. To sum up, although families with two children still seem to be the most popular, the changes in the number of children are reflected also by the new preferences. The rate of those finding the situation of couples with two or more children favourable definitely decreased in the examined period.

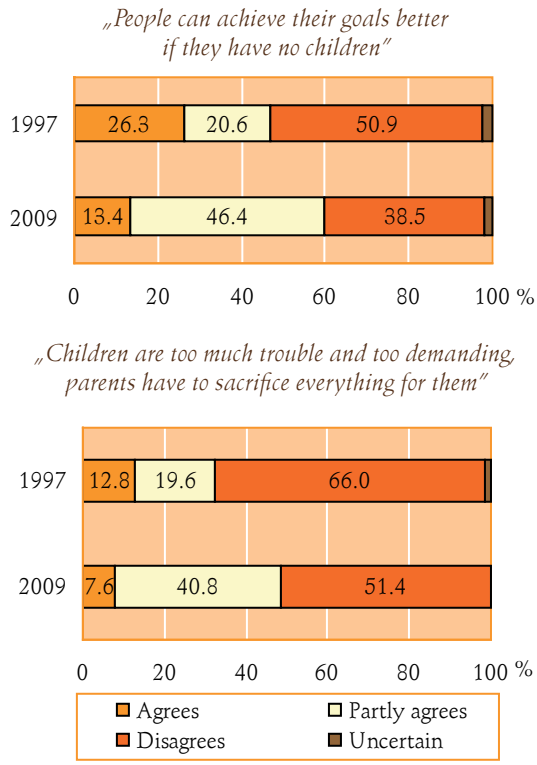
Fig. 6. ***Distribution of the opinions of Hungarian women and men aged 18-50 about the statement "It is very good or good for a married couple to have a certain number of children", 1988, 1997, 2009 (per cent)***



Source: S. Molnár 2011: 75.

It has been observed by many researchers that the changes in values considerably contribute to the people's willingness to have children. Growing individualism and the desire for autonomy and hedonism are blamed for decreasing fertility. A recent research by members of the Demographic Research Institute has partly corroborated this view and partly made it more subtle. Comparing the situation in 1997 and 2009, the number of those who can no longer harmonize childbearing with other competing goals in their lives is definitely growing. The rate of those who at least partly agree with the statement „People can achieve their goals better if they have no children" grew from 47 per cent to 60 per cent in the given period (Figs. 7 and 8). It is still more interesting that the rate of those who were ambivalent ('partly agrees') about it more than doubled (from 20 per cent to 46.4 per cent).

Fig. 7–8. ***Distribution of the opinions of Hungarian men and women aged 18 to 50***



Source: S. Molnár 2011.

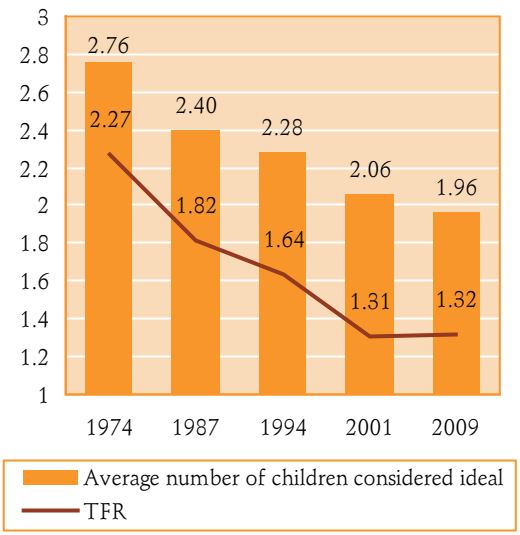
So it can be established that the past decade witnessed a growing discrepancy between having children and reaching other socially important goals like having jobs and reaching a certain level of consumption, which resulted, at the same time, in a growing ambivalence in connection with having children.

INTENTIONS AND OUTCOMES

Today it is a well-known fact that there is a great difference between a couple's plans as to the number of their future children and the actual outcome. The plans of some are considerably postponed or never come true, while those of others are realized earlier than expected. Although it is not necessarily so, in societies where intended family planning prevails, the average plans for the size of the family always exceeds the definitive number of children born in the families (Fig. 9). In a survey starting with the year 1974 the ideal number of children was invariably higher by 0.5 or 0.6 than the actual TFR. On the basis of research results on the number of children held ideal and planned, according to which underachievement is always higher than overachievement, we can safely establish that not only the actual TFR but also the rate of completed fertility will remain considerably below the expected ideal number of 1.96 children (2009).

Although we are far from being able to explain the discrepancy between the ideal, the intended, and the actual number of children, we can point out some group specific and contextual factors. It is clear that those who plan to have their first child at a higher age are more likely to fail partly because they have less time to fulfil their plans, partly due to biological reasons. Since the birth of the first child, as a decisive life-changing event, excludes the realization of several aims of the mother for good, it is evident that would-be first mothers (females having no children) are more likely to postpone childbearing than women who already have one or more children. It is similarly evident that people living in a stable and happy partnership are more likely to be able to realize their plans, so the growing instability of partnerships also contributes to frustrating the plans to have children. Finally, unexpected events like the deterioration and dissolution of a partnership, a new job, more favourable opportunities abroad, etc., similarly often make people revise their plans as to having children, which often results in having less than planned.

Fig. 9. ***The average ideal number of children among persons below 50 and the TFR for the given years***



Source: S. Molnár (2011), authors' chart.

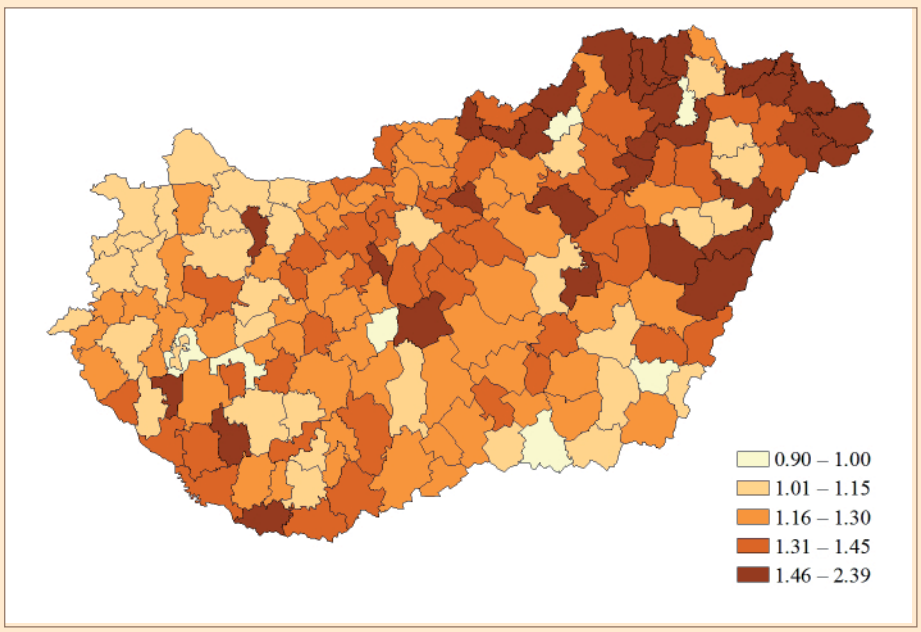
A comparative study of international scope called attention also to the fact that the social context plays a key role in realizing plans for having children (Kapitány–Spéder (2011). We wanted to know what the chances of

TERRITORIAL DIFFERENCES OF FERTILITY IN 2010

The considerable territorial differences as regards the willingness to have children in Hungary represent a rarely studied but fairly important aspect of fertility. The total fertility rates calculated for certain sub-regions could be over double the values for others in 2010. In Northeastern Hungary, there were four sub-regions in 2010 where the TFR exceeded 2, i.e., the replacement of the population was safe in the long run. These were the Bodrogköz, Abaúj-Hegyköz, Edelény, and Encsi sub-regions. The northeastern part of the country is generally characterized by a higher willingness to have children, while in Western Hungary and in the southern part of the Great Plains low fertility is more general. However, the differences cannot be attributed solely to the usual discrepancy between east and west or urban and rural environments. An example for this is the Tokaj sub-region in Eastern Hungary which is one of the six ones with a TFR below 1. The rest of this group is dispersed throughout the country.

Budapest and other strongly urban sub-regions like Győr and Pécs among others can be found in the second half of the list but definitely not at its end. The 1.35 TFR of Pest County can even be considered high in national comparison. It is the third highest among the counties in the country. Certain well-to-do Buda districts also produce a rate above the national average. However, one must be cautious in comparing certain districts of Buda and the commuter belt around the capital as several couples living in the central districts consciously move to the suburbia or to the greener Buda districts when they plan to have children.

Total fertility rate in Hungary by sub-regions, 2010



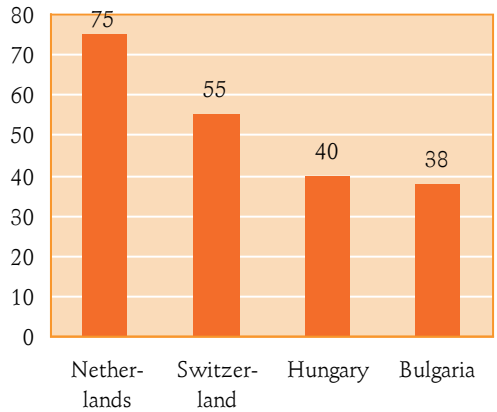
Source: Authors' calculations on the basis of Central Statistical Office vital statistics.

people planning to have a child within two years were to realize their plans within three. The results largely differed from country to country. Whereas in the Netherlands 75 per cent of the plans were realized, in Switzerland this rate was 55, in Hungary it was 40, and in Bulgaria merely 38 per cent. The results indicate that people in the former socialist countries are more likely to leave their plans unfulfilled than in Western Europe.

Our analysis revealed that in the former socialist countries the rapid and unexpected institutional and social changes created a social environment that makes the realization of the intentions to have children highly difficult and involves a constant revision of such plans.

Our research results indicate that the situation on the labour market and in the family support system (i.e., their instability) contribute to the tendency according to which women in the middle layers of society have rapidly been losing their willingness to have children since 1990 and are by now at the bottom of the scale with usually only one child, while the higher social layers tend to become polarized, i.e., the rate of childless women and that of those with several children grows and the rate of mothers with a single child decreases. It can be established that the labour market as it is today hinders the realization of plans for childbearing in many cases and the negative effect is the greatest in the case of mothers with a secondary level education or even less already having children and planning still more.

Fig. 10. ***Rate of those who realized their plans among persons planning to have children within two years in four European countries (per cent)***



Source: Kapitány – Spéder 2011.

THE CONTRIBUTION OF THE ROMA (GYPSY) POPULATION TO FERTILITY IN HUNGARY

Recenty, the Roma population can be heard of ever more often in the news and the much debated ethnic group has come to the forefront of public interest. Their objective analysis is rendered difficult by the fact that in contrast with the practice of other countries, data collection for vital statistics as regards births does not contain information about the ethnicity of the newborn babies. Consequently, we do not have precise data on the willingness to have children among the Roma population. The data referring to nationality in the 2011 census will not be published before 2013 but the previous census result indicate that the majority of persons held Roma by their neighbourhood declare themselves Hungarians, consequently the statistical data on nationality are unsuitable for giving a reliable picture about the Roma ethnic group. The scope of sociological data collections is too restricted to make reliable estimates on the various age groups.

The territorially specified data available today come from the national competence survey (Országos Kompetenciamérés) beginning in 2001, in the course of which the rate of Roma children is registered by primary schools. Thus these

data are not based on self-declaration but on the classification of school directors.

According to the data for 2009, the rate of Roma children (or of those classified as Roma) among all children attending primary school in Hungary can be 13 per cent, which is about double of the 6 to 7 per cent share of the Roma community within the total population of the country [cf. Papp (2011)]. These data roughly reveal the share of children born to Roma parents within all children born in Hungary or in different sub-regions around the turn of the millennium and in the years before that.

The chart shows that the rate of the Roma within the population and their contribution to the fertility rate is the highest in Northern Hungary where every fourth child attending primary school belongs to that ethnic group. In Borsod-Abaúj-Zemplén County their rate in the age group can be estimated as high as 31.3 per cent. The three sub-regions of the country where Roma children in the age group 7–14 are a majority (Szikszó, Edelény, Bodrogköz) can similarly be found in Northern Hungary. There are 21 sub-regions in the country where at least one third of all children born around the turn of the millennium belonged to the Roma ethnic group. Some of these are not in the northern regions of Hungary, e.g., the Sellye and the Zalakaros sub-regions in South-western Hungary.

The above statistics indicate that the next twenty to thirty years will witness the considerable increase of the Roma population (or of those considered Roma by others) both as regards their numbers and rate. There will be larger regions in Hungary where the majority of the population will be of Roma origin.

Rate of the Roma community within the total population and in the age groups attending primary school, 2009

Regions/capital city	Estimated rate of the Roma within the total population*	Estimated rate of the Roma within the age groups attending primary school**
Budapest	4.6	8.1
Central Hungary (Budapest and Pest County)	4.4	8.1
Central Transdanubia	3.4	6.6
Western Transdanubia	3.0	6.7
Southern Transdanubia	8.2	16.0
Northern Hungary	14.1	27.8
Northern Great Plains	9.1	18.7
Southern Great Plains	3.6	7.5
Total	**6.4**	**13.0**

Source: *Demographic Portrait 2009, p. 138; **Papp (2011), pp. 259–263.

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4.

FAMILY SUPPORT SYSTEM – CHILDRAISING – EMPLOYMENT

Zsuzsanna Makay – Zsuzsa Blaskó

MAJOR FINDINGS

- The Hungarian family support system is very generous and prefers young children being cared for at home by their mothers until their age of 3. While employed parents get means tested childcare fee (GYED, Hungarian abbreviation) for two years after the birth of a child, unemployed and inactive ones get childcare allowance (GYES) for three years which is a fixed sum and usually much less than the former.
- Besides these two major forms of support, family allowance provided for all families, childrearing support (GYET), and the reorganized family tax relief can be considered as the core of the Hungarian family support system. Hungary spends more on these allowances in proportion to its GDP than the European countries in general.
- Children under 3 taking part in institutional care are cared for mainly in day nurseries. In the past two years, the functioning of these institutions came to be regulated by several new decrees, involving the fees, too.
- Mothers usually do not have paid work in parallel with taking care of their children under 3, which is due to the inflexibility of the family policy and the labour market that rarely make part-time jobs possible.
- Public opinion is generally for taking care of children at home before they are three but in certain cases it accepts also working mothers with younger children.

CHILDCARE BENEFITS AND REDUCTIONS OF WORK TIME

The system of allowances attached to the birth of a child is fairly complex in Hungary (Fig. 1). It contains both single payments like the maternity grant and regular benefits like TGYÁS, GYES, GYED, and GYET. Among the regular allowances there are some that are due by civic right and some that are linked with insurance. These are not merely financial benefits, they also make it possible for mothers to stay at home and remain insured. The longest additional income for the families is the family allowance which is due automatically after children.

Fig. 1. ***Major elements of the family support system in Hungary***

<table>
<tr><td colspan="2">Age of child (years)</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>...</td><td>18(20)</td></tr>
<tr><td colspan="2">One-time maternity grant</td><td>Maternity grant</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="2">Monthly benefits for families</td><td colspan="6">Family allowance – childcare benefit</td><td colspan="5">Family allowance – schooling support</td></tr>
<tr><td rowspan="2">Grants facilitating childcare at home</td><td>Claimant (mother) was not employed prior to birth of child</td><td colspan="4">GYES</td><td colspan="4" rowspan="2">GYET</td><td></td></tr>
<tr><td>Claimant (mother) was employed prior to birth of child</td><td>TGYÁS</td><td colspan="2">GYED</td><td>GYES</td><td></td></tr>
</table>

Maternity grant is an allowance granted to every mother at childbirth on condition that the would-be mother takes part at prenatal care at least four times before giving birth (in the case of preterm births at least once). The sum serves to compensate expenses in connection with the baby's arrival. It amounts to 225 per cent of the smallest old age pension at the time of the birth. In the case of twins, it is 300 per cent, i.e., today (2012) it is 64,125 Forints for one child and 85,500[1] for twins. A pension contribution of 10 per cent is deducted.

If the mother did not work prior to the birth of the child, she is entitled to childcare allowance (GYES) until the child turns three. It generates insurance relations as well. Prior to January 1, 2008 the sum increased each year to follow inflation. Since then it has been 28,500 forints per month minus 10 per cent for pension contribution). Childcare allowance (GYES) can be granted to fathers or even grandparents after the first completed year of the child as long as the child is cared for in the parents' household and the parents renounce the GYES on the grandparents' favour. In the overwhelming majority of cases it is, however, the mother who applies for childcare allowance.

In the first year, the person receiving GYES is not allowed to do paid work but after that he/she can work thirty hours a week or can work without limitation as long as he/she works at home.

Prior to 1996, childcare allowance, similarly to GYED, could be granted only if the parent had been previously employed. In 1996 it was made independent of employment and

[1] *For a better comprehension of the different amounts it is useful to know that the average net wage was about 142.500 Forints in the first eight months of 2012 (http://www.ksh.hu/docs/hun/xftp/gyor/let/let21208.pdf).*

depended on the level of income, but in 1998 it became independent even of that and from that time on it is granted automatically. This allowance is, therefore, unique in Europe as in most countries only working parents are entitled for childcare benefits. Its duration is exceptional as well since only few countries encourage parents to stay away from work for several years in order to raise their children.

An amendment passed in July, 2009 reduced the period of GYES to two years, which would have affected children born after April 30, 2010. However, a new regulation following the change of government provided that one of the parents or grandparents of all children born after that date is entitled to GYES for three years.

Mothers who had social insurance prior to giving birth can take a maternity leave of 24 weeks in the course of which they receive TGYÁS (pregnancy and confinement benefit) amounting to 70 per cent of their pro rata average income of the previous year. When this period is over, either parent ensured prior to the birth of the child can receive GYED (childcare fee) until the child gets two. The fee amounts to 70 per cent of the average income of the parent in the previous calendar year but cannot be more than 70 per cent of double the minimum wage for the given period, i.e., 130,200 forints at best in 2012. Pension contribution (10 per cent) and advance personal income tax are deducted. During the period when someone gets pregnancy and confinement benefit (TGYÁS) and childcare fee (GYED), he/she is considered to be on leave, consequently he/she cannot do paid work. When the children of parents receiving GYED turn two, they are entitled to receive GYES for the remaining third year just like those who had not worked before childbirth. During that period the person concerned is protected against dismissal.

Parents having at least three children have been entitled to GYET (childrearing support) since 1993. This allowance is received automatically by parents from the third year of the youngest child to its eighth. It amounts to the smallest sum of old-age pension which is 28,500 forints in 2012 (minus 10 per cent for pension contribution). Parents receiving GYET can work only for thirty hours per week except when working at home.

About 13 per cent of women in their fertile years stay at home with their children with the help of GYES, GYED or GYET. Most of them receive GYES (7 per cent of all women in their fertile years), 4 per cent receive GYED, and less than 2 per cent apply for GYET.

Among all forms of financial benefits family allowance is the one affecting the life of most families. Since August 30, 2010 it has had two forms, namely childcare benefit and schooling support. The former is due to children under school age, while the latter is due to those of school age and those above that but under 20 in case they learn or study in an institution of public education. In 2012 the sum is a net 12,200 forints for families with two parents and one child (unchanged since early 2008). The sum gets higher with the number of children and is naturally higher for single parents, too.

These benefits taken together amount to about 2 percent of the GDP. In the early 1990s, this rate was above 2.5 per cent, in the early 2000s it fell to 1.5, and in 2006 it rose once again above 2.5 per cent (Fig. 2).

The distribution of the expenses shows that the greatest part of the sum spent by the state on family support, over 60 per cent, goes to family allowance. This rate was decreasing between 1995 and 2006, then it started to rise again due to the reorganization of the system.

The second largest sum is spent on GYED with 16 per cent, while GYES amounts to 11 per cent.

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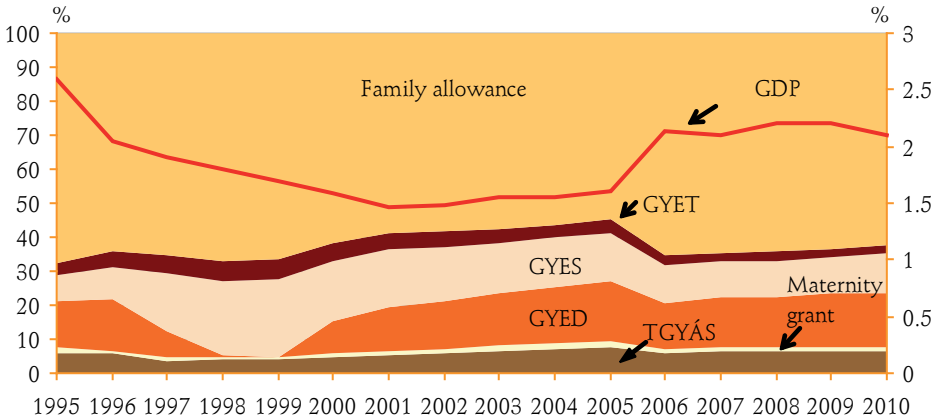
Fig. 2. ***State expenses on family allowance by forms of allowance and their rate in GDP, 1995–2010***



Source: KSH (Hungarian Central Statistical Office) 2011.
Note: GYED was repealed in 1995 with the introduction of the so-called 'Bokros package' (called so after the current minister of finance) and disappeared from state expenditures in 1998 and 1999. It was reintroduced in 2000.

The system of family tax relief has recently undergone a considerable change. Prior to 2011 it was due only to families with three or more children and amounted to 4,000 forints per child per month. However, since January 1, 2011 parents expecting their first child are similarly entitled to the reduction from their total taxable income. The personal income tax can be reduced by 10,000 forints per month for one child, by 20,000 forint for two, and by at most 33,000 for three or more. According to an estimate of the Central Statistical Office, based on a model of microsimulation, the impact of family tax relief on the incomes in 2011 was considerable. As compared to 2010, the incomes of large families grew to a greater extent than those of smaller families or of families without dependent children. While the real incomes of families with three or more children grew by 19 per cent, the growth for those with one child was 6 per cent, and for those without children 1 per cent.

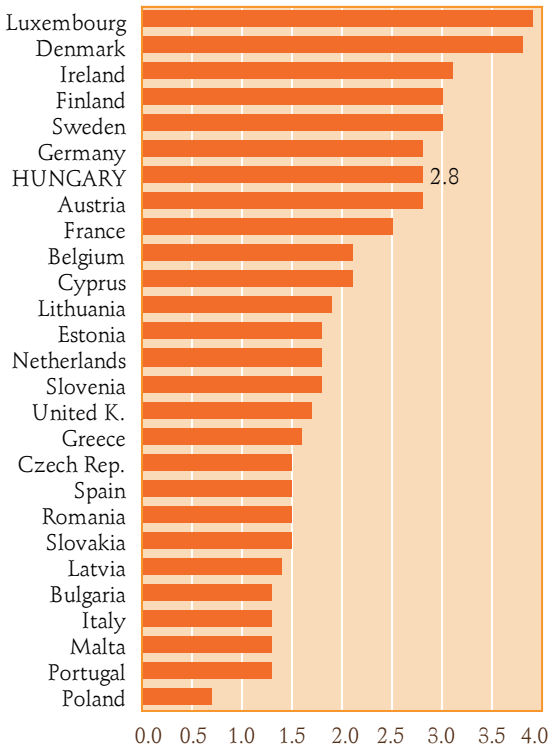
There are various other financial means of family support, e.g., the support paid for new-born babies, the regular child protection allowance, the extraordinary child protection allowance and the reduced fees in catering.

Making an international comparison among the various systems of family support and parental leave is a very complicated task as these systems are greatly different. It is, however, a fact that the present Hungarian system is considered generous by every attempts at comparison as regards the length of the period parents can spend at home with their children, the level of financial support as compared to wages or salaries (in the case of GYED), and its universality (in the case of GYES). For a more extensive comparison see the text in the frame.

As compared to other European countries, Hungary spends a lot on family support. The definition of Eurostat for such benefits is wider, as a consequence of which the data relating to Hungary are higher in comparison with the GDP than those calculated by the Hungarian Central Statistical Office. In 2009 this figure was 2.8 per cent (Fig. 3) with

which Hungary was the seventh among the European countries and the only one among the former socialist ones where families were supported on such a high level. The average expenditure of the 27 EU member states on family support is 2.1 per cent of the GDP.

Fig. 3. ***The rate of expenditures on family support in the EU member states in percentage of the countries' GDP in 2009***



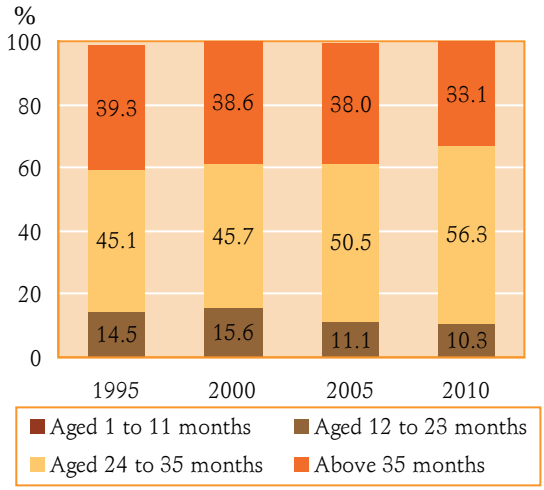
Source: European Commission 2010.

At the same time, Hungary is much criticized internationally for the fact that the greater portion of these benefits is in cash and the rate of benefits in kind (different sorts of services e.g. in childcare and the reductions of fees, e.g., in school catering) is relatively small.

CHILDCARE INSTITUTIONS

The availability of institutionalized childcare greatly determines the timing of the parent's return to the labour market after the birth of a child. In Hungary the primary institutions for children under three years of age are the infants' nurseries. Children can be admitted when they are twenty weeks old but (partly due to the timing of the termination of GYED) they are enrolled mostly when they turn two. Several of them remain there even after their third year of age (Fig. 4).

Fig. 4. ***The distribution of children in infants' nurseries by age, 1995–2010***



Note: The rate of children aged 1 to 11 months is less than 1 per cent of all children attending infants' nurseries.
Source: KSH 2011.

The number and capacity of infants' nurseries radically decreased after the change of regimes in Hungary and the situation started to improve only after 2004. In 2004 there were 527 infants' nurseries in the country, which figure rose to 668 by 2010. In 2009 and 2010 the number of available places

FLEXIBLE FAMILY POLICIES IN EUROPE

In the past few years several EU countries modified their systems of financial family support for parents with small children. One of the major trends is that the forms of financial benefits can be chosen freely by parents. The flexibility of rules can be the key to the mothers' giving birth to the desired number of children and a means of the harmonization of work and family.

Flexibility means that, within certain limits, parents (mothers) can choose the amount and form of work they prefer, as well as the time they want to spend with their children at home. State support is adjusted to these preferences.

Flexible financial family support systems or ones with flexible elements are functioning in several EU member states. The Hungarian one is, however, among the unflexible ones in that it definitely supports long-term home care. The French, the Belgian, and the Czech systems, for example, offer much more alternatives. In France and Belgium only employed parents are entitled to childcare leave which is very short especially in Belgium, where mothers can stay at home full time only for three months. They have two extra options as well, which means that they can either work half of their working hours for six months or four fifths for fifteen months. The three options can be combined as well, and a mother can, let us say, stay at home for two months, then work four fifths of her workday for another five months. The childcare leave and the part-time employment can be made use of any time before the child gets 12, at once or in installments. For the duration of the leave a supplementary income is paid to the mother, which differs according to the three options.

In France, working mothers can stay at home for at most six months after the birth of the first child and for three years after the birth of further children. During this period they are allowed to work part time, and employers cannot reject their applications for that. Parents working part time are similarly entitled to supplementary income which, taken together with the wage or salary, is much more favourable than in itself.

In the Czech Republic childcare leave of two, three or four years can be granted but the longer the leave, the less the monthly financial support. So although a long period of taking care of children at home is made possible by the state, the financial conditions encourage parents to go back to work as soon as possible.

in the nurseries grew by 5,829 despite the fact that the number of new nurseries was only 43 in that period. The growth can be attributed to an amendment of the law, as a result of which the number of children in a group can be 12 instead of 10, or even 14 if all children in the group are above 2 years of age.

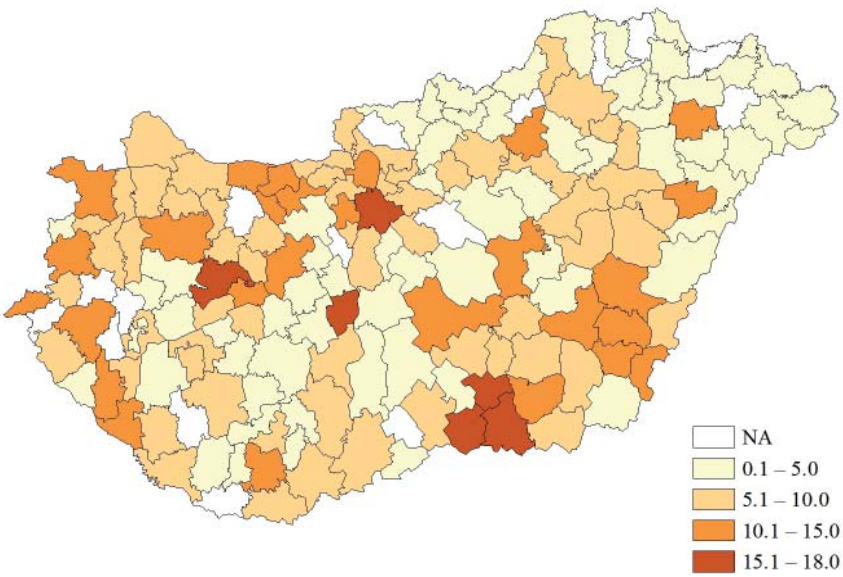
Increasing the capacity of nurseries in this way is not a uniquely Hungarian phenomenon. Other countries similarly increase the number of children in a group when they do not have money to spend on new buildings and on operating new institutions (Makay, 2012). In the next few years it will turn out how this method will influence the number of children enrolled and whether the rate of those attending infants' nurseries will grow among the total number of the age-group. This rate has been stable in Hungary for years and is around 8 to 9 per cent.

The fees to be paid by parents have changed a lot lately. Whereas prior to 2011 they could include only the raw materials used for meals,

nowadays a daily sum amounting to not more than 50 per cent of catering fees for general expenses per child are also included. The local government can decide whether they wish to charge the parents with this latter sum as it is usually they who are behind these institutions. It is similarly they who have to apply the latest amendment of the rules passed in December, 2011 which provides that nurseries can charge the parents also for catering, care and custody during the day. The sum is „the difference between the net cost of the services and the normative contribution of the state." This so-called 'personal' fee cannot exceed 25 per cent of the regular monthly income per head in the family when catering is provided. Infants' nurseries are free in certain cases, e.g., for children receiving regular child protection benefit, for disabled children, or for families with three or more children.

So the financial burden on parents is expected to rise, though infants' nurseries have not been free earlier, either. According to an inquiry by the Demographic Research Institute in 2008, parents paid an average of 6,670 forints monthly that year for catering and in several nurseries the sum was above 10,000 forints.

Map 1. ***Capacity of infants' nurseries and family day-care centres per 100 children under 3 years of age by sub-regions, 2010***



Source: KSH (Hungarian Central Statistical Office).

Another institutional form for non-parental childcare is the family nursery or private day-care centre in family dimensions popular in several European countries, in the framework of which children between 20 weeks and 14 years are taken care of either by day or, in the case of older children, after kindergarten or schooltime. These family

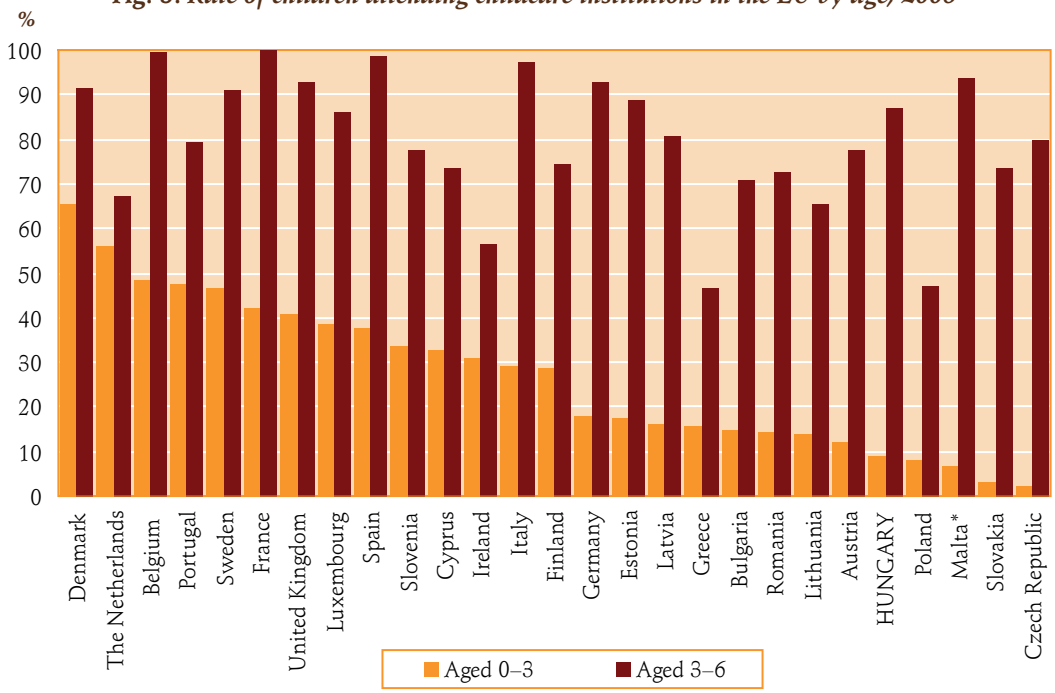
day-care centres have to be licensed by the authorities and may receive per capita entitlement or state support but this sum is lower than the one granted to municipal institutions. Consequently parents are likely to pay much more in these institutions.

Family nurseries started to spread in Hungary from the 2000s as an alternative of infants' nurseries and their number is steadily growing. In 2006 there were only 60 of them in the whole country but by 2010 their number had risen to 694 and the number of children attending them to 7,200.

The regional distribution of available places both in infants' and family nurseries is highly uneven in the country. The map shows the capacity of the two types of institutions by sub-regions as compared to the number of children under 3 (Map 1). There are over 10 sub-regions where neither municipal infants' nurseries, nor family day-care centres are in operation, the territorial distribution of which is uneven. In Western Transdanubia and in the region of Budapest families are much better provided for than in the eastern parts of the country. The majority of children attending nurseries or day-care centres live in and around larger cities all around the country, while in certain sub-regions in the peripheries children tend to be taken care of predominantly at home.

Home care means taking care of a child in his/her home by a baby sitter. This form of childcare is expensive and, therefore, not wide-spread. In 2010 there were merely 200 children taken care of in this way.

Fig. 5. ***Rate of children attending childcare institutions in the EU by age, 2008***



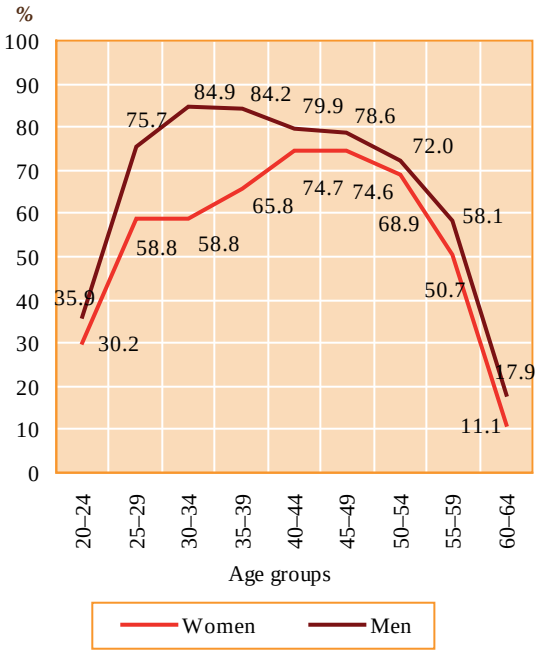
*The data for Malta are from 2005.
Source: OECD Family Database.

To sum up, in Hungary today the overwhelming majority of children under 3 are taken care of at home, mostly by their mothers. Less than one out of ten children attend child-care institutions. This rate is much higher in several European countries. For example, in Denmark 66 per cent of the children in the age group attend child-care institutions and in the Netherlands this figure is 56 per cent (Fig. 5). In general it can be established that early institutional childcare is more wide-spread in Western and Northern European countries, as well as in Portugal, while it is less popular in most former socialist countries, Austria, and Malta. However, an average of 80 per cent of European children having completed their third year attends some kind of institution up to the beginning of their school years. In Hungary this rate is almost 90 per cent, while in Poland and in Greece only less than half of the children in the age group go to kindergartens.

CHILDCARE AND EMPLOYMENT

While in the 27 EU countries 70.1 per cent of men between 15 and 64 and 58.5 per cent of women of the same age group were employed in 2011, in Hungary the respective rates were 61.2 and 50.62.[2] The shortfall for men as compared to the European average was mainly due to various conditions on the labour market, to the high ratio of persons receiving all kinds of pensions and of those inactive for various other reason, while the high share of women among the unemployed was mostly due to the low level of activity among women with small children. In the most fertile age group of 25–34, the employment rate of women is, namely, stagnating and lags behind that of women in their forties by about 16 percentage points. The latter belong to the age group best represented on the labour market (Fig. 6). In the case of men, this phenomenon characterizes mostly those in their thirties, while their share on the labour market is continously decreasing from their age of 40 onwards.

Fig. 6. ***Employment rates for women and men by age groups, 2011***

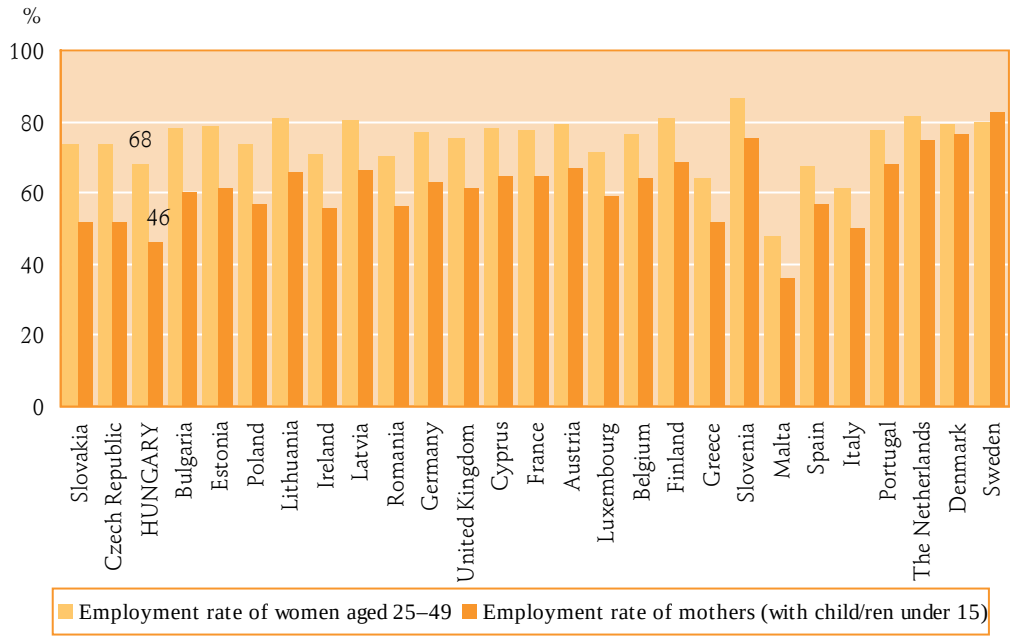


Source: KSH (Hungarian Central Statistical Office)

In Hungary there is a considerable difference between the employment rates of mothers and women in general as compared to other countries, namely about 22 percentage points. The difference reaches a similar level only in a few European countries, namely, in Slovakia and the Czech Republic, while it is negligable in Denmark and Sweden. The average employment rate of mothers in the 27 EU member states is by 13 percentage points lower than that of women in general (Fig. 7).

[2] *Source: EUROSTAT. http://epp.eurostat.ec.europa.eu*

Fig. 7. ***Employment rates of mothers and women in general in the European Union, 2008***



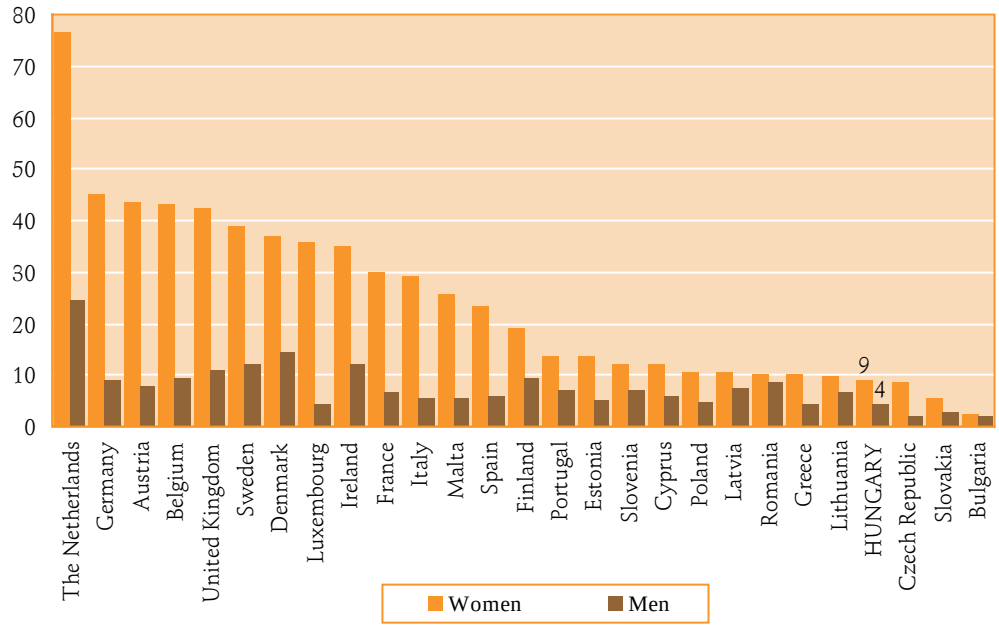
Note: The countries are arranged according to the decreasing difference between the two rates
Source: OECD Family Database.

In the case of women, the most frequent cause of the suspension of paid work is the birth of a child when they resort to the various forms of maternity leave. Taking care of children at home for a long time is not usual in most countries of Europe where, in contrast with Hungary, most mothers work part time after the birth of their children. The local labour codes provide that employers cannot deny parents with small children the possibility of part-time work, which applies in Hungary only to those working in the public sphere. The systems of family support are also more flexible in some countries and make part of the sum due to persons on maternity leave available also for those working part time. (For more details see the text in frame.) In Hungary this applies only to GYES after the child's first year, and the working hours are restricted. In contrast, the sum received as GYED is completely lost should the parent do any paid work.

It is probably due to these reasons (especially to the fact that employers are not obliged to employ parents part time even if requested) that similarly to the other former socialist countries, part-time work is not wide-spread in Hungary. Only 9 per cent of the women work in this way, while their rate is nearly one third on average in the other EU member states. In the Netherlands 77 per cent of all employed women and nearly one quarter of all employed men work part time (Fig. 8). This form of employment is predominantly the choice of the persons employed. Only 2 per cent of those working part time do so because it was imposed to them. Although part-time work often has disadvantages, too,

e.g., contracts for a fixed term, lower than proportionate wages, slower progress at the firm, lower unemployment benefit, and, therefore, a higher risk of poverty, this form of employment is considered an acceptable short-term compromise for families with small children in most countries, since mothers have more time to devote to their families.

Fig. 8. ***Rate of women and men working part time as compared to the total number of employed persons in the EU, 2011 (percent)***



Source: Eurostat.

It may be presumed that the greater popularity of part-time work would contribute to a wider employment of mothers with (small) children and to reconciling family and work in Hungary as well. If mothers can work part time, the population under 50 (the mothers in question included) accepts going back to work shortly after the birth of a child much easier. Whereas only less than 1.5 per cent of the population accepts work for mothers before the child gets a year old, 14 per cent thinks it acceptable if the mother works only part time (Fig. 9). An even higher percentage agrees with the employment of mothers if their families are in a financially difficult situation, and even more persons find work acceptable if it can be done at home. In that case over one third of the population considers work for mothers acceptable when their children are already one year old.

To sum up, the Hungarian population finds taking care of children at home desirable before they turn three but under special conditions they can accept taking up work earlier than that.

Fig. 9. ***Distribution of answers to the question "Which is the earliest age for children when mothers should go back to work?"***

Source: Blaskó 2011.

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5.

TRENDS IN CAUSE-SPECIFIC MORTALITY

Katalin Kovács

MAJOR FINDINGS

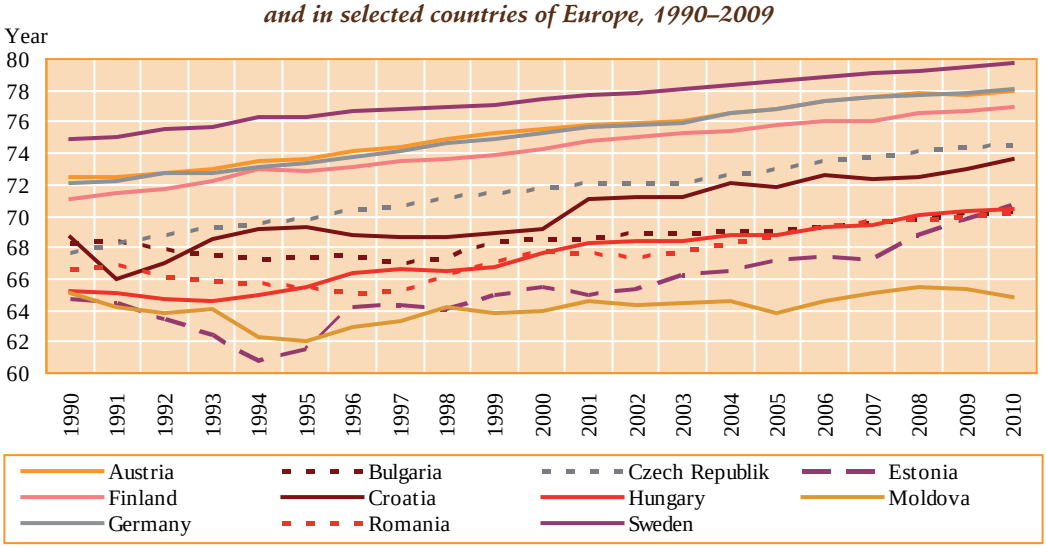
- Overall mortality in Hungary is considerably higher compared not only to the most developed countries of the European Union but also to those EU members that joined the Union simultaneously with or later than Hungary, between 2004 and 2007.
- In the period between 2005 and 2009 mortality of men younger than 65 was 2.5 times higher than in the most developed EU states and 1.2 times higher than in the countries joining the EU simultaneously with Hungary. The mortality rate of young and middle-aged men is, however, slowly changing for the better. The relative disadvantages in mortality of men above 65 were more moderate but still considerable: 1.5 times higher than the respective data in the most developed countries but just a few per cent higher than the average mortality rate of the countries joining the Union together with Hungary.
- Mortality of women younger than 65 was 1.7 times higher than in the most developed EU states and 1.2 times higher than in the countries joining the EU later. Mortality of women above 65 was equal to the average mortality levels observed in less developed EU member states.
- High mortality in Hungary mainly follows from high cardiovascular mortality. Within this the level of mortality due to ischemic heart diseases was alarmingly high.
- Cerebrovascular mortality shows, however, a strongly decreasing trend, e.g., mortality due to cerebrovascular diseases such as stroke or cerebral infarction, was slightly lower in the examined period than in the countries joining the EU in 2004 and 2007. The level of mortality in this respect in Hungary today equals the EU average for 1990.
- In the years between 2005 and 2009, cancer mortality among men was by 39 to 50 per cent higher in Hungary than the EU average. Therefore, the differences were smaller in this respect than in the case of cardiovascular mortality. However, the differences in this field have been growing in the past few years due to the fact that whereas in other countries mortality due especially to lung cancer and colorectal cancers diminished, in Hungary no such decrease took place.
- Cancer mortality among women was by 28 to 37 per cent higher than the EU average and by 12 to 23 per cent higher than the average of the countries acceeding the EU in 2004 and 2007. The relative drawback as compared to other countries has been growing in the past few years in this respect, too.

- Mortality due to suicide has greatly decreased in Hungary since 1984 but it has been stagnating since 2005.
- Viewing Hungarian cause-specific mortality in international comparison only infectious diseases and more recently deaths due to traffic accidents were advantageous.
- The impact of economic crises on the state of health and mortality is not quite explicit. Earlier research results regarding other countries confirm that the impact of economic recession can be very different depending on local conditions. It seems that special policies followed in health care and social welfare, especially active employment policies, can largely diminish the impact of an economic crisis on mortality.
- Earlier experience shows that economic recession influences mortality primarily in the vulnerable groups of society. If overall mortality stagnates, the mortality gap between groups in better and worse social position is expected to widen.

MORTALITY IN HUNGARY IN THE PERIOD 1981 TO 2009 AS COMPARED TO THE SITUATION IN OTHER COUNTRIES

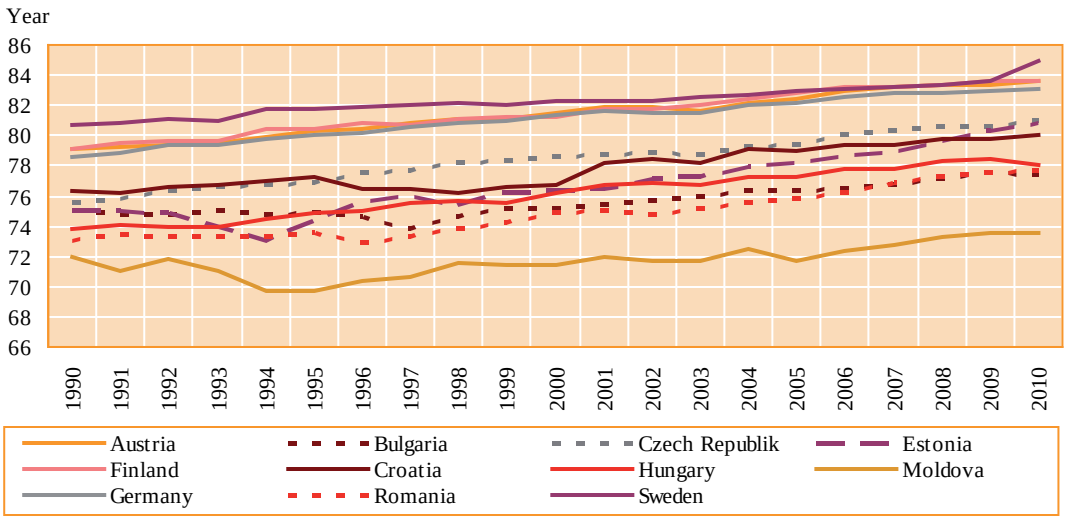
Life expectancy in Hungary was steadily increasing after 1994 with just a few shorter periods of stagnation lasting one or two years. At the peak of the mortality crisis (in 1994), life expectancy for men at birth was more than 11 years less than in Sweden where men can expect to live longest in Europe. This difference has greatly diminished since then. In 2009 it was 9.2 years, though this is just a little less than the 9.7 years in 1990. In 2009 the life expectancy of Hungarian men was similar to that of Bulgarian, Estonian, and Romanian men, 3 years less than that of Czech men, and 2 years less than that of Croatian men (Fig. 1). According to the calculations of the Central Statistical Office, male life expectancy in Hungary at birth was 69.79 years in 2008, 70.05 years in 2009, 70.50 years in 2010, and 70.93 years in 2011.

Fig. 1. ***Changes in male life expectancy at birth in Hungary and in selected countries of Europe, 1990–2009***



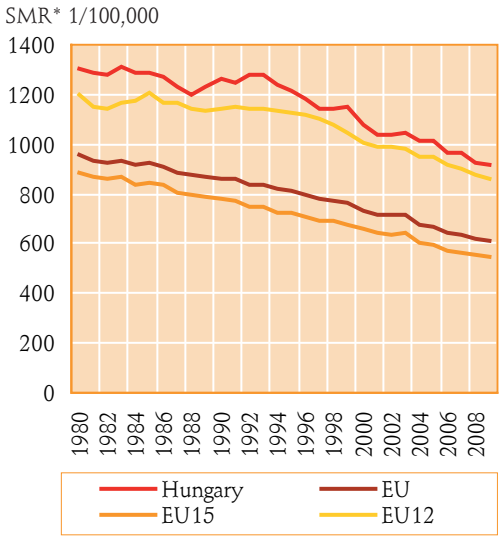
Female life expectancy at birth similarly grew in the past two decades considerably, from 74 to 78 years. Compared to Swedish women whose life expectancy is the highest in Europe, that of Hungarian women was by 6.8 years less in 1990, by 7.25 in 1994, and by 5.1 in 2009. Female life expectancy is getting closer to the best figures in Europe to a greater extent than male life expectancy. The situation of Hungarian women is more favourable in comparison to other countries of the Eastern European region. In 2009, their life expectancy at birth was one year higher than female life expectancy in Romania and Bulgaria, though it was over one year less than in Croatia, and two years less than in the Czech Republic and Estonia (Fig. 2). According to the calculations of the Central Statistical Office, life expectancy at birth of Hungarian women was 77.76 years in 2008, 77.89 years in 2009, 78.11 years in 2010, and 78.23 years in 2011.

Fig. 2. ***Changes in female life expectancy at birth in Hungary and in selected countries of Europe, 1990–2009***



So life expectancy has been growing in Hungary since 1994, i.e., mortality has been decreasing. At the same time, mortality in Hungary is still by about 50 per cent higher than the EU average and is a bit higher than the average of the countries joining the EU in 2004 and 2007. The phenomenon is not new but characteristic of the past three decades (Fig. 3). Hungary's relative disadvantage as compared to other countries of the region is the result of high mortality due to easily defined causes of death. This chapter is, therefore, dedicated to analyzing the changes in mortality by the major causes of death. We intend to deal primarily with trends that greatly differ from the corresponding ones in the EU or in the countries joining the EU in 2004 and 2007.

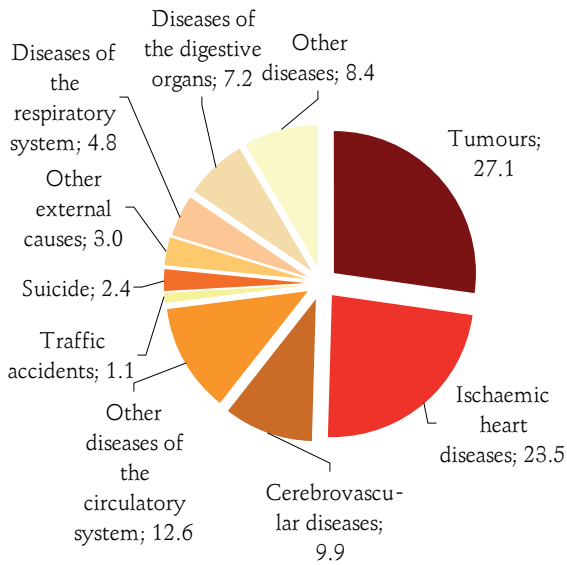
Fig. 3. ***Total mortality in Hungary and in the EU countries, 1980–2009***



* Standardized mortality rate.
Source: European mortality database (MDB), http://data.euro.who.int/hfamdb/

In Hungary, over a quarter of deaths (27.1 per cent) is caused by tumours. This proportion is slightly higher in those EU countries where life expectancy is higher as these deaths mostly occur at a higher age. Then again, in Hungary mortality due to cardiovascular diseases which are more frequent in younger age-groups is higher than the EU average. This cause-of-death group leads to nearly half (46 per cent) of the total mortality, while the respective EU average is 37 per cent. Among the diseases of the circulatory system it is mortality due to ischaemic heart diseases, with cardiac infarction among them, that represent the largest rate with 23.5 per cent of all deaths in Hungary and with over 50 per cent of cardiovascular mortality. Within cardio-vascular mortality, diseases of the cerebrovascular system, strokes in other words, form another important cause-of-death group. Nearly 10 percent of overall mortality is caused by stroke and nearly a quarter of that is due to the illnesses of the cardiovascular system. The Hungarian mortality pattern in general is characterized by a higher share of ischaemic heart diseases and cerebrovascular diseases compared to that of other countries in the EU.

Fig. 4. ***Distribution of mortality by causes of death in Hungary, 2009 (percentage of SMR)***



Source: European mortality database (MDB), http://data.euro.who.int/hfamdb/

In Hungary, 4.8 per cent of mortality is due to illnesses of the respiratory system, and 7.2 per cent is due to illnesses of the digestive organs. External causes are responsible for 6.5 per cent of overall mortality, out of which 1.1 per cent is due to traffic accidents and 2.4 per cent to suicide. The former figure is slightly higher than in the majority of the European states but the latter exceeds their rates considerably. Mortality due to infectious diseases is only 3.7 per cent which is much lower than the European average.

Before discussing the cause-specific trends in detail, it is worth dealing with mortality by gender and wider age groups. During the last

three decades mortality among younger men and women has been significantly and steadily higher than the EU average for the respective age groups. This mortality level is much higher than that of the countries of the EU before 2004 (EU15) and slightly higher than that of the countries acceding the EU at the same time with Hungary or in 2007 (EU12). The difference is slightly more moderate in the case of men above 65 and negligable in the case of women above 65. Figs. 5a to 5d show the different patterns of these differences for the years between 2005 and 2009.

Fig. 5a. ***Total mortality of men aged 0–64 in Hungary as compared to the EU15 and EU12 states, 2005–2009***

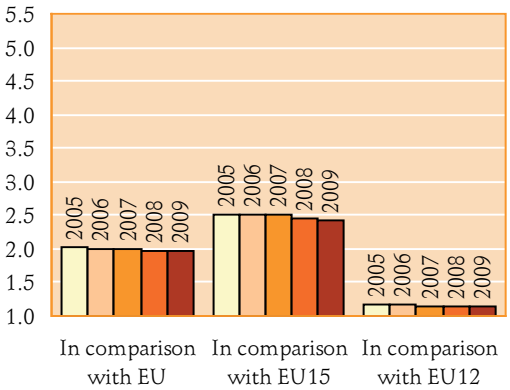


Fig. 5b. ***Total mortality of women aged 0–64 in Hungary as compared to the EU15 and EU12 states, 2005–2009***

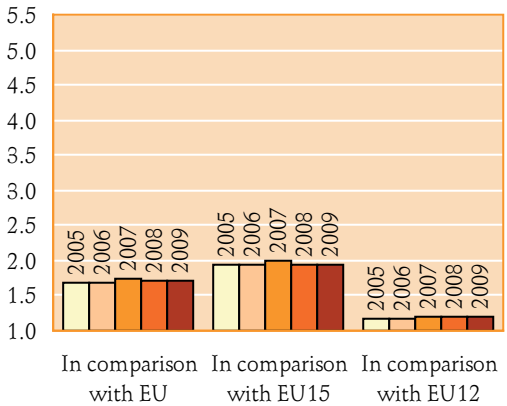


Fig. 5c. ***Total mortality of men aged 65+ in Hungary as compared to the EU15 and EU12 states, 2005–2009***

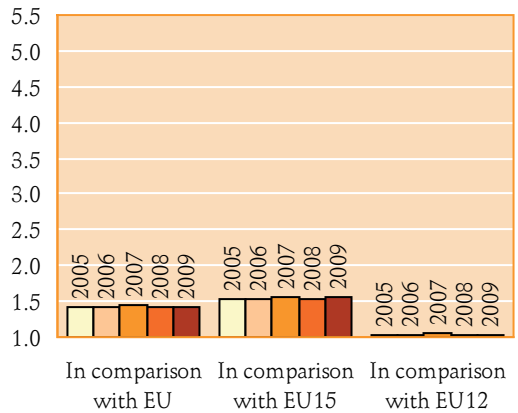
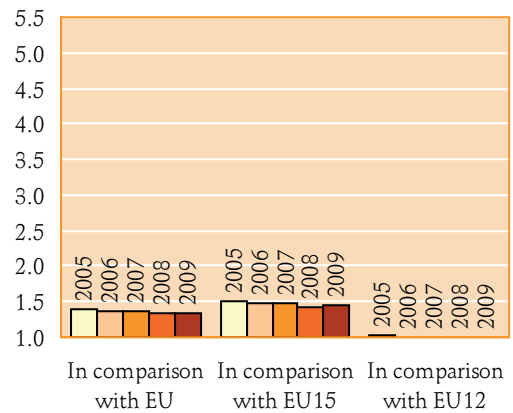


Fig. 5d. ***Total mortality of women aged 65+ in Hungary as compared to the EU15 and EU12 states, 2005–2009***



Source: European mortality database (MDB).

Mortality of Hungarian men aged 0 to 64 is 100 per cent higher than the EU average, though recently these differences seem to slacken slightly.

As compared to the EU 15 countries, Hungarian male mortality is higher by 150 percent but also this rate seems to slacken, though very slowly. Hungarian male mortality exceeded the average male mortality of the EU 12 countries by 18 per cent in 2005 and by 14 per cent in 2009 (Fig. 5a).

The disadvantages in mortality are similarly considerable in the case of women aged 0–64. Mortality of this group is by 70 per cent higher than the EU average and double the rate of the EU 15 countries. Respectively, mortality in the EU12 countries was lower by 17 per cent in 2005 and by 19 per cent in 2009. Regarding women the gap is larger than in the case of men. So the trends for younger women do not indicate a closing-up, either (Fig. 5b).

Disadvantages in mortality among men aged 65 and over are more moderate but still considerable. It is around 40 per cent higher as compared to the EU average and around 50 per cent as compared to the EU 15 countries. The few per cents of over-mortality as compared to the EU12 countries have been stabilized in the past decades with no indication of a closing-up (Fig. 5c).

In the case of women older than 65, mortality rate is higher by 33 to 35 percent than the EU average and by 45 to 50 percent than the respective rates of the EU15 countries. There is, however, no difference as compared with the corresponding rates of the EU12 states. Surplus mortality as compared to the EU and EU15 average showed a slightly decreasing tendency in the years 2005 to 2009 (Fig. 5d).

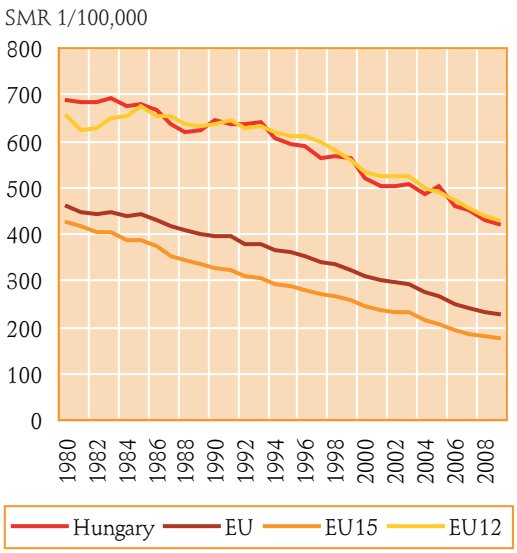
To sum up, over and above the well-known problem of high middle-aged male mortality in Hungary, the mortality of middle-aged women are similarly very high and there was no indication of favourable trends as compared to other states in the past few years. In the course of the analysis of cause-specific mortality, therefore, we have to consider the age-specific aspects, too.

TRENDS IN CAUSE-SPECIFIC MORTALITY BETWEEN 1980 AND 2009

Cardiovascular mortality in Hungary deserves special attention. Trends of mortality due to these causes for the period between 1980 and 2009 are shown by Figure 6. The respective average rates of the EU are exceeded by the Hungarian ones by 85 to 89 per cent, and those of the EU15 by nearly 140 per cent. The development of cardiovascular mortality is the major factor influencing general mortality trends. The decrease of total mortality in the most developed countries in the past few decades is practically due to the dynamic, incessant, and considerable decrease in cardiovascular mortality. Cardiovascular mortality in the East Central European countries is similarly dynamically decreasing, apart from a mortality crisis around 1992 inflicting most countries of the region. This decrease is, however, still not sufficient to compensate the great disadvantage that had come about by the 1980s and 1990s. In 2009, cardiovascular mortality in the EU12 including Hungary was roughly on the same level as that of the most developed countries (EU15) in 1980. Recently, the relative disadvantage of Hungary seems to slacken slowly.

So the total cardiovascular mortality in Hungary fits into the trends of the other EU12 countries but there are important differences in the relative position of Hungary regarding different cardiovascular causes of death.

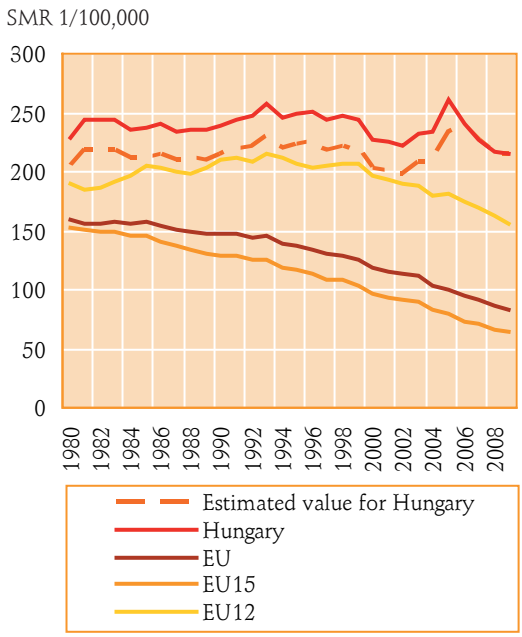
Fig. 6. ***Cardiovascular mortality in Hungary, 1980–2009***



Source: European health for all database (HFA-DB).

Mortality due to ischaemic heart diseases is significantly higher in Hungary than in other EU12 states. In contrast with trends of the EU15 countries, mortality in Hungary due to these diseases did not diminish in the 1980s and 1990s, or even slightly grew in the early 1990s. A considerable downward tendency could be observed only after 1999. However, when interpreting the data in Fig. 7, we have to take into account the changes in coding the causes of death in Hungary (see text in the box). Prior to 2005, registered mortality due to the above mentioned causes was probably underestimated. Correcting them in accordance with the new system of coding, we get an estimated mortality diagram on the basis of which we can safely say that mortality due to ischaemic heart diseases decreased significantly, dynamically, and steadily after 1999. The data after 2005 lend themselves the best for international comparison. To sum up, the Hungarian mortality due to these diseases is by 150 to 160 per cent higher than the EU average, by 220 to 230 per cent higher than the average of the EU15 countries, and by 30 to 40 per cent higher than the EU12 average. „Excess" mortality is high in all age groups and in both sexes.

Fig. 7. ***Mortality due to ischaemic heart diseases in Hungary, 1980–2009***



Source: European health for all database (HFA-DB), author's calculations.

The generally lower mortality rate of women often conceals the fact the relative mortality of Hungarian women due to ischaemic heart diseases in comparison with other countries is, in fact, higher than that of men. In the case of men aged 0–64 this rate is 160 percent as compared to the EU average, while in the case of women it is 200 per cent, which means

that Hungarian male mortality is 2.5 times higher than the EU average, while female mortality is three times as high (Figs. 8a and 8b). The overall picture is not much better in the case of older generations, either. The mortality rate of Hungarian men of 65 and over is 2.5 times higher than the EU average, and that of women of the same age is 2.8 times as high (Figs. 8c and 8d).

Fig. 8a. ***Mortality due to ischaemic heart diseases among men aged 0–64 in Hungary as compared to respective rates of EU, EU15, and EU12 countries, 2005–2009***

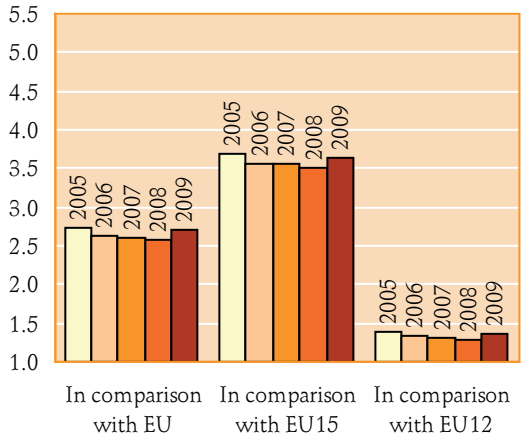


Fig. 8b. Mortality due to ischaemic heart diseases among women aged 0–64 in Hungary as compared to respective rates of EU, EU15, and EU12 countries, 2005–2009

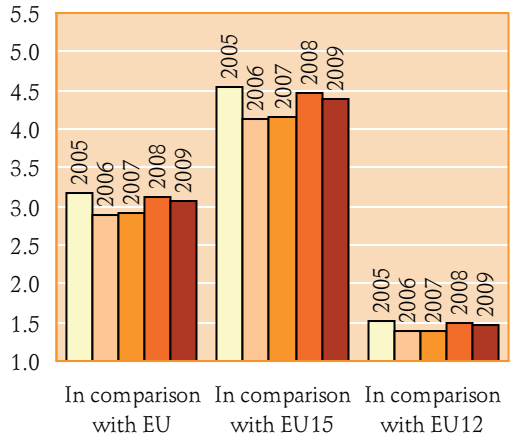


Fig. 8c. ***Mortality due to ischaemic heart diseases among men 65+ in Hungary as compared to respective rates of EU, EU15, and EU12 countries, 2005–2009***

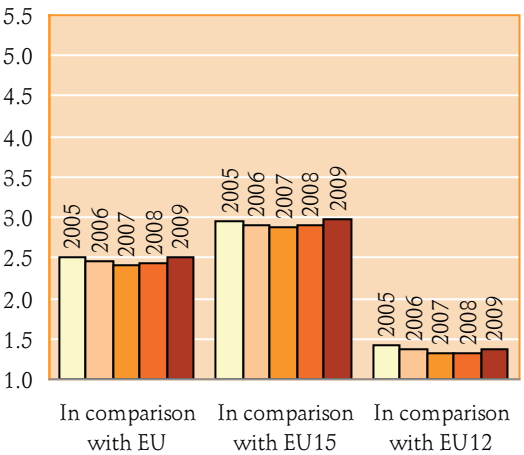
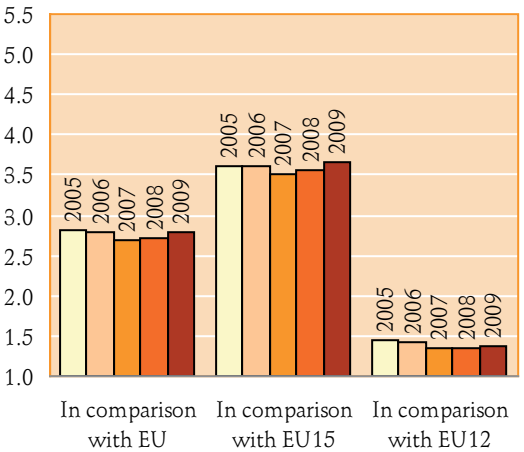


Fig. 8d. ***Mortality due to ischaemic heart diseases among women 65+ in Hungary as compared to respective rates of EU, EU15, and EU12 countries, 2005–2009***

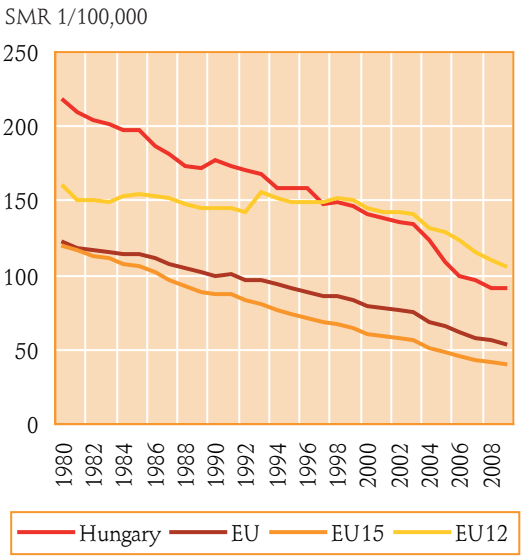


Source: European health for all database (HFA-DB).

Causes of death are coded by the International Classification of Diseases (ISD). In the death certifications several diseases (causes of death) can be registered out of which the one declared as „underlying", e. g., main cause of death will appear in the national and international statistics. Establishing the „main cause" is, however, not always easy and with the subsequent changes in the coding system and its methodology the selection of the „main" cause among all contributing causes can change, too. In Hungary, the 9th version of the international classification (ICD) was in use from 1979, and the 10th from 1996. In 2005 a so-called automatic coding was introduced, which is used by several other countries. The changes following from this can be seen as technical in nature but brought with them considerable changes as regards the appearance of certain causes of death as „main cause" (KSH 2006). The estimates aiming to diminish the impact of these changes are available for the period 1970 to 2008 (Kovács 2011).

The situation is slightly better in the case of mortality due to cerebrovascular diseases. Although at the turn of the 1980s and 1990s the trend seemed to come to a halt, mortality due to these causes has been significantly and steadily decreasing in Hungary since 1980. Due to the changes of the coding system, the values for the period before 2005 would probably be lower if they had been calculated according to the system used after that date. This discrepancy does, however, not modify the downward character of the trend. Cerebrovascular mortality is decreasing in all EU countries but the change is more dynamic in the EU15 states. In Hungary, the respective level was still very high around 1980, so in spite of a decrease more dynamic than in the EU in general, Hungarian mortality rates today correspond to those in the EU around 1990.

Fig. 9. ***Cerebrovascular mortality in Hungary, 1980–2009***



Source: European health for all database (HFA-DB).

Mortality of young and middle-aged males is still higher in Hungary by 150 per cent than the EU average and that of women in the same age group is by 180 to 200 per cent higher for the years between 2005 and 2009 (Figs. 10a and 10b). Cerebrovascular mortality among men aged 65+ is by 60 to 70 per cent higher than the EU average in the second half of the 2000s, while that of women in the same age group is higher by 50 per cent (Figs. 10c and 10d).

Fig. 10a. ***Cerebrovascular mortality in Hungary among men aged 0–64 as compared to the EU, EU15, and EU12 countries, 2005–2009***

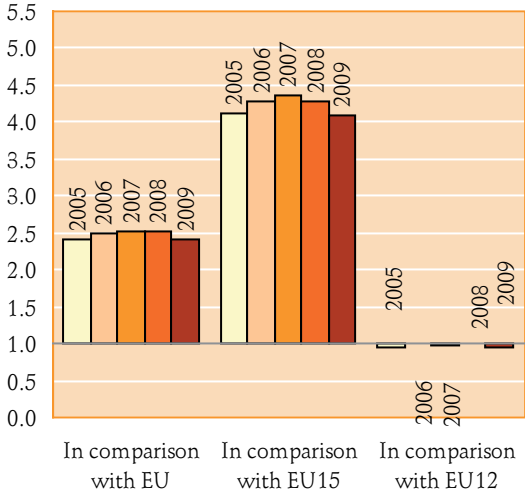


Fig. 10b. ***Cerebrovascular mortality in Hungary among women aged 0–64 as compared to the EU, EU15, and EU12 countries, 2005–2009***

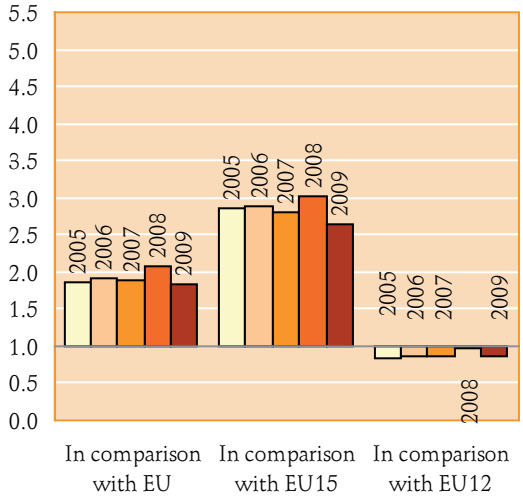


Fig. 10c. ***Cerebrovascular mortality in Hungary among men 65+ as compared to the EU, EU15, and EU12 countries, 2005–2009***

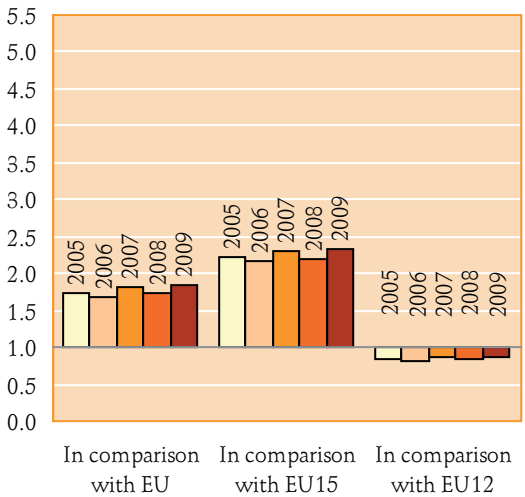
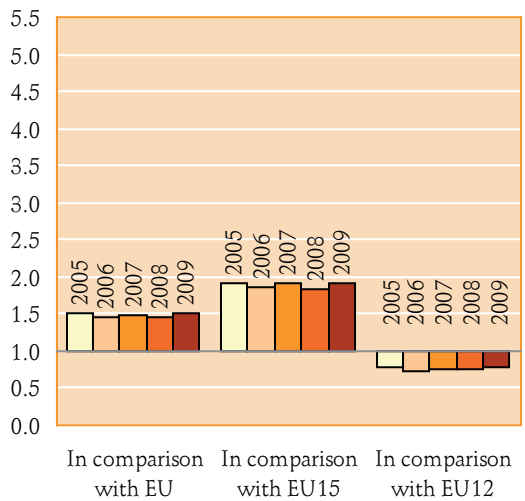


Fig. 10d. ***Cerebrovascular mortality in Hungary among women 65+ as compared to the EU, EU15, and EU12 countries, 2005–2009***

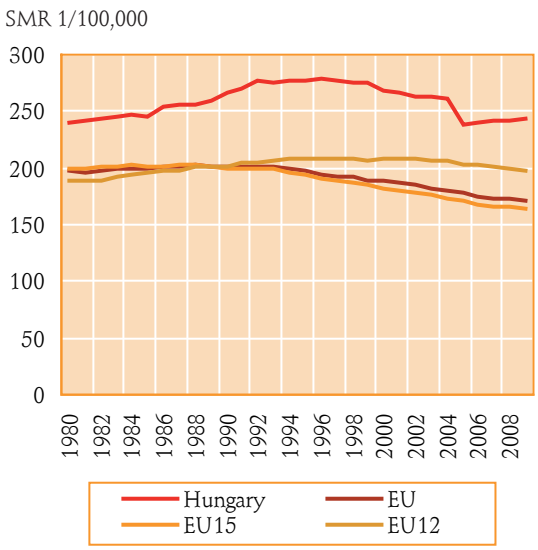


Source: European health for all database (HFA-DB).

When studying trends in mortality due to malignant tumours, it is worth taking the changes of the coding techniques in 2005 into consideration once again. Cancer mortality in general has decreased slightly in the majority

of the European countries in the past decades, and this tendency became more marked in the period after 1990. In the case of Hungary it can be presumed that cancer mortality was more frequent in the statistics prior to 2005 than it would have been if calculated by the new coding procedure. The estimate we get after the corrections shows a slightly increasing tendency of cancer mortality throughout the whole period beginning with 1980 (Fig. 11).

Fig. 11. ***Mortality due to malignant tumours in Hungary, 1980–2009***

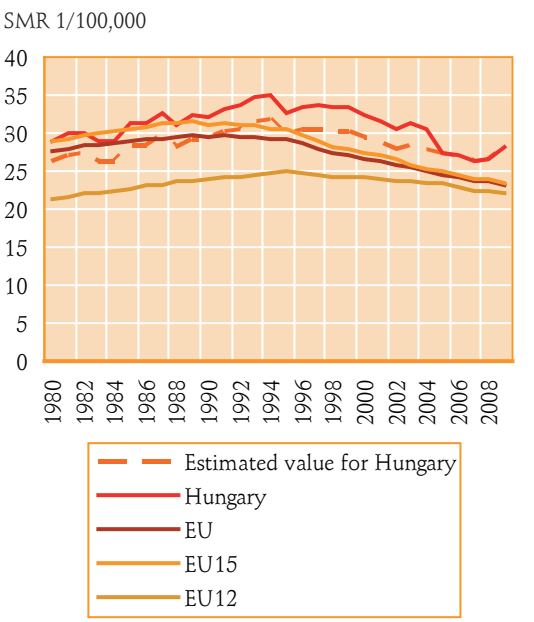


Source: European health for all database (HFA–DB), author's calculations.

In the years 2005 to 2009, male cancer mortality in general was by 39 to 50 per cent higher than the EU average, which is a much more moderate difference than the one in cardiovascular mortality. At the same time, the relative difference from the EU level definitely became greater in the given period. The major cause of the difference can be found in the trends of lung and colorectal cancer mortality (Kovács–Bálint 2011). In 2005, the mortality surplus for women was 28 per cent that grew to 37 per cent by 2009. The mortality surplus of 17 per cent in 2005 as compared to the EU12 states grew to 23 per cent by 2009. The causes of this difference in detail were the same in the case of women as in the case of men but regarding the former there is a minor disadvantage also with respect to breast cancer.

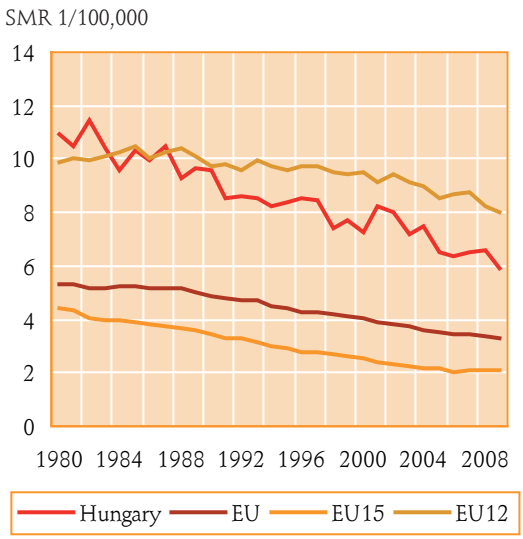
As regards female cancer mortality, the trends showing mortality due to tumours that could be prevented by screening are especially interesting. Figs. 12 and 13 present the relevant data on breast cancer and cervical cancer.

Fig. 12. ***Mortality due to breast cancer in Hungary, 1980–2009***



Source: European health for all database (HFA–DB), author's calculations.

Fig. 13. ***Mortality due to cervical cancer in Hungary, 1980–2009***



Source: European health for all database (HFA-DB.)

In the case of the former, corrections according to the above mentioned changes of coding lead us to the conclusion that breast cancer mortality in Hungary was around the EU average for a long period but recently it became slightly higher. The downward tendency in breast cancer mortality probably began in the early 1990s, similarly to other countries of the European Union. However, this tendency came to a halt after 2004, and in 2009 it even began to rise to a small extent.

Mortality due to cervical cancer which is, in fact, not a major cause of death, diminished dynamically during the past three decades, falling to half of the earlier level. At the same time, it is today three times as high in Hungary as in the EU15 countries but is slightly below the respective rates of the EU12 countries. The steady decrease, being more dynamic than the European average decline induces the hope that mortality due to cervical cancer will soon reach the European average.

Mortality due to external causes leading to death, i.e. death caused by other factors than diseases, is slightly higher in Hungary than in the EU in general. Out of this large cause-of-death group we intend to deal in more detail only with mortality due to traffic accidents and suicide.

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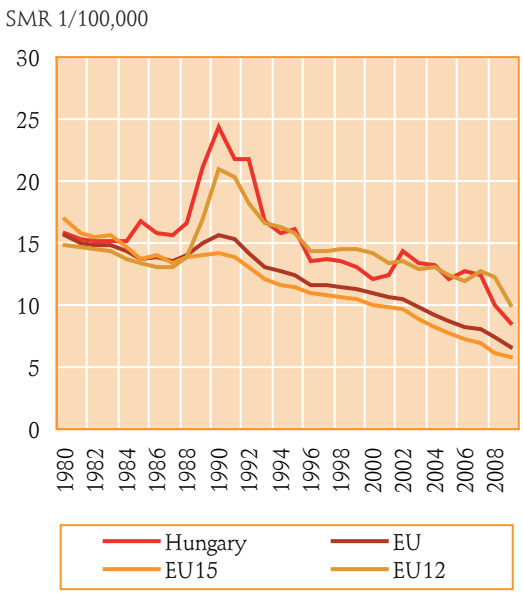
Fig. 14. ***Mortality due to traffic accidents in Hungary, 1980–2009***

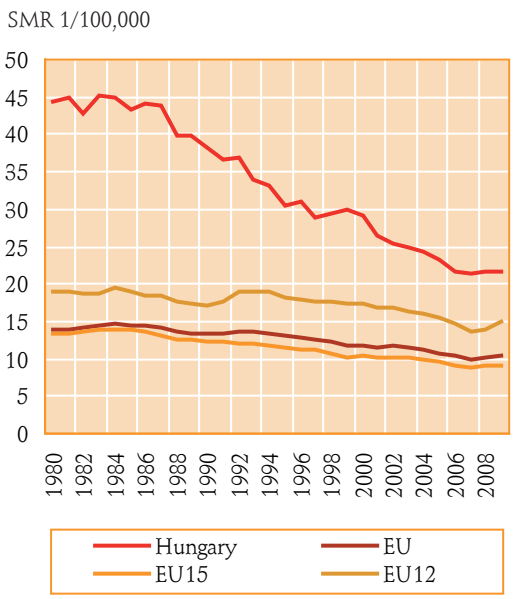


Source: European health for all database (HFA-DB).

The trends in mortality due to traffic accidents were generally descending in the period between 1980 and 2008 but around 1990 they rose dramatically. In the EU15 countries this rise was small but in the EU12 countries, with Hungary among them, it was considerable. However, it started to fall also in the EU12 countries following 1994 to a great degree. This fall was gradual rather

than steady. In 2009, mortality due to traffic accidents in Hungary was just a little bit higher than the European average due to the dynamic drop in the figures in 2007 and 2008. It resulted in Hungary's more favourable situation as compared to the other EU12 countries.

Fig. 15. ***Mortality due to suicide in Hungary, 1980–2009***



Source: European health for all database (HFA-DB).

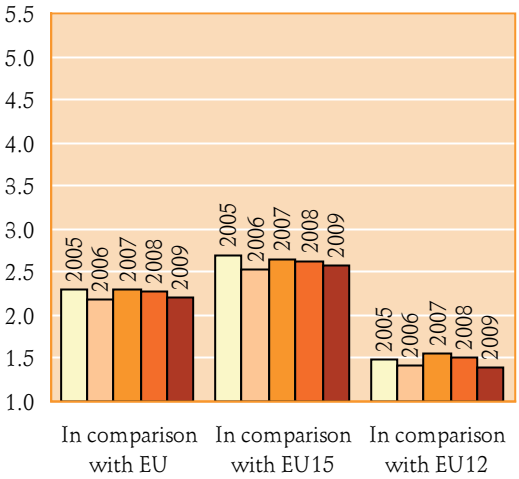
Suicide claimed three times as many lives in Hungary than traffic accidents. Despite the fact that suicide mortality has been decreasing since 1984, the decrease was much more dynamic before 1996 than following that date. In the late 1990s there was even a slight, transitory increase in suicide. Suicide rates continued to fall till 2006 and from then on they seem to stagnate. Despite the fact that suicide in Hungary has dropped to half of its maximum in 1984, today it is still more than double the European average and exceeds the average of the EU12 countries by 40 to 45 percent.

Based on calculations not presented here, suicide in Hungary decreased further in the past few years both among younger men and women. The stagnation is due to the slight increase of suicide among men above 65.

Mortality among men due to suicide in Hungary is by 150 to 160 per cent higher than in the EU15 countries and by 40 to 55 per cent higher than in the EU12 states. In the age group 65+ the rates as compared to EU15 are similar but higher (by 170-200 per cent), and as compared to EU12 the Hungarian surplus is 70 to 100 per cent. The great extent of mortality due to suicide is thus East European in character and is near the similarly high Russian and Ukrainian levels which are not discussed here. The inner age-distribution of Hungarian male suicide is, however, of the „western" type in the sense that the proportion of the elderly among men committing suicide is relatively high.

The mortality rate of Hungarian women due to suicide is higher by 80 to 100 per cent than the EU15 average and the difference is similar compared to the EU12 states. In the case of older women these rates are even higher, around 130 to 170 per cent. This fact demonstrates again that suicide is much more frequent among the elderly in Hungary than in other countries of Europe.

Fig. 16a. ***Male mortality due to suicide in Hungary as compared to the EU, EU15, and EU12 states, 2005–2009***



16b. ***Female mortality due to suicide in Hungary as compared to the EU, EU15, and EU12 states, 2005–2009***

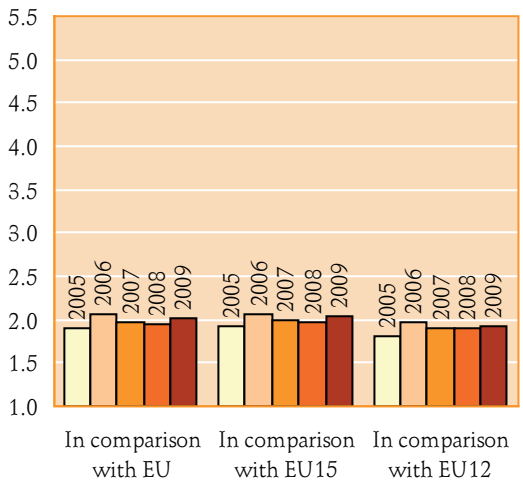


Fig. 16c. ***Mortality due to suicide in Hungary among men aged 65 and above as compared to the EU, EU15, and EU12 states, 2005–2009***

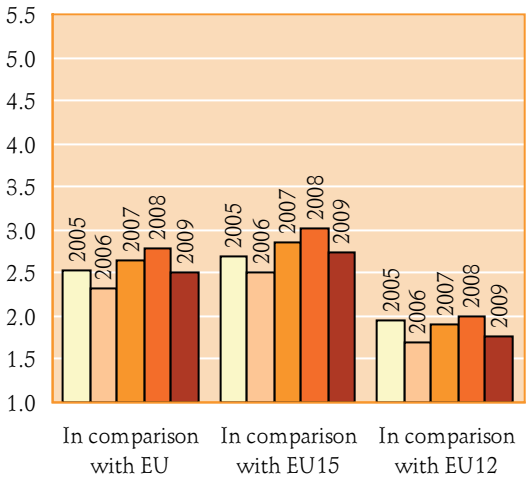
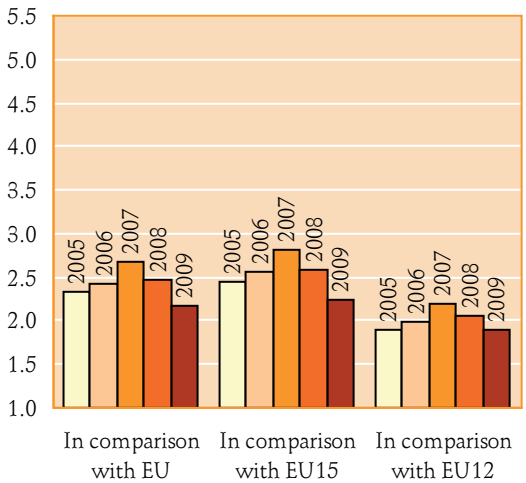


Fig. 16d. ***Mortality due to suicide in Hungary among women aged 65 and above as compared to the EU, EU15, and EU12 states, 2005–2009***



Source: European health for all database (HFA-DB).

PROSPECTS FOR THE NEAR FUTURE: LESSONS ON THE RELATION BETWEEN ECONOMIC CRISIS AND MORTALITY

The impact of the economic crisis reaching Europe in late 2008 on mortality cannot be assessed as yet due to the lack of available data on international level. Two years ago, the WHO believed that the frequency of mental disorders would grow, the stress following from losing jobs would increase smoking, and the worsening conditions of life would increase the number of suicides

(WHO 2009). It was similarly the World Health Organization that called attention to the prospective impact of the economic crisis on health and mortality in the needy and vulnerable groups of society.

The analysis of the correlation of economic crises and mortality produces, however, a more complex picture. In several wealthy countries trends of mortality were often more favourable at times of recession than at times of prosperity (Ruhm 2008).

There have been many speculations about the nature of this phenomenon as well as many analyses based on serious research. According to an often quoted but less corroborated view, in times of crisis the households with lower income cannot afford buying goods detrimental to health like alcohol, tobacco, and sweets, or the necessary foodstuffs, either. Effort to buy food cheaper can lead to different consequences.

Other studies call attention to the fact that local circumstances and individual political answers can have considerable impact on the outcome of a crisis. For example, the Asian financial crisis had no considerable impact on mortality in Malaysia but led to a significant increase of mortality in Indonesia and Thailand (Chang et al. 2009). The differences might be explained by the fact that Malaysia did not restrict its expenditure on health care despite the crisis (Hopkins 2006).

In the case of countries with a high national income an economic crisis is rarely marked and less frequent, though the cyclic nature of economy is undeniable there, too. As regards the interconnection of unemployment and mortality in the United States, high unemployment rates usually involve lower rates in mortality. In Germany, in the period between 1980 and 2000 both the age-specific and the total mortality rates were lower during times of recession. However, in the case of cause-specific mortality, this was true only with regard to cardiovascular mortality, some infections of the respiratory system, traffic accidents, and suicide but there was no considerable correlation between recession and cancer mortality, homicides and mortality from other external causes of death (Neumayer 2004). Mortality in Spain similarly decreased during recession with the exception of suicide which was higher especially among men than at times of prosperity (Tapia-Granados 2005).

As a contrast, in Finland mortality due not only to suicide but also to alcohol consumption reacted on the economic crisis of the early 1990s negatively (Valkonen 2000). In the majority of East Central European countries there was similarly a rise in mortality in the first half of the 1990s, though the nature and the dimensions of the crisis were greatly different there (Nolte 2005).

Khang and his team reached similar results from a cause-specific angle when analyzing the South-Korean crisis of the early 1990s. Cause-specific mortality rates decreased considerably during the crisis, primarily stroke and stomach cancer mortality. These diseases are the consequences of being exposed to various long-term risk factors, so their data should not be interpreted as the effects of an economic crisis. There was a decrease also in mortality due to traffic accidents, which phenomenon can to a certain extent be seen as being in contact with the crisis. A considerable increase could be observed in mortality due to suicide, which had an impact on the overall level of mortality.

The most comprehensive analysis relating to Europe studied the relationship betweeen unemployment and cause-specific mortality rates (Stuckler 2009). For the period of observation (1970-2007), the study did not find a systematic relationship with respect to the countries of the EU between cause-

specific mortality and unemployment, except for traffic accidents and suicide. The impact of the crisis on suicide greatly depended on the level of using means of active employment policies. The amount invested in programmes for helping people to find jobs was inversely proportional to the rise of suicide mortality.

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6.

SOCIAL DISPARITIES IN HEALTH

Katalin Kovács

MAJOR FINDINGS

- In 2009, the health of the different groups of Hungarian society varied considerably. Health is closely correlated with education and income. The lower the education or income, the more likely it is that health deteriorates. Taking a five-grade income chart as a basis, the health of people in the lowest two quintiles is especially poor.
- In the period between 2001 and 2009, the only social group in which health did not deteriorate was that of middle-aged persons with higher education. At the same time, the situation changed for the worse among those between 25 and 54 with primary education or less to an especially great degree.
- According to the latest health survey, in 2009 people reported to suffer from 2.8 health complaints on average. The most frequent of them was high blood pressure which 32.5 per cent of the respondents were aware of. Then came musculoskeletal disorders and mental health problems.
- Compared to men, women more often complained about chronic depression, anxiety, and high level of cholesterol and less frequently about diabetes, heart attack, and stroke.
- Controlled for age, there were no considerable social differences in the frequency of high cholesterol, bronchitis, stomach ulcer, and duodenal ulcer. Allergy was more characteristic of persons of higher social status. All the other complaints (symptoms) were, however, mentioned more often by those with lower social status.
- In the case of complaints more frequent among persons of lower social status, the level of education made a major difference as regards high blood pressure, chronic anxiety, and diabetes, whereas in the case of arrhythmia, cardiac infarction, and tumours it is the level of income that matters more. In the case of other diseases or issues both factors were influential. In the field of secondary prevention, taking blood pressure is the only method by which nearly all citizens were covered. Taking part in all other kinds of screening tests shows considerable social differences. As regards gynaecological screenings, the participation of women with lower education is significantly lower than the average. Participation in vaccination against influenza correlates with income, just like measuring cholesterol level. As regards the latter, the least well-to-do 40 per cent of the population is in an especially detrimental situation. The likelihood of testing blood-sugar level depends not so much on income but rather on education.

SELF-RATED HEALTH

Measuring health status by questionnaires is most frequently based on subjective assessment of health. The evaluation of health is, in fact, a rather complex analysis during which several facets of well-being known by the evaluators themselves are taken into account. Although the basis of this evaluation is subjective, by our current knowledge it still offers a complex and useful measure of health at population level with some restrictions. In follow-up surveys covering both self-rated health and the subsequent risks of death, a close correlation was found between the two (Idler–Benyamini 1997; Quesnel-Vallée 2007). This subjective evaluation of health does not lend itself to international comparison but the comparison of subsequent similar surveys within the same country shows actual trends.

According to the latest health survey[1], the proportion of those who think they are not in a good health is very high in Hungary. In 2009, 41.1 per cent of men and half of women above 16 rated their health as belonging to categories 3, 2 or 1, i.e. having only fair, poor or very poor health on a scale of five with 5 meaning 'very good' and 4 meaning 'good' (Table 1).

Table 1. ***Rate of persons in less than good health in Hungary among persons above 16, 2009, %***

Age groups	Men	Women
16–24	7.9	12.1
25–34	16.7	14.6
35–44	29.4	33.3
45–54	47.9	55.1
55–64	68.2	72.5
65–74	78.0	79.2
above 75	78.6	90.0
Total	**41.1**	**50.0**

Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

Table 2. ***Less than good health by education and income, age-standardized rates , %***

	Level of education				Income levels					
	up to 8 grades of primary school	voca-tional school	secondary school graduation	higher education	lowest	lower middle	middle	upper middle	high	total
Men	57.7	45.7	35.6	26.3	53.8	48.3	39.1	38.1	29.6	41.0
Women	61.8	56.4	46.9	31.1	60.2	52.3	48.5	47.4	38.7	49.9

Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

In this chapter, we focus on the impact of social differences on self-rated health. We will analyze health status and its changes by sex and two especially important social factors, namely the level of education and the financial position of the persons involved.

[1] This chapter is mostly based on data from the „KSH Európai Lakossági Egészségfelmérés" (ELEF) (Hungarian Central Statistical Office, European Health Interview Survey). The survey took place in October and November, 2009 on a sample of the population above 16 not living in institutional households.

Among men with at best primary education, 53 per cent complained about not satisfactory health, while this proportion among men with higher education was merely 27 per cent. However, it has to be taken into account that the answers given to this question greatly depend on the age of the respondents. As the age distribution of the population greatly differs among the different educational and income groups, pure proportions can be misleading. Table 2 shows, therefore, standardized values, calculated on the basis of crude rates characteristic of the various age-groups. A given group would produce such results only if its age composition were the same as that of the whole interviewed population.[2] According to the standardized rates, 57.7 per cent of men with the lowest level of education consider their health not satisfactory, while this rate is less than half of the previous one (26.3 per cent) among men with higher education. Standardized rates for women show a slighter difference by education than non-standardized ones, i.e., "only" twice as many women consider themselves to be in non-satisfactory health among the least educated as in the most educated group.

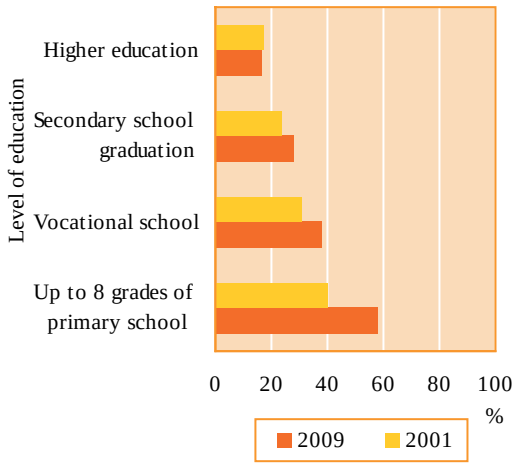
Analyzing health by the financial status of the respondents' families, 30 per cent of men belonging to the wealthiest quintile and 39 per cent of women in the same category did not find their health satisfactory. This rate slightly but unevenly rises with the deterioration of the financial background. There is a considerable difference between the richest quintile and the other categories but there is no significant difference between the middle and the upper middle quintiles. As regards both sexes, the two categories at the bottom again lag largely behind, with 50 to 60 percentages of them reporting non-satisfactory health. In the case of men, the chances of good health in the middle and lower middle quintiles are divided from the higher categories by a greater rift, whereas in the case of women, the highest and lowest quintiles are separated from the others the most (Table 2).

Comparing the recent results with earlier surveys, one finds that the general state of health slightly deteriorated between 2001 and 2009.[3] Viewing our data from a slightly different angle, self-rated health improved only among the middle-aged with higher education during these eight years, and even there not to a great extent, whereas the rating of those with at most primary education in the same age group dramatically deteriorated (Fig. 1). Among older generations, for whom we have comparative data for the age group 55–74, the deterioration is small and similar in all educational categories, except for those with higher education, whose self-rating was not really worse in 2009 than before (Fig. 2).

2 For the present study, we calculated the rates for the whole population above 16 in order to make the results concerning the level of education and income comparable. At the same time, this method somewhat reduces the differences in health by the level of education , since the youngest age groups appear in the category of low education where the state of health is generally rather good.

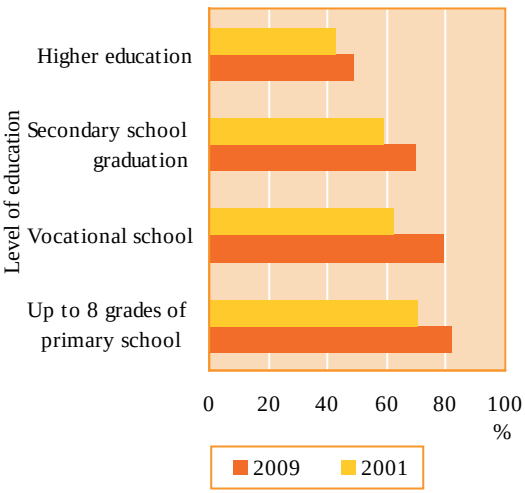
3 The comparison was made between data from the panel survey Turning Points of the Life Course taken by the Demographic Research Institute HCSO in 2001 and data from the European Health Interview Survey of the Hungarian Central Statistical Office taken in 2009. The comparison was not done using exactly the same criteria as the other calculations presented in this chapter which are based on the latter source.

Fig. 1. ***Age-standardized rates of having less than good health in 2001 and 2009 by education in the age group 25–54***



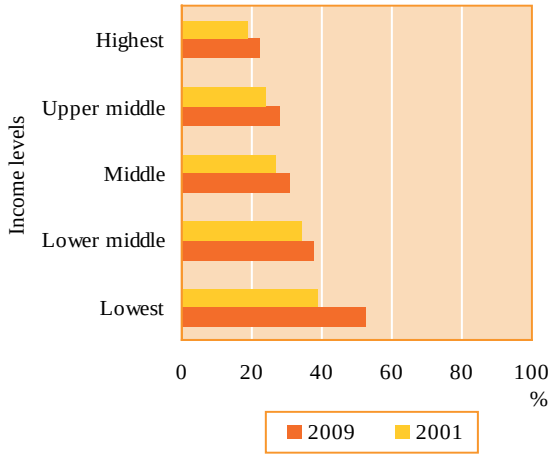
Source: Turning Points of the Life Course, demographic survey, Demographic Research Institute, 1st wave (2001), and Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

Fig. 2. ***Age-standardized rates of having less than good health in 2001 and 2009 by education in the age group 55–74***



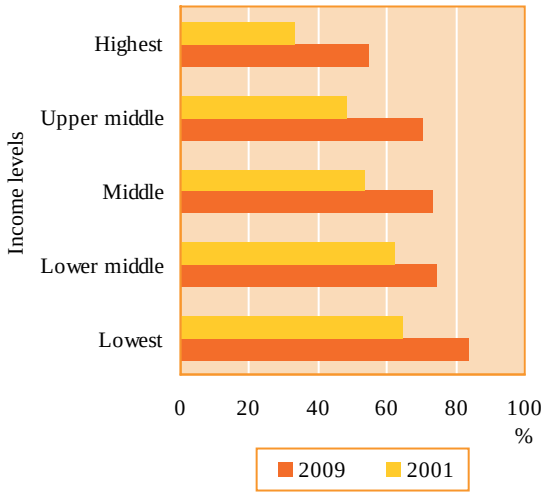
Source: Turning Points of the Life Course, demographic survey, Demographic Research Institute, 1st wave (2001), and Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

Fig. 3. ***Age-standardized rates of having less than good health in 2001 and 2009 by income in the age group 25–54***



Source: Turning Points of the Life Course, demographic survey, Demographic Research Institute, 1st wave (2001), and Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

Fig. 4. ***Age-standardized rates of having less than good health in 2001 and 2009 by income in the age group 55–74***



Source: Turning Points of the Life Course, demographic survey, Demographic Research Institute, 1st wave (2001), and Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

The analysis by income similarly indicates that the health of the middle-aged under the worst financial conditions deteriorated the most. According to the data for 2001 in Fig. 3, the lower the income, the higher the rate of those in non-satisfactory health. In 2009 the rates were only slightly worse in all income categories with the exception of persons in the lowest quintile, among whose the deterioration of health was outright dramatic. By 2009 the rate of being in non-satisfactory health in this relatively young age group had exceeded 50 per cent.

Among the elderly, the rate of those not satisfied with their health grew in all income categories. At the same time, a certain levelling took place among the quintiles (Fig. 4). The income gradient did not disappear but got toned down as a result of the fact that in higher income groups health evaluation worsened to a greater degree than among the poorer. Self-rated health surveys are, in fact, complex indicators of health status in general. At the same time, it is worth while examining the exact diseases or complaints leading to this highly unfavourable picture of health in contemporary Hungary.

COMPLAINTS AND DISEASES

The European Health Interview Survey database provides us with an opportunity to explore the range of various health problems.[4] This chapter reviews the data regarding all health complaints interviewed persons suffered from in their lifetime. Only 29 per cent of the respondents declared that they had no diseases or any health problems and they had never had any. Nearly 20 per cent mentioned one problem and another 12 per cent mentioned two, while the others more than that. The average number of problems was 2.8 (2.3 for men and 3.1 for women).

So what are the most common health complaints or diseases? To the question whether the person had suffered from a problem for a longer period or had had conditions known to be damaging to health, the most common answer (coming from nearly 30 per cent of the respondents) was high blood pressure (Table 3). Over one fifth of the respondents suffered from musculoskeletal disorders and more than 10 per cent had allergy, arrhythmia or high cholesterol level, and another 10 per cent suffered from neck pain or headache. At the bottom of the list of conditions cirrhosis of the liver can be found with a 1.2 per cent prevalence. It is probably the last category where data are the least reliable as the respondents did not necessarily admit their disease even though they were aware of it. Taking this possibility of bias into consideration, reporting about cirrhosis is more frequent than expected. This fact suggests that the reporting on other health problems must be near the actual situation, i.e., the respondents gave account of all health problems they were aware of. When evaluating these data, however, one must keep in mind that they refer to recognised health problems and not to the actual occurrences.

[4] The survey listed a wide array of possible conditions and asked whether the respondents experienced them. It was also possible to indicate other complaints that were not included on the list.

Table 3. ***Frequency of reporting on having (or having had) illnesses and complaints , %***[5]

Complaints, illnesses	Total population (n=5054)	Men (n=2356)	Women (n=2695)
high blood pressure	*32.5*	*29.9*	*34.9*
backache	*31.2*	*30.6*	*31.8*
rheumatism, arthritis	24.7	19.5	29.3
arthrosis	*23.6*	*21.2*	*25.6*
strong headache	17.5	11.9	22.4
neck-ache	17.4	13.6	20.7
allergy	*16.4*	*13.7*	*18.7*
arrhythmia	*14.5*	*10.5*	*17.1*
high cholesterol level	*12.8*	*10.4*	*14.3*
chronic anxiety	*8.6*	*5.2*	*11.5*
diabetes	*8.3*	*8.6*	*8.1*
stomach ulcer or duodenal ulcer	*8.2*	*6.6*	*9.7*
osteoporosis	8.0	3.4	12.1
coronary issues, angina pectoris	*7.2*	*5.9*	*8.4*
asthma	*6.5*	*5.7*	*7.3*
chronic bronchitis	*6.4*	*5.1*	*7.4*
chronic depression	*6.2*	*3.7*	*8.4*
incontinence	5.2	3.5	6.8
other heart problems	4.5	3.8	5.0
cardiac infarction, heart attack	*4.2*	*4.4*	*4.1*
malignant tumour	*3.6*	*2.6*	*4.5*
other mental health problems	3.4	2.9	3.8
lasting conditions due to injuries or accidents	2.8	3.6	2.2
stroke	*2.8*	*2.9*	*2.6*
cirrhosis of the liver	1.2	1.0	1.4

Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

Frequencies in Table 3 represent life prevalence, therefore these rates could be expected to rise with age. However, the results are different in some cases. For example, asthma occurs almost evenly in all age groups (5–6 per cent), except for the age group 55–64 where it is much higher (around 10 per cent). Chronic bronchitis is getting slightly more frequent in parallel with the rise of age but its gradual growth is broken again by a sudden leap among those between 55 and 64.

[5] *Table 3 contains all health complaints that were included in the European Health Interview Survey. The specific problems to be dealt with later in this study in detail are printed in italics.*

The frequency of the majority of diseases or health issues rises, however, with age. For example, that of cardiac infarction and angina pectoris, which in this case equals the chance of survival, is strongly related to age, or even can be said to grow exponentially with age. The frequency of high blood pressure (and of stroke) also increases with age, from 4.1 and 0.2 per cent in the youngest age group to 70.8 and 6.7 per cent in the oldest, respectively. Arrhythmia is mentioned by 1.4 per cent in the former and by exactly one third in the latter age group. In the case of arrhythmia, a regular increase can be observed just like in the case of 'other heart problems' but the growth is not steady. Among those under 44 it remains below 1 per cent, whereas among people above 44 it grows dynamically from 3.6 to 14.8 per cent.

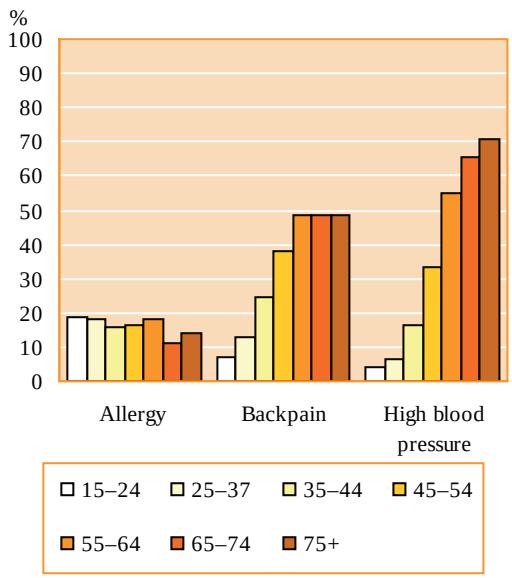
High cholesterol level can be found at 0.5 per cent of the age group 16–24 and at 25 per cent of those between 65 and 74. The rate rises steadily in parallel with age but in the oldest age group it falls back to 21 per cent. The rate of mentioning diabetes similarly grows in parallel with age (from 0.9 to 20.9 per cent) but is lower again in the highest age group. Osteoporosis shows a similar pattern.

Rheumatism, arthritis, and neck-ache are likely to occur in an evenly growing rate with age but backache differs a bit. It steadily grows from 6.8 per cent in the age group 15–24 to 48.6 per cent in the age group 45–54 but remains nearly on the same level in higher age groups, too.

The frequency of stomach and duodenal ulcer steadily increases with age (between 2.3 and 13.4 per cent). The occurrence of cirrhosis seems to be very low and rises above 1 per cent only in the age group 55–74.

Younger age groups make mention of malignant tumours in 0.3 per cent, whereas 8.4 per cent of the oldest age group spoke of it. Their frequency rises with age in the rest of the age groups.

Fig. 5. ***Three characteristic age-specific patterns: the rates of appearance of allergy, back-pain, and high blood pressure by age groups***



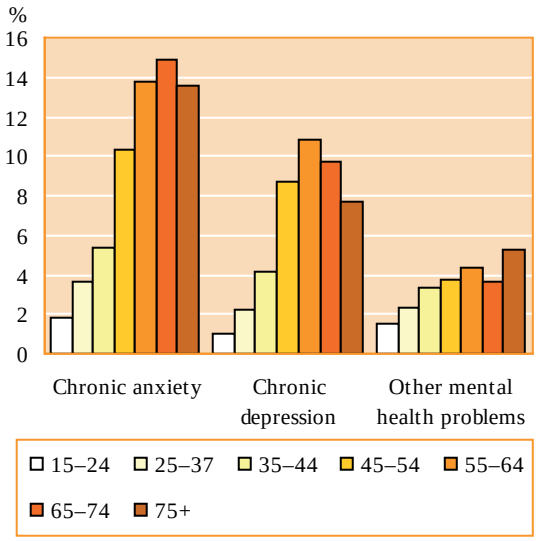
Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

The rate of strong headaches, however, does not increase with age. Although it is slightly less frequent in the age group 16–34, it fluctuates between 16 and 20 per cent among persons older than 35. Similarly, allergy does not become considerably more common with age. In fact, it is slightly more frequent among those between 15 and 64 than among those above 65.

Incontinence is very rare among the young but in the age group 45–54 it is already present with 3.3 per cent and its frequency gradually increases with age, reaching 20.5 per cent in the age group above 75.

Chronic anxiety and depression get more frequent with age but their frequency remains much the same in older age groups (Fig. 6).

Fig. 6. ***Frequency of occurrence of mental problems (chronic anxiety, chronic depression, other mental health problems) by age***



Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

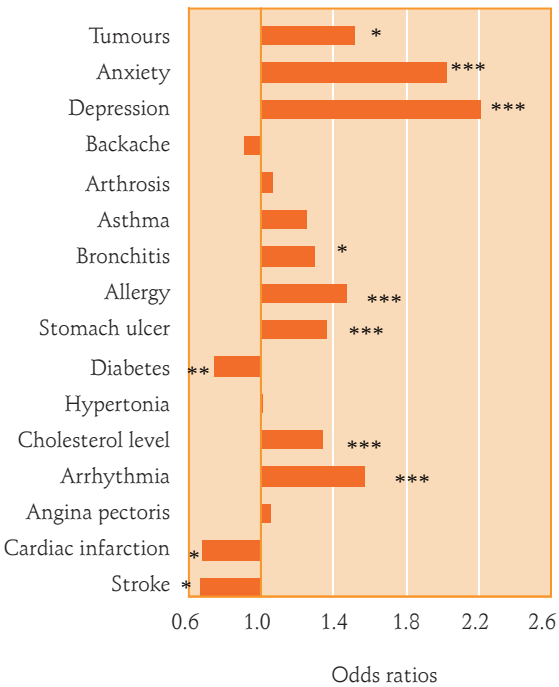
The rate of permanent health deterioration due to injuries and accidents among persons aged 16 to 24 is 0.2 per cent, while in the age group 75+ it is 5.6 per cent. Frequency grows gradually with age according to the expected pattern.

Thus in the case of most health complaints the rate increases in parallel with age, especially in those cases (asthma and backache excepted) whose social pattern we are going to analyze in detail later. Therefore, if wanting to examine the various complaints along the lines of gender and the two social factors on which we are focusing now, i.e., education and income, we have to take into account also their differences in age distribution. We also have to separate the often overlapping effects of sex, education and income. The results of the multi-variate analysis based on these criteria[6] are shown in Figs. 7, 8, and 9 as regards the most frequent health problems or the ones important from some other special point of view.

Controlling for the effects of age, education, and income, and comparing the frequency of complaints among men and women, one can find (Fig. 7) that men face a lower risk of backache and diabetes, as well as of becoming survivors of cardiac infarction and stroke. The results on backache, however, are not significant as indicated by the lack of asterisks in Fig. 7. All other complaints are more likely to appear among women but this can be established for sure only in the case of headache, chronic anxiety, chronic depression, allergy, and arrhythmia. It is less certain that women are more frequently informed about high cholesterol level or have stomach or duodenal ulcer and tumours (or are survivors of cancer). The high rate of healed breast cancers among middle-aged women may contribute to the last-mentioned result.

[6] In the course of multi-variate analyses the factors influencing the frequency of health issues (dependent variables) were examined in logistic regression models containing age, sex, education, and income as independent variables. Figs. 7, 8, and 9 show odds ratios resulting from the various models. Odds ratios compare frequencies in two groups. If the frequency is p1 in one of the groups, then the risk in this group is p1/(1-p1). In another group, in which the frequency is p2, the risk is p2/(1-p2). In this case the value of the odds ratio is p1/(1-p1):p2/(1-p2). In logistic regression analyses the value of these odds ratios can be calculated with respect to a so-called reference group. Odds ratios higher than 1 mean higher frequency than in the reference group, and values smaller than 1 mean less frequent incidence.

Fig. 7. ***Risk of the occurrence of certain complaints or diseases among women as compared to men, odds ratios controlled for age, education, and income (men=1)***



*: p < 0.05, **: p <0.01, ***: p< 0.001

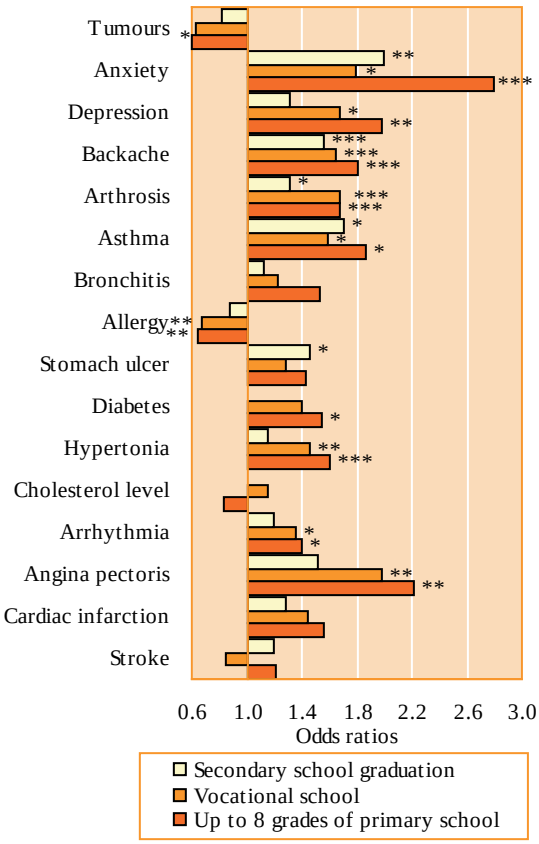
Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

Examining the risk of having complaints and diseases by education controlled for the influence of the other modifying factors considered here, e.g., sex, age, and income (Fig. 8), it becomes immediately striking that the chances of persons with higher education to be ill are higher only in the case of two diseases: allergy and cancer. If highly educated persons are taken as the reference group, these cases are represented in Fig. 8 with a value lower than „1" for other educational groups. In other words, persons without college or university diplomas suffer from allergy and cancer less frequently. In the case of those with at best eight grades of elementary school this relation is significant. Those with vocational training also have a significantly lower risk of suffering from allergy. Interpreting the results on cancer is, however, difficult since the label of 'cancer' covers different kinds of tumorous diseases and the results can be modified by the various chances of survival by cancer types and education.

In the cases of having and surviving cardiac infarction and stroke no statistically significant correlation can be found between the risks and education. There is a statistically weak correlation between education and arrhythmia but a very strong one between education and angina pectoris. Persons with at best eight grades of primary school have two times higher odds to suffer from it than those with higher education.

It is conspicuous that social differences are not always reflected in the frequency of complaints that are the very risk factors of cardiovascular diseases. There is a statistically strong correlation between education and high blood pressure: among those with eight grades of elementary school the risk is 60 per cent higher than among those with higher education. High cholesterol level is, however, not more frequently mentioned by the former than by the latter, which probably indicates only that persons with a lower level of education are less aware of that risk. Considering musculoskeletal disorders, a strong statistical correlation can be seen between having complaints and education. The risk of suffering from these problems among persons with vocational training is higher by 40 to 65 per cent and among those with at most eight grades of elementary school by 65 to 80 per cent, compared to the reference group. As regards respiratory problems, reporting on bronchitis shows no considerable educational differences but the chance of reporting on asthma is 60 to 80 per cent higher in all other educational groups compared to people with higher education.

Fig. 8. ***Risk of having certain diseases by education. Odds ratios controlled for sex, age, and income. (Persons with higher education = 1)***



*: p < 0.05, **: p <0.01, ***: p< 0.001

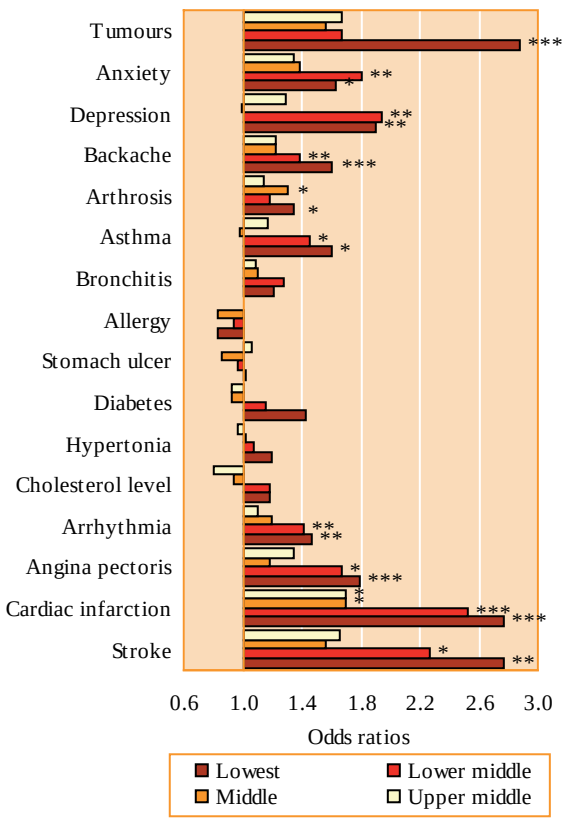
Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

The greatest differences can be found in the cases of mental health problems. The risk of suffering from chronic anxiety is by 160 per cent higher among the less educated as compared to those with higher education, and even those with vocational training complain by 80 to 100 per cent more frequently of experiencing this problem than those in the reference group. The occurrence of chronic depression differs less but those with the lowest education have a 100 per cent higher chance for suffering from depression than those with university or college degrees.

Analyzing risks by income (Fig. 9), the disadvantage of the lowest two quintiles on the income scale are the most conspicuous in the case of arrhythmia, angina pectoris, cardiac infarction, and stroke. The chance of these conditions to appear is by 40, 60, 150, and 120 per cent higher, respectively, in the lower middle income quintile and by 50, 80, 185, and 180 per cent higher in the neediest quintile than among those with the highest income. As regards cardiac infarction, not only the two lowest but also the middle quintile is much more endangered than the wealthiest one. To sum up, income seems to play the greatest role in the risk of cardiovascular diseases. However, there are no similar differences as regards reporting on risk factors leading to such diseases: the rate of persons informing the interviewers about high blood pressure, high cholesterol level, and diabetes is nearly the same in all groups. These results call attention to the question of awareness concerning these risk factors to be dealt with later. The rate of those in the lowest quintile who suffer from tumours is significantly higher than in the other categories but there are no significant differences among the rest of the income range. While in the case of most complaints and diseases it can be presumed that low income plays a casual role in the appearance of the problems in question, in the unique case of those suffering from cancer (who are in all probability the survivors) the relation can be the opposite, namely the burden of the disease and the costs of curing may contribute to a family getting into poor financial conditions.In the case of stomach and duodenal ulcer, chronic bronchitis, and allergy there are no significant differences in risks by income. However, musculoskeletal

complaints and asthma occur with a 40 to 60 per cent higher chance among persons in the lowest two income quintiles. Mental health problems show an even greater difference. Chronic anxiety and chronic depression similarly inflict persons in the lowest two income quintiles with a 60 to 80 per cent higher chance than the wealthiest.

Fig. 9. ***Risk of having certain diseases by income. Odds ratios controlled for sex, age and level of education. (Persons with higher education = 1)***



*: p < 0.05, **: p <0.01, ***: p< 0.001

Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

PARTICIPATION IN SCREENINGS, THE USEFULNESS OF BASIC METHODS OF PREVENTION

The considerable disadvantages of the less educated and the poorest can be partly attributed to their lack of knowledge about the healthy life style and partly to the lack of the financial means to realize their aspirations. Health care embracing the total population and offering uniform service for all can partly counterbalance these disadvantages. This last chapter, therefore, will examine a small but significant portion of health care, namely, secondary prevention. The usage of different secondary prevention options and their role in health maintenance will be analyzed in detail. The following short overview examines those important activities in secondary prevention about which information is available from the health survey. In particular, we are interested in which groups of the Hungarian society were covered by the most important screening procedures prior to 2009 and where the most important insufficiencies appear in this respect.

From the point of view of explaining social inequalities in health and mortality, the issue of non-equal knowledge about health, prevention and medical treatments comes more and more to the fore (Link, 2008). According to several approaches trying to explain the origin of these inequalities, the socially different spread of knowledge and the similarly different growth of the availability of new curative technologies are the basic factors of creating the inequalities in health and mortality. Besides being determined by personal financial means, availability is largely determined by the complexity of the service both as regards technology and accessibility (Rust et al, 2010). According to this approach, morbidity

and mortality will be influenced mostly by the simplest technologies available in the framework of general medical care. As regards medical technologies, this time only the utilization of prevention-type services will be considered.

Table 4. ***Age-standardized rate of persons who have never participated in certain screenings by education, %***

	Up to 8 grades of primary school	Vocational school	Secondary school graduation	Higher education	Total
			Men		
taking blood pressure	7.9	5.2	5.4	3.8	5.6
taking cholesterol level	50.8	41.2	34.4	29.1	40.0
taking blood-sugar level	41.8	33.9	27.5	24.7	32.6
screening for colon cancer**	86.5	88.6	86.4	87.7	86.1
vaccination against influenza	77.1	78.0	72.3	73.3	75.4
			Women		
taking blood pressure	3.7	4.2	4.8	3.4	4.0
taking cholesterol level	42.8	33.7	26.3	23.2	32.5
taking blood-sugar level	29.7	22.8	20.1	14.5	23.1
screening for colon cancer**	88.1	84.7	85.8	79.4	86.1
vaccination against influenza	77.6	72.8	68.8	74.8	73.0
cytological screening**	37.0	21.1	21.3	22.4	28.0
mammographic screening*	39.3	28.6	23.2	18.7	30.1

* aged 40 and above
**aged 45 and above
Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

The picture taking shape from the data of the National Health Survey on the situation in Hungary is highly uneven. The overwhelming majority of the respondents (a sample representing the total population aged 16 and older) is aware of their blood pressure having already been taken by a health personnel: 95 per cent of men and 96 per cent of women responded so. There were slight social differences among men as regards taking blood pressure. The respective rate in the lowest income quintile was 92 per cent, while it was 96 per cent in the wealthiest one. So the difference is negligible among men and completely insignificant among women (Table 5).

Recalling the taking of cholesterol level is much less general. 60 per cent of men and 68 per cent of women mentioned having taken part in such an examination in their lifetime and there were significant social differences in the rates, especially by education.

Participation in cytological screening among women is similarly widespread: 71 per cent mentioned having taken part. Differences by social status are significant: the rate of participation is 20 per cent higher

among women with higher education than among those with elementary schooling.

Mammographic screening is much less widespread than cytological screening. Only 51 per cent of the female respondents recalled taking part in such a screening, and the rates varied heavily by education.

From attendances in preventive tests the laboratory test for detecting colorectal tumours was the least frequently mentioned one.[7] Only 8 per cent of interviewed men and 10 per cent of women had ever taken such a test. The probability of participation considerably grows with age. Whereas in younger age groups it is merely 3 to 6 per cent, it is 17 per cent among women and 21 per cent among men in the oldest age group. The participation rate among the poorest men is especially low. In the case of women the probability of participation rises in parallel with social status.

Table 5. ***Age-standardized rate of persons who have never taken part in certain screening tests by household income, %***

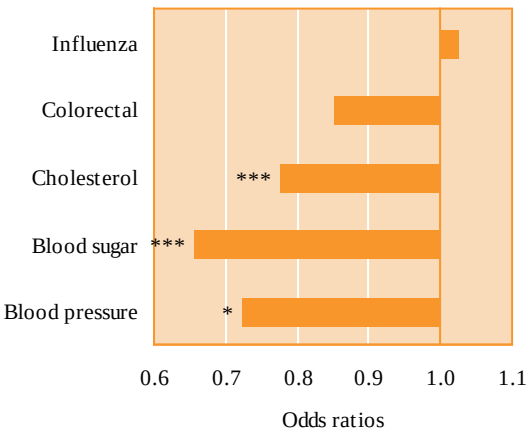
	Lowest quintile	Lower middle quintile	Middle quintile	Upper middle quintile	Highest quintile	Total
Men						
taking blood pressure	8.1	4.8	6.6	4.2	4.2	5.6
taking cholesterol level	48.7	43.6	38.1	36.8	35.1	39.8
taking blood-sugar level	37.2	37.8	29.1	31.6	30.8	32.6
screening for colon cancer**	87.6	84.9	86.5	86.9	87.5	87.2
vaccination against influenza	78.1	76.6	77.1	76.1	71.2	45.6
Women						
taking blood pressure	4.8	4.3	3.1	3.7	3.9	4.0
taking cholesterol level	42.8	34.9	31.7	29.8	24.1	32.6
taking blood-sugar level	29.8	23.1	22.5	24.7	16.1	23.1
screening for colon cancer**	90.4	86.9	89.1	84.9	89.1	86.1
vaccination against influenza	78.7	75.3	74.0	71.9	68.2	73.0
cytological screening**	28.2	33.3	29.2	23.6	25.3	28.0
mammographic screening*	41.9	34.9	28.2	28.5	24.8	30.1

* aged 40 and above
**aged 45 and above
Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

[7] *The ELEF asked about participation in a "scatological test to diagnose bleeding" which is only one type of colorectal screening, though it is the professionally recommended method of such a screening in Hungary.*

After eliminating the influence of age, education and income (Fig. 10), using the same method as in the previous chapter, it can be established that women are more conscious about taking blood pressure, cholesterol level and blood-sugar level. As regards vaccination against influenza, gender differences are not significant.

Fig. 10. ***Chances of women for not participating in a given form of prevention as compared to men (odds ratios, men = 1)***

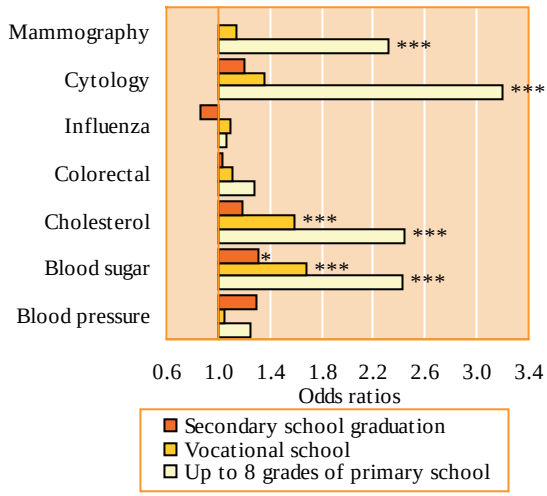


Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

Participation in screenings was also examined by education and income. Eliminating the effects of sex, age, and income, it becomes clear that education has no significant role in the cases of the less wide-spread colorectal tests and the moderately wide-spread vaccinations against influenza, just as regarding the almost general blood pressure measurement. The mentioning of the moderately wide-spread taking of the cholesterol level and blood-sugar level is, however, highly different by respondents' education. Secondary-school graduates had their cholesterol level taken almost to the same degree as persons with higher education but the participation of those with vocational training or elementary school was much lower (see Fig. 11).

The frequency of not participating in blood-sugar testing gradually rises as level of education drops. In the case of gynaecological screenings, the outstandingly high odds ratios of women with at most elementary education are conspicuous, i.e., this social group stays away from being screened especially frequently.

Fig. 11. ***Chances of not participating in a given form of prevention by level of education (odds ratios, persons with higher education = 1)***

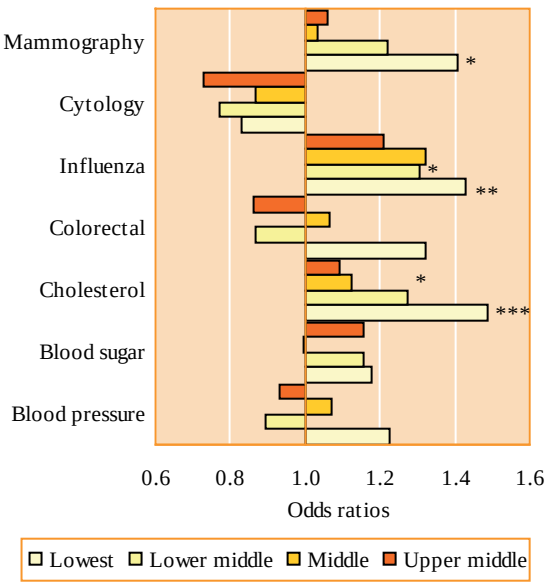


Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

After eliminating the effects of sex, age, and education, it seems that income influences participation in preventive screenings only in two cases. The poorest, mostly those in the lowest income quintile - but to a smaller extent also those in the lower-middle quintile, too - have a great risk of not having (or not being able to recall) their cholesterol level taken. Differences in income influenced also

vaccination against influenza, which mostly results from the income-related participation of women. It has to be mentioned that influenza vaccination is the only form of prevention in Hungary among the enlisted ones that is not for free, though some professions and age-groups are vaccinated without charge.

Fig. 12. ***Chances of not participating in a given form of prevention by income (odds ratios, highest income quintile = 1)***



Source: Hungarian Central Statistical Office, European Health Interview Survey, 2009, author's calculations.

To sum up, one can establish that blood pressure is routinely taken during regular family doctor visits, thus this procedure is widespread. Those who "stay away" from this procedure most probably belong to the youngest generations. Although the taking of the blood-sugar and cholesterol level is usually also connected to the general practice, since it is done on the advice of the family doctor, the patients generally have to go to a laboratory for completing this procedure at least twice, then back to the family doctor to consult about the result. Patients usually become aware of the fact that a risk factor might be present only in the last phase of the process. They must, therefore, be very conscious with regard to their health to go on with the whole process, as reflected by the strong discrepancy among persons on the various levels of education.

Vaccination against influenza is similarly available at the family doctor but for most people it is not free, which leads to differences in its use by income.

Gynaecological screening in Hungary is done by specialists and patients need a referral. The system of referring or inviting people for gynaecological screening has changed in Hungary several times in the past decades (Döbrőssy et al, 2012) and become largely confusing. The difficulties of getting one's bearings in the health care system may explain the high risk of staying away from screenings among women with a low level of education.

So the complexity of participating in screenings is heavily reflected in the rate of the persons reached and in the social pattern of participation. The most successful in this respect are the two forms of prevention available for patients visiting family doctors.

On the other hand, it can be presumed that the Hungarian population participated in certain types of screening tests to a greater degree than indicated by the survey (primarily in testing the blood-sugar and cholesterol level). But if the patient is not aware that such a screening took place or what its results were, the screening was useless, anyway. The significant educational disparities in cardiovascular mortality and the pattern of being aware of these diseases by the level of education revealed by the recent survey suggest that a similar pattern is likely to be present in the case of the risk factors as well. However, in the case of high blood-

sugar level and high cholesterol level we did not get a corresponding pattern. Comparing these results to the opposite pattern in the participation in preventive screenings we may arrive at the conclusion that staying away from screenings or not recalling the results of participation plays a significant role in the high level of mortality due to cardiovascular diseases and in the perpetuation of the strong social disparities in mortality due to these diseases.

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7.

AGEING

Lajos Bálint – Zsolt Spéder

MAJOR FINDINGS

- Demographic ageing is basically determined by two processes, in a way independent from each other, namely by mortality and fertility.
- It is the extremely low fertility of our times that plays a decisive role in the ageing processes of the recent past, i.e., in the negative trends in the age structure.
- Today, every sixth Hungarian person is above 65.
- In international comparison, the Hungarian society does not belong to the oldest societies of the continent, which goes back basically to the unfavourable mortality rates among the middle-aged and the elderly.
- In the past two decades, the life expenctancy of old people improved considerably. Between 1990 and 2010, male life expectancy at 65 grew from 12 years to 13.8, and female life expectancy at 65 grew from 15.3 to 17.6 years. The present level of old age life expectancy is, however, far behind the Western European and East Central European levels. In the processes of the recent years there is no indication of a closing up.
- The proportion of old people within the population is the lowest in the northeastern and southwestern parts of the country, as well as in the agglomeration and suburban zones of Budapest and in their adjacent areas.
- Old age is generally considered to begin earlier in the case of women (60.8 years) than in the case of men (63.1 years). The opinion of individuals and social groups can greatly differ as to the beginning of old age. Some people consider themselves old already in their early 60s, while others feel middle-aged even in their late 60s. One third of the age group 65–69 do not feel themselves old.
- Today, old people usually no longer live together with their children and grandchildren in multigenerational families. The older they grow, the more frequently they live alone widowed, in one-person households. It is a slowly spreading phenomenon of late old age that parents and children move in together. According to our estimates, one fifth of old people live together with their children (once again) when they turn eighty.
- The old generation is often together with their children. More than half of parents who do not live with their children have daily personal contact with them, and it is only 15 per cent of old parents who meet their children very rarely, i.e., once a month or even less frequently.
- Being alone is characteristic of old age but in Hungary hardly more than 10 per cent of persons above 65 feel lonely often or permanently.
- Although the situation of old people is considered unfavourable in Hungary as compared to other age groups, their relative drawback is still among the smallest in Europe.

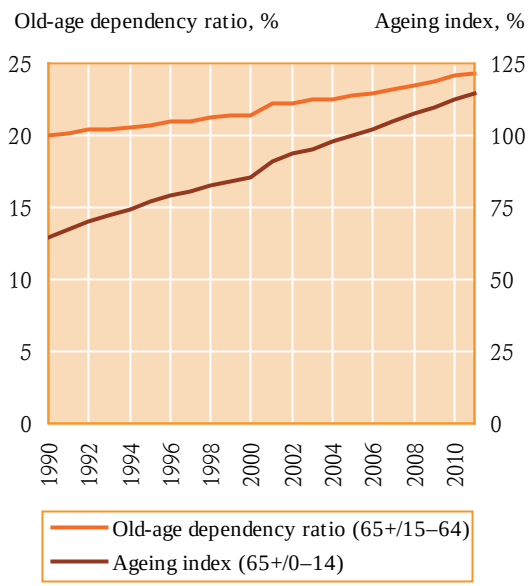
THE DEMOGRAPHIC AGEING OF THE SOCIETY

Ageing is a pervasive phenomenon around the world. From demographic point of view, the composition of a society by age is determined by the changes in fertility and mortality, and by the balance of international migration. Fertility influences the size of younger age groups, mortality affects that of the older ones, while the impact of migration is more diffuse but influences mostly the middle-aged generations in a direct way. Due to the lasting decrease of fertility and the steady growth of life expectancy at birth, the age structure of the European societies has changed a lot in the past decades. The most important feature and consequence of this process is the ageing of the population, i.e., the growing rate of the older generations.

There are several indicators to measure ageing as a societal phenomenon. The most general one is the rate of persons aged 65 and over within the population. On the basis of this index the number of old persons in Hungary rose by 300,000 persons between 1990 and 2011 (from 1.37 million to 1.67 million), as a consequence of which the rate of the old was by 3.5 percentage points higher in 2011 than in 1990. The rate of the old age group within the population was 13.2 per cent in 1990, 14.6 per cent in 2001, and 16.7 per cent in 2011. The growth became especially considerable in the past decade.

The old-age dependency ratio and the ageing index are further often used indicators. The former shows the ratio of the age group 65+ as compared to the age group 15–64, while the latter determines the size of the former as compared to that of the age group 0–14. The old-age dependency ratio indicates mostly the actual situation as regards ageing, while the ageing index refers more to the future. Time series for both indices show a monotonous growth in the given period. The old-age dependency ratio was 20 per cent in 1990, 21.4 per cent in 2000, and 24.4 per cent in 2011, the yearly growth being 0.2 per cent. During this period the yearly growth of the ageing index was around 2.4 per cent. In 1990 it amounted to 64.5 per cent, i.e., approximately 6 old persons fell to 10 children. As a contrast, today over 11 old persons fall to 10 children. Due to the extreme decrease in fertility, the ageing index had grown to 85.5 per cent already by the turn of the millennium, and a few years later in 2005, the proportion of the young and old age groups became balanced. According to the data of the past year, the rate of old persons exceeds that of the juveniles by 10 per cent, their rate being 114.7 per cent (Fig. 1).

Fig. 1. ***Ageing index and old-age dependency ratio, 1990–2011***



Source: KSH (HCSO) vital statistics (Demográfiai táblázó), authors' calculations.

As a consequence of the ageing of the population and the improving life expectancy

of older generations, it became necessary to subdivide the age group 65+. Three age groups are generally distinguished, namely that of the young elderly aged 65–75, that of the older elderly aged 75–85, and that of the oldest elderly aged 85+.

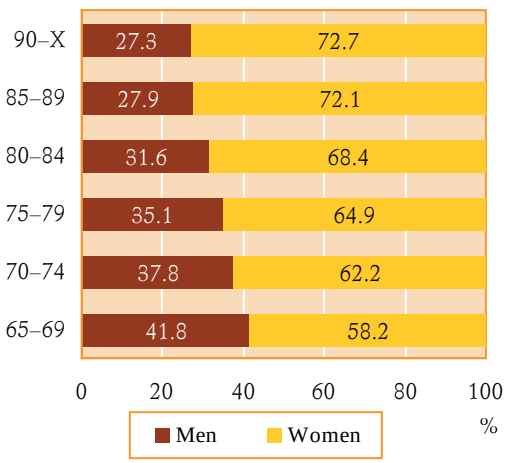
Table 1. ***Population number in different old age groups in 1990, 2001, and 2011***

Age groups	1990	2001	2011
65–75	797,450	899,645	930,540
75–85	489,013	448,338	570,836
85+	87,459	119,832	169,759
Total	1,373,922	1,467,815	1,671,135

Source: KSH (HCSO) vital statistics (Demográfiai táblázó), authors' calculations.

Between 1990 and 2011 the size of all the three grew considerably. That of the highest age group nearly doubled, while that of the other two grew by 16 per cent each (Table 1).

Fig. 2. ***Distribution of old generations by sex, January 1, 2011***



Source: KSH (HCSO) vital statistics (Demográfiai táblázó), authors' calculations.

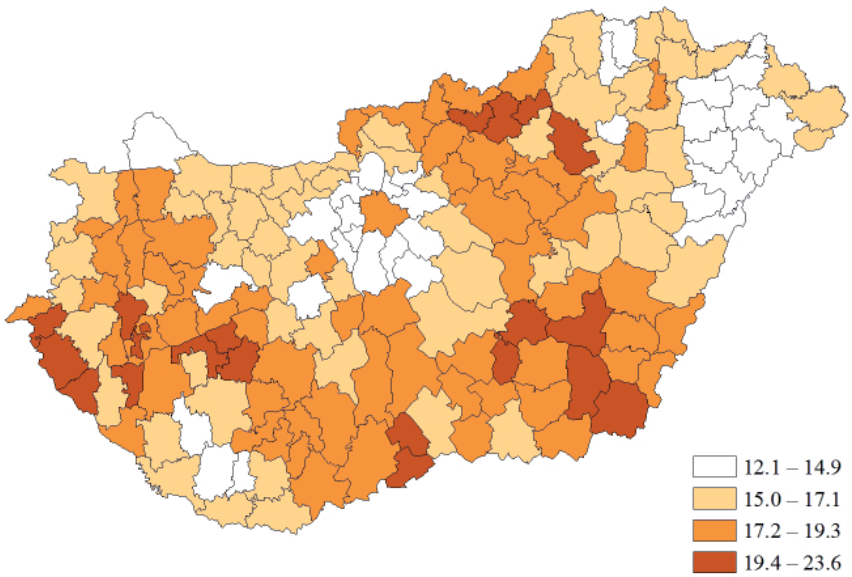
The rate of women within the old generations is higher due to their better chances for longevity, and the differences are getting ever more marked in higher age groups. In 2011, about three women fell to two men in the age group 65–69, while in the age group 85+ the rate of women to men was already 4 to 1 (Fig. 2).

REGIONAL DIFFERENCES IN HUNGARY

The regional distribution of old age groups (65+) divides the country into three regions with younger age structure, and some areas where the rate of the elderly is higher. Our map tries to illustrate this distinct spatial structure. The rate of the older age groups is low in the northeastern and southwestern parts of the country, and in the agglomeration zones surrounding Budapest. In these regions, fertility is higher but life expectancy is not necessarily higher than elsewhere. Whereas in regions around the capital life expectancy at birth is high, in Northeastern and Southwestern Hungary it is the lowest in the country.

Similarly to macro-data, regional ones also support the fact that fertility has the highest impact on the age structure. It has to be noted here that the capital with its 18.6 per cent is around the middle in the rank of subregions. So Budapest does not belong to the most ageing regions of the country as expected (Fig. 3).

Fig 3. ***The rate of persons 65+ within the population, 2011***



Source: KSH (HCSO) vital statistics (Demográfiai táblázó), authors' calculations.

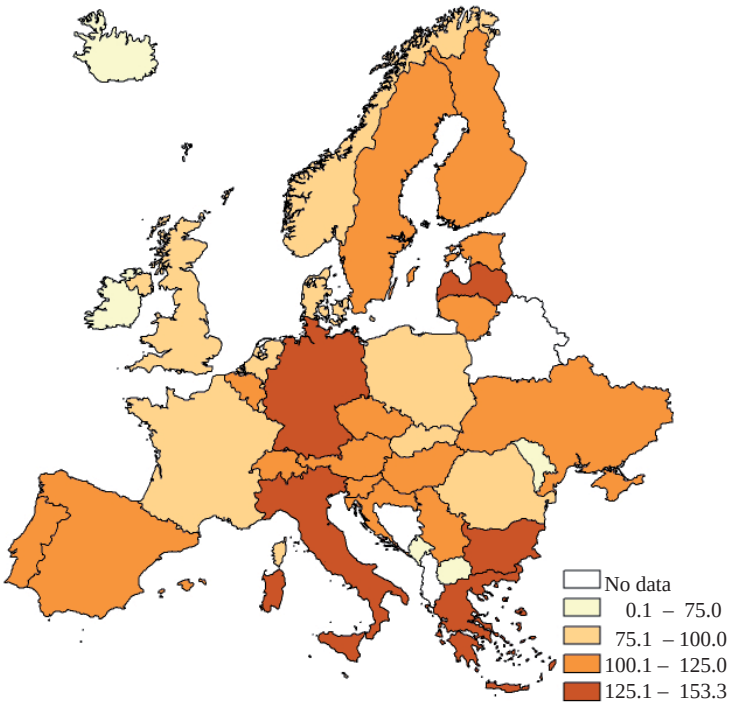
INTERNATIONAL COMPARISON

In Hungary, the rate of the old population (65 and over) is lower than the EU average. In 2010 the respective rate of the EU27 was 17.4 per cent, whereas that of Hungary was 16.6 per cent. The rate of the old population was higher than the EU average in Germany (20.7 per cent), in Italy (20.2 per cent), in Greece (18.9 per cent), and in Sweden (18.1 per cent).

With view to the median age Hungary does not belong to the oldest societies of the EU. In 2010 this figure was 39.8 years in Hungary, while the EU average was 40.9. The values for Germany (44.2), Italy (43.1), Austria and Greece (41.7) are the highest in the EU (Demography Report 2010).

As a contrast, the ageing index showing the rate of the youngest and the oldest generations is already more unfavourable as compared to the EU average (111.3 per cent) due to the extremely low fertility in Hungary. We were in group last but one as regards the most unfavourable rates among age groups in the EU. The Hungarian figure (112.6 per cent) was, at the same time, similar to that of several countries in the region. It was, in fact, identical with that of Croatia, Serbia, and the Ukraine, and did not differ much from that of Austria, either. In the East Central European region the Slovak (80%) and the Polish value (89.3%) lagged much behind the former ones. All this reinforces what can be inferred from the map, namely that countries on highly different economic levels can produce very similar age composition, which goes back to various demographic processes (Fig. 4).

Fig 4. ***The ageing index in Europe, 2010***

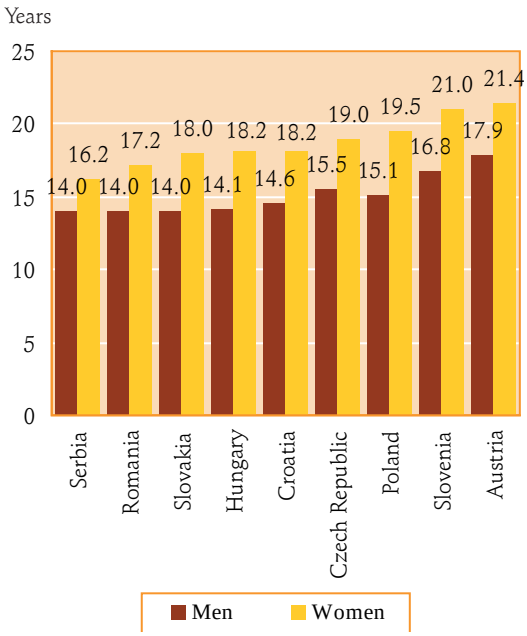


Source: Eurostat, authors' calculations.

The other source of the indicators of ageing is the life table. The most generally used index is life expectancy at different ages, in our case for those aged 65. The international comparison supports the fact that old age mortality in Hungary falls behind the Austrian and Slovenian figures (these countries following the West European pattern) and lags also behind the two other Visegrád states (the Czech Republic and Poland) (Fig. 5). Hungarian life expectancy at old ages differs from Austria less than life expectancy at birth, which goes back basically, though not exclusively, to the highly unfavourable mortality of the middle-aged population.Life expectancy at old ages increased in Hungary for both sexes in the past twenty years. The shocking events during the transition period did not affect them and the mprovement proved to be steady. The pace of the change was, however, not unprecendented. In the same period, the majority of the West European countries and even some of the former socialist ones (the Czech Republic and Poland) witnessed a still more dynamic improvement. Although the probability of surviving improved for both sexes, Hungary did not really close up as regards life expectancy at old ages. In the case of women, between 1990 and 2010, the growth of life expectancy at 65 was slightly higher in Hungary (2.4 years) than in the case of men (1.8 years).. In the early 1990s, less than six out of ten men lived to be 65,

while in 2010 already over two thirds of them managed to survive (67.8 per cent).

Fig. 5. ***Life expectancy at 65 in Hungary and in some selected countries by sex, 2010****



Note: The data for Romania are from 2009.
Source: Eurostat.

On the basis of the mortality table, the median age at death grew from 68.1 to 72.2 years among men and from 77.6 to 81.5 years among women (Table 2).

THE BOUNDARIES OF OLD AGE

Whereas becoming 18 brings with it new rights and duties for the individual, indicating the beginning of adulthood, the beginning of old age is much more difficult to determine. However, it has to be established that the ageing of the society is obvious no matter which year we choose concerning the demographic ageing of the society. It might influence only the degree of ageing. It will be obviously more marked if we draw the line at 60 than it would be if we drew it at 70 or 75. The proportion of the old will undoubtedly grow, anyway.

In order to determine the starting point of old age we may seek out a time when the state of health starts to deteriorate dramatically or the key events in the second half of the life course, e.g., retirement, becoming a grandparent, etc., that indicate a fundamental change in our social roles. To our knowledge, there is no age that could be objectively determined as such a starting point when health starts to deteriorate for everyone and to the same degree (see later). However, the

Table 2. ***Life expectancy in old age in Hungary***

Categories	Men			Women		
	1990	2000	2010	1990	2000	2010
Life expectancy at age 65 (years)	11.99	12.49	13.81	15.26	16.17	17.62
Persons living up to 65 (percent)	57.30	60.82	67.81	79.23	81.93	85.12
Median age at death (years)	68.10	69.52	72.24	77.55	78.82	81.45

Source: KSH 1995, KSH 2001, KSH 2011, Authors' calculations.

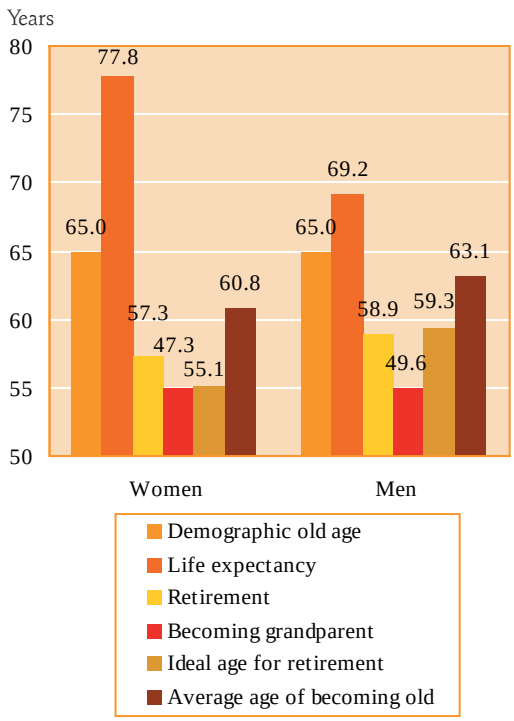
above-mentioned key events generally occur at a much earlier age than 65. According to the retrospective data of the ESS, women became grandmothers in the past decade in their late forties (at 47 on average) and retired at 57 (Cf. Fig. 6). The respective age for men was 50 for grandparenthood and 59 for retirement. (Fig. 6 shows as a reference the age 65 used in demographic calculations and life expectancy which can denote the end of old age.)

Referring to the persons involved for clues can be the solution as the sense of being old should develop parallel with the above-mentioned key events of one's life. The changes in our social status and state of health make us realize that we are old and, conversely, our sense of old age influences our activities, affecting, in turn, the individual ageing process. In the followings, we are going to examine two such boundaries of old age putting the following questions: a) at what age does the Hungarian population think old age begins, and b) what generation do the respondents consider themselves to belong to (middle-aged or old). (See text in frame.)

In 2006 public opinion held that on average the beginning of old age for women was 60.8 years and for men 63.1 years (Fig. 6). Both ages are higher than the average age at retirement or at becoming a grandparent and is near the 65 years used in demographic analyses as the beginning of old age. The chart shows also the age considered by the public as ideal for retirement which is 4 to 5 years less than the average age considered as the beginning of old age.

To sum up, there are no objective criteria of old age but conventions, the institutional system (the pension scheme), the labour market, the general well-being of the society (life expectancy), and cultural traditions all influence our ideas about when old age begins.

Fig. 6. ***The boundaries of old age among men and women by various criteria, Hungary***



Source: authors' calculations, vital statistics, ESS for 2006 and 2008.

STATE OF HEALTH OF THE ELDERLY

It is a commonplace that our health status deteriorates with age, the number of chronic illnesses grows, we visit our doctors more often, and take ever more kinds of medicine.

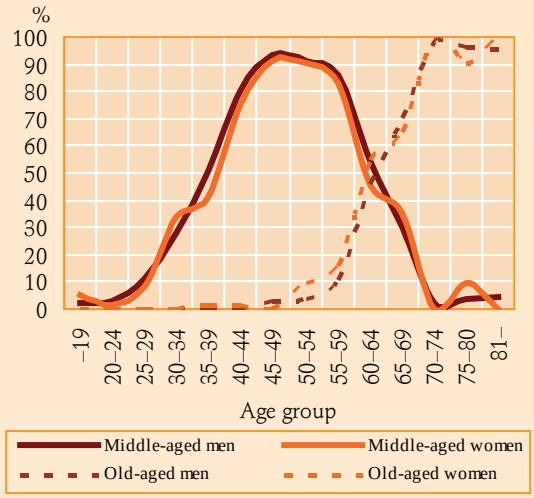
DO PERSONS AGED 60 CONSIDER THEMSELVES OLD?

In the course of preparing the European Social Survey for 2008, a novel method was applied in establishing to what age group or generation the respondents considered themselves to belong, which made an alternative analysis of subjective ageing possible. Instead of age groups, the respondents were supposed to find a box for themselves out of nine boxes standing side by side and grouped in threes with labels 'young', 'middle-aged', and 'old'. Comparing the choices with the actual age of the persons involved, one can establish how unified the self-consciousness of the individual generations is.

This type of examination based on the sense of belonging to a particular age group leads us to the conclusion that ageing is a process that is realized by the individuals at different points in their lives, depending on their self-estimation and sense of identity. For example, half of those in the age group 60–64 considered themselves middle-aged, while the other half considered themselves old (Fig D1). What is more, over half of those in the age group 65–69 similarly take themselves to be middle-aged and it is only in the category 70+ that people uniformly see themselves as old (Fig. D1). It can be established that the sense of being old develops according to the above mentioned categories of old age. (The age group 65–69 is the first where the majority of the respondents consider themselves old and the phenomenon becomes general only in that of persons aged 70+.) It is worth noting that at the average retirement age the majority of the respondents consider themselves middle-aged.

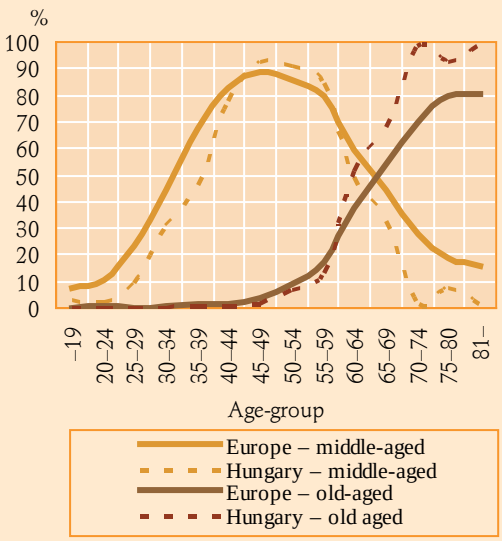
The sense of old age in the Hungarian population differs from the European average. Although both in Europe and in Hungary it is the persons at their late fifties who start to see themselves old, in Europe the process ends at a later date or does not end at all and a quarter of those aged 70–74 still consider themselves middle-aged (Fig. D2).

Fig. D1. ***Self-estimation of various age groups (to what extent they consider themselves old or middle-aged)[a] by sex, in Hungary***



Source: authors' calculations, ESS 2008.

Fig. D2. ***Self-estimation of various age groups (to what extent they consider themselves old or middle-aged) in Europe (weighted by population size) and in Hungary***



Source: authors' calculations, ESS 2008.

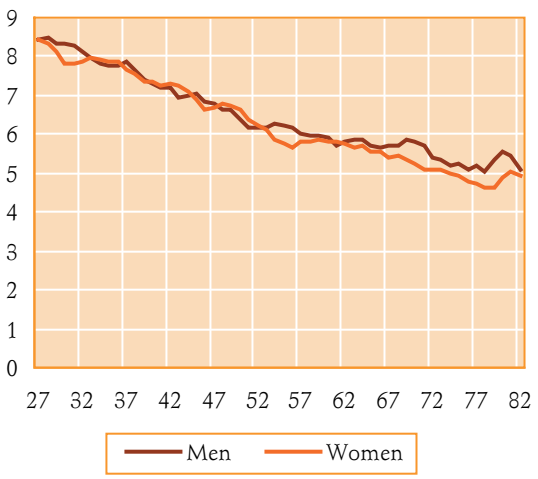
a) Respondents had a choice of 9 sub-categories under the labels 'young', 'middle-aged', and 'old'.

Fig. 7 shows this gradual process by age as perceived by the people themselves (subjective health status). They were supposed to rate their satisfaction with their health on an 11-grade scale. Although we are aware of the shortcomings of this type of rating, several analyses prove a strong correlation of individual perceptions and the persons' state of health diagnosed by doctors. In reality, at a given time, a person has or has not a certain illness, therefore it seems we witness no gradual but binary status change (sick or not). However we all know that the human body wears off gradually, and the signs of different diseases occur more and more frequently. Concerning sex differences, we cannot identify significant differences in subjective health status by age.

Another variable measuring health status and the quality of life is the rate of „persons hindered in their everyday activities by an illness", the changes of which show a similar picture as the rate of the hindered persons is steadily growing. This variable points out the changing rhythm of the growth of problems by age and by gender (Fig. 8). Although the rate of persons suffering from such hindrances is high already among those in their early 60s (about 40 per cent), a serious deterioration can be seen in this respect after a person turns 70. Hardly over one third of very old people is not hindered in their everyday activities.

So it seems that in Hungary today, a considerable decay in the people's quality of life can be observed after they had turned 70. The lower rate of men among those suffering from hindrances in their lives may be due to their higher mortality as a factor of selection.

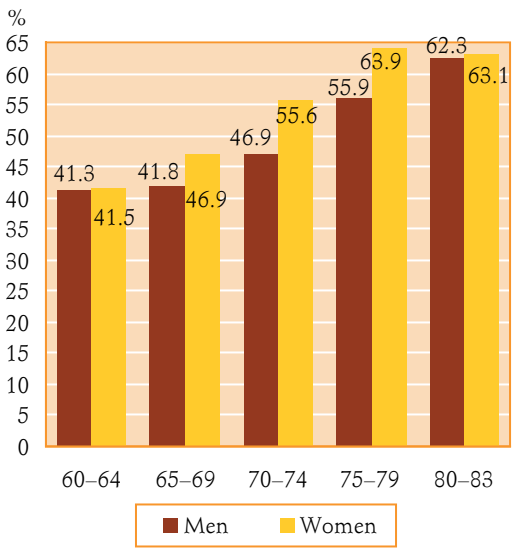
Fig. 7. ***Degree of being satisfied* with health (subjective health status) by age and sex, 2008***



* Average of answers given on a scale of 11 (0 = totally dissatisfied, 10 = fully satisfied), based on three-year moving averages.

Source: author's calculations, Turning Points of the Life Course (demographic survey of the Demographic Research Institute, HCSO), 3rd wave, 2008.

Fig. 8. ***Persons hindered in their everyday activities by health problems, illnesses, disabilities by age groups and sex, 2008***



Source: author's calculations, Turning Points of the Life Course (demographic survey of the Demographic Research Institute, HCSO), 3rd wave, 2008.

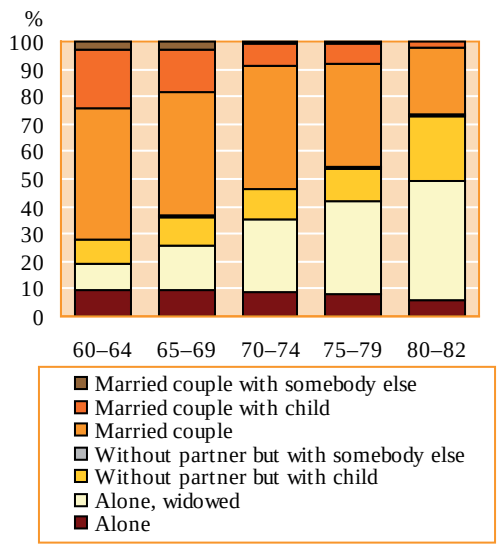
CHANGES IN THE STRUCTURE OF FAMILIES, FAMILY RELATIONS

Although the most intensive changes take place in family relations in early adulthood (finding a partner, having children, etc.), old age is similarly exposed to several changes in the family. These transitions in old age have a unique quality in that whereas changes in young age are mostly voluntary or intentional, those in old age are more or less independent of the person's will. What is more, the perspectives of young and old as to the past and the future are also different.

Family structure in old age is determined by three major social processes: a) children's leaving home, b) old people becoming widowed, and c) lone old aged people moving in together with their children again. The fourth role, that of a grandparent, can generally be interpreted today as part of a wider family structure. Children leave home usually when parents are middle-aged but the process can stretch into early old age. Whereas over half of the persons aged 45–49 (55 per cent) lives with their spouse and children, this rate is only one third (33.5 per cent) in the next age group (cf. Fig. 9). As a result of these changes, households consisting only of the original couple come about ('empty nests'). Just as the postponement of having children increases the rate of young couples living by themselves, increasing life expectancy similarly leads to a longer period of old-age partnership. According to data from 2008, over one third (36 per cent) of persons aged 65–69 and hardly less than one quarter (22.9) of those in the age group 75–79 live together with their partners. Due to the relatively unfavourable Hungarian level of mortality, many people become widowed already in their sixties (Fig. 9). A quarter (24.1 per cent) of the people aged 65–69, and half of the age group 75–79 (45 per cent) are widowed and live alone. Although the rate of those getting divorced after twenty years is growing (Cf. Chapter 2: Divorce), the primary cause of being alone in old age is the partner's death. It is a slowly spreading phenomenon in late old age that parents move in together with one of their children. Whereas hardly over one tenth (10.4 per cent) of old people in their late seventies live together with their children, this rate for those around the turn of their eighties is already one fifth (20.9 per cent).

As a result of the lower life expectancy of men, the one-person households coming about after the death of the partner mostly consist of women, and it is usually women who live together with their children once again in late old age (24.6 per cent). Very old men live the most frequently in couple-type households. (57.5 per cent of those aged 70–74). (Data by sex is not shown.)

Fig. 9. ***Distribution of old age groups by types of household, 2008***



Source: authors' calculations, Turning Points of the Life Course (demographic survey, Demographic Research Institute, HCSO), 3rd wave, 2008.

Table 3. ***Some features of first partnerships among persons above 60, 2008–2009***

What happened with the first marriage?	Age groups				
	60–64	65–69	70–74	75–79	80–82
Still lives in first marriage	57	52	44	37	21
Divorced	23	21	17	19	13
Widowed	20	27	39	44	60
Total, %	100	100	100	100	100
n=	870	727	574	488	210

Source: authors' calculations, Turning Points of the Life Course (demographic survey, Demographic Research Institute, HCSO), 3rd wave, 2008.

The family structure of old people is naturally formed by the changes in their life courses. It is worth examining how frequently old persons (65+) experienced the key life course events. These are generations in which marriage was still universal. In 2009, 97 per cent of persons above 60 had got married earlier in their lives. Most of them still lived in marriage (57 per cent of those aged 60-64 and 37 per cent of those aged 75–79, cf. Table 3). The majority of first marriages came to an end not as a consequence of divorce but due to the death of one of the partners.

Since in these cohorts the age at first marriage among women was around 20, those who are now in their late sixties or early seventies have been living with their spouses for 40 to 50 years on average, which is a stretch of time spanning nearly two generations. Those who got divorced, left their partners after 13 years on average.

It is a generally held view that the degree of being satisfied with marriage (i.e., happiness) fluctuates over the time spent in partnership. Only longitudinal panel surveys make a really deep analysis of this problem possible. As there is no such survey for old people, we can examine only whether old people are more statisfied with their partnerships than younger ones. Our data reveal that the degree of satisfaction with the partnership does not decrease with old age. (However, the fact that the average is 8.5 or 9 on a scale of 10 and the rate of divorces are high indicates that when answering this question the respondents living in partnership tended to say what they thought was expected of them.)

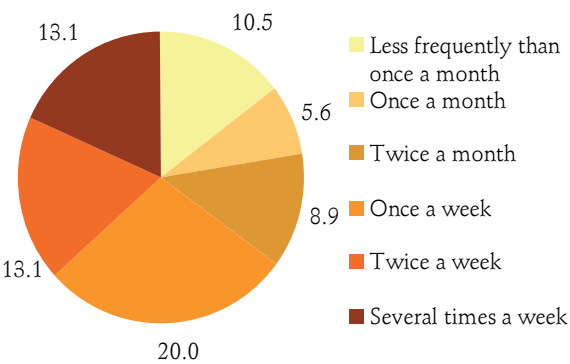
In the course of surveying the family relations of the elderly, it is worth while paying attention not only to couples living together or with children but also to children living apart and their relationship with their parents since the majority of children do not live with their old parents. Viewing things from the aspect of the elderly, the survey *Turning Points of the Life Course* for 2008 reveals that almost nine tenths of the persons above 60 involved (91.6 per cent) had children, and 85.2 per cent had children who lived apart. The majority (68.1 per cent) lived apart from all their children, and 17.1 per cent had children who lived with them and others who lived apart. A minority (6.4 per cent) had only such children who lived together with them.

Although the relationship of parents and children can be assessed from several aspects, the *Turning Points of the Life Course* 'measured' two aspects systematically, namely, the frequency of meetings in person and satisfaction with the relationship with the child (on a scale of 11). The latter can

not be analyzed in detail as the values were invariably near the maximum (9.1 in average) meaning that all respondents above 60 valued their relationship with their children as being almost excellent and marked one of the upper higher figures (8, 9, or 10) on the scale. A real difference could be seen only by sex, men being less satisfied with their children living apart than women. The other variant (the frequency of meetings in person) gives more information about the relationship of children and their elderly parents.

One third of parents (29 per cent) meets their children daily, a quarter of them (26.1) at least once a week. One tenth meet them very rarely (less frequently than once a month). This means that over half of parents living apart from their children are in daily personal contact with at least one child and only 15 per cent meet their children very rarely (once a month or even less frequently than that). Personal contacts are basically determined by distance, consequently the fact that half of the children live in the same settlement as their parents make frequent contacts possible.

Fig. 10. ***Contacts of parents and children living apart (frequency of meetings, per cent)***



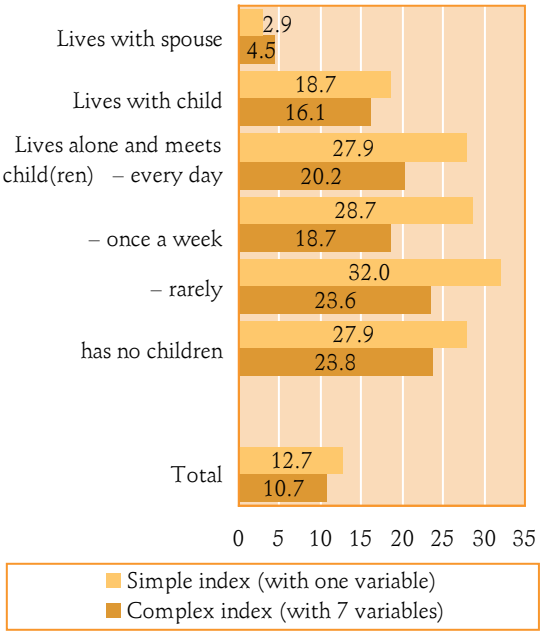
Source: authors' calculations, Turning Points of the Life Course (demographic survey, Demographic Research Institute, HCSO), 3rd wave, 2008.

Family relations, contacts with the immediate and wider family undoubtedly play a key role in the well-being, mental and physical health, and self-esteem of the older generations. The role of family relations can be measured by comparing them with simple and complex indicators of loneliness. In the *Turning Points of the Life Course*, we measured various aspects and manifestations of loneliness by answers to seven statements. Just one of them ("last week I felt lonely") is enough to characterize the situation of the respondents but the complex state of loneliness can be introduced in a still more tinged way by the index containing the answers to all the seven questions.[1]

Hardly more than one tenth of persons above 65 felt often or always lonely and on the basis of the complex index a similar portion of the population (10.7 per cent) can be considered lonely. No matter which indicator is used, the number of lonely persons rises with age, as expected. Nearly twice as many people are lonely among those aged 80–82 than among those aged 60–64. It is certainly not age in itself but the changing family relations that contribute to loneliness among the elderly. As long as they live in marriage or partnership, only an insignificant portion (3 to 5 per cent) considered themselves lonely. It is not surprising that lonely people live mostly alone. But to what extent is living together with children (moving in once again) or daily contacts with children able to fill the void that comes about when a person loses his/her partner? In short, to a very small extent. Although there is difference between the loneliness of those who live with their children and who have very rare personal contacts with them, this difference is smaller than expected.

[1] *The seven elements of the complex indicator are the following: You felt a) that no one could cheer you up; b) depressed; c) that your life was a failure; d) frightened; e) lonely; f) sad; g) like crying/actually cried.*

Fig. 11. ***Loneliness of people aged 65+ living in different family relations, based on the simple and the complex index of loneliness, 2008***



Source: authors' calculations, Turning Points of the Life Course (demographic survey, Demographic Research Institute, HCSO), 3rd wave, 2008.

It becomes obvious from the chart that persons living with their children are less lonely than those who live apart from them but there are no considerable differences among them by the frequency of their contacts with their children. However, further points of view need to be included but it can be safely established that loneliness following from losing one's partner can be counterbalanced only partly by closeness with the children.

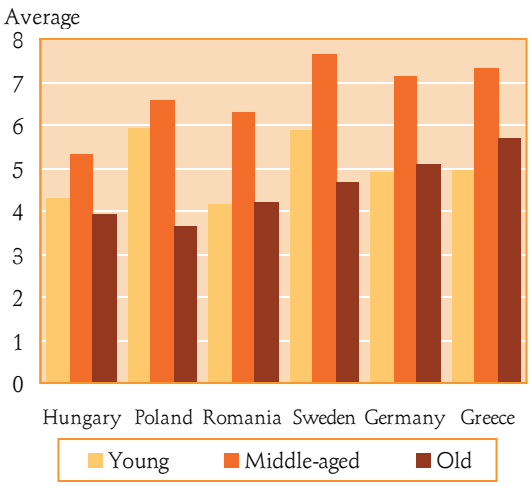
THE IMAGE AND RELATIVE SITUATION OF OLD PEOPLE IN THE SOCIETY

The image we form in our minds about the various social categories, with the old people among them, becomes part of our daily actions, approaches, decisions and by this, it actively contributes to the changes in the situation of a given social group. According to earlier studies, the views of the society about old people has improved to a certain degree (cf. Demographic Portrait, 2009). This time let us focus on the approach to the elderly in international comparison. The ESS survey of 2008 put the question where the respondents would put people in their seventies on a scale of 11. The answers give an overview both of the objective situation of old people (e.g., their financial situation) and their social recognition (their prestige). To make it simple, we focused on six selected countries relevant for a comparison with Hungary and ranked the countries according to the social recognition of the elderly (people in their seventies) (cf. Fig. 12). The social status of old people seems to be the best in Southern Europe (Greece) and in Western Europe (Germany), whereas it is the worst in the former socialist countries with Hungarian people aged 70 among them. However, in order to understand the social prestige of the elderly within the society it is important to take into consideration that of the young (those in their twenties) and the middle-aged (those in their forties), too. We have to compare the societal evaluation of the elderly with that of the young and the middle-aged generations.

In Hungary, the social recognition of old people is low in European comparison (the third lowest among the 25 countries). Furthermore, Hungary is among the countries where the status of the old is considered the be lower than that of the young. This is characteristic of the former socialist countries but the relative recognition of young and old is similar in the Scandinavian countries, too. At the same time, it cannot be left out of consideration that the respondents of the survey held the social status of all age groups low, which means that the disadvantage of the old as compared to the middle-aged is among the smallest in Hungary in European

comparison. So while the status of the old is regarded as bad as compared to other age groups, their relative disadvantage is among the smallest in Europe.

Fig. 12. ***Views on the social status of persons aged 20, 40, and 70 in six European countries, 2008***



Source: authors' calculations, ESS data survey, 2008.

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8.

PENSION SYSTEM AND RETIREMENT

Judit Monostori

MAJOR FINDINGS

- At the beginning of 2011 the number of those receiving pension or some pension-type benefit was 2,921,000.
- The largest group of pensioners consists of those above retirement age receiving old-age pension. They numbered 1,462,000 in 2011. Old-age pensioners below legal retirement age totalled 238,000.
- The second largest group of pensioners consists of those receiving disability pension, numbering 722,000. 47 per cent of those belonging to this category had not reached the retirement age relating to them yet.
- With view to the tendencies of the past twenty years it can be established that the number of pensioners was steadily growing between 1990 and 1999, slowly decreasing and stagnating between 1999 and 2008, and drastically decreasing after 2008.
- In 2010 state expenditure on pensions in Hungary amounted to nearly 11 per cent of the GDP (3,043.8 billion forints).
- The average pension was 86,000 forints, which was 65 per cent of the average net income for that year. This rate can be considered high in European comparison.
- The highest sums fell in the category of old-age and old-age type pensions. In January, 2011, the average amount of old-age pension for those above retirement age was 97,000 forints, and for those below retirement age 115,000.
- The average of disability pensions below retirement age was 70,000, while for those above retirement age it was 85,000 in early 2011. Average survivors' benefits and pension-type annuities were much less than that.
- Disparities between incomes among pensioners are less marked than the national average. The inequalities follow partly from the fact that the various provisions are regulated and limited by law, and partly from the careers of the individuals on the labour market prior to retirement.
- The rate of those living in existential (or income) poverty is lower among the pensioners than the national average. In 2010, the rate of persons among them who lived below the poverty line was 4 per cent.
- According to a survey in 2008, 3 per cent of the pensioners said that they lived in privation, 13 per cent had financial difficulties each month, 53 per cent had just enough money to make both ends meet, 28 per cent lived on a level they considered acceptable, and 3 per cent received enough to make a good living.
- Besides the current legal regulations, the timing of retirement is influenced by several other factors like coercion on

the part of employers, the employees' fear of unemployment, favourable or unfavourable situations following from changing legal regulations, or family duties. The last two factors, namely the prospects of more free time for the family and of more favourable legal conditions play the most decisive part in determining the date of retirement.

INTRODUCTION

In Hungary, just like in the majority of the European countries, one of the most severe problems in the past decades was the sustainability of the pension system. The ageing of the society, i.e., the ever growing rate of the old population characteristic of the majority of the EU states, as well as the low level of employment especially inflicting Hungary lay a huge burden on the overall system of provisions, with the pension system among them.

In early 2011, 2,921,000 persons received pension, annuity or regular pension-type benefits in Hungary. This amounts to nearly 30 per cent of the population. The majority, nearly three quarters of them, received old-age pension or old-age type pension but even they were not necessarily above retirement age. The number of old-age pensioners below retirement age was 238,000 in early 2011 (ONYF 2012).

The number of those receiving pension or pension-type benefit is determined not only by the changing number of the relevant age group and the conditions in the labour market but also by the legal background regulating pensionability and by the attitude of the population as to the timing of retirement. At the same time, the state of health of the persons involved greatly determine their possibility of staying in the labour market. The deterioration of health is one of the major reasons for a person's entering the pension system. These factors will be dealt with in more detail in the chapter on the pension scheme and retirement.

NUMBER OF PENSIONERS

As compared to the data for the year of the change of regimes, the number of retired persons increased considerably in the past twenty years. Whereas in 1990 2,520,000 persons received some kind of pension, in early 2011 their number was already 2,921,000.

The dynamic growth of the decade following the change of regimes reached its peak in 1999 with 3,184,000 persons in the pension system. Between 1999 and 2008 a slow decrease followed, then came stagnation, and in the past 3 years a considerable decrease can be observed (Fig. 1).

The dynamic growth in the period 1990 to 1999 was basically due to the changing conditions in the labour market. The economic crisis following the change of regimes brought with it for many people the loss of their jobs for a certain period or even finally. The ensuing uncertainty was especially painful for the older generations a considerable portion of which turned towards retirement. This process was facilitated by the introduction of several new types of pension like pre-pension and early retirement. These forms making the leaving of the labour market easier stopped to exist in the late 1990 and the possibilities of retirement narrowed down substantially.

The dynamic increase in the number of pensioners stopped short towards the end

of the 1990s not only because of this fact but also because in 1998 the retirement age started to increase. The first phase of the process took place in 1999–2009, and a separate retirement age was determined for each male and female birth cohort. During this period of ten years, the retirement age for women rose from 55 to 62 years and for men from 60 to 62. Subsequently, retirement age was equally high for both sexes and was rising further. However, the effects of this measure cannot be felt as yet, since it is the generation born in 1952 who will be the first to retire later than 62 years of age. But these people will reach the retirement age determined for them only in 2014 and 2015. If the present scheme prevails, retirement age will rise to 65 years. The generation born in 1957 will be the first who will be able to receive full old-age pension only at the age of 65, in case they fulfil all the requirements.

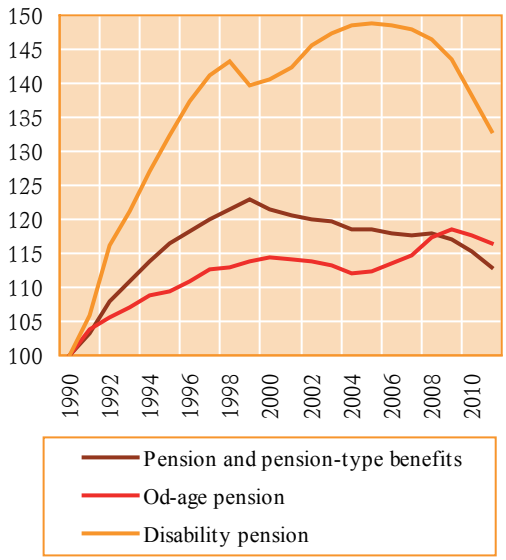
Besides the raising of retirement age, other factors similarly influence the number of old-age pensioners. The economic recession in the second half of the 2000s and the expected aggravation of the conditions of pre-pension increased the people's intention to retire. In these years a great number of people retired before the retirement age valid for them.

Persons receiving disability pension represent a large group of pensioners. Their number had been growing almost steadily since the change of regimes and by the mid-2000s it was one and a half times as high as in 1990 (Fig. 1), around 800,000.

The provision system for disabled persons was considerably transformed in the years following 2008. From that time on, only those could receive disability pension who were disabled to at least 50 per cent and could not be rehabilitated. The sums pensioners were entitled to when working parallel with receiving pension were lowered, too, which greatly decreased the number of those entering the system. At the same time, the number of persons receiving disability pension similarly diminished to a large extent (Fig. 1).

Fig. 1. ***Changes in the number of persons receiving pension and pension-type benefits, 1990–2011***

In percentage of the 1990 data



Source: ONYF Statisztikai Évkönyvek (Statistical Yearbooks of the Central Administration for National Pension Insurance).

The sustainability of the pension scheme is influenced not only by the changes in the number of pensioners but also by the number of persons still active in the labour market as it is they who make the money to cover pension expenditures. This is how the pay as you go pension system works. The number of pensioners per 100 employed persons took an unfavourable turn in the past decade. In 1990 52 pensioners fell to 100 active people, while in 2001 as well as in 2010 their number was already 79 (Table 1).

Table 1. ***Number of employed and retired persons, 1990–2011 (thousands)***

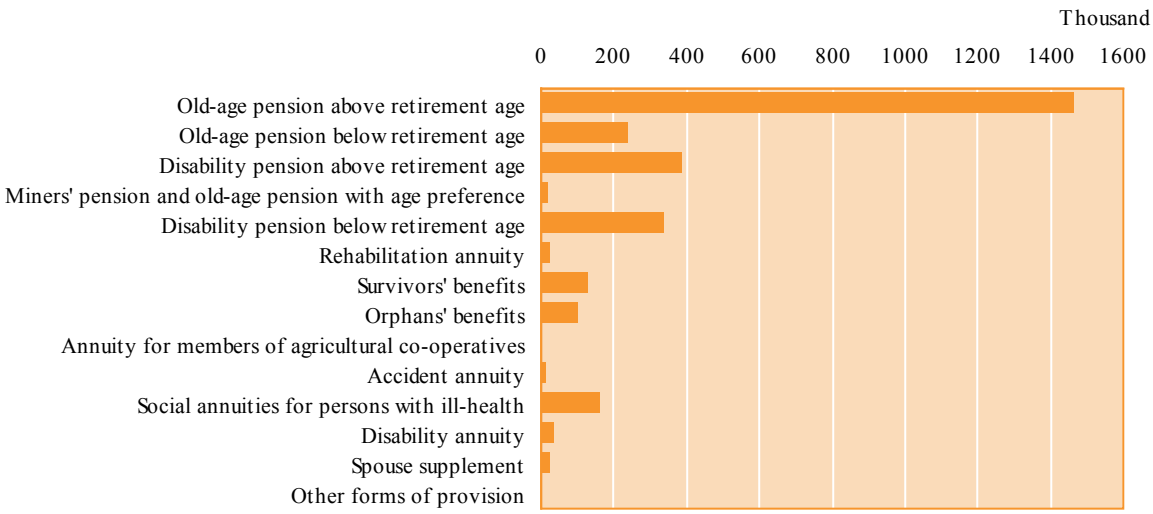
Year	Number of the employed	Number of persons receiving pension and pension-type benefits	Number of persons receiving old-age pension	Number of persons receiving disability pension	Per 100 active persons		
					pensioners	old-age pensioners	disability pensioners
1990	4880.0	2520.2	1461.7	542.8	52	30	11
2001	3883.3	3084.0	1667.9	772.3	79	43	20
2010	3781.2	2980.3	1719.0	750.3	79	45	20

Source: KSH and ONYF Statistical Yearbooks.

COMPOSITION OF THE RETIRED BY TYPE OF PROVISION

The most numerous group of people receiving pension or pension-type benefits consists of those above retirement age receiving old-age pension. In early 2011, they numbered 1,462,000. Next in numbers are old-age pensioners below retirement age and persons receiving disability pension (Fig.2). 47 per cent of the latter are still below retirement age (338,000 persons), while the rest are above the legal age but entered the system already in their younger years.

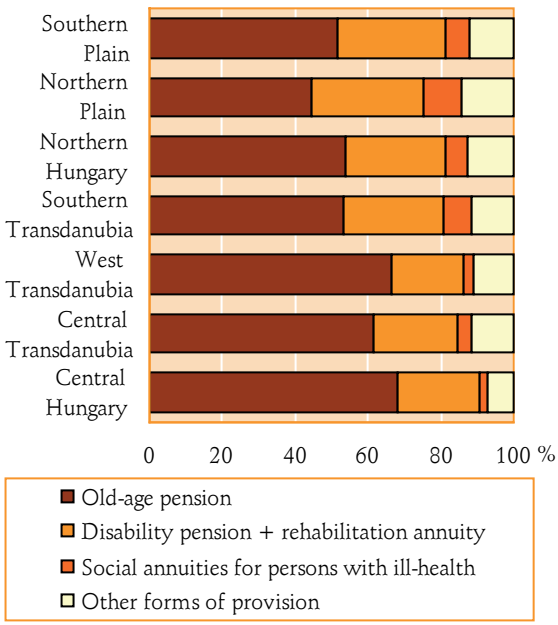
Fig, 2. ***Number of persons receiving pension or pension-type benefits, January, 2011***



Source: ONYF Statistical Yearbook, 2012.

The distribution of pensioners by the type of the benefits shows territorial differences. The rate of those receiving disability pension or one of the social annuities for persons with ill health is higher in the less developed regions of the country (Fig. 3).

Fig. 3. ***Regional distribution of persons receiving pension or pension-type benefits by form of benefit***



Source: ONYF Statistical Yearbook, 2012.

PENSION EXPENDITURES AND THE AMOUNT OF PENSIONS

In 2010, Hungarian state expenditure on pensions amounted to 3,043.8 billion forints, which is about 11 per cent of the GDP. The average provision per person was 86,000 forints, i.e., 65 per cent of the average net income for that year. (The relationship of incomes and pensions is internationally measured among others by the so-called aggregate replacement ratio, see text in frame.)

The average amounts of the various forms of provision differed to a great extent. Old-age pension and old-age type pension were the highest. The average amount of old-age pension for persons above retirement age in January, 2011 was 97,000 forints, while for those

AGGREGATE REPLACEMENT RATIO IN THE EU MEMBER STATES, 2010

The development of the sociopolitical targets of the European Union with regard to a sustainable pension system is documented by indicators based on a uniform methodology. One of these indicators is the aggregate replacement ratio which is the ratio of the median pension of the age group 65–74 and the median income of the employed population aged 50–59.

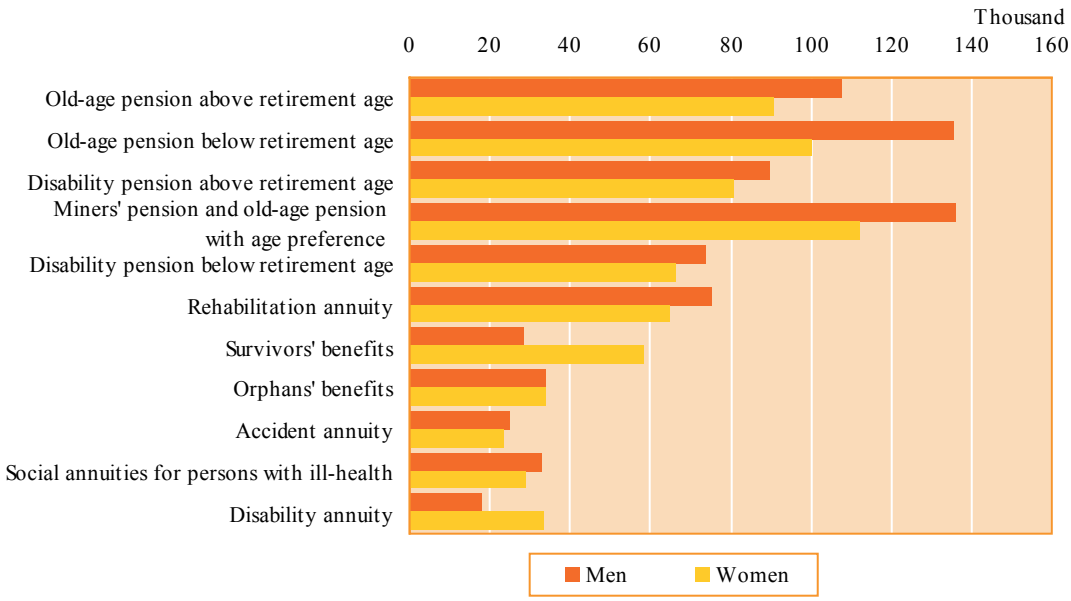
	Total	Men	Women
EU (27 countries)	0.53	0.56	0.52
EU (15 countries)	0.53	0.55	0.51
Belgium	0.46	0.46	0.47
Bulgaria	0.43	0.51	0.40
Czech Republic	0.54	0.52	0.55
Denmark	0.44	0.42	0.46
Germany	0.49	0.49	0.52
Estonia	0.55	0.47	0.60
Ireland	0.47	0.46	0.54
Greece	0.42	0.48	0.44
Spain	0.53	0.61	0.47
France	0.67	0.71	0.61
Italy	0.53	0.58	0.44
Cyprus	0.35	0.39	0.37
Latvia	0.46	0.45	0.50
Lithuania	0.60	0.62	0.59
Luxembourg	0.68	0.65	0.74
Hungary	0.60	0.61	0.60
Malta	0.46	0.45	0.45
The Netherlands	0.47	0.53	0.49
Austria	0.64	0.68	0.59
Poland	0.57	0.64	0.55
Portugal	0.53	0.57	0.55
Romania	0.65	0.68	0.58
Slovenia	0.45	0.51	0.42
Slovakia	0.61	0.59	0.59
Finland	0.50	0.51	0.49
Sweden	0.60	0.65	0.56
United Kingdom	0.48	0.47	0.47

Source: EUROSTAT, http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsdde310&plugin=1

below retirement age it was 115,000 forints. The average of disability pensions was lower than that. For those above retirement age it was 70,000 forints, and for those below it was 85,000. Survivors' pensions and benefits were still lower.

The comparison of pensions for men and women shows that the average pension of women is merely 84 per cent of that of men. The difference is the greatest in the category of old-age pensions mostly due to the fact that women generally spend a shorter period at work and their average income is also lower (Fig. 4).

Fig. 4. ***The average amount of selected important forms of retirement benefits, January, 2011***

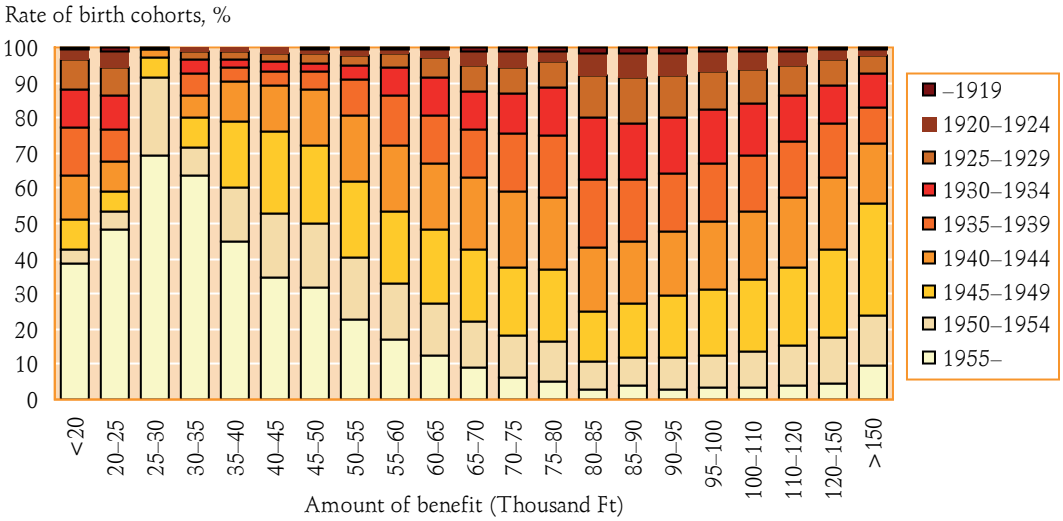


Source: ONYF Statistical Yearbook, 2012.

There are considerable disparities within the pension system not only by sex but also by birth cohorts. This fact is explained by the way of calculating most pensions on the basis of a person's incomes at retirement, which are different birth cohort by birth cohort. At the same time, pensions and their disparities are determined also by the relevant legal regulations, influencing the differences within the birth cohorts as well.

The smallest sums are given to the youngest cohorts among the newly retired. This is due also to the fact that a considerable portion of the younger generations become pensioners as persons receiving disability pension, orphans' benefit or annuity, which are the lowest among the provisions. The highest pensions go to those who reached or approached retirement age in the past few years and receive early pension or normal old-age pension at retirement age. This group is the youngest among old-age pensioners (Fig. 5).

Fig. 5. ***Rate of birth cohorts in groups by the amount of benefits, 2011***



Source: ONYF Statistical Yearbook, 2012.

FINANCIAL CIRCUMSTANCES AND LIVING CONDITIONS OF PENSIONERS

Besides the sustainability of the pension system, the acceptable living standard of the retired population is also an important target in social policy.

The income poverty rate of Hungarian pensioners is lower than the one calculated for the total population. All in all, the relative income of pensioners in Hungary is higher than the EU average.

According to calculations for 2010, only 4 per cent of Hungarian pensioners aged 18+ live in existential poverty. As a contrast, the average of the 27 EU states for that year was 13.8 per cent (EUROSTAT, Pension indicators).

One of the reasons of this favourable situation is that in relation to the wages, the pension of old-age pensioners consituting the largest group among all pensioners in the country can be considered high in European comparison. The other reason is that the level of employment is very low, and large masses of persons in their active years are unemployed or economically inactive. The better relative conditions of income among the retired is due to the low income of these groups of society.

It should also be taken into account that income statistics can usually grasp the income of the pensioners more precisely than that of younger age groups with several sources of income. This latter figure is, therefore, underestimated. As a result, statistics show the relative income of pensioners as more favourable than it actually is.

From the point of view of livelihood, it is important to examine how the persons involved are able to live within their income, what they can afford and what not. Viewing things from this angle, the picture is less favourable than that offered by statistics. The maintenance costs of housing and the expenditure on

medicine constitute a serious burden for most pensioners.

According to the relevant research results, in 2008 3 per cent of the pensioners said that they were living in privation, and 13 per cent had financial problems month by month.

The persons working actively besides receiving old-age pension are in the most favourable position. This group made up 7 per cent of all pensioners. 13 per cent of them declared that they had no financial problems at all, and 47 per cent considered their conditions acceptable. A much smaller proportion of those not working in parallel to drawing a pension felt their income satisfactory and said they had no financial problems. Only one third of this group chose one of these two categories. More than half of the inactive pensioners said they were just about coping, and one out of ten had financial problems every month (Table 2).

The living standard of persons receiving disability pension, with special respect to those not working parallelly, is much lower than that of old-age pensioners. 7 per cent of the inactive disability pensioners lives in privation, and nearly one quarter of them have bread-and-butter worries each months (Table 2).

Table 2. ***How far can various social groups live within their income***

(%)

Economic activity	Live in privation	Financial problems each month	Economizing but still can cope	Live on an acceptable level	Live free from care	Total
Work	2.7	12.3	48.0	33.3	3.6	100.0
Work plus old-age pension	0.4	3.6	36.1	46.8	13.2	100.0
Work plus disability pension	3.4	10.2	54.4	30.6	1.4	100.0
Old-age pension	2.3	10.1	54.5	30.0	3.0	100.0
Disability pension	6.8	23.7	53.5	15.2	0.7	100.0
Other inactive persons	11.9	27.2	41.9	17.1	1.9	100.0
Total	4.0	14.2	49.4	29.2	3.2	100.0

Source: Turning Points of the Life Course, demographic datasurvey, Demographic Research Institute, HCSO, 3rd wave, 2008. Author's calculations.

FACTORS INFLUENCING RETIREMENT

The timing of retirement is influenced by several factors. For most people it depends on the retirement age as old-age pension is available at that date or one or two years earlier. At the same time, the term of office is also an important factor as it determines the type and amount of pension. The term of office is determined, in return, by the state of the labour market, i.e., by the chances of a person to stay employed. The timing of retirement is influenced also by the possibilities of working parallel with receiving pension and also by the state of health of the individual. Those whose health has deteriorated to a degree that they must give up their jobs similarly decide for retirement. These people will receive

disability pension or the social annuity for persons with ill health. Certain types of pension are given to those who have lost their spouse or a parent. Such are the widows' pension and the orphans' allowance.

Entering the pension system can thus be the result of the pressure of circumstances and of personal choices.

Table 3. ***Factors influencing retirement among old-age pensioners retiring between 2000 and 2008***

(%)

Factors influencing retirement	Unin-fluenced	Slightly influenced by these factors	Greatly influenced
Workplace/superiors decided for their retirement and they accepted it	77.0	6.8	16.2
Were afraid of being fired and becoming unemployed if they pospone retirement	86.0	5.8	8.2
Felt unable to keep up with the growing demands, requirements and constraints of their jobs	88.3	6.0	5.7
It became possible to go on working in their old jobs after retirement	75.3	6.9	17.7
Opportunity presented itself for new occupations with more flexible working hours	85.7	6.6	7.7
Heard that the conditions of retirement would turn for the worse in the future	59.2	12.4	28.4
Preferred having more free time to rest	47.5	24.1	28.4
Family expected him/her to devote more time to the household	56.5	19.6	24.0

Source: Turning Points of the Life Course, demographic datasurvey, Demographic Research Institute, HCSO, 3rd wave, 2008. Author's calculations.

In the case of older generations, one of the reasons of retirement can be the employer's decision to this effect. Almost one quarter of the pensioners retired between 2000 and 2008 stopped working due to this factor and 16 per cent decided so with this in mind. The pressure on the part of employers must play a much greater role in retirement than this but some people prefer to think of retirement as their own choice and do not want to admit the fact of outer pressure.

The number of those who retired out of fear from unemployment or the challenges of their profession is relatively small. The former consideration played a part in the case of 14 per cent, while the latter in the case of 12 per cent of all pensioners.

As a concomitant of the raising of the retirement age in the 2000s, age groups just a few years younger than retirement age could apply for pre-pension under certain conditions. A great number of them still went on working in their old jobs. This was highly favourable for them financially as they received both pension and wage or salary without any limitation. 25 per cent of those retiring in those years did so knowing that they could keep their jobs, and 14 per cent retired in the hope of getting a new job elsewhere.

The timing of retirement is governed not only by the existing legal regulations but also by planned ones and the social debates and beliefs about them. In the case of 40 per cent of all those retiring between 2000 and 2008 the timing of retirement was influenced by the belief that the conditions of retirement were going to become less favourable in the

future and it was a key factor in the decision of 28 per cent.

An advantage of being retired is that pensioners have more free time to spend with their families and take care of their grandchildren. 28 per cent of persons receiving old-age pension mentioned that they retired in order to have more free time, and 24 per cent said that their family members needed them to spend more time at home.

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9.

HOUSEHOLD AND FAMILY STRUCTURE

Lívia Murinkó – Erzsébet Földházi

MAJOR FINDINGS

- The major change affecting the structure of households was a considerable increase in the number and rate of one-person households. Between 1990 and 2005, their rate grew from 24 to 29 per cent. In 2005, 1,163,000 households fell into this category, which meant that 12 per cent of the population lived alone. Two thirds of them were women. Every second woman above 70 lives alone and their overwhelming majority is widowed. The largest group among men living alone is unmarried men, followed by divorcees and widowers.
- The rate of couple-type families decreased from 80 per cent in 1990 to 71 per cent in 2005, while the 5 per cent of cohabiting couples gradually tripled during the period. The rate of lone-parent families increased from 15.6 to 16.8 per cent, with families consisting of mother and child growing from 80 to 87 per cent within the category.
- Childlessness is more common in cohabiting than in married unions, and the rate of couples with two children is smaller within the former group. Among families with children, married couples have the greatest number of children. They are followed by cohabiting couples, then come lone mothers with children. The number of children raised by lone fathers is the smallest.
- In the period between 2003 and 2008, 9 per cent of newborn babies arrived into lone-parent families. Until they turned 15, 27 per cent of children experienced living in a lone-parent family, spending an average of 23 months in such a household. 7 per cent of them already lived in a so-called mosaic family that includes a stepparent and possibly also half or stepsiblings. However, in the mid-2000s the majority (73 per cent) of 15-year-olds still lived with their biological parents.

SIZE AND COMPOSITION OF HOUSEHOLDS AND FAMILIES

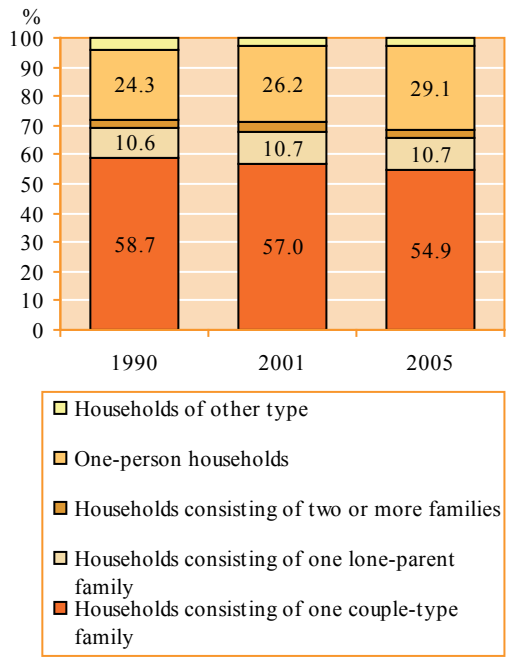
In order to learn about family structure, it is inevitable to study households. A household does not necessarily consist of a single family: more families may live in it, just as there are non-family households, too, for example one-person households.

At the time of the 1990 census, there were 3,889,532 households in Hungary, in 2001 there were 3,862,702, and in 2005 there were 4,001,976. Whereas the number of households grew after the turn of the millennium, the number of family-type households and of the people living in them gradually decreased since 1990, mostly due to population ageing and decreasing fertility. The average size of families consisting of married couples was 3.18 persons in 2001 and only 3.14 four years later. The size of families where the couples lived in consensual union decreased from 2.98 to 2.87 persons in the same period. Although the number of lone-parent families increased, the average number of their members fell. This means that there are fewer children in each household.

As regards the composition of households, the rate of households with a married or cohabiting couple (with or without children) decreased, though they still constitute the majority of households. 68.9 per cent of the population lives in such households. The spreading of cohabitation is indicated by the fact that while in 2001 it represented 6.3 per cent of all households, in 2005 this rate was already 7.8 per cent. This means that in 13.2 per cent of couple-type households consisting of one family the partners lived together without being married.

The rate of households consisting of one lone-parent family stagnated after 1990, and that of one-person households increased. In 2005, 11.8 per cent of the total population lived alone, and 29.1 per cent of all households were one-person households. The decrease in the average size of households is mainly due to the increasing rate of one-person households. One-person and single-family households amount to nearly 95 per cent of all households, which means that households consisting of more families or of persons not forming a family are becoming very rare (Fig. 1).

Fig. 1. ***The changing composition of households***



Source: KSH (2004); KSH (2006).

Population ageing is reflected also in the age structure of households. The rate of households with at least one old person (60+) grew from 37.5 per cent in 1990 to 40.4 per cent in 2005. The number of households consisting of exclusively old persons increased the most, with a five percentage point growth in 15 years. At the same time, the rate of households consisting

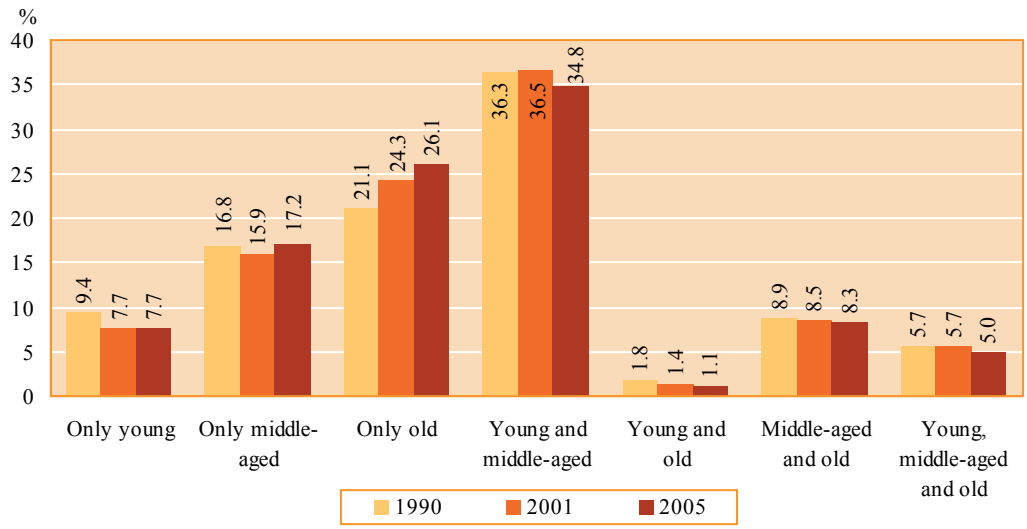
of old, as well as middle-aged or young people decreased from 16 to 14 per cent between 1990 and 2005. As regards the age structure of their members, households with young and middle-aged persons (typically parent/s and their child/ren) constitute the majority, though their rate has decreased slightly since 1990. Different generations tend to live together to an ever smaller degree. The rate of all household types with young people under 30 has decreased, which is an obvious result of fertility decline. It is especially conspicuous that the rate of households with exclusively young people decreased, partly due to the postponement of leaving the parental home and the growing difficulties of obtaining an independent home, and partly due to the postponement of starting a new family (Fig. 2). The two factors are naturally interdependent.

In 2005, 8,212,000 persons (81.4 per cent of the population) constituted 2,849,000 families in Hungary. The number of families decreased steadily between 1990 and 2005, by 48,000 families. The average family size fell from 2.92 to 2.88 persons.

The composition of families underwent a considerable change as well (Fig. 3). Whereas in 1970 90 per cent of all families was couple-type, this rate fell to 83–85 per cent after 1990. Between 1990 and 2005 the rate of cohabitations grew threefold among couple-type families. Although cohabitation is getting more and more accepted and the willingness to get married is decreasing, the overwhelming majority of the population still lives in families consisting of married couples.

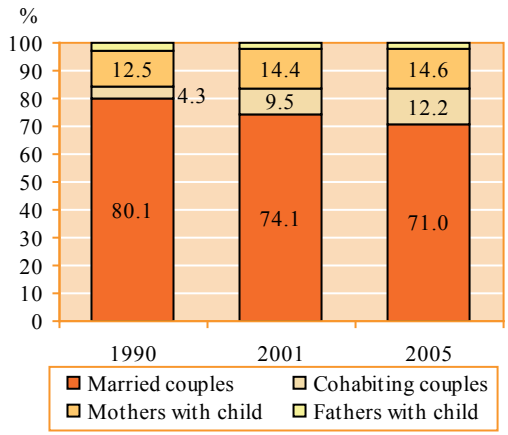
The high number of divorces and the tendency of cohabitations to break up gave rise to a growing rate of lone-parent families (from 15.6 per cent in 1990 to 16.8 per cent in 2005). Households of mothers living with their child/ren were the most common type within the category, with 80 per cent of all lone-parent families in 1990, 88 per cent in 2001, and 87 per cent in 2005. Father and child/ren living together is a rare phenomenon.

Fig. 2. ***Changes in the age structure of households***



Source: KSH (2004); KSH (2006).
Note: Age categories: young: 0–29, middle-aged: 30–59, old: 60+.

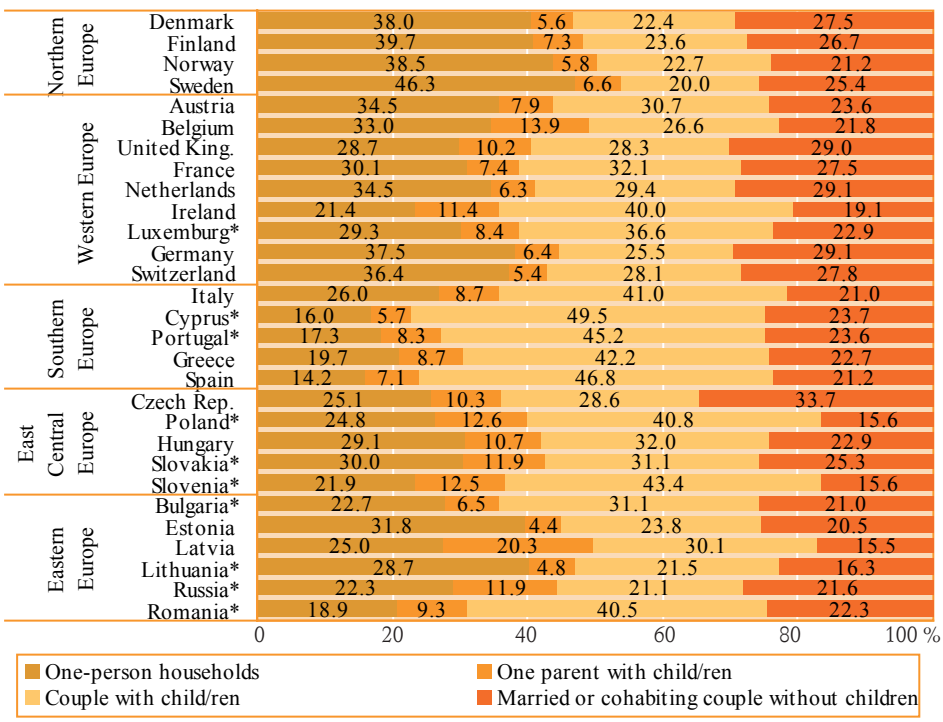
Fig. 3. ***Changes in the composition of one-family households***



Source: KSH (2004); KSH (2006).

The distribution of household types shows remarkable differences within Europe (Fig. 4). Almost in all countries, the majority lives in households of married or cohabiting couples. This rate is the highest is Southern Europe (64–77 per cent) and the lowest in the north (46–56 per cent). On average, parents and children live together in 44 per cent of all households. This rate is lower in the northern countries and higher in the east, and especially in the south. There are children in more than half of the households consisting of married or cohabiting couples. The rate of lone-parent households is the highest in Eastern Europe. 28 per cent of the households consist of only one person. This rate is the highest in Northern Europe in Sweden nearly every second household falls in this category. Western Europe similarly has a high rate of such households, whereas their rate is low in Eastern and especially in Southern Europe. For example, the share of one-person households is merely 14 per cent in Spain.

Fig. 4. ***Distribution of household types in selected countries of Europe, 2005***



Source: UNECE Statistical Database, http://w3.unece.org/pxweb/.
* Data from 2001/2002.

ESTABLISHING THE FIRST INDEPENDENT HOUSEHOLD AND LIVING IN PARTNERSHIP IN THE PARENTAL HOME

The number and relative frequency of households consisting of a nuclear family and one or more other family members (e.g., grandparents) are relatively low and is slightly decreasing. However, such households remain important for many in certain phases of their lives. According to a survey of the Demographic Research Institute in late 2008, the median age of establishing an independent household among persons aged 20 to 40, i.e., the age when every second person has left the parental home, is 25 years. Women usually leave their parents' home 3 years earlier than men due to their earlier family formation. Among men and women aged 20 to 40 who have ever left their parental home and lived with a partner or spouse, every third still lived in their original families when their first partners moved in. This rate seems especially high if we take into consideration that one of the partners has to move away from their parents anyway in order to move in with their partners (Murinkó, 2009).

Cross-sectional results show that in 2008 44 per cent of men aged 20–40 and one third of women of the same age lived with their parents (still or anew). 2 per cent of both sexes lived with their partner's parents. The majority lived, however, in independent households.

Although the majority of men and women aged 20 to 40 living with their parents do not have a coresident partner or spouse, the rate of those living in extended family households and families with three generations is not negligible, either. Every tenth household of married couples includes one or two parents of the wife or the husband as well. It is more frequent among young cohabitating couples to live with the parents of one of them (24 per cent of men and 18 per cent of women aged 20 to 40).

Most young couples living in the parental home consider this state transitory as following from the difficulties of establishing an independent household. About three quarters of couples living in the parental home move to a home of their own sooner or later.

Distribution of persons living with their own parents, with their spouse's parents, and living independently by status of partnership (age group 16–40), 2008

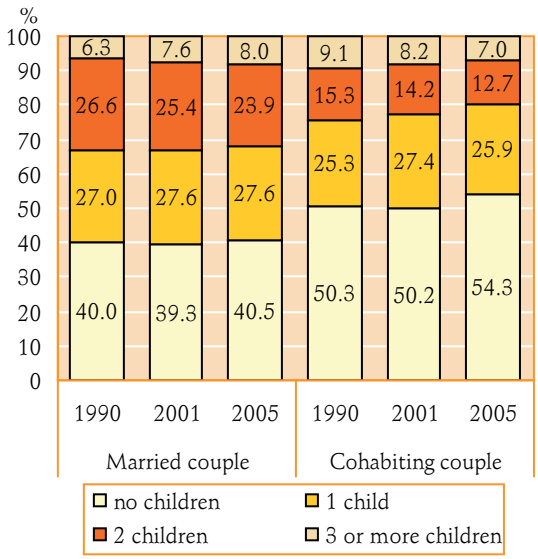
	Lives together with at least one parent	Lives together with the partner's parents	Lives independently from own or partner's parents	Total (%)
Men				
Living with spouse	6.5	3.2	90.3	100.0
Living with unmarried partner	18.1	5.9	76.0	100.0
Having partner who lives separately	79.2	0.0	20.8	100.0
Having no partner	78.0	0.0	22.0	100.0
Total	44.0	2.1	53.9	100.0
Women				
Living with spouse	6.7	3.6	89.7	100.0
Living with unmarried partner	13.3	4.3	82.4	100.0
Having partner who lives separately	74.0	0.0	26.0	100.0
Having no partner	63.9	0.0	36.1	100.0
Total	32.4	2.3	65.3	100.0

Source: Demographic panel survey of Demographic Research Institute, HCSO "Turning Points of the Life Course" 2008, own calculations.

CHILDREN IN THE FAMILY

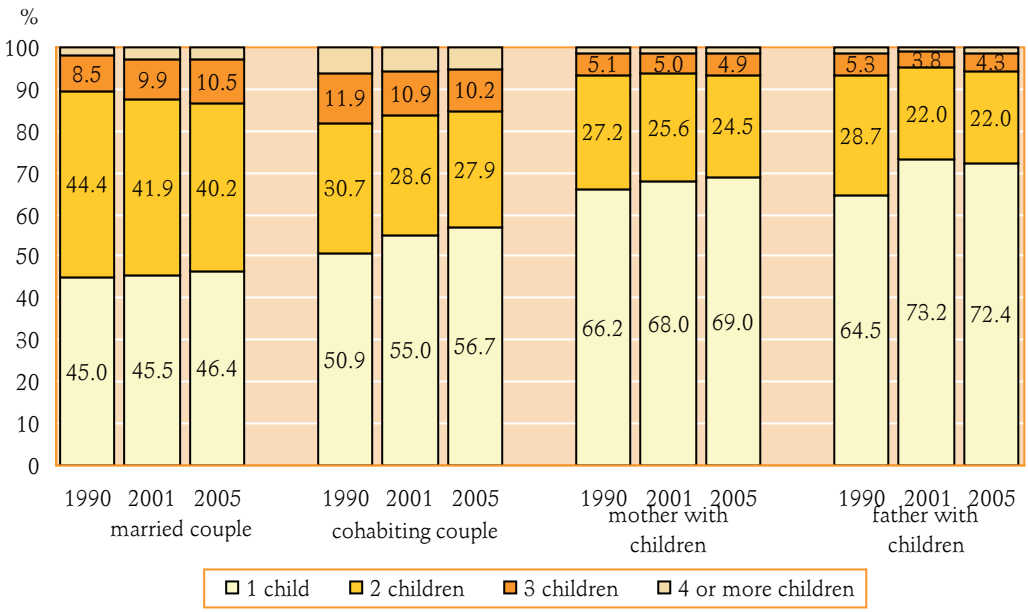
The number of children living with married and cohabiting couples shows remarkable differences. The rate of childless married couples (4 per cent) and of those with one child (slightly over 25 per cent) remained basically unchanged in the period 1990–2005. Some rearrangement can be observed among those with several children: the rate of families with two children decreased by three percentage points (from 26.6 per cent in 1990), and that of families with three or more children grew by 1.5 percentage points (from 6.4 per cent in 1990). The rate of childlessness was higher (50 per cent) among cohabiting couples at the time of the two last censuses and grew further (to 54 per cent) by 2005. The proportion of couples with one child was similar among married and cohabiting couples (25–27 per cent), while the rate of families with two or more children fell from 24.4 per cent in 1990 to 19.8 per cent in 2005 (Fig. 5).

Fig. 5. ***Distribution of couple-type families by family type and number of children***



Source: KSH (2004); KSH (2006).

Fig. 6. ***Families with children by family type and number of children***



Source: KSH (2004); KSH (2006).

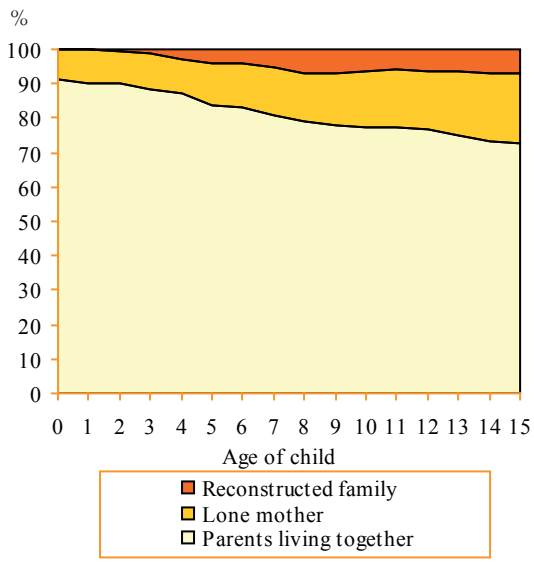
Consequently, married couples have more children than cohabiting couples on average. The average number of children born to 100 married couples was above 100 in each of the three years concerned (101-104 children), while in the case of cohabiting couples this figure was smaller and gradually decreased between 1990 and 2005, from 89 to 76 children. The rise in the rate of childless cohabitations can be in connection with the fact that young couples prefer cohabitation in the early phase of their relationship.

Among families with children, lone-parent families more often have only one child and less frequently have two or more children than couple-type families (Fig. 6). Cohabiting couples more often have only one child than married couples but they also tend to have three or more children to a greater degree. During one and a half decades, the proportion of families with three children became similar in the two types of families. The rate of families with four or more children was still three times as high among cohabiting couples than among married ones in the 1990s but in 2005 this difference was already only twofold.

The point of view of children is of outstanding importance during the analysis of family structure, primarily whether they live with one or two parents and in what type of family they live in a given period of their lives. Fig. 7 shows the situation of children aged 0 to 15 in the period between 2003 and 2008 by the status of their mother. In those years, 9 per cent of newborn babies had single mothers, the mother of 20 per cent lived in cohabitation, and that of 71 per cent was married. So whereas 91 per cent of all new babies lived with both biological parents, this rate was only 73 per cent for the 15-year-old. On average, children lived 12.3 years with both parents during the first 15 years of their lives.

Every fourth child experienced life in a lone-parent family before they turned 15. As the majority of couples broke up not at the time of the child's arrival but only later, the rate of this group gradually grew with age (Fig. 7). The number of children who have experienced life in a lone-parent family in a certain period of their lives is much higher than a simple snapshot would indicate, while the period spent in such a family is shorter. Between 2003 and 2008, children aged 0-15 were raised by their mothers alone for an average of 1.9 years out of the possible 15 years.

Fig. 7. ***Distribution of children of different ages by family type, 2003–2008***



Source: Demographic panel survey of Demographic Research Institute, HCSO "Turning Points of the Life Course" 2008, own calculations.

Lone parents may find new partners, making the family a two-parent one once again. Between 2003 and 2008, 7 per cent of children under 15 lived in so-called mosaic families with a step-parent and possibly also half- or stepsiblings. This situation may result in new family types in which families are faced with novel challenges. On average, children lived less than one year in such families until the age of 15.

ONE-PERSON HOUSEHOLDS

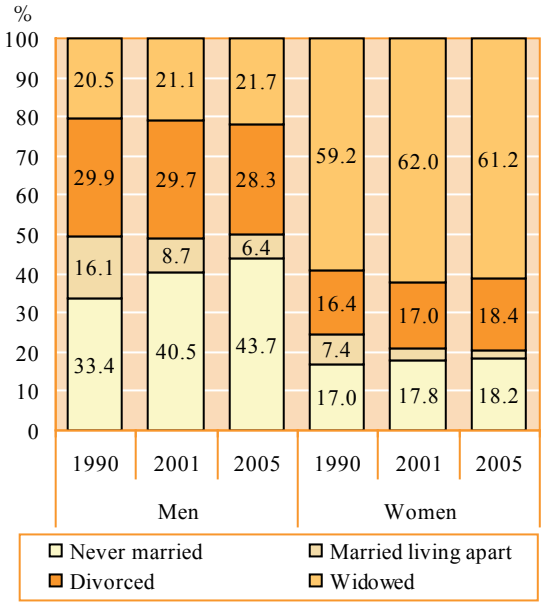
One of the most important changes in the lives of Hungarian families since the change of regimes is the considerable growth in the rate of one-person households. Between 1990 and 2005, the rate grew from 24 to 29 per cent, numbering 1,163,000 in 2005. That year, the rate of one-person and two-person households was already similar. 11.8 per cent of the total population, i.e., 1,163,000 people lived alone.

Nearly twice as many women lived in one-person households than men. The share of men among those living alone was around 35 per cent and that of women was around 65 per cent in 1990, 2001, and 2005 alike. The major cause of the difference is that – due to their higher life expectancy – women more often survive their partners and remain alone.

One-person households mostly come about when young people leave the parental home or when elderly persons lose their partners through death. In Hungary the latter is more frequent and more permanent. Young people leaving their parents' household establish lasting partnerships sooner or later. What is more, they often (though to an ever smaller degree) move in with a partner right after leaving their parents, without a period spent alone.

In 2005, the largest group of men living in one-person households was made up of bachelors (44 per cent), then come the divorced (28 per cent), the widowers (22 per cent), and married men living separated (6 per cent). Among men living solo, the rate of unmarried men gradually increased and that of married men living apart has considerably decreased since 1990. Single women are less likely to live alone than single men (18 per cent) but the rate of widows constituting one-person households is three times higher among women (61 per cent) than among men. Most women living alone are widows (Fig. 8).

Fig. 8. ***Distribution of men and women living in one-person households by marital status***

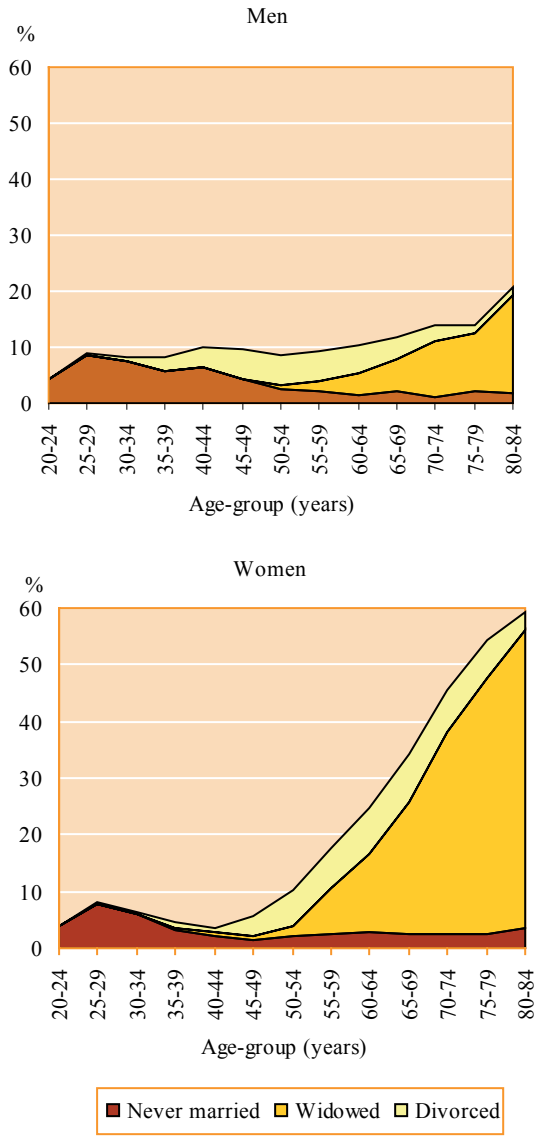


Source: KSH (2004); KSH (2006).

Men and women under 30 live alone to a similar degree. In the age group 30–49 men dominate; later the rate of women is higher. Among men in their thirties and forties more unmarried and divorced persons live alone than among women of the same age because men usually enter partnerships at a higher age than women and they are less likely to live with their children after divorce. The rate of solo-living never married women steadily decreases above 30 and does not reach 10 per cent in any of the age groups (Fig. 9).

Above 50, the impact of the higher mortality of men on household structure becomes conspicuous. As time passes, more and more women remain alone in one-person households, and the difference between the two sexes grows in this respect. Every second woman above 70 already lives alone, mostly as a widow.

Fig. 9. ***Rate of men and women in one-person households by marital status and age, 2008***



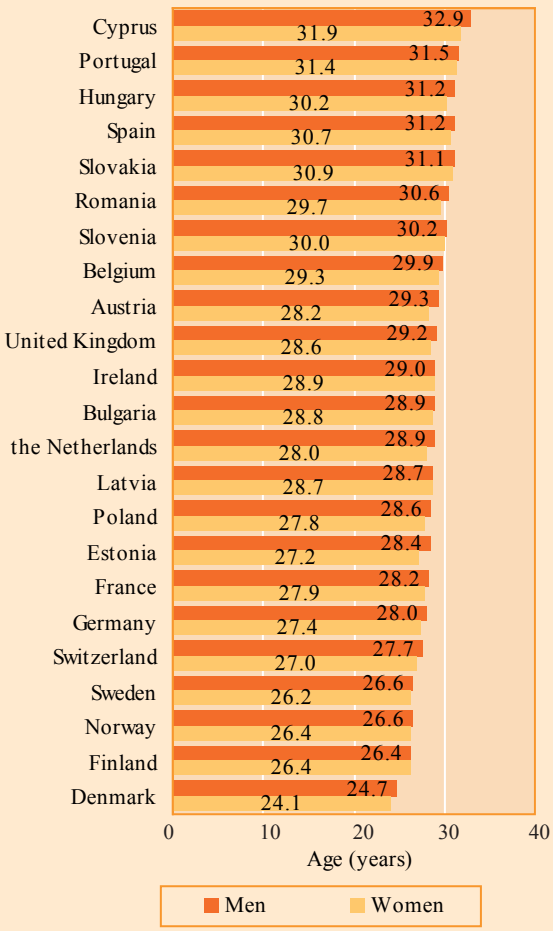
Source: Demographic panel survey of Demographic Research Institute, HCSO "Turning Points of the Life Course" 2008, own calculations.

THE HIGHEST ACCEPTED AGE OF ESTABLISHING AN INDEPENDENT HOUSEHOLD IN EUROPE

Young adults establish new households by moving away from the parental home. Countries of Europe differ not only as regards their household structure and the timing of forming new households but also in the social expectations as to when young people should become independent. Societies are more permissive in the case of men, determining a 6-12 months higher expected age of moving away.

In Northern Europe, where young people leave the parental home early and behaviour is relatively homogeneous, the age limit when a young man or woman is considered too old to live with his/her parents is the lowest. In the Scandinavian countries it is generally expected of young adults to leave their parents' household at the age of 26-27. Most countries of Western Europe rank in the middle, with the age range of 27-30 being the highest accepted age of moving away. As for the post-communist countries, expectations are the strictest in Estonia and Poland, where young people should establish independent household by the age of 27-29. Southern Europe is characterized by relatively late home-leaving and heterogeneous behaviour, and just like Hungary, they are the most permissive: young people are expected to leave their parents' home only above 30. In Hungary, the average age is 30 for women and 31 years for men. The weakness of the relevant norm is also indicated by the fact that many people think (35 per cent when asked about men and 43 per cent when asked about women) that people are never too old to still live with their parents.

At what age are men/women too old to still live with their parents? Average expected age of moving away from parents in selected countries of Europe, 2006



Source: European Social Survey, 3rd wave, 2006. Own calculations.

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10.

INTERNAL MIGRATION

Lajos Bálint

MAJOR FINDINGS

- In the first half of the 1990s, internal migration continued to decrease following the former trend, reaching its minimal value in 1994 with 360,000 movements. From the second half of the 1990s internal migration stagnated around 400,000 moves until 2005, then it suddenly rose higher in 2006 and 2007 but the increase did not prove to be durable. Due to the financial crisis beginning in 2008, the number of migrations fell back to the level of the mid-1990s.
- The number of permanent migrations has been steadily decreasing since 2007. Today, their number is just above 200,000, which is hardly more than the lowest level of 1991 with 181,000 moves.
- Residential mobility within the same settlement similarly decreased after 2007. The cases of moving to new residence within the same settlement were fewer in 2009 and 2010 than the lowest level of the early 1990s.
- The crude migration rate by sex shows just a slight difference in favour of women from the mid-1990s but this difference between the sexes was insignificant.
- The intensity of migration greatly differed by age groups. Irrespective of the type of migration, its probability is the highest among persons aged 20–29. Those under 19 are more mobile as regards temporary migration, while in the case of permanent migration this applies to those aged 30–39. The intensity of migration tends to decrease considerably among those above 40, while the mobility of older age groups is rather similar.
- Examining the balance of migration between the various types of settlements, we can find that the renewed attraction of the capital goes back to its migratory surplus over both villages and towns. Recent data show a population loss of rural regions both to Budapest and to other urban environments.
- It is primarily the capital and the sub-regions belonging to its agglomeration zone that profited most from migration. The majority of highly urbanized regions (cities with county status) are similarly characterized by a positive migration balance. Some small regions around Lake Balaton serving primarily recreation and some along the western borders followed suit. As a contrast, there is a high population loss in regions with unfavourable economic conditions, low employment rates and high unemployment, mainly in the northeastern, eastern, and southwestern parts of the country.
- Data on net migration show that Budapest extremely centralizes the movement of the population. The economic crises directed migration towards this central

region enjoying more favourable conditions in the labour market. At the same time, the role of regional centres seems to be more moderate, just like migration from east to west.

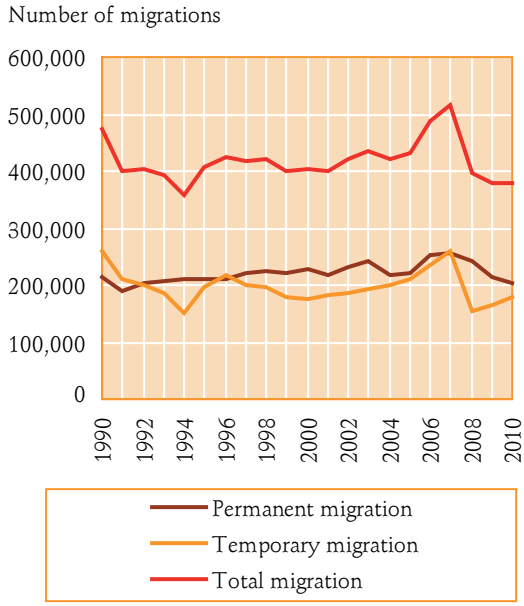
THE VOLUME OF MIGRATION

Migration from settlement to settlement

The willingness of the population to migrate was painfully affected by the economic difficulties of the early 1990s. The number of moves continued to decrease steeply, following the trend of the previous years. In 1990, 475,000 moves were registered, which number fell to 360,000 in 1994. The lowest value in migration flow in 1994 was followed by stabilization and in the period 1995–2005 about 400,000 moves took place each year. This continuous trend was broken in 2006 and 2007 when the number of migrations first grew to 490,000, then to 514,000. However, the rise did not prove durable. The economic crisis of 2008 greatly decreased the number of moves. The yearly average of 380,000 corresponds to the amount of the mid-1990s.

Migration can be subdivided into permanent and temporary ones (Fig. 1). The experiences of the past twenty years indicate that the number of permanent migrations is generally higher than that of temporary ones and is less uneven.[1] The drop in 1990–1994 is almost exclusively due to a considerable change in temporary movements, just like part of the rise in 2006–2007.

Fig. 1. ***Number of internal migrations, 1990–2010***



Source: Demográfiai táblázó (HCSO vital statistics).

In the first half of the 1990s, the number of temporary migrations fell from 261,000 in 1990 to 150,000 in 1994. The following year witnessed a rise to about 200,000, which proved lasting also after the turn of the millennium. In 2006 and 2007 there was a sudden growth similarly followed by a quick decrease.[2] In 2008, the number of temporary migrations dropped to 155,000, which is basically identical with the lowest number registered in the 1990s. The moderate rise in the past two years indicates a return to the previous trend.

The number of permanent migrations changes in a somewhat more predictable

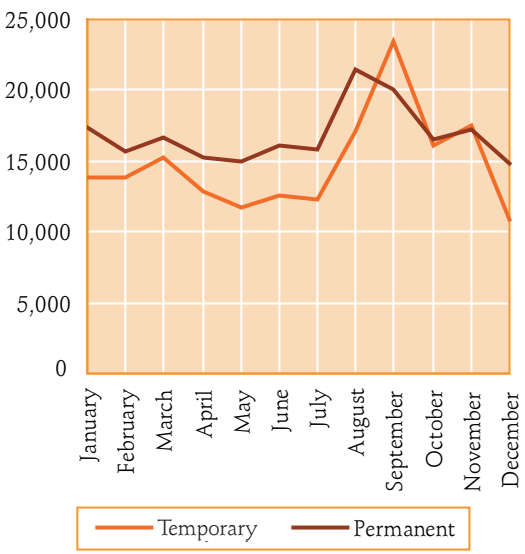
[1] *Establishing the exact number of temporary migrations and remigrations is more difficult than that of permanent migrations. There are no reliable data on the failure to register temporary residence. The actual number of temporary movements is presumably higher than what is registered.*

[2] *From 2006, the period after which the residence not prolonged regularly was automatically struck off the register was extended from two to five years. The effect of this regulation appeared first in 2008 when new residences registered in 2006 and not prolonged were struck off for the first time.*

manner. It was the lowest in 1991 with 181,000 moves. With the exception of that year, the annual number of permanent migrations was always above 200,000 throughout the discussed period and, apart from a few smaller relapses, showed an overall moderately rising tendency till 2007. The highest value was registered in 2007 with 255,000 moves. Then the volume of permanent migration clearly started to decrease, reaching a level hardly over 200,000 in 2010.

Both types of migration is characterized by strong seasonality (Fig. 2). In the first seven months of 2010, the frequency of migration was relatively stable in both types. In the case of permanent migration, a considerable rise could be observed in August and September, while in the case of temporary ones September was definitely the peak. The high volume of migration in August and September is mostly due to changing residence with view to education.

Fig. 2. ***Monthly changes in permanent and temporary migration, 2010***



Source: KSH Demográfiai évkönyv 2010 (HCSO Demographic Yearbook, 2010) .

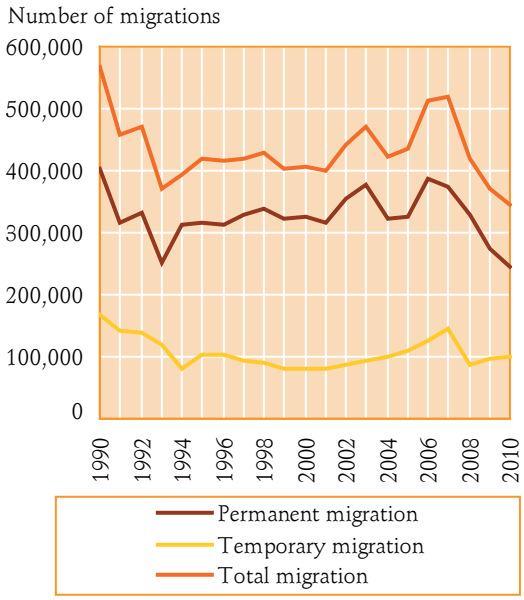
Residential mobility

Residential mobility within settlements does, by definition, not belong to migration and its motivations are different, too. As it takes place within the same settlement, the person who moves to another place does not get detached from his/her earlier environment. Institutional and personal connections do not necessarily get severed, the employed remain in the same local labour market. Residential mobility (reflecting the changes of housing conditions) still offers an important insight into the short-distance spatial mobility of the population.

In the early 1990s, the number of residential movements within settlements was nearly 570,000 but this figure dropped to about 400,000 in a few years and remained on this level till the turn of the millennium. In 2006 and 2007 its rising trend was similar to that of internal migrations crossing settlement boarders. The economic crisis of 2008 led to a smaller demand for new homes and, consequently, to the slackening of residential mobility. The number of movements within the same settlement fell under a quarter of a million in 2010 (to 244,000), which is the lowest figure in the whole period in question.

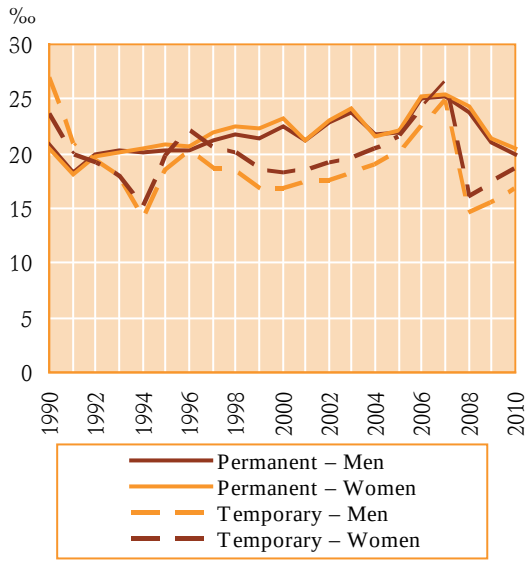
The overwhelming majority of residential movements within settlements is made up of permanent ones (Fig. 3). They are three or four times as many as temporary movements.

Fig. 3. ***Number of residential moves within the same settlement, 1990–2010***



Source: KSH Demográfiai táblázó (HCSO vital statistics).

Fig. 4. ***Number of temporary and permanent migrations per 1000 inhabitants by sex, 1990–2010***



Source: KSH Demográfiai táblázó (HCSO vital statistics).

DISTRIBUTION OF MIGRANTS

Differences by sex

The various demographic groups of society take part in internal migration to a different degree. This chapter aims to point out differences by sex and age group. The crude migration rate by sex shows a slightly higher mobility in the case of women since the mid-1990s. The difference is merely one or two per thousand, so there is no significant difference between the two sexes in this respect. This minimal divergence is due to the different degree of temporary migration while the crude rates of permanent ones are practically identical (Fig. 4).

The age structure of migrants

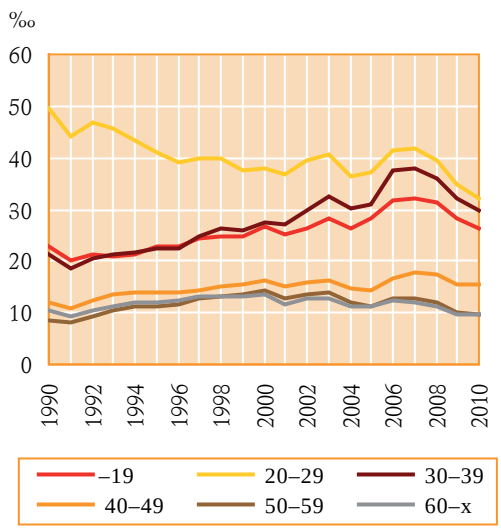
In general it can be established that mostly persons under 40 are involved in both types of migration. Over four fifths of permanent migrations and nearly three quarters of the temporary ones have been performed by these younger generations since the mid-1990s.

Let us now analyze the characteristics of permanent migration by age group first. In the discussed period it was the generation 20–29 that took part in migration to the greatest degree despite the fact that the frequency of the movements of young adults was steadily decreasing. In this phase of the life course temporary migrations are more frequent. This generation is followed in frequency by those aged 30–39, and those under 19. Apart from

the almost general decrease in the period of the crisis, the migration both of the age group 30–39 and of those under 19 was increasing in the discussed period. The similar tendency of these two age groups is not surprising as they are mostly parents and children moving together.

The migratory pattern of the age group 40+ is sharply different from that of the younger generations. As time goes by, the willingness to move decreases further but the rates for those aged 50–59 and 60+ do not differ from each other.

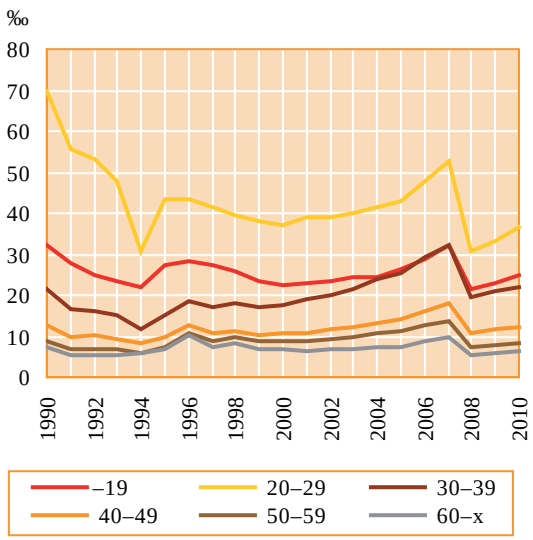
Fig. 5. Permanent migration per 1000 persons by age group, 1990–2010



Source: KSH Demográfiai táblázó (HCSO vital statistics).

Similarly to permanent migration, a higher intensity can be observed in the case of the younger generations under 40 in temporary migration, too. It is the highest among the age group 20–29, followed by those under 19, and by those aged 30-39. From the middle of the past decade, the differences in the rates of the latter two groups was diminishing and disappeared completely between 2004 and 2008. The age 40 seems to be the dividing line in the case of temporary migration, also. The willingness to migrate is relatively moderate above that age limit.

Fig. 6. *Temporary migrations per 1000 persons by age group, 1990–2010*



Source: KSH Demográfiai táblázó (HCSO vital statistics).

TERRITORIAL CHARACTERISTICS OF INTERNAL MIGRATION

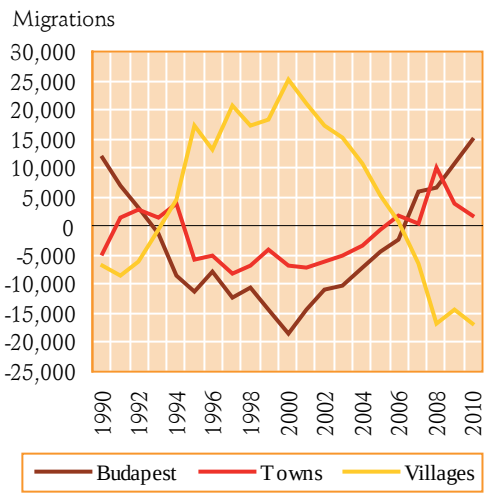
The volume and balance of migration influences not only the size of the population but several other demographic factors as well. As a consequence of migration, the age structure and dependency ratios of a given territory are modified. As mentioned earlier, it is the younger, active generations that are mostly involved in migration, increasing by this the unfavourable tendencies in the age structure of places of origin. The selective

characteristics of migration can, however, be observed not only in the demographic profile but also in the characteristics of the migrants as regards the labour market. The loss of qualified labour force is detrimental to the human resources of a region.

Internal migration by type of settlement

On the basis of the migration balance of the three major types of settlements distinct patterns of migration can be established.[3] The time series of the migration balance for Budapest in the past two decades can be described by an U-shaped curve. In the early 1990s, Budapest still had a positive migration balance. It was after 1993 that the number of out-migrations first exceeded that of in-migrations. This negative migration balance lasted till 2006. However, in the past four years data on migration showed the increasing attraction of Budapest.

Fig. 7. ***Migration balance by settlement types, 1990–2010***

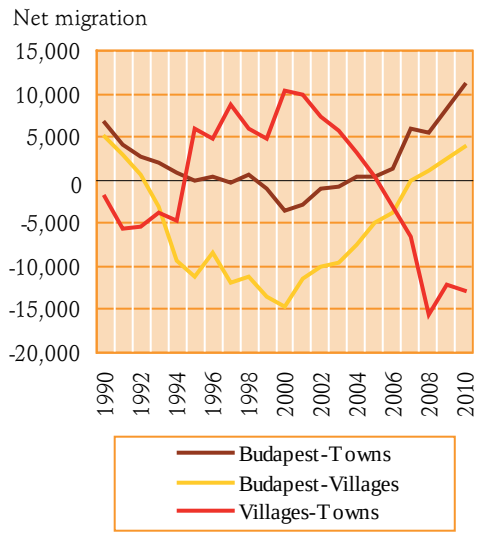


Source: KSH Demográfiai táblázó (HCSO vital statistics).

The aggregate migration of settlements can be demonstrated by a reversed U-shaped curve. There the balance of migration was positive for the first time in 1994.

The almost steadily improving balance reached its peak in the year of the turn of the millennium, then it started to decrease sharply once again. The present migration balance of villages is around 17,000, a lower value could be observed only in 2000, in the case of Budapest. The trend in the towns and cities, those of county rank included, seems to be less even. In the first half of the 1990s, their migration balance was basically positive, to be followed by a migration loss for a decade that turned into gain once again from 2006 onwards.

Fig. 8. ***Migration balance among the various types of settlement, 1990–2010***



Source: KSH Demográfiai táblázó (HCSO vital statistics).

Comparing the various types of settlement helps us to understand the causes of the redistribution of the population. The gain of Budapest in the early 1990s and following the

[3] *Migration by settlement types was analyzed on the basis of the legal status of settlements determined in 2010.*

turn of the millennium goes back primarily to its favourable balance of migration towards the county seats and other towns, whereas the considerable loss in the meantime is due mostly to out-migration to villages. The processes of the past years indicate that the attraction of Budapest is getting stronger again both with respect to towns and villages. Currently, there is a population loss in the rural regions in several directions.

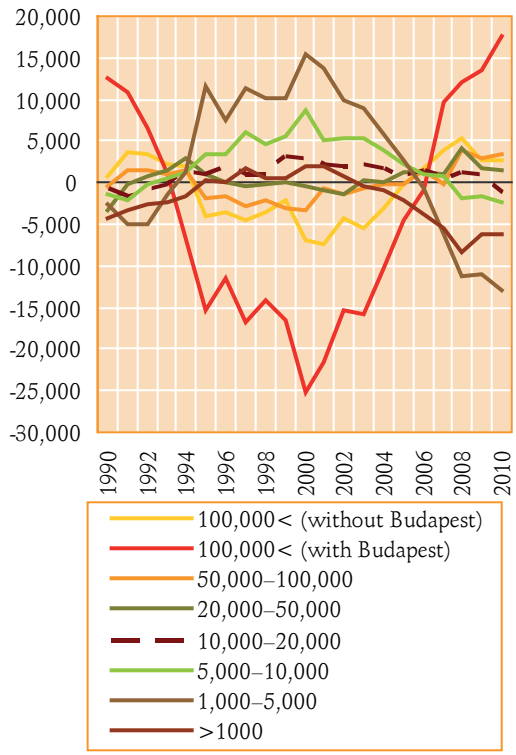
Internal migration

Internal migration by the size of settlements shows regularities similar to those connected with administrative status (Fig. 9). This is not surprising since the hierarchy of settlements is closely related to the number of inhabitants. However, the increase in the number of categories offers a more detailed picture of the migration process.

In the early 1990s, settlements with a larger population were on the winning side as regards internal migration. With the exception of a few years, the aggregate migration balance even of settlements with more than 20,000 inhabitants was positive in 1990–94. From the mid-1990s on, the focal points of migration were changing. Settlements with more than 50,000 inhabitants suffered population loss, while the smaller ones had a positive balance of migration. This was the period of suburbanization when the senders were the bigger towns and the winners were the neighbouring villages. Around the turn of the millennium, the gain of smaller settlements (those with 5,000 to 10,000 inhabitants and those with 1,000 to 5,000) and the loss of those above 100,000 started to diminish. From the middle of the decade, the trends unfavourable for the big cities of the country have changed for the better and the balance turned positive. It is now the smallest settlements, i.e., those with less then 5,000 inhabitants that suffer considerable migration loss.

Current processes indicate the weakening of the power of villages with few inhabitants in rural regions to keep their population. The greatest gain can be observed in Budapest, while in the intermediate categories there is no considerable redistribution of population.

Fig. 9. Net migration balance by the size of settlements, 1990–2010



Source: KSH Demográfiai táblázó (HCSO vital statistics).

SPATIAL CHARACTERISTICS OF MIGRATION

Among all demographic phenomena it is migration that can the least be separated from the spatial context. Distance, direction, the interaction between the places of origin and

destination are all key factors in the migration processes. Internal migration is one of the most important factors of changing the size of the population in a given geographical unit that can result in a population growth even if natural demographic processes would not lead to this effect. The most important feature of migration is that its spatial distribution is uneven. A territory can gain population only at the expense of others, which inevitably leads to the redistribution of the population. Beyond that, it directly influences the age structure of the population, also.

The processes introduced by national macro data and settlement categories are useful in establishing the volume of internal migration but do not point out processes going on in the individual locations.

To illustrate the spatial characteristics of migration, we used regional data referring to sub-regions for the years between 2008 and 2010 (n=174)[4] that make a much more detailed introduction of the spatial structure of migration possible as compared to the earlier arrangement by regions or counties.

In the period 2008–2010 there were 1,160,000 permanent or temporary migrations among settlements. Less than a quarter of the internal migrants (23.5 per cent) crossed the borders of the sub-regions, too, i.e., a considerable portion of migrations was of short distance.

We used four indicators to illustrate the territorial balance of migration that are slightly different in content but are statistically strongly correlated. Our calculations did not include moves within the same sub-region.

As a result of current migration processes, a quarter of the Hungarian sub-regions had a migration gain in the given period. The areas of destination consist of well definable locations, in some cases even of wider regions. The winner is the central region, i.e., Budapest and the majority of the adjacent sub-regions of the commuter belt. As it has been mentioned above, the migration balance of Budapest became positive once again in the past years. The spatial data indicate, however, that this gain does not come from the loss of the adjoining sub-regions. Budapest continues to be a place of origin with regard to the nearby green belt where suburbanization is still going on, though to a smaller degree than before. All in all, in 2008–2010 77,000 persons moved from Budapest to Pest county but only 54,000 persons moved into the capital from there.

The other group of recent winners is made up of the regions around cities of county status. In some cases, also neighbouring sub-regions have relatively favourable migration balance (e.g., sub-regions around Szeged, Székesfehérvár, and Tatabánya). There were the sub-regions of only half a dozen big cities where there was a negative balance of migration. The power to keep their population failed in the sub-regions of Békéscsaba, Dunaújváros, Miskolc, Szolnok, Salgótarján, and Szekszárd compared to towns of similar rank. Besides the above mentioned central and other urbanized regions, a favourable migration balance can be observed in the regions of resorts along Lake Balaton (the Balatonalmádi, Füred, Keszthely, and Hévíz sub-regions) and along the western borders of the country.

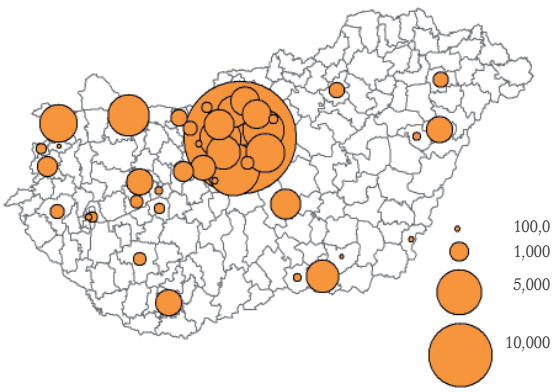
The regions that suffered the largest migration loss are mostly in the eastern, northeastern, and southwestern regions but instances of negative balance occur also in less urbanized parts of more developed regions as well. Since a great number of migrations, mostly the permanent ones, are short-distance migrations, the sharp contrast between the places of origin and destination is not surprising. The crude

[4] *In 2010, the number of sub-regions changed to 175.*

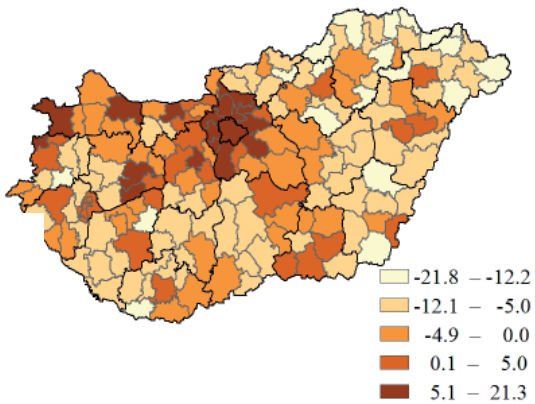
migration rate (migrations per thousand inhabitants), migration ratio (number of in-migrants per that of out-migrants) and migration efficiency (net migration per all migrations) reflect different aspects of the same phenomenon, indicating that there are considerable differences among sub-regions suffering population loss. Those with the largest loss are in the eastern part of the country, are generally backward economically and have unfavourable conditions as regards the labour market. In these sub-regions it is not exceptional if merely 5 to 6 in-migrants fall to 10 out-migrants, consequently their migration rate is very low. The ratio of net migration and the total number of migrations are the indicators of migration efficiency. The high absolute figure of the index refers to the remarkable redistribution of the population. In certain sub-regions in Northeastern Hungary, the total migration loss amounts to one third of the migration turnover, while some sub-regions, mostly around Budapest, managed to keep 20 to 25 per cent of the same.

Fig. 10. ***Variables of internal migration by sub-regions, 2008–2010***

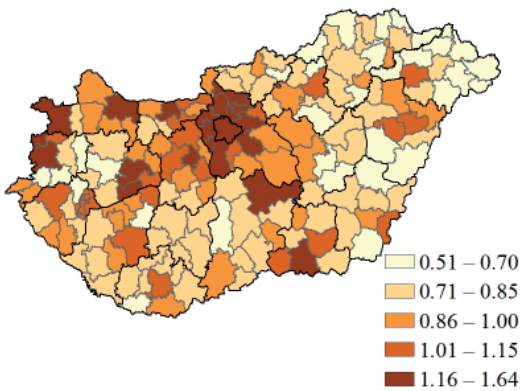
Positive net migrations by sub-regions



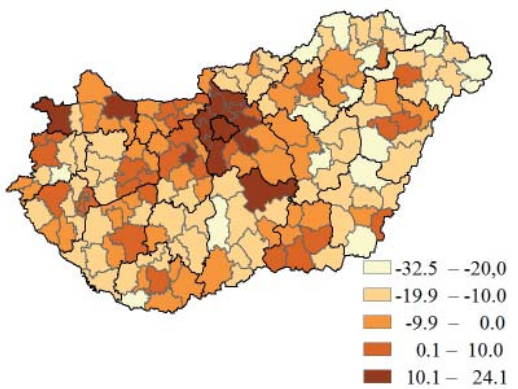
Net migration rate per 1000 inhabitants



Migration ratio



Migration efficiency

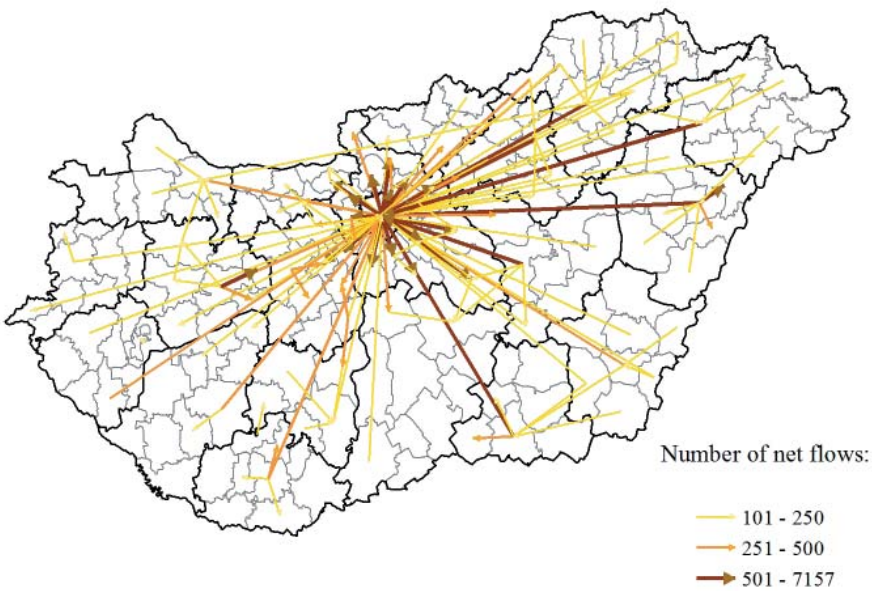


THE SPATIAL ASPECTS OF MIGRATION

Every migration can be determined by the place of origin and destination. The direction, length and volume of the moves help to understand the patterns of migratory flows and, in a wider sense, also the possible causes of the spatial redistribution of the population. Using a spatial scale by sub-regions one can establish that the number of possible spatial interactions is above 30,000. The visual representation of such a great matrix of migration comes up against difficulties.[5] Migratory interactions are characterized by the net migration of the given period indicating the absolute value of the migration balance of two locations. The direction of the vector points to the sub-region with migration surplus. Asymmetrical connections are stressed as a consequence of the nature of net migratory flows. In order to make the chart clear-cut, we included only movements involving at least 100 persons. In the discussion of migratory movements we took both permanent and temporary migrations between areas into account.

Today, Budapest gains the most from migration. Its central position is clear not only with view to the eastern regions but also with view to the western sub-regions of the country. The density and intensity of connections is the greatest between Budapest and the northern Great Plains and Northern

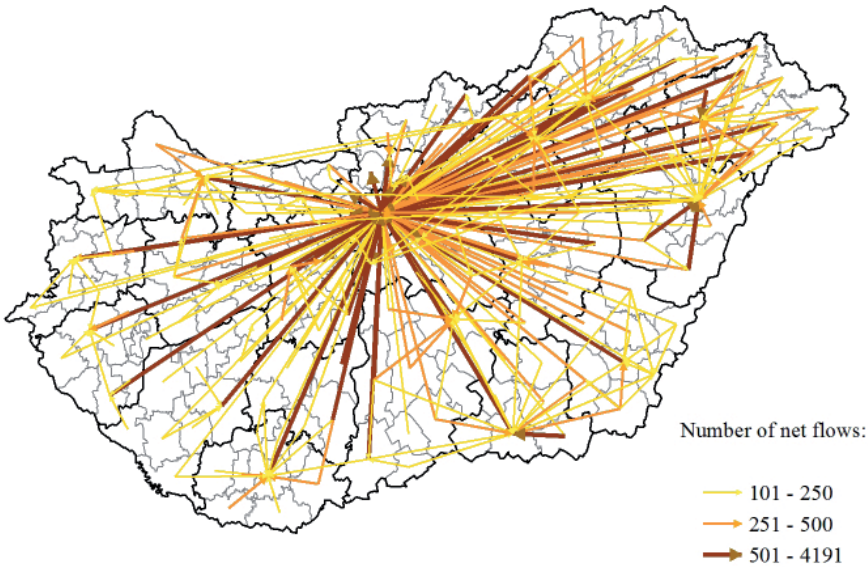
Fig. 11. ***Number of net migrations between sub-regions, 1998–2000***



Note: We created the vectors showing net migratory movements with the help of Flowpy python script (Glennon, 2009).

[5] Leaving movements within the same sub-region out of consideration, the size of the migration matrix is n(n-1), i.e., the number of possible spatial interactions is 30,102. The actual number of interactions was smaller by 7,000 between 2008 and 2010.

Fig. 12. ***Number of net migrations between sub-regions, 2008–2010***



Note: We created the vectors showing net migratory movements with the help of Flowpy python script (Glennon, 2009).

Hungary. Direct movements between east and west can be considered insignificant, given the moderate threshold we used. The current migration pattern shows that there are very few places of destination that would mean a real alternative to Budapest. Internal migration focuses on spatial mobility between Budapest and the countryside.

Another type of spatial interactions was much more local. They take place within sub-regions or between neighbouring sub-regions around a larger city of regional importance. It is, therefore, important to note that the attraction of a locality can be observed primarily within a county or within the same a region at best. Comparing the present migration pattern with the one valid a decade ago, one can find remarkable differences, whereas the number of migrations does not differ considerably. Around the turn of the millennium, mainly short-distance out-migrations from Budapest and interactions between the capital and the commuter belt dominated. Interactions between the capital and more distant rural sub-regions proved to be less frequent. The Hungarian countryside seemed considerably less mobile, and it can be presumed that to and fro movements between smaller territorial entities were more balanced, too.

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11.

INTERNATIONAL MIGRATION

Irén Gödri

MAJOR FINDINGS

- Following the accession of Hungary to the European Union in 2004, at first a slight growth could be observed in the number of immigrants, then in 2008 the rise became dramatic due to the changing legal regulations. The number of immigrants rose to 35,000 that year.
- The distribution of immigrants by country of origin changed, too. The proportion of persons arriving from the neighbouring countries decreased lately, especially the share of those coming from Romania. The proportion of the latter was 50 to 57 per cent in the early 2000s that fell below 30 per cent after 2007. However, the percentage of persons coming from the EU15 and from Asia increased.
- Immigrants still belong to the younger age groups but the share of the older age groups has increased as compared to the early 1990s.
- The most preferred region is Central Hungary. 44 per cent of all immigrants arriving between 1990 and 2010 settled down in Budapest and a further 11 per cent in Pest County.
- Immigration into Hungary can be considered modest in European comparison as regards both the number and the rate of immigrants per 1000 inhabitants. In 2010, Slovenia, the Czech Republic, and Slovakia also preceded Hungary in this respect.
- The 'mirror' statistics of the countries of destination indicate that the number of emigrants from Hungary grew after the accession, mainly from 2007 on. The number of Hungarian citizens residing in various European countries in 2011 was about 148,000 (by nearly 60,000 more than in 2001). Two thirds of them lived in Germany (50 per cent) and Austria (15 per cent).
- The United Kingdom and Ireland became two new destinations of the migration of labour force. Between 2004 and 2010 about 74,000 Hungarian employees were registered in these two countries. However, as compared to the sending population, the share of emigrants working abroad was much higher in the other EU8 member states, with the exception of the Czech Republic and Slovenia.
- On January 1, 2011 the number of foreigners residing in Hungary was 206,909 out of whom 37 per cent were Romanian, 8 per cent each were Ukrainian and Serbian, 4 per cent were Slovak, and 10 per cent were German citizens. Only 17 per cent came from coutries outside Europe, the share of China being nearly 6 per cent.
- 45 per cent of foreigners living in Hungary belongs to the age group 20–39. 41 per cent of them lives in the capital, 38 per cent in towns, and 21 per cent in villages. In Budapest, the percentage of those between 20 and 39 is higher than the average (50 per cent).
- Comparing the number of immigrants to the total number of the population (2.1 per cent), Hungary is among the last in Europe, preceding only Slovakia and Poland.

- Between 1993 and 2010 over 135,000 foreigners were granted Hungarian citizenship. 87 per cent of these new citizens came from four neighbouring countries (66 per cent from Romania). Relatively few Asians applied for and were granted citizenship. In 2010 only 3 per cent of all foreigners residing in the country received Hungarian citizenship.

INTRODUCTION

The number and proportion of foreigners is growing year by year both in Hungary and in the majority of the European countries. Nearly two thirds of the population growth of 1.4 million registered in the EU27 countries in 2010 (0.9 million) are the result of the positive migraton balance. In the past decades, immigration contributed to mitigating the decrease of the population due to low fertility in Hungary, too, but could not stop it altogether. However, emigration starting in the 1990s and gaining momentum after 2004 strengthened the tendency of population loss and the ageing of the population as well as diminished the share of the economically active age groups, though we have no exact data on the dimensions of the process. Consequently it cannot be stated for sure that the actual migration balance is positive as it seems to be on the basis of official registration.

The composition and territorial distribution of immigrants, i.e., foreigners residing in Hungary and of those receiving citizenship (i.e., persons no longer regarded as foreigners), as well as the characteristics of emigrants are all factors that deserve attention from the point of view of demographic processes. The reliability and exactness of the available statistical data, as well as the harmonization of the various sources of information are, however, highly different with regard to the various groups of migrants (immigrants, emigrants, residing foreigners, foreigners receiving citizenship). Keeping this fact in mind, in the following we intend to deal with the trends of immigration and emigration in international comparison as well as with those major demographic characteristics of these migrant groups that we have satisfactory information about.

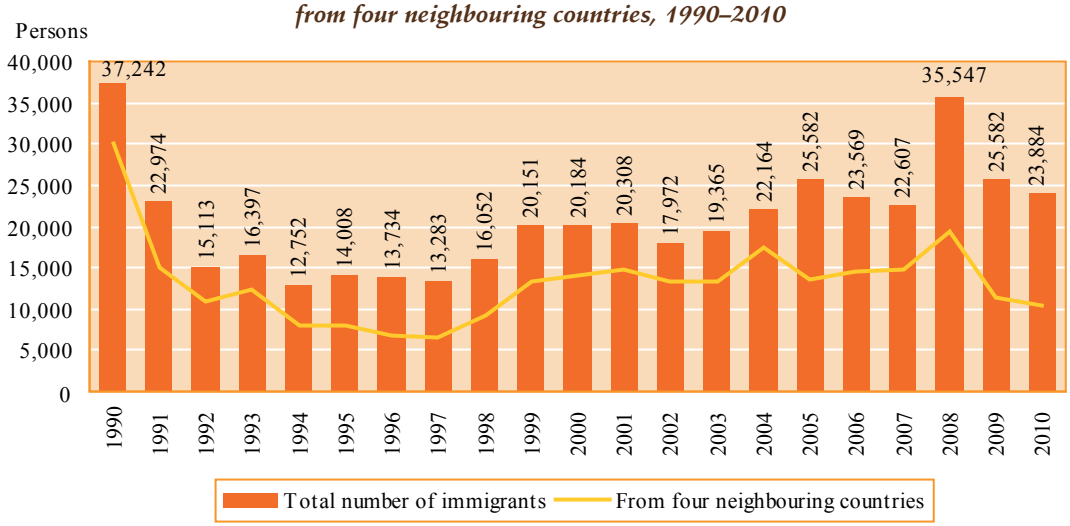
IMMIGRANTS

In Hungary, when the great wave of immigration in the early 1990s following from the opening of the frontiers had come to an end, the number of immigrating foreigners stabilized on a lower level (at about 13,000 to 16,000 persons per year), then it slowly reached 20,000 in the years around the turn of the millennium (Fig. 1). Following years of slight fluctuation, it started to rise again in 2005, in the year after the accession of Hungary to the European Union, when the number of registered immigrants was over 25,000. This fact was due primarily to the growing number of persons coming from the 15 old member states of the EU that almost reached 8,000 as compared to the less than 2,000 immigrants per year from that region earlier.

The next significant peak came in 2008 when the number of immigrants was close to that in 1990 due to the change in the legal regulations the year before. The new law on aliens' administration coming into force on July 1, 2007 made it, namely, possible for EEC citizens[1] to apply for so-called registration certificates and permanent residence cards. The introduction of these relatively easily and quickly available permits granting

[1] Citizens of the European Economic Community including the EU member states, Switzerland, Iceland, Liechtenstein, and Norway.

Fig. 1. ***Total number of immigrating foreign citizens including those coming from four neighbouring countries, 1990–2010***

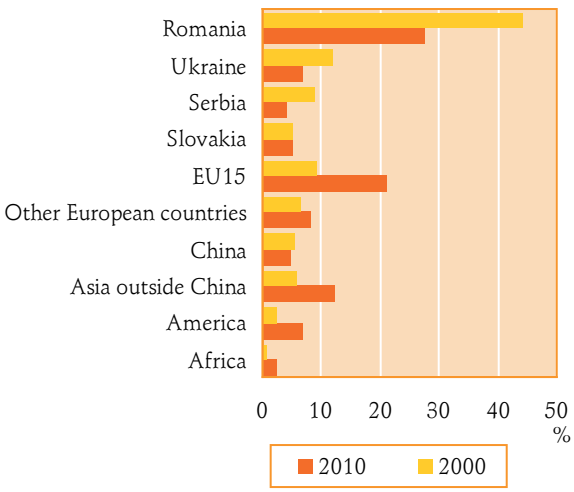


Note: The four neighbouring countries are Romania, the Ukraine, Serbia (former Yugoslavia), and Slovakia.
Source: Demográfiai évkönyvek (Demographic yearbooks)

residence resulted in a sudden rise in the number of immigrants. Nearly 20,000 out of the 35,000 immigrants registered that year had these types of permits.

There is a change in this respect also in the countries of departure. The earlier situation that the majority of immigrants came from the surrounding countries, mostly from Romania, has recently been less typical. Whereas in the nineties two thirds of the immigrants came from the four above-mentioned neighbouring countries (46 per cent of them from Romania) and the proportion of these people even reached 70 per cent after the turn of the millennium, in 2009–10 their share fell to 44 per cent. The proportion of those arriving from Romania (50 to 57 per cent in the first years of the new millennium) fell below 30 per cent from 2007 onwards. Comparing the distribution of immigrants by the country of origin with the situation ten years earlier (Fig. 2), the decrease in the share of immigrants from the major neighbouring countries of origin (with the exception of Slovakia) becomes obvious.

Fig. 2. ***Distribution of immigranting foreign citizens into Hungary by country of origin, 2000 and 2010***



Source: Demográfiai évkönyvek (Demographic Yearbooks).

At the same time, the share of those coming from the EU15 and other European countries increased.[2] The greatest number of immigrants arriving from the old EU member states come from Germany. Their proportion among the immigrants reached 10 per cent in the past few years.

The other large group of immigrants comes from Asia. In the second half of the 2000s their number and share was higher than before. The majority is made up of the Chinese but their number and share was steadily falling after 2007 when nearly 2,000 persons arrived. The number of new arrivals from other continents (America and Africa) similarly increased in the past few years but they still constitute a small portion of immigrants. It is, however, noteworthy that although the majority of immigrants still come from the countries of Europe, their share has dropped lately. Whereas it was between 85 and 90 per cent after the turn of the millennium, it fell below 75 per cent after 2009.

The demographic distribution of immigrants is changing, too. The male surplus at the beginning of large-scale migration (over 60 per cent) decreased during the 90s and disappeared completely by the end of the millennium. Then it started to rise again and since 2002, it has been around 56–58 per cent each year. The distribution by sex differs from country of origin to country of origin. In 2010 the majority of immigrants from Slovakia, Poland, Russia, Norway, and Mongolia (57–62 per cent) were women, the majority of persons coming from other countries were men. The share of men was exceptionally high among those arriving from certain Asian countries (Syria, Korea, and India with 66–69 per cent), Turkey (64 per cent), Africa (61 per cent), and the EU15 (59 per cent).

As regards the distribution of immigrants by age groups, it is still the younger generations that dominate. Similarly to the 1990s, the share of persons aged 20–29 was the largest with one third in the last decade, then comes the age group 30–39 with nearly one fifth. As compared to 1990, the share of immigrants below 15 dropped, while that of older generations (mostly 50+ and 60+) increased. Whereas in 1990 only 5 per cent of all immigrants were above 50 in both sexes, in the years after the turn of the millennium 14–18 per cent of the men and 16–20 per cent of the women belonged to this age group.

With respect to the countries of origin, there were larger differences in the rate of the older generations. In 2010 8 per cent of the immigrants were above 60. While persons coming from the Asian countries represented 2 per cent and those from the four neighbouring ones 3 to 6 per cent, those coming from the EU15 represented 23 per cent of this group. The share of those above 60 (i.e., retired persons) was especially high among immigrants from Germany and the Netherlands (30 per cent). This difference indicates divergence in the motives and aims of immigration.

The territorial distribution of immigrants shows a peculiar picture. The majority chooses the central region of Hungary. On average, 44 per cent of those coming between 1990 and 2010 settled down in Budapest and another 11 per cent chose the commuter belt around it, i.e., settlements in Pest County. The proportion of immigrants with the Southern Great Plains as a destination was similarly significant (13 per cent on average), mainly in the first years of the Southern Slav war (22–28 per cent). One tenth of the immigrants of the period

[2] *Although there was a decrease in the number and share of immigrants coming from the EU15 countries after the peak in 2005, their rate started to increase again from 2008 on. This time the Romanian citizens forming the largest immigrant group in Hungary also belonged to this category.*

settled down in the Northern Great Plains, 6 per cent each in the three Transdanubian regions, and only 4 per cent in Northern Hungary.

The spatial distribution of immigrants coming from the various countries is also different (Table 1).

Table 1. ***Distribution of immigrants from the major countries of origin by destination (regions and counties), 2010 (%)***

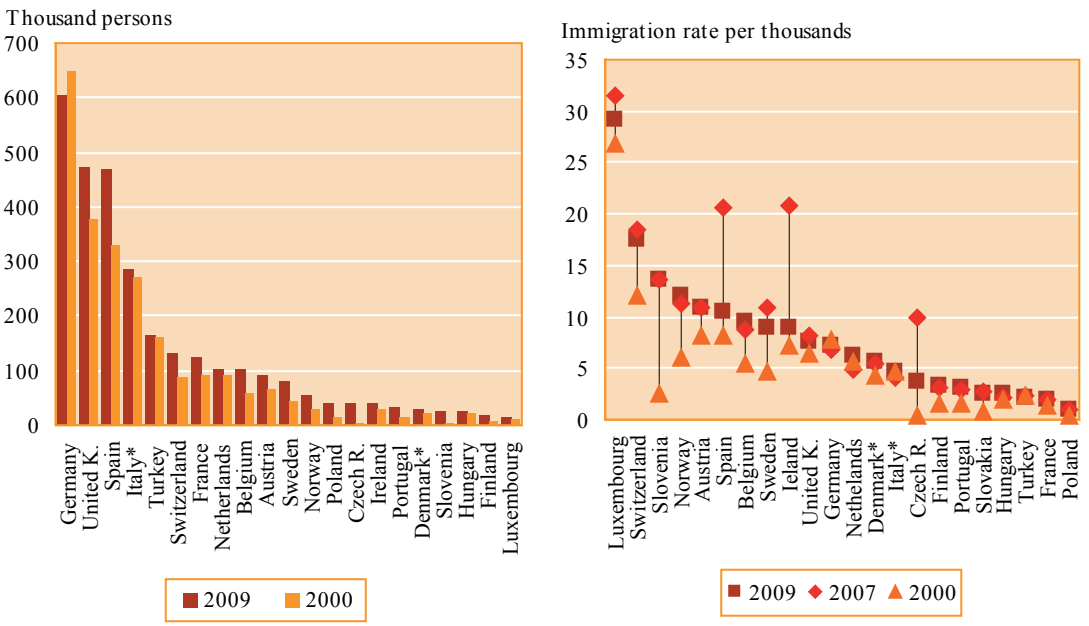
Geographical unit (region, county)	Romania	Ukraine	Germany	Serbia	Slovakia	EU15	EU27	China	Total number of imigrants
Budapest	28.6	38.3	18.6	33.8	25.7	30.7	29.8	76.4	41.5
Pest	20.8	12.4	3.7	6.4	4.4	4.6	12.6	4.6	10.0
Central Hungary	*49.4*	*50.7*	*22.3*	*40.2*	*30.1*	*35.3*	*42.4*	*81.1*	*51.5*
Fejér	1.7	2.7	1.1	0.9	1.3	1.3	1.6	0.7	2.2
Komárom-Esztergom	1.6	5.4	0.8	1.3	11.9	0.7	2.2	2.2	2.1
Veszprém	1.5	1.2	5.0	0.4	1.6	3.9	2.5	0.3	2.0
Central Transdanubia	*4.8*	*9.3*	*6.8*	*2.6*	*14.7*	*6.0*	*6.3*	*3.2*	*6.4*
Győr-Moson-Sopron	4.0	2.1	4.5	1.5	35.4	6.2	7.6	1.0	4.9
Vas	4.0	0.4	2.7	0.5	0.7	3.2	3.3	0.7	2.3
Zala	0.9	0.9	10.7	0.4	0.6	7.9	3.8	0.2	2.6
Western Transdanubia	*9.0*	*3.3*	*17.9*	*2.4*	*36.7*	*17.3*	*14.7*	*1.8*	*9.7*
Baranya	1.0	0.5	11.2	3.3	1.0	9.0	4.3	2.5	3.8
Somogy	1.2	4.7	14.0	1.7	1.2	10.4	4.6	0.3	3.2
Tolna	1.0	0.6	1.6	1.4	0.1	1.2	1.0	0.4	0.8
Southern Transdanubia	*3.2*	*5.8*	*26.8*	*6.4*	*2.3*	*20.6*	*9.9*	*3.2*	*7.9*
Borsod-Abaúj-Zemplén	0.9	3.2	0.9	1.1	6.1	1.4	1.5	1.8	1.5
Heves	0.9	1.1	0.8	0.4	1.4	0.7	0.9	1.1	0.7
Nógrád	0.7	0.4	0.1	0.2	3.1	0.3	0.9	0.4	0.6
Northern Hungary	*2.5*	*4.7*	*1.7*	*1.7*	*10.6*	*2.4*	*3.3*	*3.3*	*2.8*
Hajdú-Bihar	8.6	7.4	1.8	1.0	1.5	2.3	5.5	2.8	6.3
Jász-Nagykun-Szolnok	1.2	0.9	2.4	0.5	0.3	1.9	1.4	0.8	1.0
Szabolcs-Szatmár-Bereg	5.2	12.5	0.5	0.8	1.5	0.7	3.0	1.2	2.8
Northern Great Plains	*15.1*	*20.8*	*4.7*	*2.3*	*3.3*	*4.9*	*9.8*	*4.8*	*10.1*
Bács-Kiskun	7.4	3.3	12.5	6.8	0.8	7.7	6.7	1.1	4.7
Békés	3.7	1.1	0.6	1.3	0.3	0.5	2.0	0.3	1.4
Csongrád	5.0	1.0	6.7	36.3	1.2	5.4	4.8	1.2	5.6
Southern Great Plains	*16.0*	*5.4*	*19.8*	*44.4*	*2.3*	*13.5*	*13.6*	*2.5*	*11.6*
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	6,581	1,619	2,420	998	1,195	5,012	13,242	1,141	23,884

Source: Demográfiai évkönyv 2010 (Demographic yearbook 2010).

The share of Chinese coming to Central Hungary, especially to Budapest, is high above the average (81 and 76 per cent). Central Hungary is the main destination also to persons coming from the two major countries of origin, i.e., Romania and the Ukraine, but within that they also prefer Pest County to a greater degree, especially those coming from Romania. But among persons arriving from the neighbouring countries, the counties or regions along the border are also popular. This fact is the most obvious in the case of those coming from Serbia. In 2010 44 per cent of them chose the Southern Great Plains (36 per cent went to Csongrád County). As a contrast, persons coming from the EU15 (mostly those immigrating from Germany) are represented in Budapest to a much smaller degree than the average. They seem to prefer Southern and Western Transdanubia instead.

Despite the higher number of immigrants in the past years, Hungary does not belong to the major destinations of migration. In European comparison, immigration into Hungary can be considered modest as regards both the number of immigrants and their rate per 1000 inhabitants (i.e., the crude immigration rate) (Fig. 3). Whereas in the traditional countries of destination (Germany, France, the UK, and Switzerland) and in the new destinations (Spain, Italy) the yearly average number of immigrants can be measured by hundreds of thousands, in East Central Europe it was only the Czech Republic that reached this volume in 2007 due to the continuous growth of immigration from 2002 onwards.

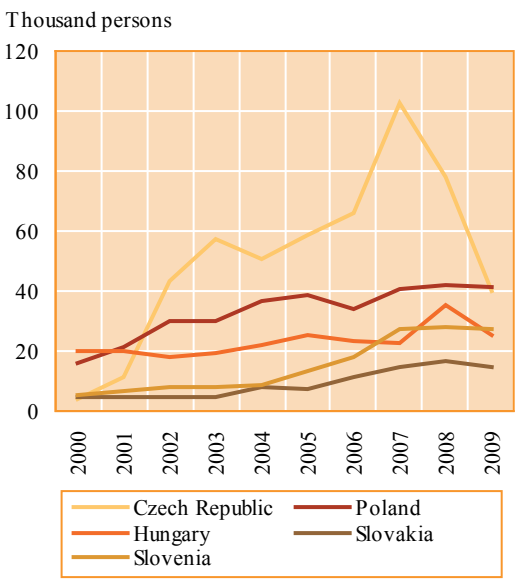
Fig. 3. ***Number of immigrants and crude immigration rate in selected OECD countries, 2000, 2007, 2009***



Note: *2008
Source: OECD 2011, Eurostat database 2010, author's calculations.

As regards the number of immigrants per 1000 inhabitants, Hungary is among the last in Europe. In 2009 this index for Hungary was 2.5, preceding only a few countries (Fig. 3). The similar figure for Luxemburg and Switzerland was, however, very high (29 and 18, resp.) and it was considerable also in Slovenia (14), Norway (12), Austria (11), and Spain (10.5). Some countries of destination (Spain, Ireland, and the Czech Republic) still had a very high crude immigration rate in 2007 but it dropped considerably by 2009, probably due, among others, to the negative impact of the economic crisis on the labour market beginning in 2008.

Fig. 4. ***Number of immigrating foreigners in selected East Central European countries, 2000–2009***



Source: OECD 2011.

The number of immigrants choosing the East Central European countries as a destination increased following the accession to the EU in 2004 but the increase was not considerable except for the Czech Republic. After 2007 there was a decrease even there (Fig. 4). The growth was the most modest in Hungary. Even Slovenia received immigrants in the same order of magnitude as Hungary in the past few years, though the former has a much smaller population and hardly received immigrants in the past.

Besides immigrating citizens of other countries, there are also immigrating Hungarian citizens. These people were mostly born abroad as descendents of Hungarians who had emigrated earlier. In the second half of the 1990s their number was hardly over 1000 persons a year but it rose to around 2000 after the turn of the millennium.

Immigration is considered by many as one of the factors contributing to the solution of demographic problems in Europe but also western analysts have pointed out many times that besides its positive demographic impact, the social and cultural consequences have to be taken into account as well. When coming in large numbers, immigrants can really put an end to the decrease of the population but they do not solve the problem of ageing. A country should admit immigrants belonging to young age groups in large numbers for a long time for that, which would, in turn, change the composition of the population also from other (ethnic and religious) aspects as well.

EMIGRANTS

Some immigrating foreigners later leave the country. They either migrate further or go back to their countries of origin. Those who notify the authorities about their intention or simply do not renew their residence permits are registered as emigrants.

Emigrating foreign citizens constituted about 25–30 per cent of immigrants in the early 1990s. From 1993 on, this proportion

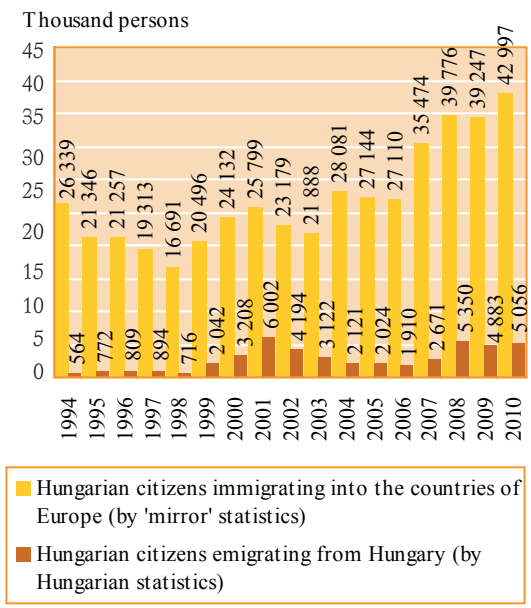
remained below 20 per cent, and by the turn of the millennium it decreased to 10. From the mid-2000s the number of emigrating foreigners grew steadily, and in the past few years their share reached 22 to 25 per cent of immigrants. They are generally older than immigrants, though still young, their majority belonging to the age group 30–39. The share of men is slightly higher among them (62–67 per cent) than among immigrants.

We have still more uncertain data about emigrating Hungarian citizens. Although the change of regimes brushed aside the obstacles in the path of emigration, the process became at the same time uncontrollable. Those leaving the country for a long time or for good are expected to register but nothing happens if they fail to do so. Consequently registration does not take place in most cases. So following the process of emigration or return migration of Hungarian citizens is still an unsolved problem.

The actual number of emigrating Hungarians can best be estimated on the basis of statistical data from the countries of destination. If we compare the total number of Hungarian citizens registered as immigrants in the various European countries and the official data on emigration at home we find considerable differences even in the order of magnitude (Fig. 5). In most part of the discussed period 20,000 to 28,000 Hungarian citizens were registered in other countries of Europe each year, then in 2007 their number rose to over 35,000, in 2008 to nearly 40,000, and in 2010 to 43,000.[3] As a contrast, Hungarian statistics on emigration registered just a few hundred emigrants each year prior to 1998, then their number grew to a few thousand, the persons emigrating temporarily included. The number of those emigrating finally from Hungary was below 1000 even in the past few years, while that of registered temporary emigrants was between 4,000 and 5,000, which lags far behind the data of the countries of destination (the so called 'mirror' statistics).

It can be seen that emigration was slightly strengthened by the accession of Hungary to the European Union (Fig. 5) but a sudden growth took place only in 2007 and 2008, which was probably due also to the fact that in 2006 five further member states (Finland, Greece, Italy, Portugal, and Spain), in 2007 another two (the Netherlands and Luxembourg), and in 2008 also France lifted their limitations of the labour market and new possibilities opened up before Hungarian citizens.

Fig. 5. Number of Hungarian citizens emigrating from Hungary and immigrating into other European countries, 1994–2010



Source: Author's data collection from the Eurostat database (2012); Demográfiai évkönyv (Demographic yearbook), 2010, for 2009-2010 supplemented with data from German and Austrian Statistical Offices.

[3] *This is naturally not the total number of emigrating Hungarians but merely a minimum as in some countries data are not available for certain years, and emigrants may have migrated outside Europe as well.*

Germany is still the primary country of destination for Hungarian emigrants in Europe where 14,000 to 25,000 Hungarian citizens were registered annually as immigrants also after the turn of the millennium. Between 2000 and 2008 two thirds of Hungarians emigrating to a European country came here on average (while in the mid-1990s this rate was still over nine tenths). Germany was followed by Austria with a much smaller though still considerable number of emigrants (2,4oo to 6,500 a year) and the UK in the past decade (Table 2). Although following the accession to the EU a greater number of Hungarian emigrants chose new countries as a destination (Spain, Italy, the Netherlands, and Sweden) than before, the traditional pattern of emigration still prevails.

Table 2. ***Number of Hungarian citizens immigrating into major European target countries, 2000–2010 (thousands)***

Target country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Germany	16.9	17.0	16.5	14.3	17.4	18.6	18.7	22.2	25.2	–
Austria	2.4	3.0	2.6	2.8	3.2	3.4	3.6	4.5	5.2	–
United Kingdom	2.0	3.2	1.3	2.0	4.1	1.1	–	–	3.5	–
Spain	0.2	0.3	0.3	0.3	0.6	0.8	1.3	2.1	1.4	1.0
The Netherlands	0.5	0.5	0.4	0.4	0.6	0.6	0.6	1.0	1.7	1.9
Italy	0.4	–	0.4	0.7	0.6	0.5	0.6	1.4	1.1	1.0
Sweden	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.8	1.0	1.0

Source: Author's data collection from the Eurostat database (2012), 2009-2010 for Germany and Austria: data from German and Austrian Statistical Offices.

In the case of Germany, the most popular country of destination for Hungarians, no data are given by Eurostat even as far back as 2009. According to the data of the German Federal Statistical Office, the steady growth in the number of immigrating Hungarian citizens beginning with 2004 did not stop after 2008, it even grew further. In 2010 their number approached 30,000, and in 2011 it was over 40,000. In Austria the number of immigrating Hungarian citizens registered in 2011 (9,600 persons) was one and a half times as high as one year earlier.

The attributes of emigrants are still less documented than their number. Though it is mostly the younger, economically active generations that plan to leave the country, the distribution of those who actually emigrate by age and sex can be learned only from statistics in the countries of destination which let us draw the conclusion that the majority of Hungarians registered in Germany are men (around 60 per cent since 2000), while in Sweden and Spain women constituted the majority similarly with 60 per cent at the beginning of the new millennium. From 2007 on, the share of the two sexes became balanced. However, the proportion of women among Hungarians living in Italy is very high (70 to 80 per cent).

As regards distribution by age, among Hungarians living in Spain in 2009 the share of the age group 25–34 was exceptionally high (44 per cent) and that of older age groups was very low (only 5 per cent were above 55), while the share of the latter was much larger in Germany (16 per cent of all Hungarians living in the country were above 55 and less

than 30 per cent were aged 25–34). This is a good example of the difference between the new and the traditional countries of destination. In Sweden the percentage of young people is very high. In 2009, nearly one fifth of them was below 20 (15 per cent was below 14), which indicates that a large number of Hungarians emigrating to Sweden live in families with children.

Table 3. ***Number of Hungarian citizens residing in major European countries of destination, 2004–2011***

Target country	2004	2005	2006	2007	2008	2009	2010	2011
Germany	54,714	47,808	49 ,472	56,075	60,221	63,801	65,443	73,433
Austria	14,151	15,133	16,284	17,428	19,318	21,527	–	–
Spain	1,724	2,298	3,044	4,704	6,628	7,791	8,365	9,104
Italy	3,446	3,734	4,051	4,389	5,467	6,171	6,868	7,404
The Netherlands	1,886	2,029	2,271	2,386	2,921	4,044	5,294	6,546
Slovakia	1,539	1,526	1,760	2,106	2,702	3,623	4,602	5,341
Sweden	2,303	2,309	2,349	2,560	3,104	3,862	4,525	4,886

Source: Author's data collection from the Eurostat database (2012), 2009-2010 for Austria: data from Austrian Statistical Offices.

Summing up the annual number of Hungarian emigrants on the basis of statistical data on immigrants in the countries of destination, it can be established that between 1994 and 2008 at least 380,000 Hungarian citizens left for various European countries, nearly 230,000 of whom did so after 2001. Adding also the number of those leaving between 2009 and October, 2011 (which is at least 80,000 in the case of Germany alone), it can be estimated that at least 310,000 left the country between the last two censuses. At the same time, the natural decrease of the population between February, 2001 and October, 2011 was about 387,000, the positive balance of foreigners immigrating and emigrating was 200,000, and the number of immigrating Hungarian citizens was about 25,000 (the last two data include the estimates for 2011, too). If the population of Hungary really decreased only by 216,000 persons as shown by the preliminary data of the 2011 census, the loss due to the emigration of Hungarian citizens was merely 74,000. On the basis of these data it can be assumed either that three quarters of emigrating Hungarians returned[4] to the country, which is not likely, or the migration surplus must have been much higher than what was registered, or the final census results differ from the preliminary ones.

Despite return migration and migration further, the number of Hungarian citizens in the major countries of destination has been steadily growing since the accession of Hungary to the EU (Table 3). Although in 2005 there was a decrease in the number of Hungarians registered in Germany, in early 2011 this figure was by 25,000 higher than in 2005. It seems that the economic crisis of 2008 did not break the trend.

In 2011 the number of Hungarian citizens officially registered in various European countries was over 200,000 (by 120,000 more than in 2001). Half of them lived in the two traditionally major destinations, i.e., Germany

4 *The statistics of the countries of destination include also „emigrating Hungarian citizens" but it cannot be ascertained whether they came back home or migrated further. At the same time, these statistics are just as uncertain as the Hungarian ones.*

THE NEW DESTINATIONS OF LABOUR-FORCE MIGRATION

Following the enlargement of the European Union in 2004, the United Kingdom and Ireland became the two major destinations for labour-force migration from the new member states as they immediately opened their labour markets for the arriving labour force. The labour statistics of these two countries reflect the dimensions of the migration of East Central European labour force. In the years after the accession the number of foreign workers coming from the EU8 increased, then after 2008, especially in Ireland, it decreased with regard to most countries of origin, probably due to the economic recession. Whereas the immigration statistics of the United Kingdom register 1,000 to 4,000 Hungarian citizens each year, 57,000 persons were registered as employees between 2004 and April 2011. In Ireland this latter figure was 23,000 till September, 2011. All in all, the emigration of Hungarian labour force to these countries of destination lagged much behind most East-Central European countries. As compared to the size of the sending population, it was only the Czech Republic and Slovenia that sent less migrant workers to the UK and Ireland than Hungary. The greatest rates could be observed among the Lithuanians, the Latvians, and the Poles.

(35 per cent) and Austria (15 per cent), and more than one fifth of them in the new country of destination, the United Kingdom (Table 4). These data do not include those Hungarian emigrants who gained citizenship in one of these countries in the meantime.[5] The number of persons born in Hungary exceeds by far that of Hungarian citizens in most countries of destination.[6] For example, in Austria the number of Hungarian citizens residing in the country was 13,000 to 20,000 between 2001 and 2009, whereas the number of those born in Hungary was between 30,000 and 36,000. In Sweden, the number of registered Hungarian citizens was just below 5,000 in 2011 but that of the persons born in Hungary was over 15,000.

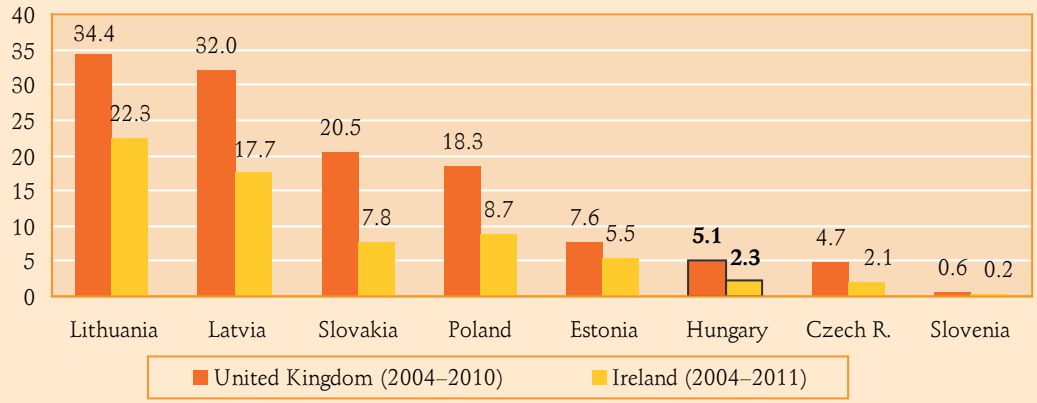
Table 4. Number and distribution of Hungarian citizens staying in the European countries, (January 1)

Country of destination	2001		2011	
	N	%	N	%
Austria	12,729	14.0	30,608	14.5
Belgium	1,534	1.7	4,451	2.1
Bulgaria	95	0.1	138	0.1
Czech Republic	418	0.5	711	0.3
Denmark	391	0.4	1,867	0.9
Finland	654	0.7	1,315	0.6
France**	2,961	3.2	3,500	1.7
Germany	54,437	59.7	73,433	34.7
Greece	538	0.6	–	–
Iceland	49	0.1	130	0.1
Ireland	–	–	4,877	2.3
Italy	3,066	3.4	7,404	3.5
Latvia	13	0.0	31	0.0
Lichtenstein	14	0.0	28	0.0
Lithuania**	8	0.0	6	0.0
Luxembourg**	143	0.2	688	0.3
Malta**	12	0.0	107	0.1
The Netherlands	1,538	1.7	6,546	3.1
Norway	343	0.4	1,356	0.6
Poland	403	0.4	449	0.2
Portugal	158	0.2	428	0.2
Romania*	23	0.0	268	0.1
Slovakia	–	–	5,341	2.5
Slovenia	51	0.1	201	0.1
Spain	778	0.9	9,104	4.3
Sweden	2,988	3.3	4,886	2.3
Switzerland	3,559	3.9	6,556	3.1
United Kingdom	4,273	4.7	47,000	22.2
Total	*91,176*	*100.0*	*211,429*	*100.0*

Note: *in 2009, **in 2008 (instead of 2011); –: no data. Data are completely lacking for Cyprus and Estonia, these countries were, therefore, omitted.
Source: Author's data collection from the Eurostat database (2012), Demographic yearbook 2011, for Austria: Austrian Statistical Office, for the United Kingdom: Annual Population Survey, estimation.

5 *At the same time, there are Hungarian citizens or Hungarian-born emigrants living in other continents as well.*
6 *Spain is an exception where very few foreign citizens succeed in obtaining citizenship.*

Rate of employees from the EU8 countries registered in the United Kingdom and Ireland as compared to the sending populations (per thousands), 2004–2010/2011



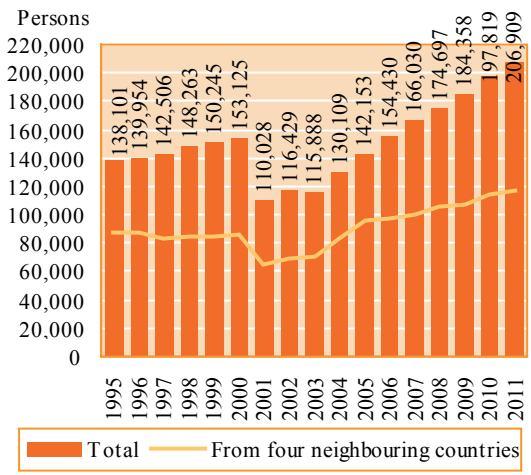
Source: Department of Social and Family Affairs (Ireland), Home Office UK Border Agency; author's calculations.

FOREIGN CITIZENS RESIDING IN HUNGARY

Despite return migration or migrations further and naturalization, the number of foreign citizens residing in Hungary was growing already between 1995 and 2000, then the tendency continued in 2001 (following a setback due to the revision of the database) to become even more emphatic from 2004 (Fig. 6). The number of foreigners in Hungary rose from 110,000 in 2001 to about 207,000 in January, 2011. The share of those from the neighbouring countries within the total number (stock) is slightly lower than among the immigrants (flow) but it was still 56–68 per cent in the discussed period.

With regard to the foreign citizens' country of origin the picture is similar to that of the immigrants, namely, the share of the neighbouring countries (primarily Romania), Germany, and China was the greatest (Fig. 7). The category 'Other European countries' contains every old member of the European Union, as well as Poland, Russia, and Turkey, citizens of which live in Hungary in numbers over one thousand. All in all, the majority of foreigners residing in this country (82 to 89 per cent) have been Europeans since 1995.

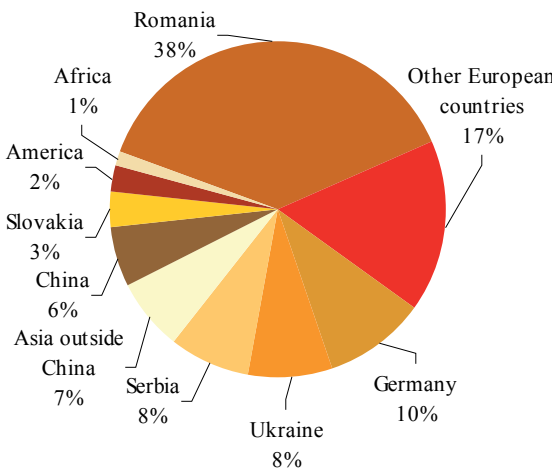
Fig. 6. ***The total number of foreign citizens and foreigners from four neighbouring countries residing in Hungary, 1995–2011 (January 1)***



Note: The system of registration for foreign citizens in the *Bevándorlási és Állampolgársági Hivatal (BÁH)* (Office of Immigration and Nationality) changed on January 1, 2000. As the processing of the data had been done by a different method from 1995 on, there are no comparable data for the earlier periods. Beginning with January 1, 2001 also a revision of data took place (expired permits of residence were struck off the register), there came about a decrease of over 40,000.
Source: Demográfiai évkönyvek (Demographic yearbooks)

The proportion of the sexes among foreign citizens is relatively balanced. Between 1995 and 2000 there was a slight male surplus (52–53 per cent), then came a slight female surplus till 2005 (51–52 per cent), and from 2006 a moderate male surplus could be observed again. In 2010 and 2011 it was 53 per cent in general and 55 per cent in Budapest. Women are in majority among immigrants from certain countries of origin like Russia (64 per cent), Poland (61 per cent), Slovakia (60 per cent), and the Ukraine (53 per cent).

Fig. 7. ***Distribution of foreigners residing in Hungary on January 1, 2011 by country of citizenship***



Source: Demográfiai évkönyvek (Demographic yearbooks).

As regards the distribution by age group, foreigners show the typical distribution of migrants with the predominance of young people. On January 1, 2011 one third of foreign citizens residing in Hungary was under 30 and nearly another one quarter was aged 30–39. 45 per cent of them belonged to the age group 20–39. The proportion of young people was still greater in Budapest where nearly two thirds of them were under 40 and 50 per cent were aged 20–39, which obviously follows from the fact that the motivation of this generation is primarily employment and education.

Comparing the distribution of immigrating foreigners by age group with that of the total population of the country one can see that the share of age groups 20–49 is higher among the foreigners in the case of both sexes, while that of persons above 50 and especially those under 20 is much more moderate than in the receiving population. Whereas in the age groups 20–24 and 25–29 the number of foreigners residing in Hungary per 1000 inhabitants was 33 in the case of women and 35 in the case of men in 2011, these numbers remained below 15 in the case of persons above 60 and under 20.

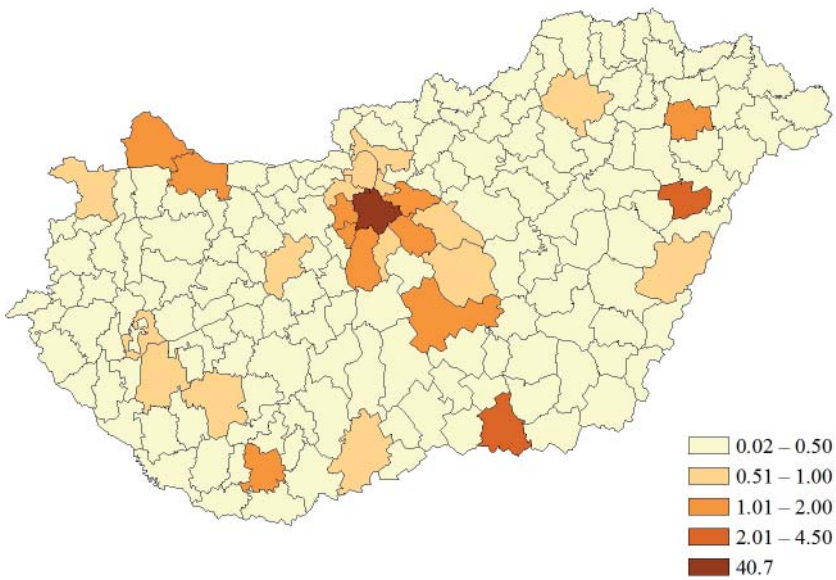
On further important characteristics of the foreign population in Hungary such as the level of education, economic activity, occupation, linguistic and cultural traits, more information will be made available by the census results. Statistics on immigration offers no or just very incomplete information in this respect.

The spatial distribution of foreigners residing in Hungary is typical, just as that of immigrants in general. Most of them live in the region of Central Hungary (55 per cent), primarily in Budapest. The share of those living in the capital and in Pest County has been rising since 2001, as a result of which over half of all foreign citizens living in Hungary (52–57 per cent) can be found in this region from the mid-2000s. A great proportion lives also in the Southern and Northern Great Plains, though their rate has slightly decreased in both regions as compared to 2001. The decrease within the two regions took place mostly in those counties (Szabolcs–Szatmár–Bereg and Csongrád) where the percentage of foreign residents was the highest after Pest County in 2001. The share of foreigners in the least preferred region of Northern Hungary is

similarly falling probably due to the fact that this region is the destination more of commuting migrants (those working by the border) and not so much that of foreigners with residence permits or permanent residence permits. Besides the capital and its environs, the rate of foreigners grew in the past decade only in the region of Western Hungary (mostly in Győr–Sopron–Moson County and Zala County). Despite the above-mentioned changes, the spatial distribution of foreign citizens in Hungary is relatively stable. The order of the regions by the rate of foreign residents did not change much, either.

Breaking down the data to sub-regions, it can be observed that despite their concentration in the central region, foreigners can be found in all sub-regions to a certain degree, though they reach 0.5 per cent only in 29 sub-regions and exceed 2 per cent only in two, namely, in the Szeged and in the Debrecen sub-region (Fig. 8).

Fig. 8. ***Distribution of foreign citizens residing in Hungary by sub-region, January 1, 2011 (per cent) (%)***



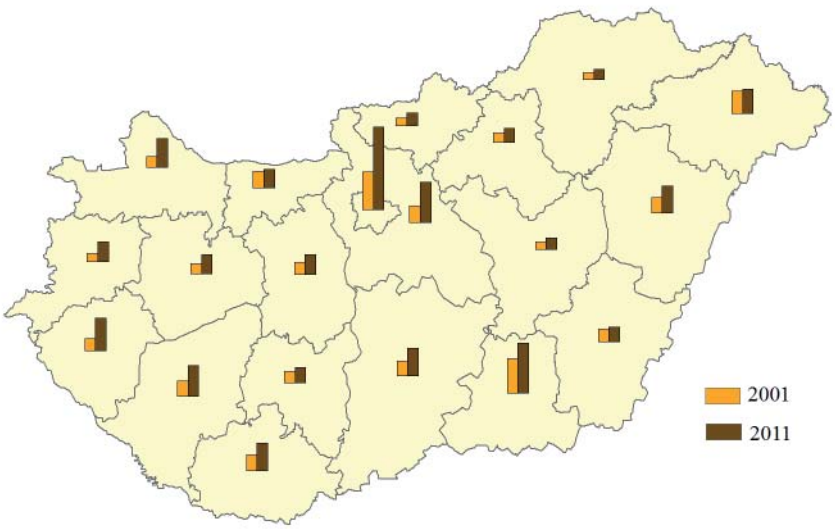
Source: Demográfiai Évkönyv, 2010. (Demographic Yearbook 2010.).

As regards the types of settlements foreigners in Hungary preferred in 2011, 41 per cent of them lived in the capital, 38 per cent lived in towns, and 21 per cent lived in villages. When the attraction of the capital grew, the percentage of the foreign population in the towns decreased but there was no major change in the share of foreigners living in villages in the past decade.

Preferences for various regions and settlement types are reflected also in the number of foreign residents per thousand inhabitants. Whereas in 2011 the annual national average (10.8 per thousand) nearly doubled by 2011 (20.7 per thousand), this growth was not uniform in all regions and counties. In Budapest and in Pest County

most preferred by foreign residents already in 2001 the growth was bigger, just like in two counties of Western Transdanubia (Zala and Győr–Sopron–Moson) (Fig. 9). As a contrast, in Szabolcs–Szatmár–Bereg, Békés, and Komárom–Esztergom the number of foreigners per thousand inhabitants hardly increased in the past decade. This rate is still the highest in the Southern Great Plains after Central Hungary. As regards the types of settlements, the number of foreigners per thousand inhabitants in towns and villages is hardly one third of the rate for Budapest.

Fig. 9. ***Number of foreign citizens residing in Hungary per thousand inhabitants by counties, January 1, 2001 and 2011***



Source: Demográfiai Évkönyv, 2010. (Demographic Yearbook 2010.).

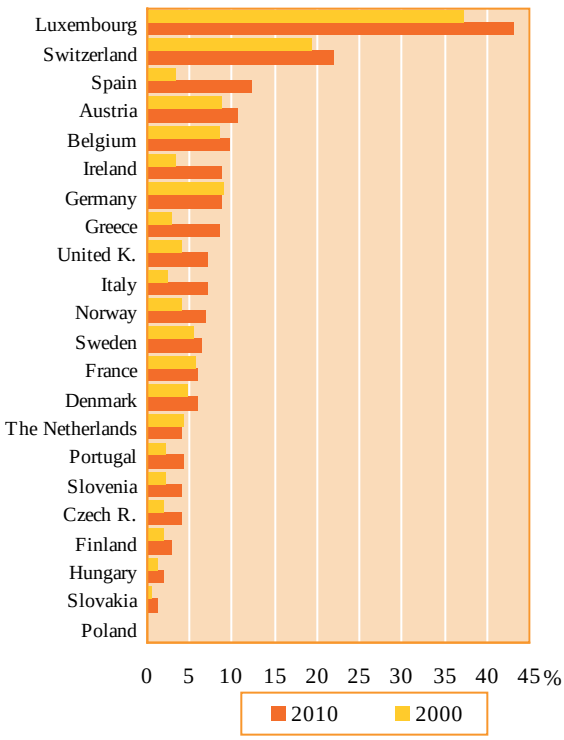
The spatial distribution of foreigners in Hungary differs also by the countries of origin. Central Hungary and mainly the capital especially attract Asian immigrants. In 2011 82 per cent of the Chinese immigrants lived in the capital and hardly 1 per cent lived in villages. It is typical also of persons coming from some neighbouring countries that they concentrate in territories near the border, whereas West European citizens are overrepresented in the Transdanubian region (e.g., 44 per cent of the Germans live in Southern and Western Transdanubia, 39 per cent of them in villages).

Despite the growth of their absolute number, the share of foreign citizens within the total population continues to be low as it rose from 1.1 per cent in 2001 only to 2.1 per cent in 2011. In this respect, Hungary lags behind most European countries (on the basis of international data for 2010), preceding only Slovakia and Poland (Fig. 10). Comparing the recent rates with those recorded a decade earlier it can be observed that with a few exceptions (Germany and the Netherlands), the rate of foreigners grew in most countries as compared to 2000. The growth was

especially high in Spain, Italy, Greece, and Ireland but was considerable also in Portugal, the Czech Republic, and Slovenia.

The share of the population born abroad is higher in most countries than that of foreign citizens.[7] This proportion is estimated to 4.4 per cent in Hungary at present, to be specified after the census results will be available.

Fig. 10. ***The percentage of foreigners in the receiving population in selected European countries, 2000 and 2010***

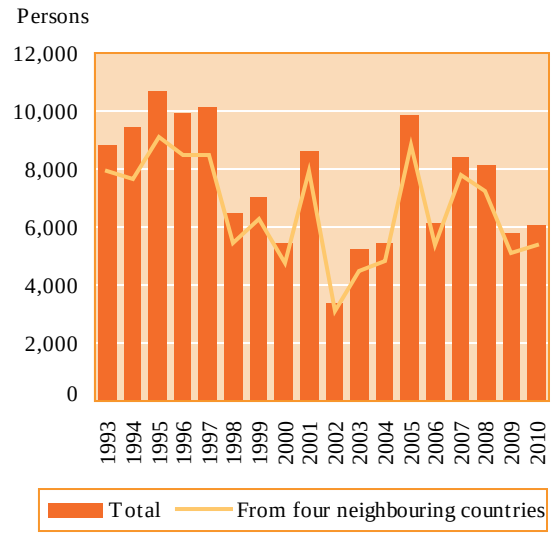


Source: Eurostat (Statistics in focus 34/2011).

NATURALIZED FOREIGN CITIZENS

Between 1993 and 2011 over 135,000 immigrants were granted Hungarian citizenship (Fig. 11).

Fig. 11. ***Number of foreigners granted Hungarian citizenship including those from four neighbouring countries, 1993–2010***



Source: Demográfiai évkönyvek (Demographic yearbooks).

87 per cent of the new citizens came from four neighbouring countries, mostly from Romania (66 per cent). The proportion of those coming from neighbouring countries has always been higher among new Hungarian citizens than their share within immigrants in general (between 85 and 93 per cent), which follows from the fact that their Hungarian ethnicity and mother tongue made it easier for them to fulfil the requirements of naturalization. Persons from Asia constitute 1 or 2 per cent of new citizens each year, so despite their relatively high number (over 26,000 in 2011) only few of them become Hungarian citizens.

Among those receiving citizenship the share of women is slightly higher, it has been around 56 per cent since the mid-2000s. New citizens are slightly older today than in the

7 As an exception, in Luxembourg the proportion of the population born abroad was 32.5 per cent in 2010, whereas that of foreign citizens was 43 per cent within the total population due to the fact that gaining citizenship is very difficult there even for children born to foreigners in the country.

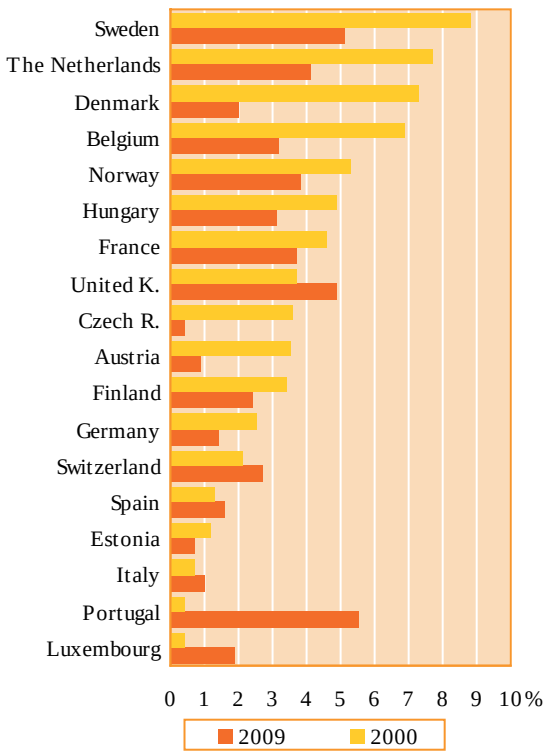
early 1990s. In the past few years about 30 per cent of them belonged to the age group 30–39. As compared to the beginning of the period, the share of those above 60 grew considerably until 2006 (to about 23 per cent in both sexes). However, this tendency stopped short from 2007 on, and the rate of persons 60+ among new citizens is recently around 10 per cent.

The spatial distribution of the new citizens is similar to that of foreign immigrants in general but there are some differences, too. The share of those living in Pest County is higher (20 per cent) and the proportion of those living in Budapest is lower (34.5 per cent) than that of foreign residents, just like in the Western and Southern Transdanubian regions. It seems that immigrants in the regions preferred by Western European, primarily German people apply for Hungarian citizenship to a smaller degree.

Comparing the number of foreigners with Hungarian citizenship with the total number of foreigners residing in the country we receive information about the political and legal integration of immigrants. Hungary was the sixth among the countries of Europe in this respect in 2009, though merely 3 per cent of all foreigners living in the country had been naturalized (Fig. 12). In the case of several big countries of destination (Germany, Austria, Spain, Italy, and Luxembourg) this proportion was below 2 per cent that year. However, these countries had a large number of immigrants as compared to Hungary, and these people differed a lot in language and culture from the receiving population.

The simplified naturalization process introduced in 2010 and coming into force on January 1, 2011 made it possible for people with Hungarian ancestry to gain Hungarian citizenship even without residing in Hungary. This inevitably leads to the growth of the number of new citizens. Citizenship is no longer granted exclusively to immigrants, so the percentage of this group within the foreign population residing in the country has lost its relevance since 2011.

Fig. 12. ***Percentage of naturalized immigrants in the foreign population residing in selected OECD countries, 2000 and 2009***



Source: OECD 2011.

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12.

STRUCTURE AND FUTURE OF THE HUNGARIAN SOCIETY[1]

Erzsébet Földházi

MAJOR FINDINGS

- The population of Hungary has been diminishing ever since the early 1980s. Between 1981 and 2012 it decreased by nearly 750,000 out of which a loss of about 70,000 took place in the past three years.
- Population loss is the joint consequence of the low number of births and the high number of deaths. Natural decrease was slightly mitigated in the past decade by the positive balance of international migration.
- As women live over eight years longer than men, their share within the population is growing.
- Besides the overall process of demographic ageing, the age structure is characterized by the decreasing percentage of young people. Between 2009 and 2012 these processes continued, so today nearly one quarter of the population is above 60, and every sixth person is aged 65 and above, whereas the proportion of those under 20 is merely one fifth.
- The ageing index is steadily rising. The number of persons aged 60 and above has been higher since 2007 than that of persons under 20. At present, the difference is 12 per cent.
- The spatial distribution of the population can be considered relatively stable. The number of Budapest residents was slowly rising in the past few years. The overwhelming majority of the sub-regions is characterized by a population loss, mainly in the economically more backwards parts of the country. From the 175 sub-regions, the population of only 31 increased almost steadily from 1990 on, to the largest extent some of them in Pest County.
- According to the latest population projections, a further decrease and an even stronger ageing process can be expected. By 2060 the number of the population will decrease by a million and a half, the proportion of the old (60+) will approach 40 per cent, and the number of old people will be over double the number of those under 20.
- According to the different population projection models, Hungary needs a considerable positive change in child-bearing, life expectancy and inter-national migration as well so that its population decrease and ageing process will slow down.

POPULATION – PAST, PRESENT, AND FUTURE

The population of a country changes relatively slowly as a result of the gradual changes year by year. Long-term tendencies unfold only in the course of a longer period. At the same time, the development of the population is relatively predictable due to the regularity of the processes influencing change.

It is primarily the population censuses

[1] *Revised version of László Hablicsek's study under the same title in Demographic Portrait 2009 (HCSO – DRI).*

that provide us with detailed information on the size and distribution of the population by various characteristics like sex, age, residence, marital status, educational level, economic activity, etc. The latest two censuses were taken in 2001 and 2011.[2]

The changes between two censuses are covered by the vital statistics (the registration of births, deaths, marriages, and that of the dissolution of marriages), the statistics of internal and external migration, other country-wide surveys, the microcensuses, and various representative surveys. The reliability of information gained from them is varied. For example, vital statistics is much more accurate than the data on migration.

On the basis of vital statistics and migration statistics population size is calculated for the years after the censuses by sex, age, and settlement. Due to various reasons, this calculated size of the population is not quite accurate. The differences are corrected at the next census. The most important characteristics of the population are its total number and the changes thereof, its distribution by sex and age, and its spatial distribution.

The present chapter includes also a national projection with respect to population size and its distribution by sex and age. The projection presented in the previous volume was completed and modified by the data of the years in between and the changes following from them. The estimations updated in this way run up to 2060, in harmony with the estimations of Eurostat covering the next half a century.[3]

Projection has been made in the usual three versions, i.e., in a medium (basic), a high, and a low version. The medium (basic) variant can be considered a realistic scenario of the future. The low version is highly pessimistic, while the high one is greatly optimistic. The system of hypotheses is the following.

Table 1. ***Different versions of hypotheses in the population projection for 2060***

Indices	Actual data on 2010*	Versions of hypotheses for 2060		
		Basic	Low	High
Average child number per woman (TFR)	1.26	1.50	1.30	1.70
Life expectancy at birth, men	70.50	82.60	77.90	88.30
Life expectancy at birth, women	78.10	88.80	84.40	93.20
Balance of international migration	11,519	15,000	8,000	22,000

*According to preliminary data of the 2011 census, the average number of children is 1.24 and the balance of international migrations is 17,350 persons.

CHANGES IN THE SIZE OF THE POPULATION AND THEIR FACTORS

In 1981 the population of Hungary was 10,710,000, which figure was the highest in the present territory of the country in the course of history. With the exception of 1992, this figure has been steadily decreasing since then. The census of 2001 registered 10,200,000 persons, and on October 1, 2011, the theoretical date of the following census, the number of the population was 9,982,000, therefore the loss is 218,000 persons in the period between the two censuses. The figure estimated on the basis of vital statistics for early 2009 was 10,030,000 but for early 2012 it was only 9,962,000, i.e., a loss of 68,000 people was calculated for three years.

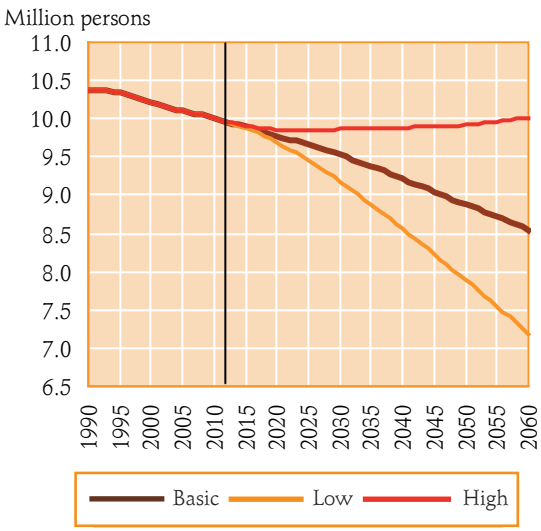
Population projection allows for wide limits when calculating the population for 2060. The medium expectation is 8,550,000, the highest value is 10,010,000, and the lowest is 7,190,000.

[2] *The detailed results of the 2011 census are not yet available, so the study can rely only on preliminary data.*
[3] *For the methodology of projection see the text in frame.*

The difference between the two extremes is 2,820,000.

This means that the decrease of the population is considered a basic tendency in the years 2011 to 2060 as it is estimated at a value of hardly over 10 million even in the high variant counting on a considerable improvement in fertility and intensive immigration. In order to realize a population growth, more than 1.7 children supposed by the high version would be needed on average but the highly unfavourable development of fertility in the past few years makes it increasingly less likely. The pessimistic low variant of hardly more than 7 million envisages a serious population loss (Fig. 1).

Fig. 1. ***Size of the population in Hungary, 1990–2060***

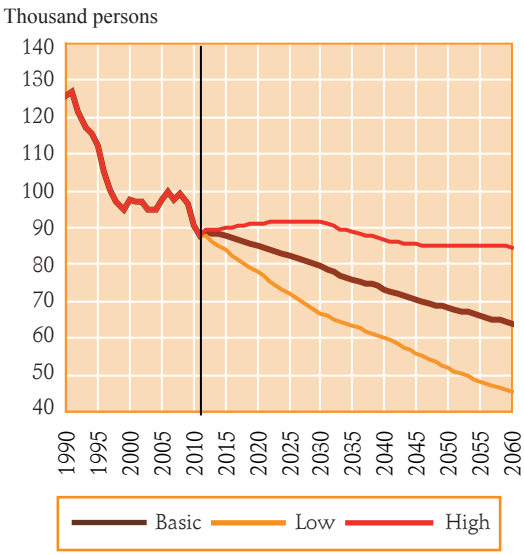


Source: HCSO Demographic Research Institute. Authors' calculations.

Population decrease has been more or less steady and even since the change of regimes. Between 1990 and 2001 the population of the country decreased by 175,000 and between 2001 and October, 2011 by 218,000, which totals nearly 400,000. Population projection for the next half a century indicates that a loss of another 1.4 million can be expected even in the case of moderately improving parameters.

The changes in the size of the population are determined by the number of live births, by that of deaths, and by the balance of international migration as well. If the number of births exceeds that of deaths we speak of natural increase. If not, we speak of natural decrease.

Fig. 2. ***Number of live births, 1990–2060***



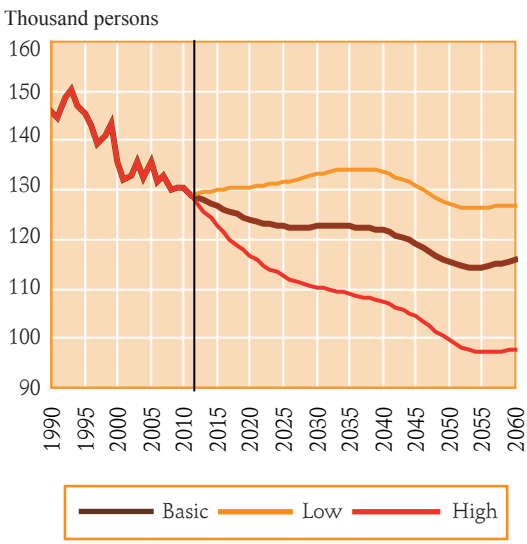
Source: HCSO Demographic Research Institute. Authors' calculations.

In 1990 still 126,000 babies were born but since 1998 the annual number of live births has been below 100,000. In 2010 90,000 babies were born but in 2011 only 88,000. Hungary has never experienced such a low number of live births in its history. A further decrease can be expected for the next twenty years, too, because the fertile female age groups are becoming ever less numerous. Should the average willingness to

have children remain unchanged, the number of births will drop again, and it will lag behind the earlier number of live births even in the case of moderately improving fertility rates. In a favourable situation (by a relatively high level of fertility) the number of live births can rise slightly above 90,000 but this tendency will turn in the long run once again (Fig. 2).

The other factor of natural growth is mortality. The probability of death grows with age, the number of deaths is, therefore, basically determined by the size of the older age groups (of those above 40 or 50). Another factor influencing the number of deaths is mortality, that is to say, the changing life expectancy in the various periods of life. The mean life expectancy at birth is the summary indicator of this factor.

Fig. 3. ***Number of deaths, 1990–2060***



Source: HCSO Demographic Research Institute. Authors' calculations.

The number of deaths was very high in the greater part of the 1990s, over 140,000 per year. The improvement of mortality beginning with 1995 led to a gradual decrease as a result of which the number of deaths in 2008 was only 130,000. In the two years after 2008 it stagnated on the same level and decreased again in 2011, remaining below 129,000. If the improvement remains moderate in the future, the number of deaths will decrease after a slight growth, then stagnates and, in the case of a gradual improvement, can remain permanently around 120,000. Should a considerable improvement occur, it can, however, drop to below 100,000 by 2060. There is no possibility to push it further down, which means that the expected rise in life expectancy alone will not be able to stop the natural decrease of the population without a remarkable rise in the number of live births (Fig. 3).

At the same time, it can be established almost with full certainty that similarly to the past twenty years, the number of live births will fall short of that of deaths in the future, too. Between 1990 and 2011 the number of deaths was by 775,000 higher than that of births. In the past three years alone, the natural decrease of the population was 115,000. In the next 50 years it will be 2,240,000 even by moderately improving conditions. This negative tendency can be mitigated by the positive balance of international migration, which means that the number of persons moving to Hungary exceeds the number of those leaving it. It has to be noted here that this time only those types of migration are dealt with that directly influence the number of population, i.e., ones for which a settlement permit or a long-term residence permit is needed.

Between 1990 and 2011 the total balance of international migration was over 356,000 persons, i.e., this was the surplus of immigrants as compared to the number of those leaving the country. The number of the latter was 46,000 in the past three years.[4]

According to the medium version of population projection, the surplus of

[4] *Migration statistics are the least accurate among all statistics of population movements, so this figure is partly an estimation.*

METHODS OF POPULATION PROJECTION

The structure of the population and its changes are in close interaction with the economic, social, and environmental processes in the future partly as their cause and partly as their effect. Population projection, i.e., calculations for the changes in the number and structure of the population, can be an important starting point of social and economic planning. However, this necessitates basic knowledge on the part of the users as regards projections prepared by various institutions.

Besides the individual countries, several large international organizations prepare population projections, too. The United Nations Organization plays a leading role in this field and has published world-wide projection since the 1950s. Later there were three institutions dealing with population projection for the whole world, namely, the United States Census Bureau (USCB), the World Bank (WB), and the International Institute for Applied Systems Analysis (IIASA). The statistical office of the EU (Eurostat) prepares projections for the member states, as well as for Norway and Switzerland. [a)]

The basis of all methods used by the individual institutes is the cohort component method. When using this method, the basic components of population change are taken into account, such as live births, deaths, and international migration. The starting point is the current structure of the population at the time of the preparation of the projection by sex and age. The number of the initial population is increased by live births and decreased by deaths, just as immigrants contribute to it and emigrants diminish it. As a result of these processes, the size of the population changes year by year, and the changes in the age structure has to be taken into account, also.

Projections are based on initial hypotheses as regards the future rate of fertility and mortality and the number of migrants. In order to be able to frame them, researchers need to analyze the tendencies of the past, rely on earlier research result, and compare their own with those in countries that show similar trends in their development. Most frequently, there are three systems of hypotheses concerning the components of the projection. The medium one shows the most probable future changes, while the low and high variants indicate the limits that are held possible at the time of the preparation of the projection. By combining the various hypotheses, a great number of relevant scenarios can be created but it is generally three fundamental variants that are calculated, namely, the high, the medium (or basic), and the low.

The methods of calculation can be different at the various institutions as to the initial system of hypotheses and as to how they handle the inevitable uncertainty pertaining to long-term population projections.

The UN sets out from the latest available data on the population or, should they be failing, makes estimates. Various hypotheses are formed with regard to countries with low, medium, and high fertility. In the course of the latest projection, a new method based on the theory of probability was used for working out hypotheses for fertility. The basis of the method is the fact that the change in fertility can be divided into three phases. First comes a phase with high fertility, preceding fertility transition. Then comes the transition itself, and finally, comes a post-transitional phase characterized by low fertility, fluctuating around a level necessary for simple population replacement, remaining close to it or tending towards it. The hypotheses for the individual countries are worked out according to the actual phase the country is currently in. The projection looks into the future as far as 2100 and contains all in all eight possible versions or scenarios. As regards fertility, five hypotheses have been worked out: a medium one, a low one, a high one (differing from the medium variant

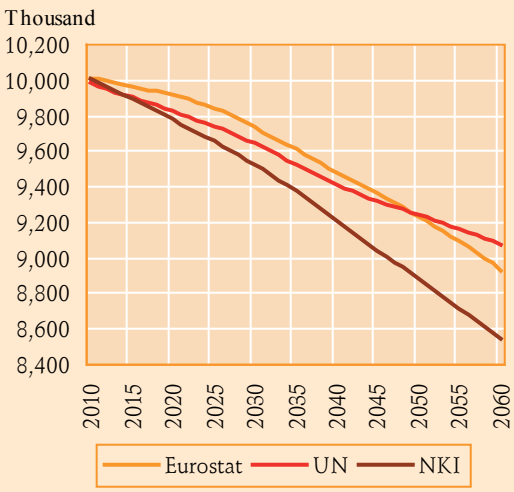
a) Besides the above-mentioned organization, several demographic research institutes deal with population projection. The Netherlands Interdisciplinary Demographic Institute (NIDI) makes various long-term projections for the European countries, and the Vienna Institute of Demography (VID) works in cooperation with the IIASA on a world-wide population projection.

by 0.5 children on average), one postulating invariable fertility, and one counting on simple replacement. With regard to mortality, there is a variant (besides the medium one) that takes into account the impact of AIDS on mortality and one taking the mortality level of 2005–2010 constant. International migration was projected on the basis of a medium and a zero variant. Combining these hypotheses, eight versions have been worked out for population projection. The projections are updated every second year in three versions, and a totally new population projection is made with eight variants in every ten years. The results are published in the series World Population Prospects.

Eurostat similarly works on the basis of the cohort component method. Its basic assumption is that the fertility and mortality indices of the EU member states are getting closer and international migration tends to become balanced. The latest calculations postulate 2150 as the date of convergence. The calculations are updated every second year and published in the series Europop. Projections cover fifty years, currently ending with 2060. According to the calculations of Eurostat, in 2060 a woman will give birth to 1.68 children on average, men will live to be 82 and women 87, and the immigration surplus (the difference in the number of immigrants and emigrants) will be nearly 12,000 in Hungary.

The projection of Eurostat predicts at first a slower, then an accelerating population loss for Hungary. The UN prognosis counts on a more even and more moderate population loss. Both calculations envisage 9,258,000 inhabitants for 2049 but eleven years later, in 2060 Hungary will have 8,898,000 inhabitants according to Eurostat, and 9,053,000 inhabitants according to the UN, the difference being 155,000. The projection of the Demographic Research Institute[b] estimates 9,525,000 inhabitants for 2030 and 8,546,000 for 2060.

Prospective changes of the population of Hungary between 2010 and 2060 by projections of Eurostat, the UN, and the DRI



b) According to the hypotheses dealt with earlier, the medium variant for 2060 as regards the mean number of children is 1.5, male life expectancy is almost 83 years and female life expectancy is 89 years. The migration surplus is 15,000 persons per year.

immigration will be 744,000 between 2012 and 2060, which will considerably mitigate the decrease of population.

STRUCTURE OF THE POPULATION BY SEX AND AGE GROUPS

The distribution of the population by sex is shaped by three factors: the proportion of girls and boys among the new-born, the differences in mortality by sex, and the share of women and men among the migrants. For biological reasons there are more boys among the new-born than girls and for similar reasons their life expectancy is a bit lower. The differences in mortality are enhanced further by the different life styles, so female life expectancy at birth can exceed that of men even by 10 to 12 years. In Hungary, the typical advantage of

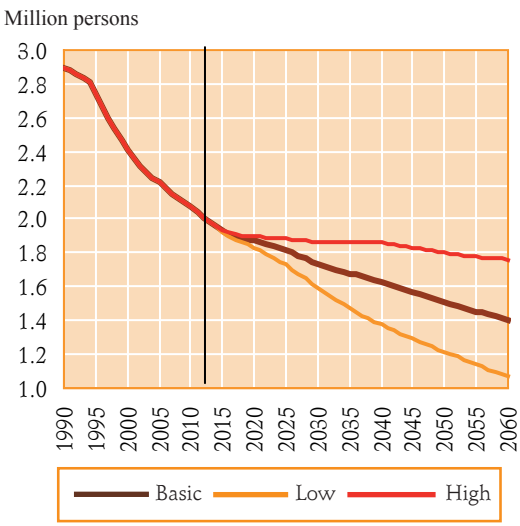
women is 8 to 9 years, in countries with more developed health care systems and a more health conscious population it is 5 to 7 years, and in certain countries it can even be 4 years.

The population can be divided also to young, middle-aged, and elderly or old individuals. According to the general practice of the European Union persons below 20 are considered young. The limit of old age can, however, be either 60 or 65. In Hungary the first one is more justified as the retirement age is (still) nearer 60 than 65 and the average age at retirement is below 60.

The changes in the number of persons belonging to the different age groups are just as important as the changes in their share as compared to the whole of the population. This latter value is given special attention in examining the ageing of a population, i.e., the process when the mean age of a population rises and the proportion of the old generations increases. The middle generations are the ones who provide for both the young and the old. The relative weight of burden is shown by the dependency ratio. The quotient of the number of the young and the middle-aged is the young age dependency ratio, while that of the old and the middle-aged is the old age dependency ratio. The total of the two is the total dependency ratio. The dependency ratio is not to be mistaken for the ratio that compares the number of economically inactive persons with that of the active ones (sometimes mentioned also as dependency ratio in literature). Another important indicator is the ageing index that compares the number of the old to that of the young.

In 1990 there lived 5.4 million women and 5.0 million men in Hungary, 1,082 women falling to 1,000 men. In 2009 the number of women was 5.3 million and that of men was 4.8 million, the rate of the sexes changing to 1,106. This latter figure was 1,104 in 2012 with 5.2 million women and 4.7 million men. The rate of men decreases primarily due to their higher mortality. According to the basic variant of population projection counting on a larger increase of life expectancy among men, in 2060 there will be 4.1 million men and 4.4 million women, the rate indicating female surplus falling to 1,068.

Fig. 4. ***Number of persons aged 0–19, 1990–2060***



Source: HCSO Demographic Research Institute. Authors' calculations.

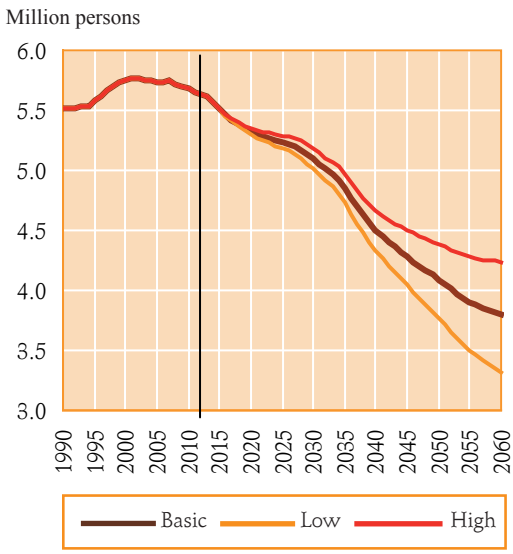
The size of the population by years of age is determined by several factors the most important of which is the size of the subsequent birth cohorts. As time passes, the outstandingly high birth peaks and deep troughs of the past result in increase or decrease in different age groups. At present the people born in two outstandingly large birth cohorts form especially numerous age groups. Age cohorts born in the 1950s and 1970s are much more numerous than others born either earlier or later. When age

groups large in numbers reach old age, the ageing of the population suddenly – but not unexpectedly – accelerates. This is an additional burden on the ageing society struggling with the growing number of old people, arising from the improvement of life expectancy and the decreasing number of new generations, resulting from low fertility.

In early 1990 the number of those aged 0–19 was still 2.9 million, in 2009 they numbered only 2.1 million, and in 2012 2 million (Fig. 4). The decrease of nearly 890.000 was due to the extremely low level of fertility, that goes back partly to the postponement of childbearing to an ever higher age. As time goes by, around 2060 the even less numerous fertile generations may tend to have more children but the growth of fertility should be much higher than the expected in order to counterbalance the shrinking of the age group 0–19 in the long run. So the tendency remains and the projected number of the young can be merely 1.4 million in 2060. However, the number of the age group may decrease even to a far greater degree, should the average number of children remain as low as it is today. The share of the young is today 21 per cent, which is much lower than in the early 1990s (28 per cent) but still higher than it probably will be in 2060 (17 per cent).

The size of the middle-aged population (20–59 years) has been greatly increased by the fact that not only those born in the 1950s but also those born in the 1970s have been included. The positive migration balance also contributes to the high figure today. The group of those aged 20–59 numbered 5.5 million in 1990 and it numbers 5.6 million today. However, a decrease has already begun, which will accelerate in a few years when the numerous generations born in the 1950s will reach 60. In 2030, the age group is expected to number 5.1 million, and in 2060 about 3.8 million (Fig. 5).

Fig. 5. ***Size of the age group 20–59, 1990–2060***

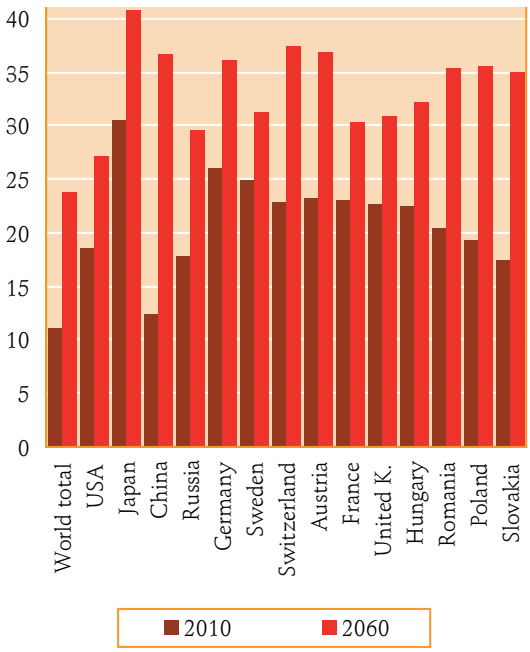


Source: HCSO Demographic Research Institute. Authors' calculations.

Calculating on the basis of the present age limits, one quarter of the population of the Earth will be old in 2060. The share of the old in almost all developed countries can be expected to be over 30 per cent (Fig. 6).

In the early 1990s persons above 60 numbered 1.9 million, in 2009 over 2.2 million, and in 2012 already over 2.3 million. Their proportion within the population rose from 19 to 23 per cent. As a combined result of the formerly mentioned fluctuation of age groups, low fertility rates, and improving life expectancy, by 2030 their number will rise to 2.7 million and their proportion to 28 per cent. By 2060, as a result of the uninterrupted process of ageing, their number can reach 3.3 million and their share can be around 39 per cent (Fig. 7).

Fig. 6. ***The proportion of persons 60+ in selected countries of the world, 2010 and 2060***

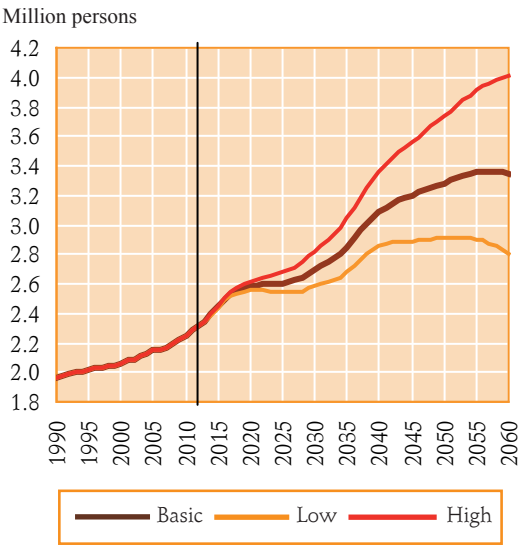


Source: UN Population Division. World Population Prospect. The 2010 Revision. Data collection. http://esa.un.org./unpp

Adding 5 years to the lower limit of old age, the number of persons 65+ can be expected to rise to 2.1 in 2030, which is near the number of those aged 60+ today. The proportion of persons 65+ within the population can approach 22 per cent, i.e., the present share of those above 60. In 2060 the age group is expected to number about 2.8 million, i.e., every third person will be 65 or older.

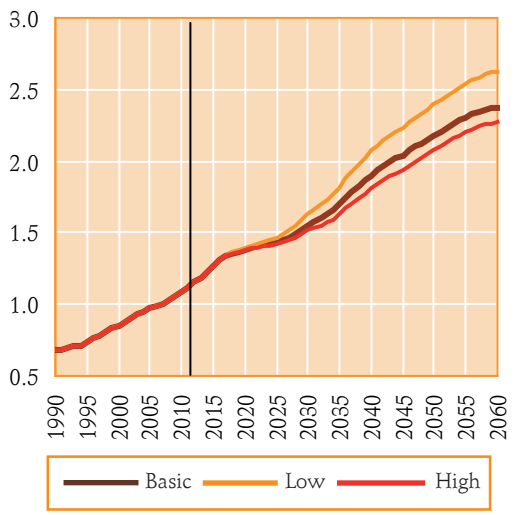
The ageing index (the quotient of the number of the old and the young) is a similarly important indicator of the shifting focal points of the different care systems within the population. The ageing index has risen from an annual 0.7 in 1990 to over 1.0, so today there are more old people than young in the population (Fig. 8). The proportion of the old compared to the young will continue to rise dynamically in the decades to come. By 2030 it is expected to be around 1.5 to 1.6, and in 2060 around 2.3 to 2.4. This latter figure means that the number of the old will be double the number of the young.

Fig. 7. ***Number of persons aged 60+, 1990–2060***



Source: HCSO Demographic Research Institute. Authors' calculations.

Fig. 8. ***Ageing index, 1990–2060***



Source: HCSO Demographic Research Institute. Author's calculations.

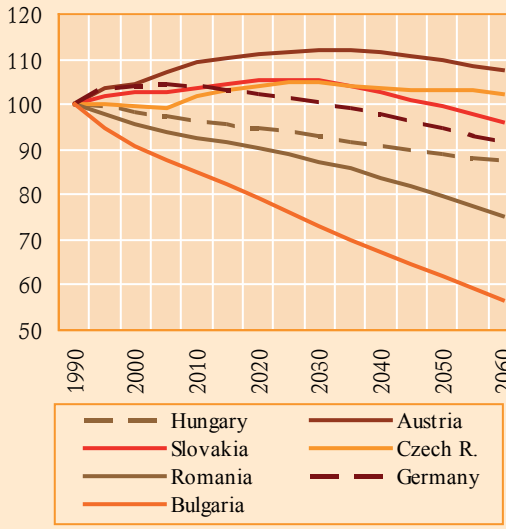
INTERNATIONAL COMPARISON: POPULATION CHANGE IN HUNGARY AND IN CERTAIN COUNTRIES OF THE REGION

According to the medium variant of the UN projection, there will be considerable differences among the countries of the region in the next four decades. The population of Hungary has been decreasing since the 1980s, and has produced a moderately falling tendency since the change of regimes. This decrease is expected to accelerate from the 2010s on, as a result of which in 2060 the population of the country will be only 87 per cent of that in 1990.

In neighbouring Austria, the number of the population has been growing throughout almost the whole discussed period. The growth slowed down a bit only in the last two decades. The number of the population is still above the level of 1990 by 7 per cent. In the 15 years following the unification of the country, the German population was slightly growing but it has been steadily decreasing since 2010, to drop to about 91 per cent of the value of 1990 by 2060.

According to the projection, the Slovakian population reaches its maximum between 2025 and 2030, and falls by 4 per cent below the 1990 level by 2060. The situation in the Czech Republic is varied. Between 1990 and 2008 the number of the population was steadily decreasing, then partly due to positive changes in fertility, a considerable increase began that is expected to last till around 2030. The UN projection expects a slight decrease in the following years but the number of the population will still remain above the level of 1990.

Prospective changes in the population of certain Central and East European countries, 1990–2060 (1990=100)



Source: World Population Prospects: The 2010 Revision http://esa.un.org/wpp/unpp

The population changes in Romania and Bulgaria are the most unfavourable, primarily due to massive emigration and low fertility. The population of both countries started to drop heavily following the change of regimes, and by 2060 Romania is expected to reach 75 per cent of its population in 1990. The respective figure for Bulgaria is merely 57 per cent, in case the UN projection will come true.

SPATIAL DISTRIBUTION OF THE POPULATION

For statistical reasons the territorial units of the individual countries are divided into categories within the European Union according to a unified system. The arrangement by five (the so-called NUTS levels)[5] for Hungary consists of the following: the whole of the country, the regions, the capital and the counties, the sub-regions, and the settlements. The second level contains at present seven regions, the third contains 19 counties and the capital city, the fourth contains 175 sub-regions, and the fifth contains about 3,000 settlements.

The population of a territory generally means the residential population, i.e., the

[5] *Nomenclature d'unités territoriales statistiques – Classification of statistical territorial units.*

individuals who specified the given county and locality as their place of residence. The place of residence is generally identical with the actual place where they live. Besides the factors influencing also the number of the population in a country (like births, deaths, and international migration), the number of the residential population in a given territorial unit is influenced also by internal migrations or movements between the individual territorial units within the country.

The spatial distribution of the residential population has been considered stable for a long time as no sudden changes occur (Table 2). In 2001 and 2011 the inhabitants of Budapest represented 17.4 per cent, which is a considerable decrease of 280,000 persons as compared to the 19.4 per cent of 1990. This change is, however, the combined result of the slow decrease beginning from the mid-1990s and the faster increase beginning with 2008. The deepest point was 2007 when Budapest had only 1,695,000 inhabitants. Pest County has witnessed an unbroken increase since the 1990s, and its pace even accelerated from 2000, as a result of which the share 9.2 per cent in 1990 grew to 12.4 in 2011 meaning a population growth of 273,000. Two counties experienced a noteworthy population loss in economically backward territories, namely Békés and Borsod–Abaúj–Zemplén. This tendency seems to be especially lasting in the case of the latter.

The 175 sub-regions and the districts of Budapest show a varied picture. It is worth while examining the changes in the residential population divided into two periods, one between 1990 and 2001 and another between 2001 and 2011.

There is not a single district in Budapest out of the 23[6] the population of which grew in both periods. The population decreased in 14 districts in both periods, and the loss was the greatest in each of them between 1990 and 2001. The population of District V decreased to the greatest degree, falling by one third in the first decade of the period in question. Decrease was over 20 per cent also in Districts I, VI, XII, and XX, too. In the following decade population loss became more moderate in some districts: 9 per cent in District XII, and 6.5 per cent in District V as compared to 2001. In Districts XVI and XVII the decrease of the first decade turned into a moderate increase, to be followed by seven other districts where the population loss had been considerable between 1990 and 2001. However, the increase did not reach 5 per cent even in Districts VIII and XIII where it was the highest.

In 90 sub-regions out of the 175 there is a steady population loss and in 50 of them the initial growth has been replaced by a decrease. Only 31 sub-regions could boast of a growing population in both periods and another 4 of decrease turning into increase. The greatest population loss occured in the sub-regions of Mezőkovácsháza, Őriszentpéter, Tab, and Lenti but several other sub-regions followed them closely, namely those of Pétervására, Sátoraljaújhely, Bátonyterenye, Letenye, Mezőtúr, Tokaj, Ózd, Bodrogköz, Csurgó, Bácsalmás, Sásd, Orosháza, Jánoshalma, and Sarkad. The growth was the greatest in sub-regions of Pest County near the capital, such as those of Veresegyháza, Pilisvörösvár, Budaörs, Dunakeszi, and Érd. They are closely followed by the sub-regions of Ráckeve and Szentendre. In the ones of Debrecen, Esztergom, Tata, and Pécs the initial population loss between 1990 and 2001 turned into a population increase in the following decade (Fig. 9).

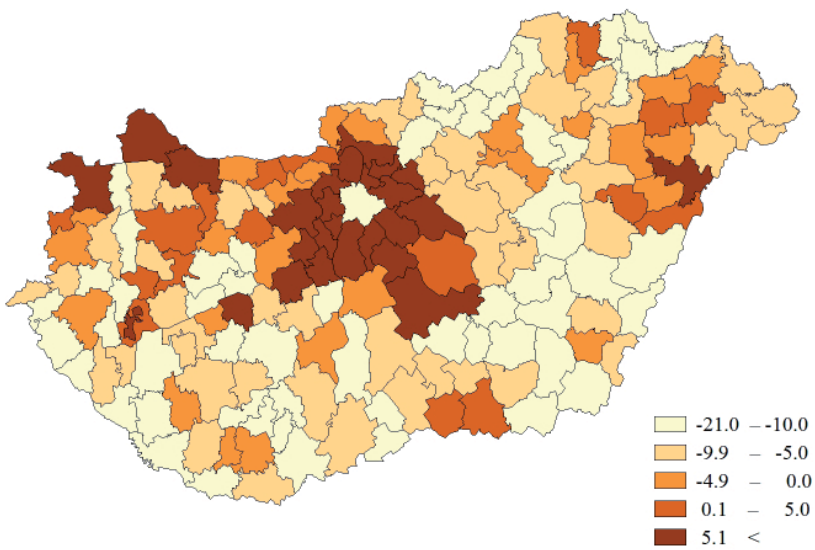
[6] *Calculated on the basis of the data on population movement.*

Table 2. ***Residential population of the capital and the counties, 1990, 1995, 2001, 2005, 2011****

Counties	Population size (thousand)					Percentage within the population				
	1990	1995	2001	2005	2011*	1990	1995	2001	2005	2011*
Budapest	2,017	1,930	1,778	1,697	1,737	19.4	18.8	17.4	16.8	17.4
Bács-Kiskun	545	541	547	540	521	5.3	5.3	5.4	5.4	5.2
Baranya	419	412	407	400	388	4.0	4.0	4.0	4.0	3.9
Békés	412	405	398	390	362	4.0	4.0	3.9	3.9	3.6
Borsod-Abaúj-Zemplén	762	750	744	732	691	7.3	7.3	7.3	7.2	6.9
Csongrád	439	429	433	425	418	4.2	4.2	4.2	4.2	4.2
Fejér	421	426	434	429	428	4.1	4.2	4.3	4.2	4.3
Győr-Moson-Sopron	424	426	439	440	449	4.1	4.2	4.3	4.4	4.5
Hajdú	549	550	553	549	549	5.3	5.4	5.4	5.4	5.5
Heves	334	330	326	323	311	3.2	3.2	3.2	3.2	3.1
Jász-Nagykun-Szolnok	426	423	416	411	389	4.1	4.1	4.1	4.1	3.9
Komárom-Esztergom	315	313	317	316	306	3.0	3.1	3.1	3.1	3.1
Nógrád	227	224	220	217	204	2.2	2.2	2.2	2.1	2.0
Pest	950	973	1,084	1,144	1,223	9.2	9.5	10.6	11.3	12.3
Somogy	345	338	335	332	318	3.3	3.3	3.3	3.3	3.2
Szabolcs-Szatmár-Bereg	572	573	582	582	562	5.5	5.6	5.7	5.8	5.6
Tolna	254	250	250	245	231	2.4	2.4	2.5	2.4	2.3
Vas	276	273	268	265	258	2.7	2.7	2.6	2.6	2.6
Veszprém	382	379	370	367	354	3.7	3.7	3.6	3.6	3.5
Zala	306	302	297	295	283	3.0	3.0	2.9	2.9	2.8
Total	10,375	10,246	10,198	10,098	9,982	100.0	100.0	100.0	100.0	100.0

*Preliminary data of the 2011 census
Source: Demográfiai évkönyv 2010 (Demographic Yearbook, 2010), KSH; 2011. évi népszámlálás 1. Előzetes adatok (Census of 2011, 1. Preliminary data).

Fig. 9. ***Changes in the population of the sub-regions between 1990 and 2011 (1990=100 per cent)***



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Sub-regions in Hungary, 2011 (The names of the sub-regions signed by codes on the map are on the back)

Note: Appendix to the volume Demographic Portrait 2012

Sub-regions, 2011

Code	Name
3101	Budapest
Baranya county	
3201	Komlói
3202	Mohácsi
3203	Sásdi
3204	Sellyei
3205	Siklósi
3206	Szigetvári
3207	Pécsi
3208	Pécsváradi
3209	Szentlőrinci
Bács-Kiskun county	
3301	Bajai
3302	Bácsalmási
3303	Kalocsai
3304	Kecskeméti
3305	Kiskőrösi
3306	Kiskunfélegyházai
3307	Kiskunhalasi
3308	Kiskunmajsai
3309	Kunszentmiklósi
3310	Jánoshalmai
Békés-county	
3401	Békéscsabai
3402	Mezőkovácsházai
3403	Orosházai
3404	Sarkadi
3405	Szarvasi
3406	Szeghalomi
3407	Békési
3408	Gyulai
Borsod-Abaúj-Zemplén county	
3501	Miskolci
3502	Edelényi
3503	Encsi
3504	Kazincbarcikai
3505	Mezőkövesdi
3506	Ózdi
3507	Sárospataki
3508	Sátoraljaújhelyi
3509	Szerencsi
3510	Szikszói
3511	Tiszaújvárosi
3512	Abaúj-Hegyközi
3513	Bodrogközi
3514	Mezőcsáti
3515	Tokaji
Csongrád county	
3601	Csongrádi
3602	Hódmezővásárhelyi
3603	Kisteleki
3604	Makói
3605	Mórahalomi
3606	Szegedi
3607	Szentesi
Fejér county	
3701	Bicskei
3702	Dunaújvárosi
3703	Enyingi
3704	Gárdonyi
3705	Móri
3706	Sárbogárdi
3707	Székesfehérvári
3708	Abai
3709	Adonyi
3710	Ercsi
Győr-Moson-Sopron county	
3801	Csornai
3802	Győri
3803	Kapuvár-Beledi
3804	Mosonmagyaróvári
3805	Sopron-Fertődi
3806	Téti
3807	Pannonhalmai
Hajdú-Bihar county	
3901	Balmazújvárosi
3902	Berettyóújfalui
3903	Debreceni
3904	Hajdúböszörményi
3905	Hajdúszoboszlói
3906	Polgári
3907	Püspökladányi
3908	Derecske-Létavértesi
3909	Hajdúhadházi
Heves county	
4001	Egri
4002	Hevesi
4003	Füzesabonyi
4004	Gyöngyösi
4005	Hatvani
4006	Pétervásárai
4007	Bélapátfalvai
Komárom-Esztergom county	
4101	Dorogi
4102	Esztergomi
4103	Kisbéri
4104	Komáromi
4105	Oroszlányi
4106	Tatai
4107	Tatabányai
Nógrád county	
4201	Balassagyarmati
4202	Bátonyterenyei
4203	Pásztói
4204	Rétsági
4205	Salgótarjáni
4206	Szécsényi
Pest county	
4301	Aszódi
4302	Ceglédi
4303	Dabasi
4304	Gödöllői
4305	Monori
4306	Nagykátai
4307	Ráckevei
4308	Szobi
4309	Váci
4310	Budaörsi
4311	Dunakeszi
4312	Gyáli
4313	Pilisvörösvári
4314	Szentendrei
4315	Veresegyházi
Somogy county	
4401	Barcsi
4402	Csurgói
4403	Fonyódi
4404	Kaposvári
4405	Lengyeltóti
4406	Marcali
4407	Nagyatádi
4408	Siófoki
4409	Tabi
4410	Balatonföldvári
4411	Kadarkúti
Szabolcs-Szatmár-Bereg county	
4501	Baktalórántházai
4502	Csengeri
4503	Fehérgyarmati
4504	Kisvárdai
4505	Mátészalkai
4506	Nagykállói
4507	Nyírbátori
4508	Nyíregyházai
4509	Tiszavasvári
4510	Vásárosnaményi
4511	Ibrány-Nagyhalászi
4512	Záhonyi
Jász-Nagykun-Szolnok county	
4601	Jászberényi
4602	Karcagi
4603	Kunszentmártoni
4604	Szolnoki
4605	Tiszafüredi
4606	Törökszentmiklósi
4607	Mezőtúri
Tolna county	
4701	Bonyhádi
4702	Dombóvári
4703	Paksi
4704	Szekszárdi
4705	Tamási
Vas county	
4801	Celldömölki
4802	Csepregi
4803	Körmendi
4804	Kőszegi
4805	Őriszentpéteri
4806	Sárvári
4807	Szentgotthárdi
4808	Szombathelyi
4809	Vasvári
Veszprém county	
4901	Ajkai
4902	Balatonalmádi
4903	Balatonfüredi
4904	Pápai
4905	Sümegi
4906	Tapolcai
4907	Várpalotai
4908	Veszprémi
4909	Zirci
4910	Ajkai (2011. jan.)
4911	Devecseri
Zala county	
5001	Keszthelyi
5002	Lenti
5003	Letenyei
5004	Nagykanizsai
5005	Zalaegerszegi
5006	Zalaszentgróti
5007	Hévízi
5008	Pacsai
5009	Zalakarosi