

# POPULATION AND SETTLEMENT

## Demographic Features

### Size and Distribution of the Population

On 1 January 2009, Hungary's population was estimated at 10,030,975, and accordingly Hungary was ranked 15<sup>th</sup> most populous among the countries of Europe and 83<sup>rd</sup> in the world. Following the Ottoman occupation until the 1970s, the population on the present-day territory doubled every century (Table 8). During the 18<sup>th</sup> century, along with the post-war natural increase in the population, a massive influx of foreign ethnic groups (e.g. Germans) were the main impetus, while in the 19<sup>th</sup> century it was industrialisation, with its positive impact on the local agriculture that resulted in a dynamic increase in the

population number. Due to economic growth, improved living conditions, improvements in public health, and a continuous decline in the mortality rate, the annual population increase reached 1.2% between 1880 and 1905.

Excluding during periods of war during the 20<sup>th</sup> century, the population grew steadily until it reached its maximum in 1980 (10.7 million). Since then however, due to unfavourable shifts having taken place in natural change and age composition, there has been a demographic decline. The rate of this decrease could only be mitigated by a positive balance in international migration. The annual population loss of the country has been around 10–20 thousand since 1990.

During the last two decades, the population growth of settlements was mostly influenced by internal migration, as part of a process of suburbanisation.

Consequently, the population increase has been especially striking in Central Hungary (the broadest zone of migration from Budapest) and in the agglomerations and suburban zones of the biggest cities (e.g. Miskolc, Debrecen, Szeged, Pécs, Győr and Nyíregyháza), parallel with the continuing population decline of the cities mentioned above (Figure 63).

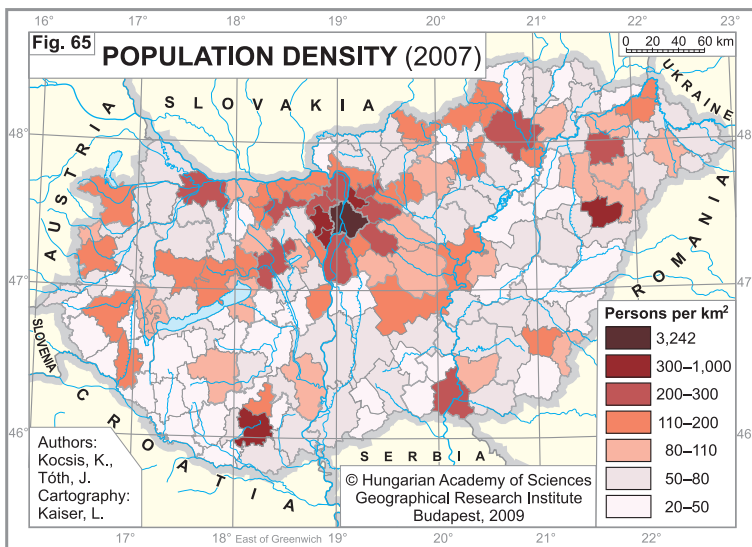
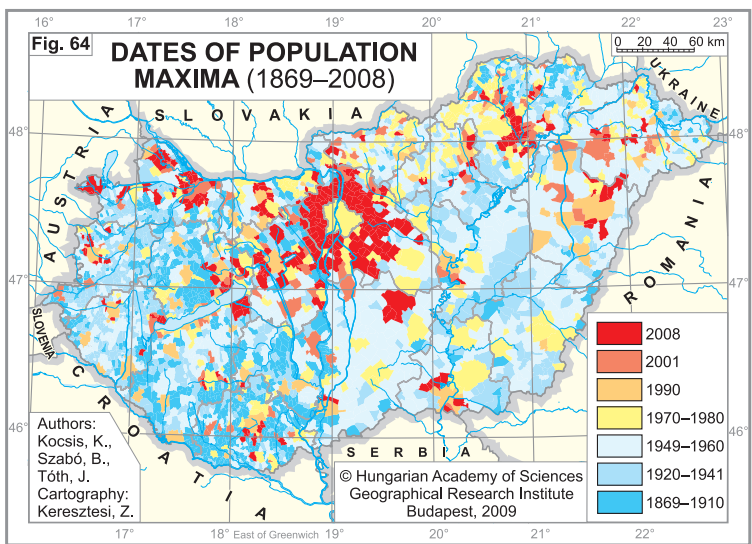
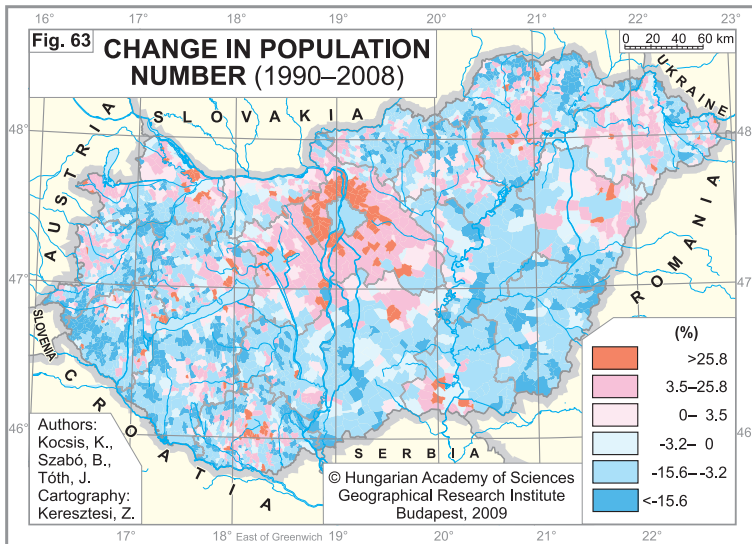
Besides these areas, the economically attractive urban centres along the Austrian border (e.g. Sopron and Mosonmagyaróvár) and certain rural areas inhabited partly by the Roma population (e.g. in Szabolcs, Cserhát and Baranya), showed favourable demographic

Table 8. Population growth and population density (1495–2009)

Year	Population		Period	Population increase/decrease		
	number	density (persons per km <sup>2</sup> )		actual period		per annum
				total	percentage	
1495*	1,032,000	11.1	..	..	..	..
1715*	1,480,000	15.9	1495–1715	448,000	43.4	0.19
1787*	2,681,595	28.8	1715–1787	1,201,595	81.2	1.13
1828*	3,578,666	38.5	1787–1828	897,071	33.5	0.82
1869	5,011,310	53.9	1828–1869	1,432,644	40.0	0.98
1880	5,329,191	57.3	1869–1880	317,881	6.3	0.56
1890	6,009,351	64.6	1880–1890	680,160	12.8	1.21
1900	6,854,415	73.7	1890–1900	794,392	13.2	1.25
1910	7,612,114	81.8	1900–1910	757,699	11.1	1.05
1920	7,986,875	85.9	1910–1920	374,761	4.9	0.48
1930	8,685,109	93.4	1920–1930	698,234	8.7	0.84
1941	9,316,074	100.1	1930–1941	630,965	7.3	0.70
1949	9,204,799	98.9	1941–1949	-111,275	-1.2	-0.15
1960	9,961,044	107.1	1949–1960	756,245	8.2	0.72
1970	10,322,099	111.0	1960–1970	361,055	3.6	0.36
1980	10,709,463	115.1	1970–1980	387,364	3.8	0.37
1990	10,374,823	111.5	1980–1990	-334,640	-3.1	-0.32
2001	10,198,315	109.6	1990–2001	-176,508	-1.7	-0.15
2009	10,030,975	107.8	2001–2009	-167,340	-1.6	-0.20

Remark: Data are calculated for the present-day territory of Hungary.

Source: \*Calculations of Kocsis, K. (2009), Hungarian Central Statistical Office (www.ksh.hu)



indicators and were also able to increase their population. Similar spatial patterns are reflected by Figure 64, which indicates the dates of popu-

lation maxima of Hungarian settlements during the last 140 years.

Accordingly, the population decline began prior to World War I in the small villages located in the hilly areas of South Transdanubia, and in the Bakony Mountains. Later, in the interwar period, underdeveloped agricultural regions were added to these areas including some villages of West Transdanubia and the Alföld. As a result of the economic and settlement policies of the socialist period, and the ensuing extensive industrialisation, the majority of the villages east of the Danube reached their population maxima early on, whereas the towns and industrial centres did so in the later stages (according to census data of 1949, 1960, 1970 and 1980). The aforementioned large settlements affected by suburbanisation are reaching their population peaks in the present day.

*Population density* in Hungary is 108 people per km<sup>2</sup>, which is similar to France. There are substantial differences in the geographic distribution of the population as a result of the varied physical and human geographic environment (e.g. relief, settlement structure, economy, natural change and migration of the population). Due to the population concentration that has taken place in the industrialised and suburbanised zones over the last decades, high densities can be observed in the metropolitan area of Budapest and in the surroundings of the biggest cities (Figure 65). The most sparsely populated, underdeveloped areas with unfavourable economic and demographic indicators are to be found in South-West Transdanubia, on the Danube–Tisza Interfluvium and in Central Tiszántúl. The changes in population density during recent periods show ongoing polarisation, i.e. a population decrease in the mi-

croregions with a low rate of population density, and ongoing spatial concentration of the population elsewhere.

## Natural Population Movement

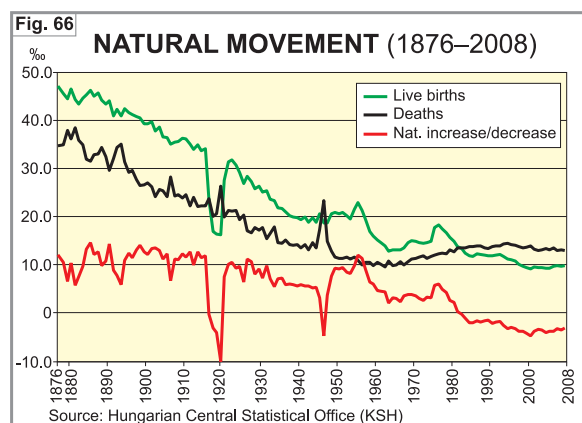
During the 20<sup>th</sup> century up until the 1970s, the annual number of *marriages* per 1000 inhabitants fluctuated around 9. Since then, due to the changed demographic behaviour of the younger generations, the trend for the postponement of marriages and the increasing caution against marital partnerships, it had dropped to 4 by 2008. In the 1970s, number of *divorces* stabilised at a high level, which contributed to the weakening stability of marriages. The lowest rates of divorce (1.9–2‰) are characteristic of the counties where the proportion of the population that declares itself as religious is the highest: the counties of Szabolcs-Szatmár-Bereg and Vas, where 87–89% of the population declared religious affiliation at the census of 2001.

By the end of the 18<sup>th</sup> century the *natural population change* in Hungary was characterised by equally high birth and death rates (around 50‰ and 40–45‰, respectively). During the period of dynamic industrial development in the second half of the 19<sup>th</sup> century, following improvements in public health, effective measures against epidemics (with respect to births) had led to a rapid and enduring decrease in the mortality rate, and a significant natural increase (up to 10–12‰ per annum) (Figure 66, Table 9). Owing to the catastrophic consequences of World War I (resulting in partitioning and the economic collapse of Hungary), the ensuing impoverishment of the masses, and resultant unhealthy housing conditions, natality declined at a faster rate than mortality during the inter-war period and the natural increase showed a marked downward trend (to 6‰ per annum by the end of the 1930s). Following the serious

losses of World War II, the natural increase again reached the annual 10‰ level due to the typical post-war 'baby boom'. In the second half of the 20<sup>th</sup> century, birth rates displayed great fluctuation, despite measures taken by the socialist government to halt these unfavourable demographic tendencies (in 1952, 1967 and 1973: e.g. abortion laws, child-care grants and increased family allowances). The continuous decrease in the birth rate has been largely attributed to the fundamental changes in the social and economic structure from the early 1950s onward, the disintegration of rural communities, massive internal migration and commuting, and an increasing participation in the workforce of female labour. Even though infant mortality diminished, the crude death rate started to increase from the mid-1960s, reflecting increased mortality among males provoked by a lifestyle injurious to health and an excess of work. As a combined effect of these negative fertility and mortality trends, a natural population increase turned into continuous natural decrease since 1981.

At present the live birth ratio is fluctuating slightly below 10‰, whilst the crude death rate is around 13‰. The low level of fertility is partly related to a continuously increasing ratio of infants born out of wedlock (1980: 7%; 2000: 29%; 2008: 39.5% extramarital live births out of the total). Data shows substantial spatial differences according to the level of regional economic, social and cultural development, along with the age structure and religious convictions of the local population.

The crude *birth rate* is the highest in the more dynamic areas (e.g. the Budapest Metropolitan Region /BMR/, that attract larger numbers of (mainly younger) migrants, and certain microregions in North-East Hungary inhabited by a traditionally fertile and religious population (e.g. Szabolcs). Further, the areas with a significant Roma population are characterised by high fertility and juvenile age structures (e.g. Abaúj, Szabolcs and Szatmár in the north-east; the Middle Tisza region; and certain microregions of Baranya and Somogy in Transdanubia) (Figure 67). The less dynamic areas are the mainly underdeveloped, rural and generally disadvantaged ones, very often in border zones.

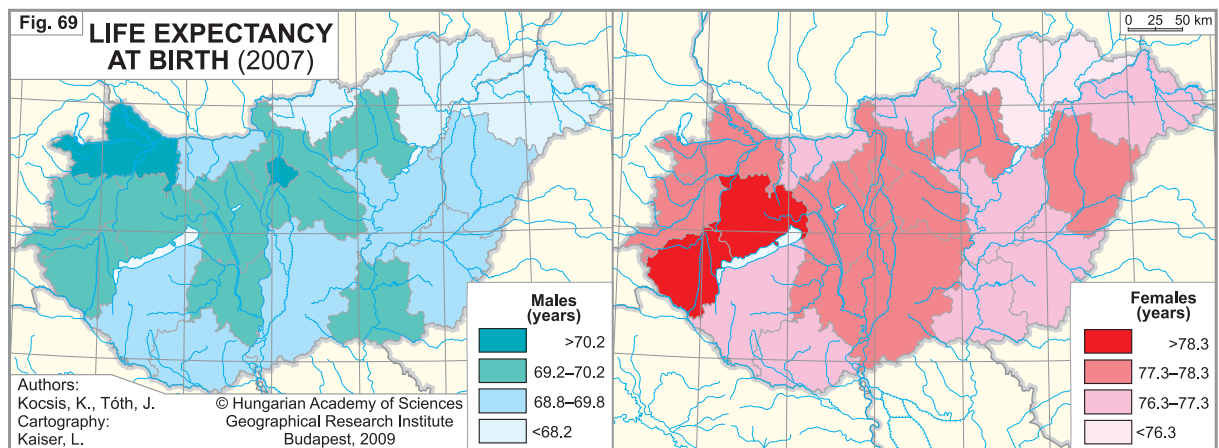
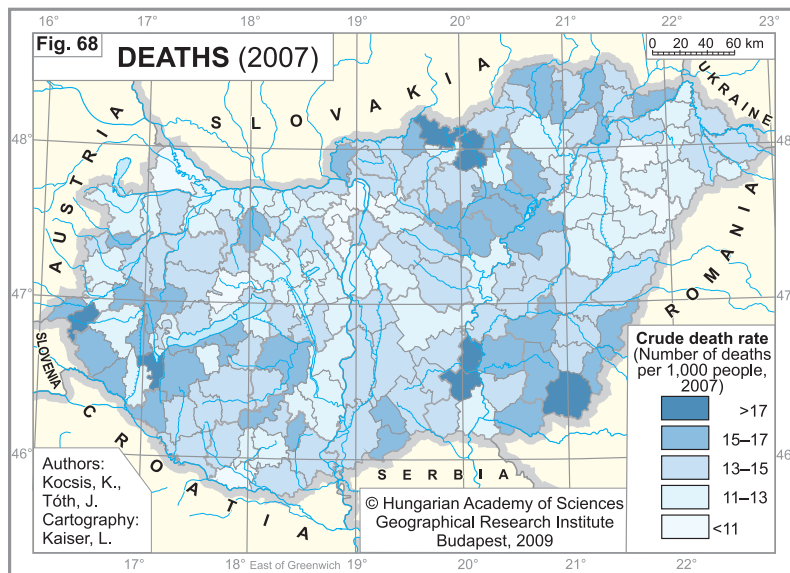
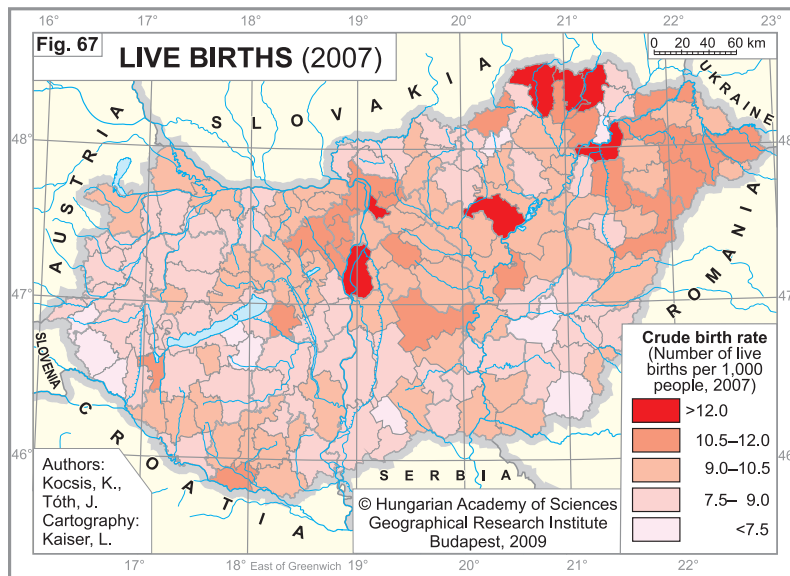


Year	Live births	Deaths	Infant mortality*	Natural increase / decrease	Registered			Number of females per 1,000 males	Ratio of population		Ageing index	Mean age	Life expectancy at birth	
					marriages	divorces	abortions		aged 0–14	aged 65 and over			males	females
per 1,000 inhabitants														
1900	39.7	26.3	225.7	13.4	9.1	0.2	..	1,005	34.9	4.4	12.7	26.9	36.56	38.15
1910	35.1	22.3	196.1	12.8	8.6	0.4	..	1,007	34.8	5.0	14.4	27.3	39.07	40.48
1920	31.4	21.3	192.5	10.1	13.1	0.8	..	1,062	30.6	5.6	18.2	28.9	41.04	43.12
1930	25.4	15.5	152.5	9.9	9.0	0.6	..	1,044	27.5	6.3	23.0	30.2	48.70	51.80
1941	18.9	13.2	115.6	5.7	8.5	0.5	..	1,043	26.0	7.0	26.9	32.1	54.95	58.24
1949	20.6	11.4	91.0	9.2	11.7	1.4	8.5	1,081	24.9	7.5	30.3	33.3	59.28	63.40
1960	14.7	10.2	47.6	4.5	8.9	1.7	1,107.2	1,073	25.4	8.9	35.2	34.8	65.89	70.10
1970	14.7	11.6	35.9	3.1	9.3	2.2	1,266.5	1,063	21.1	11.5	54.4	37.0	66.31	72.08
1980	13.9	13.6	23.2	0.3	7.5	2.6	544.0	1,064	21.9	13.5	61.9	37.7	65.45	72.70
1990	12.1	14.0	14.8	-1.9	6.4	2.4	859.3	1,081	20.5	13.2	64.5	39.0	65.13	73.71
2001	9.5	13.0	8.1	-3.4	4.3	2.4	743.4	1,103	16.6	15.1	91.3	41.1	68.15	76.46
2002	9.5	13.1	7.2	-3.5	4.5	2.5	749.8	1,104	16.3	15.3	93.5	41.3	68.26	76.56
2003	9.3	13.4	7.3	-4.1	4.5	2.5	740.7	1,105	16.1	15.4	95.4	41.6	68.29	76.53
2004	9.4	13.1	6.6	-3.7	4.3	2.4	724.2	1,106	15.9	15.5	97.6	41.8	68.59	76.91
2005	9.7	13.5	6.2	-3.8	4.4	2.5	673.9	1,107	15.6	15.6	99.9	42.0	68.56	76.93
2006	9.9	13.1	5.7	-3.2	4.4	2.5	637.8	1,106	15.4	15.8	102.4	42.2	69.03	77.35
2007	9.7	13.2	5.9	-3.5	4.1	2.5	449.4	1,106	15.2	15.9	104.9	42.4	69.19	77.34
2008	9.9	13.0	5.6	-3.1	4.0	2.5	446.6	1,106	15.0	16.2	107.6	42.6	..	..

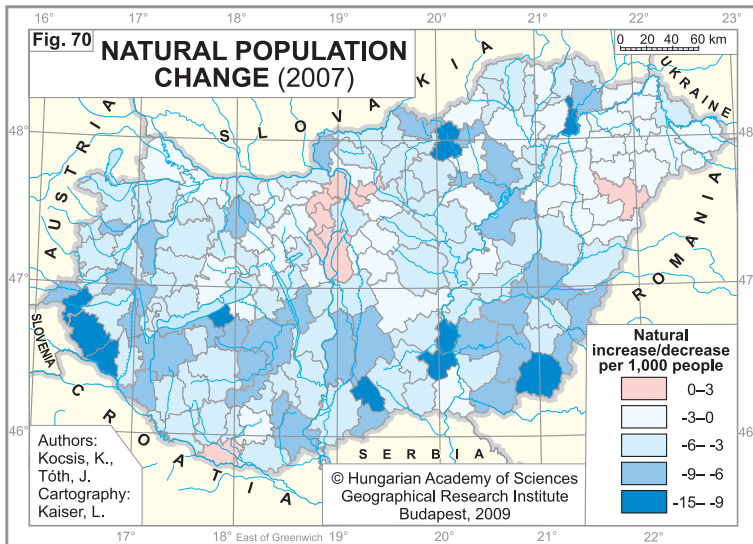
Remark: \* Number of deaths of infants (one year of age or younger) per 1,000 live births.

Source: Hungarian Central Statistical Office (www.ksh.hu)





The *mortality* rate is an indicator of the state of health, living standards, the age and gender structure of the local population and its geographical differences mainly reflect social inequalities. The crude death rate is especially high in rural areas characterised by a lower quality of life, relative lack of development, a lower ratio of juvenile Roma population compared to the elderly (e.g. in northern, south-eastern and south-western marginal/border regions of the country) (Figure 68). Due to the latter, mortality is also significant in areas popular with elderly migrants (e.g. certain districts of the Balaton region). There is interdependence between the level of economic development and *life expectancy* at birth, which is a key indicator of mortality. Over the last century its value almost doubled in Hungary, and in 2007 surpassed 77 years for females, and 69 years for males. During this period the difference of life expectancy between the genders increased from 1.5 to more than 8 years. Life expectancy at birth is the longest in the economically more developed regions (Central Hungary and North Transdanubia). The spatial differentiation is greater in the case of males: dwellers of



Budapest or Győr-Moson-Sopron County might live 3–4 years longer than people living in the north-eastern regions of the country (Figure 69).

Among the 174 microregions of the country, there are only 10 where the birth rate surpasses the mortality rate, i.e. where a *natural increase* is experienced. The majority of them are to be found in the agglomeration of Budapest (Figure 70). The high rate of population decrease is a result primarily of large-scale mortality in underdeveloped, marginal regions of the country.

## Migration

In the first part of the 20<sup>th</sup> century, the level of *domestic migratory movement* was low, although this changed significantly in several aspects between 1940 and 2008. With respect to the *volume* of migration, there were massive waves of flow until the mid-1960s. During this period the previous demographic tensions eased, and people were given an opportunity to leave overpopulated areas (mainly the Alföld). The main destinations were Budapest and its agglomeration, regions with heavy industry and mining areas. The extremely rapid relocation of workplaces had become the key driving force of migration in this period.

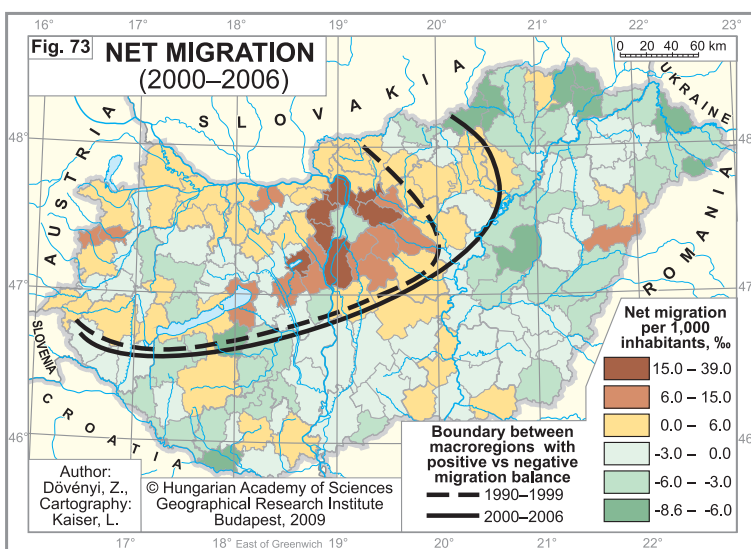
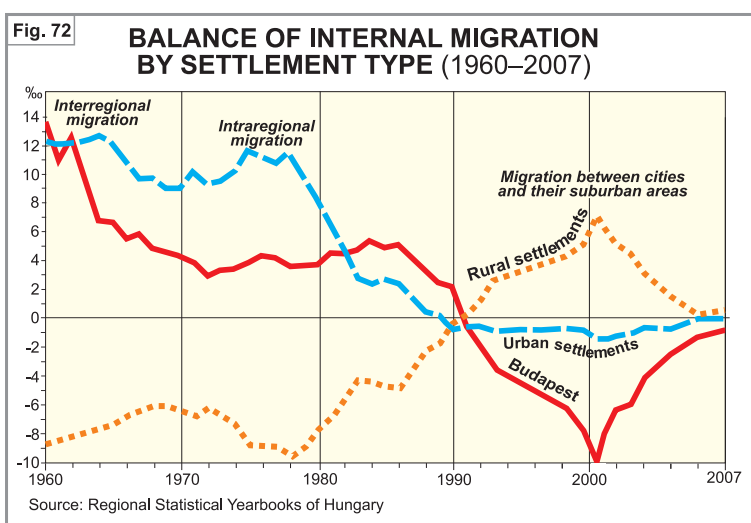
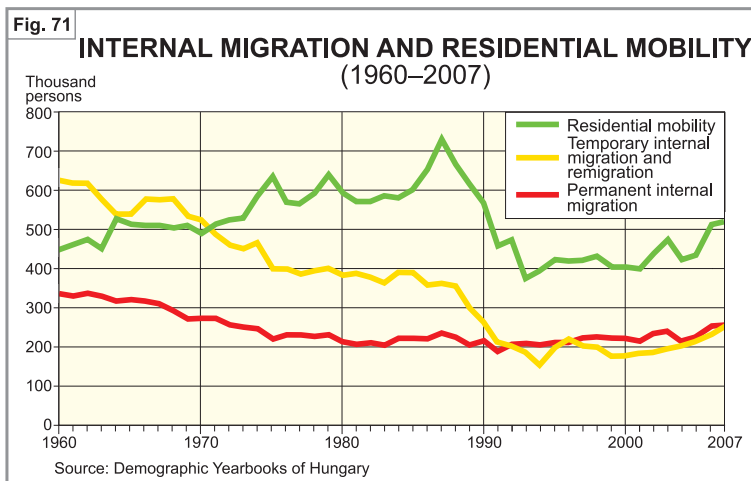
By the mid-1960s the majority of the population had found its 'home' as it were, which is clearly shown by the decrease in the number of migrants, and in the intensity of migration. Starting with the early 1970s migration distances also shortened simultaneously; long distance interregional movements were gradually replaced by intraregional (intra-county) migration. At the same time the number of moves within settlements gained momentum.

After the regime change, domestic migratory movements did not evolve in the expected manner and the migratory behaviour of the population in fact moved contrary to the anticipated trend. As an example, several tendencies from

the 1980s continued as if nothing had happened, mainly with respect to movement volumes and intensity, in respect of which a change has only occurred since 2004 (Figure 71).

Since around 1990, the direction of migrants has changed significantly. Previously, migration reinforced population concentration, but this trend has been replaced by de-concentration; thus previous moves targeted at the large urban settlements have been replaced by emigration from the cities. This new migration type, called 'suburbanisation', has become a new qualitative and decisive factor in domestic migration. Although the direction of migration has altered, the volumes and intensities have hardly changed. Suburbanisation has made a spectacular appearance in the BMR, but it has become visible around the larger cities, middle-sized towns, and even in the surroundings of some small towns. According to migration balance statistics, the biggest losses to suburbanisation have been suffered by the City of Budapest; the winners are villages, whereas other cities have thus far managed to emerge by only showing a slight population loss (Figure 72).

However, based on latest data, it appears that the period of extreme suburbanisation rates has come to an end, the country is likely to enter a new phase in which migration has become



may alter this. Besides suburbanisation, desurbanisation is also a characteristic of domestic migration, as is the ‘suburbanisation of the poor’, that can be summarised as the escape of the lower societal classes from big cities. The migration of these groups occupies its own niche next to classic suburbanisation, as in some cases rural spaces outside the suburban belts are the target areas.

The areas realising migration gains versus those reporting losses are increasingly separated spatially. Among the former are the great winners of suburbanisation, e.g. the areas around the capital, and the border regions adjacent to Austria. These days the north-eastern part of the country is the typical source of migrants. Based on the migration balance of the statistical microregions, a spatial migration-line can be identified, that separates the macro-areas of immigration and emigration within the country (Figure 73).

*Labour force movement* can be seen as a special type of migration. Commuting became a mass phenomenon in Hungary during the socialist era, with the number and proportion of commuters steadily increasing until 1980. Following this period, the number of commuters decreased due to a drop of people engaged in employment, and again after 1990, as a result of mass unemployment.

The trough was reached in 1996, after which it started to increase again. In contrast to the fluctuations in the sheer number of commuters, the proportion amongst the active workers has been steadily increasing.

There are several factors behind this phenomenon (Table 10):

- The mobility of the workforce increased following the regime change;
- There was a rearrangement in the spatial structure of workplaces following 1989;

balanced: when viewed either from Budapest, other cities or villages, present migration nets out at zero, and it is an intriguing question for the forthcoming years as to which way changes



Table 10. Selected indicators for labour force movement (1980–2005)

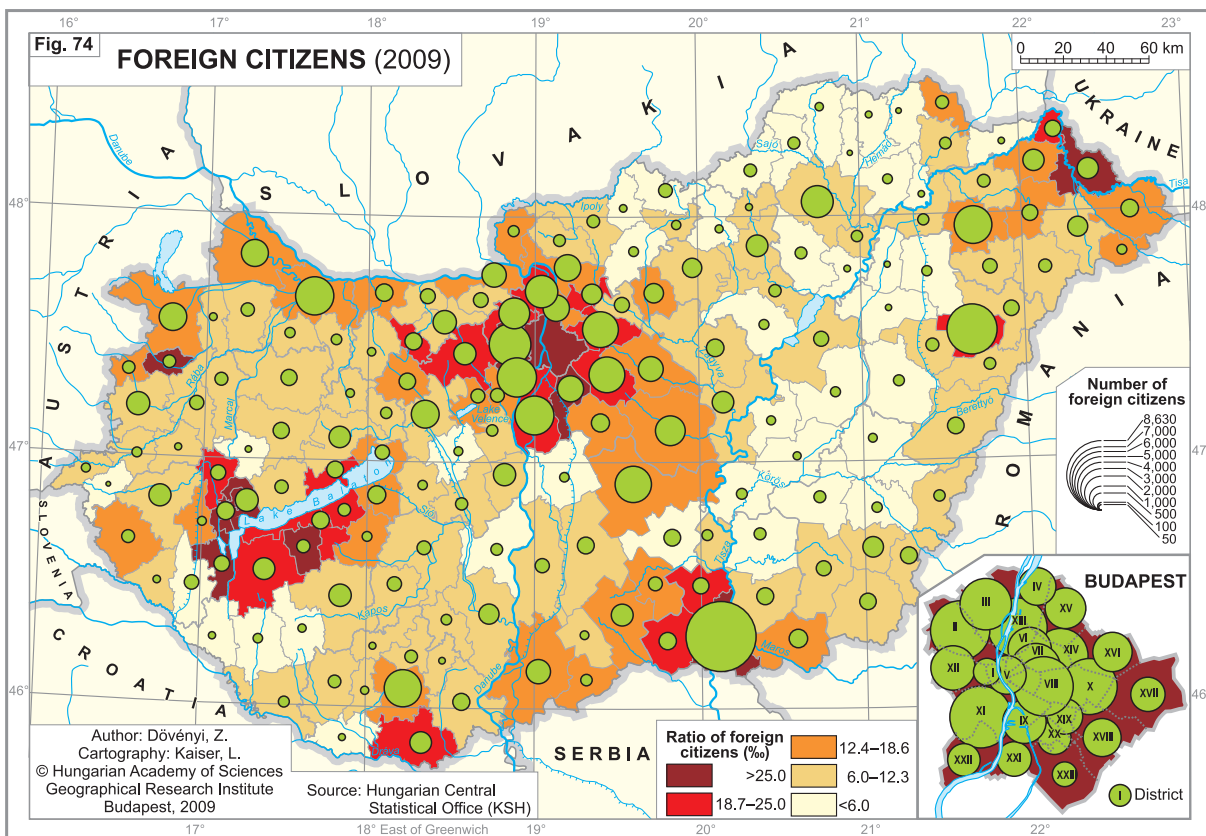
Indicators	1980	1990	1996	2001	2005
Number of daily commuters	1,217,139	1,144,756	886,746	1,102,005	1,211,324
Males	828,745	744,099	574,764	693,235	757,961
Females	388,394	400,657	311,982	408,770	463,363
Structure of daily commuters (%)	100.0	100.0	100.0	100.0	100.0
Males	68.1	65.0	64.8	62.9	62.1
Females	31.9	35.0	35.2	37.1	37.9
Ratio of daily commuters amongst employees (%)	24.0	25.3	25.4	29.9	31.8
Males	28.9	29.6	29.7	34.6	36.5
Females	17.7	19.9	20.2	24.2	26.2

Source: 2001 Census. 7. Data on employment and daily commuting. Budapest, 2003, 2005 Microcensus. 3. Situation of employees. Budapest, 2006.

– As a result of suburbanisation, many employees have changed their place of residence, but their workplaces have remained the same.

Substantial structural changes also took place in the spatial movements of the labour force. Among them is the steadily increasing ratio of women among commuters. The spatial structure of commuting has changed in a sense that whilst the capital and other large cities have maintained their prominent role as magnets for labour (and thus for commuters), the intensity of movement in the workforce decreased significantly in areas where heavy industry and mining have been in decline.

During the 20<sup>th</sup> century the direction of *international migration waves* changed several times, so that Hungary has oscillated between being a recipient and a source country. After the regime change, Hungary once again became a target country. The first sign of this change was the *wave of refugees* from 1987 onwards. In the beginning, immigrants from Romania (mainly Transylvania) applied for asylum, and later, refugees fleeing the Yugoslavian civil war arrived. After 1997 a new period began when people seeking asylum arrived in growing numbers from distant corners of the world (e.g. Afghanistan and Bangladesh). The most intensive phase of this wave ended in 2001, when the





number of people arriving and seeking asylum was only about one thousand per year.

In the frame of international migration, *voluntary immigration* has increased enormously: between 1985 and 2007, some 460 thousand immigrants legally arrived in Hungary. However, Hungary overwhelmingly remains a target country for immigration from ethnic Hungarians living in certain neighbouring countries; 60–70% of all immigrants arrived from Romania, Ukraine and former Yugoslavia (mainly from Serbia).

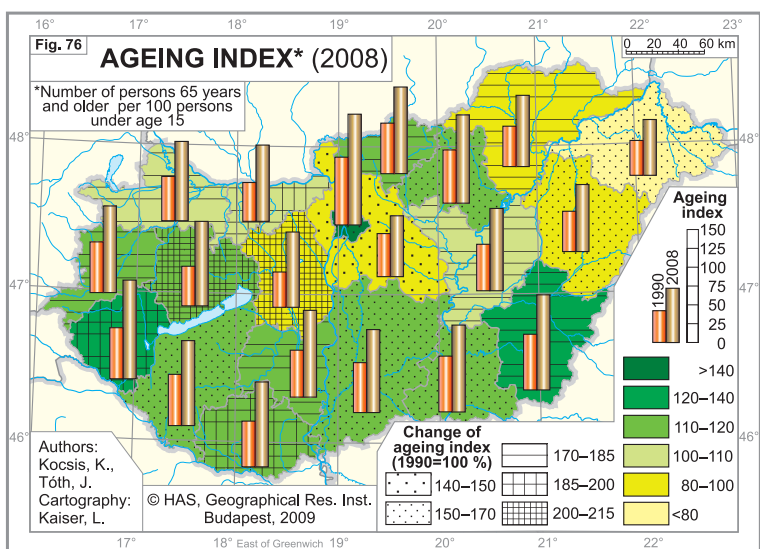
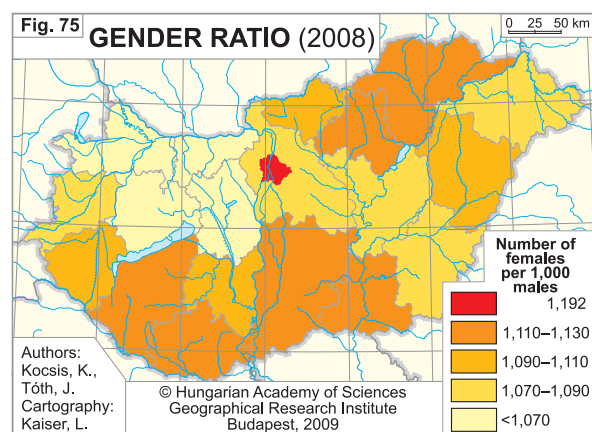
The number of foreigners living in Hungary has been steadily increasing: at the

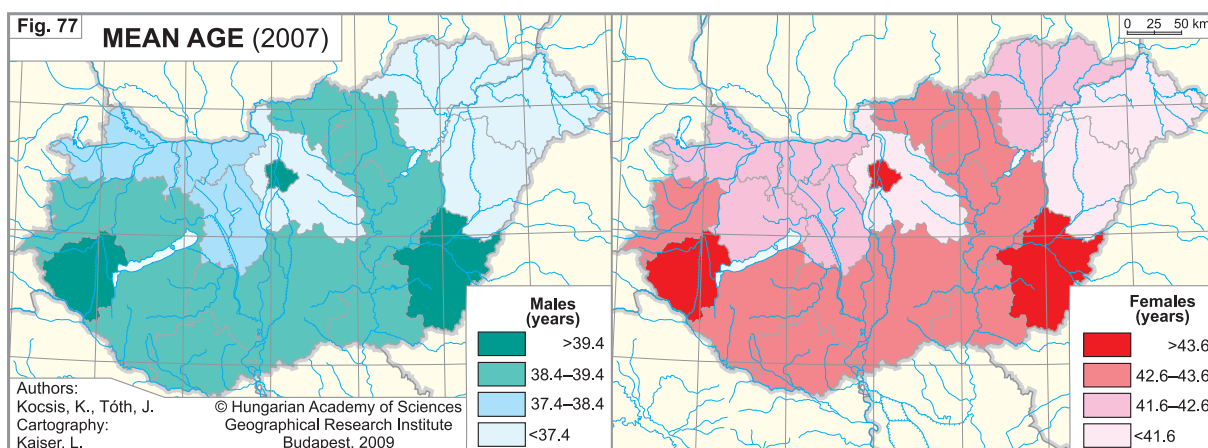
beginning of 2008, the number of foreign citizens legally residing in Hungary was almost 175 thousand. More than 80% of them came from European countries and over 60% from the neighbouring states.

The ratio of foreign citizens legally resident, relative to the total population is not high (2009: 1.86%), but they are strongly concentrated in the capital and its environs where approximately half the foreigners choose to live, and their proportion is higher than average in micro-regions next to the Serbian and Ukrainian borders and around the Lake Balaton (*Figure 74*).

## Structure of the Population by Gender and Age

The gender and age structure of the population as a demographic phenomenon impacts upon the reproductive and labour potential of society. Following large losses amongst the male population during the wars, the almost perfectly balanced *gender ratio* (number of women per one thousand men) of the early 20<sup>th</sup> century became significantly distorted during the period 1900–1949 (1900: 1,005; 1949: 1,081). Due to the post-war ‘baby boom’, the pro-natal measures of government and significant differences in fertility between the two sexes (male surplus at birth) the gender ratio became more balanced during the early socialist period (1970: 1,063 females/1,000 males). The figures began to demonstrate an accelerated distortion of the gender ratio in the late 1970s due to the increase in mortality, decrease in fertility and the gradual ageing of the population (1990: 1,081; 2008: 1,106). As a consequence, in Hungary today there are around half a million more females than males. The most balanced gender ratio is typical of the highly developed counties of North Transdanubia and Pest, the demographic situations of which are the most favourable (*Figure 75*), whilst it is the most distorted in the capital, also notable for having the highest rate of ageing.





*Ageing* of the population and the increase in the ratio of elderly people is the most significant demographic phenomena in Hungary. During the period 1900–2008, the proportion of children (persons aged 0–14 years) decreased from 34.9% to 15%. At the same time the ratio of elderly people (persons of 65 years and over) increased from 4.4% to 16.2%. Due to a general ageing of the population, the considerable increase in the death rate of working-age people (mainly amongst men) and the decrease in fertility, the *ageing index* in Hungary (number of elderly people per 100 children) increased between 1990 and 2008 from 64.5 to 107.7. There is a lesser degree of distortion in the age structure in the north-eastern areas (primarily in Szabolcs),

in Pest County and in certain regions of North Transdanubia, due to their aforementioned favourable demographic, economic and also ethnic (Roma) attributes (*Figure 76*). During most of the last two decades, there has been an increase in the rate of ageing in counties with relatively favourable demographic indicators (e.g. Fejér and Borsod-Abaúj-Zemplén), tending towards spatial equalisation. The *mean age* of the population is also an indicator of trends in ageing, the value of which increased from 1900 to 2009, from 26.9 to 42.6 years. Geographic differences exhibit the same patterns mentioned above: a younger age structure in regions characterised by high fertility and low mortality (*Figure 77*).

## Structure of the Population by Economic Activity

In the first half of the 20<sup>th</sup> century Hungary remained a predominantly agricultural country and the proportion of those employed in farming was over 50%, even by 1949. Although the number of agricultural earners decreased steadily due to socio-economic changes during the socialist period, a significant need for manpower on the large farms remained, thus it was still 15.5% in 1990. Agriculture suffered a heavy toll as a result of the regime change and the number of the people occupied by its workforce dropped sharply, down to a mere 5.5% in 2001. Numbers of industrial workers changed relatively little, since the sector did not become disproportionately oversized during the period of accelerated indus-

trial development that was encouraged by the socialists. The proportion of its workers peaked in 1980 (36.8%), and the importance of the sector remained relatively high, even against the fundamental transition that industry underwent following the regime change (2001: 26.5% plus 6.4% employed in construction). The tertiary sector has been the real winner of employment realignment, but this took place only after the regime change, when employment in this sector increased significantly (1990: 46.6%; 2001: 61.6%).

Transitional changes in *employment* were already tangible before the regime change, mainly from the decrease in the number of employed people. Although this did not pose a real prob-

lem at that time, difficulties emerged following 1990 when nearly one and a half million jobs were liquidated within a few years, leading to a strong fall in the employment rate and economic activity in general. Furthermore, such changes have also proven to be enduring: currently the economically active proportion of the Hungarian population is much lower than that typical of developed nations. The employment rate of working age people (i.e. between 15–64 years) is some ten percent lower in Hungary (ca 57%) than that of the EU-average. The employment rate of people between 15–74 years is on average only slightly higher than 50%, but in areas of the country struggling with economic difficulties it barely reaches 40% (Figure 78).

Among the negative social and economic developments related to the change of regime, unemployment is of significant importance, as the most typical change in the labour market. The unemployment rate has demonstrated a distinct trend: the country's economy sank into a deep crisis post-1989 that reached its trough in 1993. An improvement followed until 2002, after which a slow rise of unemployment returned, that has accelerated since the autumn of 2008 due to the world economic crisis. Consequently

in March of 2009, the rate of unemployment in accordance with the EU-member state definition was over 9%, which is unprecedented for 15 years (Figure 79).

A specific feature of unemployment is that there have been relatively few clusters of people that are not employed, e.g. female employment has for a long time been lower than male employment, and its equalisation has only begun in recent years. The different age groups are represented almost equally amongst the jobless, so particular concentrations of unemployed school leavers or the elderly are not typical. With respect to the level of education, the dominance of those without a high school education or those that graduated from industrial vocational schools, is tangible and they make up approximately 70% of the unemployed.

A serious problem for the Hungarian unemployment arena is the significant proportion of the jobless that does not have a real chance of returning to the legal labour market. Long-term unemployment increasingly forces the unemployed to earn a living occupied in the black economy or to subsist from social benefits. Many in the Roma community of an active working age fall into this category.

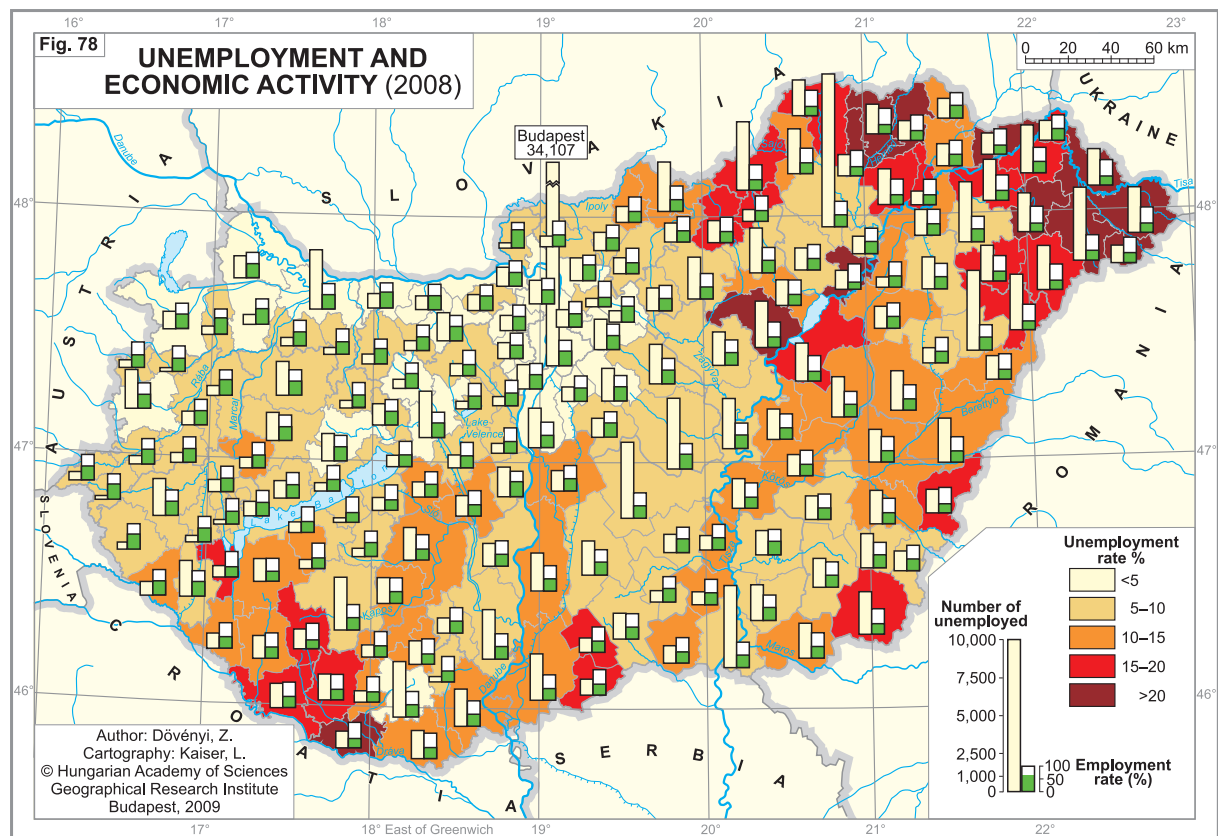
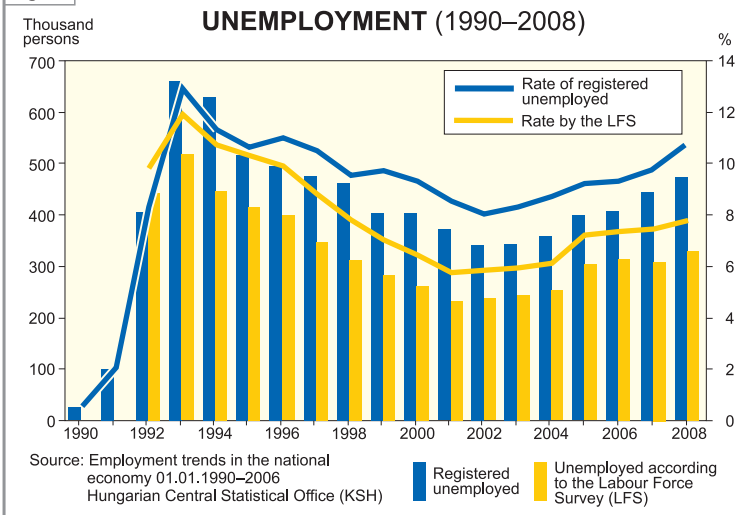


Fig. 79



In contrast to the structural characteristics, the spatial disparities in unemployment are pretty stable, and they are good indicators of the economic potential of a certain region, and of its adaptability to the economic crisis. Accordingly, the proportion of the unemployed is permanently low in the capital and BMR, as is the broader border zone adjacent to Austria. At the same time unemployment is much higher than average in the north-eastern part of the country, and also in South Transdanubia, especially in the border regions (*Figure 78*).