

# INTERNAL MIGRATION

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## MAIN FINDINGS

- » The number of permanent internal migrations and the migration rate per thousand population was declining from 2007 until 2014 when it reversed. After the lowest value of the past 20 years – 192 thousand registered in 2013 – the number of permanent migrations approached 215 thousand in 2014 and exceeded the level recorded five years earlier. Migration between counties was less widespread than between settlements, and inter-regional migration was even less common.
- » The intensity of migration and its development over time differ substantially by age. In the 1990s this rate was the highest among 15–29 year olds, however since the second half of the 2000s similar rates have been observed in the population aged 0–14 and 30–44 years indicating the increased mobility of young families with small children. The migration rate of the over 45s has remained well below that of younger age groups.
- » The gross migraproduction rate – that indicates the average number of migrations between settlements over the life course – was fluctuating between 1.6 and 2.2 over the past 25 years (recently it has been around 1.7).
- » The average distance of permanent migration ranged between 50 and 55 kilometres in the period under consideration, however half of the migrant population moved within a much shorter distance (21–23 km). Moving to a distant settlement was much less common than moves within the local area. The average distance of migration was characterised by a decline until the turn of the millennium, followed by an increasing trend for all age groups between 15 and 60 years.
- » The region of Central Hungary and especially Budapest have been the main destinations of internal migration since the turn of the millennium. The greatest population shift was observed in 2007: the central region registered a migration gain of 11,000 people from the Eastern part of the country and 4,000 from the West of Hungary. In recent years only Western Transdanubia had a positive migration balance; Central Transdanubia lost its previous moderate migration gain after 2009. The largest internal migration losses have been suffered by the regions of Northern Hungary and Northern Great Plain.
- » The time series of in- and out-migration between counties have been characterised by a great degree of stability since 1990, with

the exception of Budapest and Pest county. Migration rates have been fluctuating within a narrow range.

» Budapest – after migration losses between 1991 and 2008 – has had a positive balance of

migration since 2009. In the period between 2010 and 2013, apart from the capital, only Győr-Moson-Sopron, Vas, Fejér and Pest counties had a positive balance of permanent migration. All counties on the East of river Danube are characterised by a migration loss.

## INTRODUCTION

Migration is a recurrent phenomenon that includes flows of various distance and duration that affect two geographical areas at the same time: the *place of origin* and *destination*. Migration can alter the spatial distribution of the population and many times the demographic structure and potential social resources of a given spatial scale.

With regards to internal migration, a distinction can be made between *permanent* and *temporary migration*.<sup>5</sup> In the first case the migrant gives up his/her place of residence, whereas in the second it is retained while the migrant temporarily move to another settlement. However, in both cases the migration happens by crossing administrative boundaries of settlements. If the change of residence happens within the administrative boundary of a settlement then it is referred to as a *residential mobility*.

This chapter examines internal migration in Hungary since the regime change in 1989 on the basis of permanent migration; whereas temporary migration will not be considered here. There are at least two key arguments for focusing on permanent migration: on the one hand it can be assumed that permanent migration is based on a longer-term decision, and on the other hand unlike temporary migration, longitudinal data on permanent migration are more homogenous and less affected by administrative changes.<sup>1</sup> Moreover, in the case of temporary migration the number of unregistered moves is likely to be very high that might cause a further uncertainty in the evaluation of trends. Although the analysis of residential moves is also relevant from the perspective of spatial mobility, for

demographers the spatial rearrangement of population, in other words the moves crossing settlement boundaries, appears to be interesting.

The primary data source for internal migration is vital registers; however the population censuses and some surveys also provide relevant data. The vital registers record the event of migration<sup>2</sup> (therefore the same individual can appear in the dataset more than once if he/she migrates more than once within a given year), while census and survey data record the migrant or the migrating household. This analysis is based on register data that has the advantage of allowing the creation of long-term data series that are consistent in terms of content. Our aim is to examine the trend of permanent or permanent internal migration over time at various levels: in addition to the level of settlements – most commonly examined in Hungary – also at the level of county and regional territorial units.

## THE DYNAMICS OF INTERNAL MIGRATION

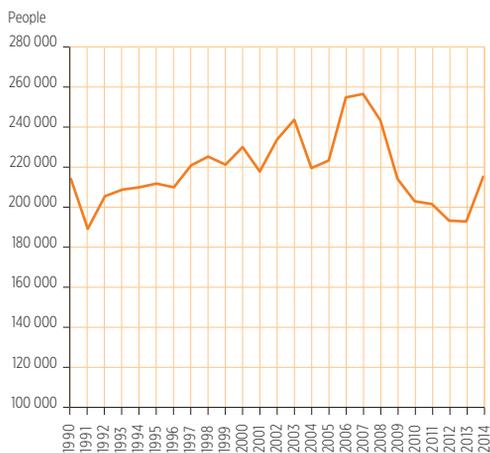
The macro trends of internal migration can be influenced by economic cycles, developments on the housing market, government policies, and many other factors. The number of moves between settlements consistently exceeded 200 thousand in the past 25 years with the exception of 1991 and 2012–2013; in 2006 and 2007 it surpassed even the number of 250 thousand (see *Figure 1*). However, after 2012 the number fell to 192 thousand that represented the lowest value in the past 20 years and a decline by nearly 25% as compared to its peak in 2007. In addition to population decline, increasing

<sup>1</sup> On the difficulties of comparing the series of temporary migrations over time see: Gödri és Spéder (2009).

<sup>2</sup> Records are based on the compulsory registration of addresses. Concerning these the Central Office of Administrative and Electronic Public Services (KEKKH) provides HCSO with relevant data.

emigration after 2007 has probably been an important contributing factor in this respect because it affects especially the younger age groups particularly involved in internal migration (see Chapter 11). However, in 2014 the declining trend reversed and the number of permanent moves approached 215 thousand, surpassing even the level observed five years earlier.

Figure 1: Number of permanent internal migration, 1990–2014



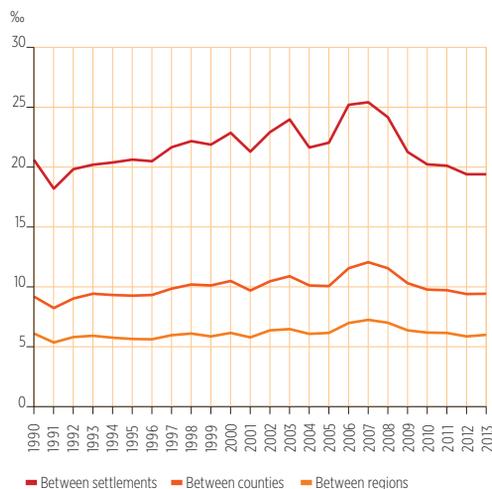
Source: HCSO, Migration statistics.

The easiest way to control for bias arising from changes in the number of population is using the *crude migration rate*<sup>G</sup> that – similarly to the crude birth or death rate – expresses the number of migrations per 1,000 inhabitants. If this is considered at different spatial scale, it is apparent that mobility substantially declines with the increase in distance: compared to moves between settlements, the intensity of moves between counties and particularly regions is considerably lower (Figure 2). Based on current migration data it can be concluded that there are 19 permanent moves per 1,000 inhabitants between settlements, 9–10 between counties and only 6 between regions.

There were also similarities in the dynamics of migration at different spatial scale in the

last nearly quarter century (Figure 2). The number of permanent internal migrations per 1,000 inhabitants slowly increased since its lowest point in 1991 and reached the peak of the post-transition period in 2007. After the financial crisis in 2008 the rate of migration started to fall sharply (although this was less pronounced for moves between counties or regions), and the figures in 2013 were barely higher than the lowest values in 1991.

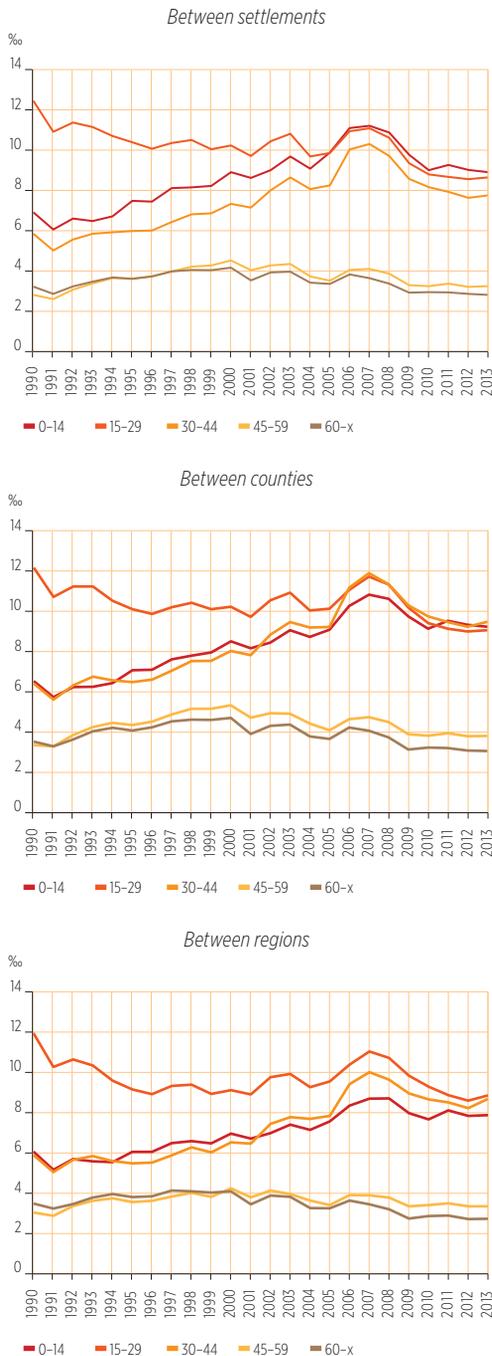
Figure 2: Permanent migration per 1,000 population at different spatial scales, 1990–2013



Source: HCSO, Migration statistics; authors' calculation.

The rate of permanent migration at the different spatial scale is also analysed by age groups. Five broad age groups were created that cover the human life-cycle: childhood (0–14 years), young adulthood characterised by leaving the parental household (15–29 years), economically active periods (30–44, 45–59) and post-retirement years (60–x). Although the intensity of migration in the different age groups varied substantially, the dynamics of migration was very similar at different spatial scales over the past 25 years (Figure 3).

Figure 3: Permanent migrations per 1,000 population at different spatial scale by age group, 1990–2013



Source: HCSO, Migration statistics; authors' calculation.

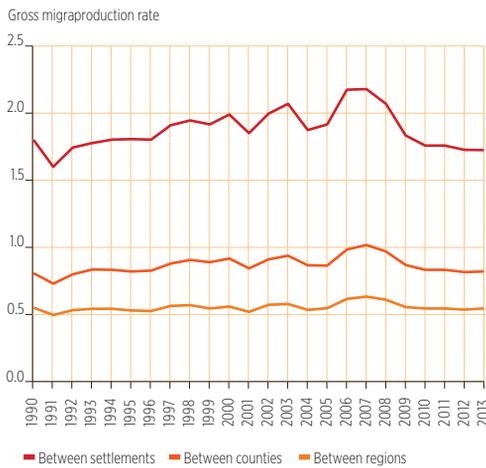
The data show, in line with international experiences, that younger age groups have higher migration propensity. However, while migration was much higher among those aged 15–29 years in the 1990s, this has changed recently and now younger (0–14 years) and older (30–44 years) age groups – to a large extent parents and their children – also have similar levels of migration. This indicates the increasing mobility of young families with small children. Nevertheless, over the age of 45 the migration rate drops: the difference between groups 45–59 and 60–x is negligible and their migration rate has been well below that of younger age groups since the 2000s. The mobility of these age groups also differs from that of younger people over time, which is probably related to the fact that the migration propensity of the elderly (aged 60 and over) is less determined by market trends.

## GROSS MIGRAPRODUCTION RATE

Another commonly used indicator of migration intensity is the *gross migraproduction rate*<sup>6</sup>. The indicator expresses the number of migrations over the life course based on the migration rates of different age-groups in a given year. The indicator is very sensitive to how age limits are determined. To calculate it we computed migration rates for each age up to 90 years and for those over 90 as a combined age group. The analysis of gross migraproduction rate at settlement, county and regional levels reveals trends similar to crude migration rates (Figure 4). Because the gross migraproduction rate is calculated using age-specific probabilities, it controls for bias arising from changes in age composition. The similarity between crude migration rate and gross migraproduction rate time series highlights the moderate role of age composition.

The development of the rate over time shows that the mean number of migrations between settlements ranged between 1.6 and 2.2 in the studied period. The number of moves crossing county boundaries was substantially lower and it only reached 1.0 between 2006 and 2008, while the number of inter-regional migrations was in the narrow range of 0.5–0.6.

Figure 4: Gross migraproduction rate at different spatial levels, 1990–2013



Source: HCSO, Migration statistics; authors' calculation.

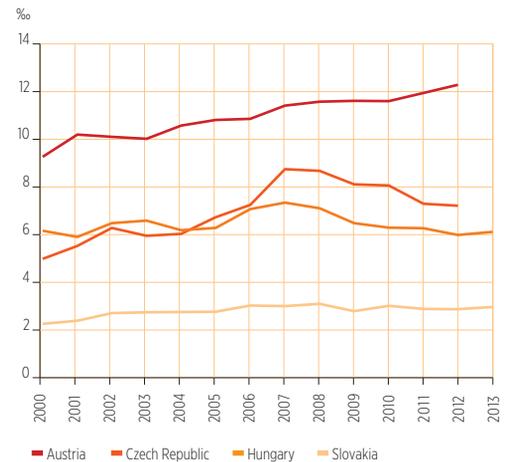
## TOO MUCH OR TOO LITTLE? INTERNAL MIGRATION IN INTERNATIONAL COMPARISON

The international comparison of internal migration poses a major challenge for researchers. Some of the limitations arise from the spatial characteristics of migration (difference in the number of migrations observed at a territorial level, differences in the classification of territorial

levels). Places of origin and destination differ substantially by country in terms of their size, population size or density and geographic characteristics. Comparison is made even more difficult by the use of different sources of data in different countries and the lack of harmonised content.<sup>3</sup>

According to international experiences, the intensity of internal migration is highest in the United States, Canada, Australia and New Zealand, while it is lower in Asia. Europe is positioned in the middle of this ranking, although there are also substantial differences across the Continent.

Figure 5: Number of migration per 1,000 population between regions (NUTS2) in Hungary and nearby countries, 2000–2012/2013



Source: Migration statistics, HCSO; Eurostat, 2000–2007; Wanderungsstatistik 2012; INFOSTAT SK; CZSO.

This chapter examines inter-regional (NUTS 2 territorial units)<sup>4</sup> migrations in the neighbouring Austria and Slovakia as well as in the Czech Republic between 2000

<sup>3</sup> To address problems arising from differences in the data and the size of administrative units, international studies do not use the crude migration rate but they adopt more complex derived indicators.

<sup>4</sup> NUTS (Nomenclature of Units for Territorial Statistics) is a single territorial classification within the EU developed by Eurostat. See Appendix for the Hungarian NUTS2 regions.

and 2012/2013 (*Figure 5*). The number of regions is nine in Austria, eight in the Czech Republic, seven in Hungary, and four in Slovakia. Population size and land area of the regions vary substantially even within countries, which must be taken into account when interpreting the results.

The number of migrations per 1,000 inhabitants among regions is the highest in Austria and it showed a steady increase

during the period under consideration. In Hungary and the Czech Republic the crude migration rate has diverged since 2007: although the number of migrations has declined in both countries, the Czech society seems somewhat more mobile. By contrast, the level of migration among regions is very low in Slovakia and remained basically unchanged during the past decade.

### PLACE OF RESIDENCE AT BIRTH, IN THE PREVIOUS YEAR AND CURRENT PLACE OF RESIDENCE

Population censuses in Hungary have been registering the place of residence at birth and current residence at the time of census since 1880. For a long time – until the introduction of identity cards in 1955 – the comparison of these two provided the only information on the internal migration of the population. Due to the mandatory registration of address introduced in 1954, data on permanent and temporary internal migration as well as residential moves within settlements are available from 1955. While these indicate the number of migrations within a specific year, data from the population census provide information about the share of people who moved away from their places of birth as well as the date when they moved to their current places of residence.

At the time of the 2011 census 18% of the population residing in Hungary lived at their places of residence at birth (in 2001 this was still one fifth). The share of people who still lived at their places of residence at birth was the highest in villages (23%), and below average in Budapest (13%) and county capitals, as

well as towns with county rights (15% respectively). Men were more likely (20%) to live at the same place since birth than women (16%) and the gender gap was largest for those in their 20s and 30s. The share of people still living at their places of residence at birth steadily decreases with age for both genders: while it is 56% for the population under 15, it is below 10% for the over-30s and only 4–5% for people aged 60 and over.

At the time of the 2011 population census 93% of the population lived at the same address as in the previous year and only 340 thousand people moved between settlements. However, the number of registered migrations – including permanent and temporary moves – was 435 thousand in the year before the exact date of the population census (i.e. between October 1, 2010 and September 30, 2011). This means that – even if population decline is taken into account – some of the registered address changes did not involve an actual move or there was a return migration within 12 months (that is unlikely to be of such volume). However, it is also possible that some of the migrations of the previous year remain “hidden” in the population census due to recall bias or other reasons.

## DISTANCE OF MIGRATION

Migration means a move between two separate territorial units, therefore one of its key characteristics is distance. The financial costs and psychological burden (such as moving away from family and friends, reduced social network, etc.) of migration increase with distance. The distance of migration has been defined as the Euclidean distance between the middle points of the area of origin and destination. In the case of Budapest, the middle point of individual districts has been used, however according to the previous definition only moves that cross the boundary of Budapest are considered migration and those between districts are not.

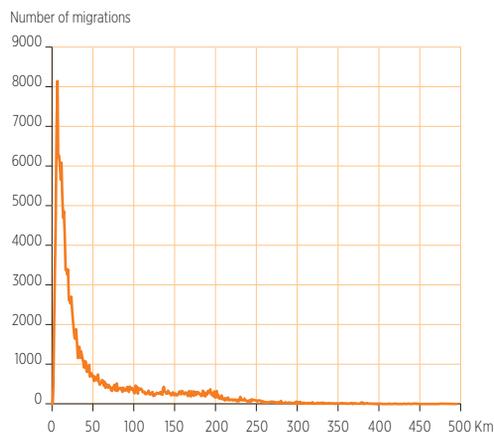
The *average distance of migration* (Figure 6) ranged between 50 and 55 kilometres in the period under consideration, which naturally might be a greater distance by road. The narrow range of values supports the argument on the stability of the migration system.

The *median distance* (the middle value in the ranked order of distances) is more illustrative than the average distance. Our data indicate that the median distance is substantially smaller than the average distance: it fluctuated between 21 and 23.3 kilometres regarding the total population over the period under consideration. This means that half of the migrant population settled within a short distance – less than 25 kilometres – from their place of origin. The difference between the average and median values of distances suggests that long-distance moves between settlements are less common: people are less likely to move to distant settlements than to nearby ones. This is clearly illustrated by the histogram of 2013 (Figure 6).

Summarising the main trends of the past 25 years it can be concluded that both indicators of migration distance decreased

moderately after the regime change and stagnated from the mid-1990s for over a decade. There was a slight increase after 2006 that was primarily due to the increasing intensity of (asymmetric) migratory relationships between Budapest and more distant counties, as well as to the reduction of short-distance suburban moves around Budapest.

Figure 6: Permanent internal migration by average distance in 2013

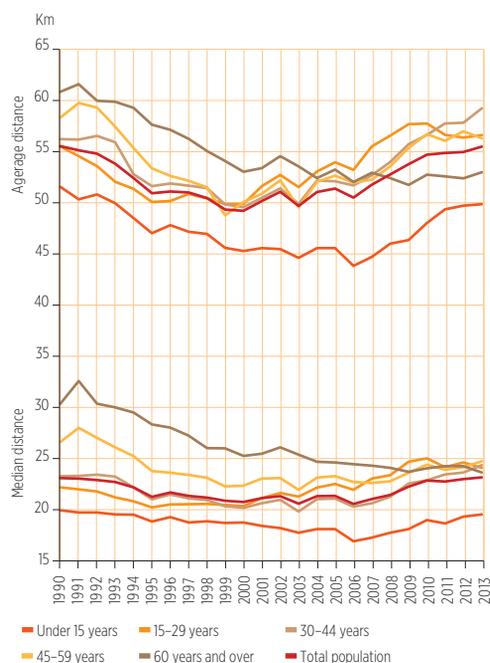


Source: HCSO, Migration statistics; authors' calculation.

Migration distances differ by age (Figure 7). The average and median distance of migration is the lowest for children (under 15) each year; most of them – apart from those in institutional settings – migrate with their parents. For older age groups trend lines – particularly for mean distances – cross each other and no clear trend emerges. However, the mean and median distance of migration for the oldest age group (over 60) has been declining steadily since the early 1990s. One of the possible explanations might be that this is the effect of earlier changes in the distance of migration whereby long-distance moves in the 1950-60s were replaced by moves of shorter distance in the 1970s and now older people follow the migration of their

children's generation. Moreover, it might be argued that the development of the elderly care system and the provision of more local services also contribute to the decrease in the distance of migration. The steady decline in the distance of migration observed for older people highlights that the migration of this age group is less influenced by market trends. The mean distance of migration for people aged 15 to 60 years is characterised by a U-shaped trend: decreasing migration distance in the 1990s and increasingly longer distance moves from around the turn of the millennium. Recent data show that the distance of migration is the longest in the 30–44 years age group (on average around 60 kilometres), whereas in the age groups 15–29 and 45–59 the distance is somewhat shorter.

Figure 7: Average and median distance of migration between settlements by age group, 1990–2013



Source: HCSO, Migration statistics; authors' calculation.

## DIRECTION OF MIGRATION AND CHANGES IN THE SPATIAL DISTRIBUTION OF POPULATION

In terms of the direction of migration, it is possible to distinguish between areas of origin and destination. The analysis of migration flows between the three large regions (NUTS 1) of Hungary – namely the areas on the left and right of the river Danube and the region of Central Hungary – clearly highlight the changes brought about by the large-scale territorial movements of recent decades (Figure 8). The analysis of migratory relations focuses on *net migration*<sup>6</sup> (the difference between in- and out-migration). The balance of migration between these three major territorial units was fairly even from the change of regime in 1989 until the turn of the millennium. The Central Hungary region saw an annual net migration gain of 4–6,000 people from the Eastern part of the country in the early 1990s, which then reduced to 1,500–3,000 people per year for the rest of the decade. The Western part of the country had a very modest gain from migratory relations with Central Hungary and the Eastern region because out-migration was largely offset by migration inflows. This changed after 2000 when migration towards Budapest intensified. Migratory relations became asymmetric, particularly between the East of the country and the capital: nearly 11 thousand people more moved to the Central Hungary region from the Great Plain and Northern Hungary regions than in the opposite direction (Figure 8). Population shifts on a similar scale were last observed in the late 1960s. The moderate positive balance of the West vis-à-vis Central Hungary observed until 2001 reversed and the dominant direction of migration from the West also shifted to Budapest. Migration flows between the Eastern and Western parts of the country appear more balanced and stable according to the experiences of the past decades. Population shifts between

## MIGRATION BETWEEN DIFFERENT SETTLEMENT TYPES – THE DECLINE OF SUBURBANISATION

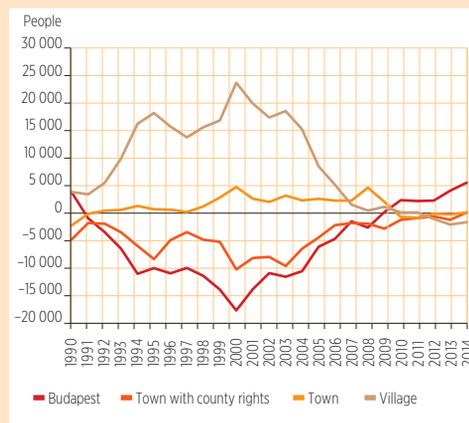
After substantial migration flows to Budapest in the 1980s, there was increasing out-migration from the capital from the early 1990s. The largest loss – more than 18 thousand people – was recorded in 2000. At the same time from the early 1990s villages saw an increasing migration gain (and from 1998 also towns without county rights, although to a lesser extent). The trend was shaped primarily by moves from Budapest to settlements in the agglomeration. This phenomenon known as *suburbanisation* – the outflow of population from large cities and mainly Budapest to surrounding settlements – was gradually declining after the turn of the millennium and completely halted by the financial crises in 2008 due to its effect on the housing market. By the end of the 2000s both the migration loss of Budapest and the gain of villages disappeared. Since 2009 Budapest has seen a population increase from internal migration (already a gain of 5,400 people in 2014) and villages again have become areas of out-migration suggesting the rise of the so-called *re-urbanisation*. The migration loss of towns with county rights has ended (or become very small), however the small but positive migration balance of other towns has disappeared as well.

The 2011 population census recorded approximately 137 thousand people who moved from Budapest to the agglomeration between 2001 and 2011 and 47 thousand people who moved from the agglomeration

to Budapest. In terms of the year of move, the census data also indicate a sharp fall in the number of people moving to the agglomeration while the number of those moving to Budapest is increasing. The composition of the two groups is also different: the majority of people moving out of the capital are married, aged over 30, however pensioners are also overrepresented among them; while those moving to Budapest tend to be under 30 (often students), and single young adults (HCSO 2014).

The population of the 80 settlements belonging to the agglomeration of Budapest has been steadily increasing since the regime change (even though the rate of growth has become somewhat smaller in recent years). However, recently the migration gain of Pest county has not come from the capital but from other parts of the country. The trend of suburbanisation has not yet been showing signs of „revival” since its halt in 2008.

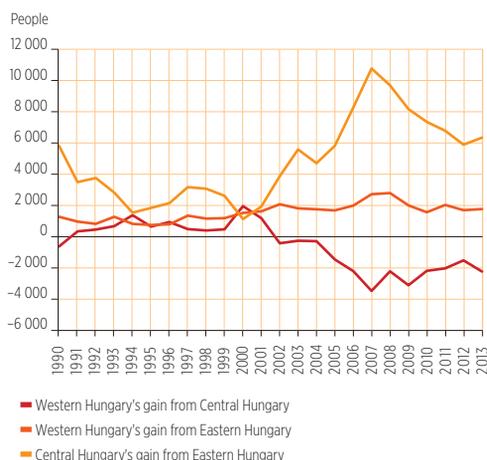
Net internal migration by type of settlement, 1990–2014



Source: HCSO, Migration statistics; authors' calculation.

the large regions have become less intense after the financial crisis of 2008 compared to previous periods.

*Figure 8: Net internal migration between the large regions of Hungary, 1990–2013*



Source: HCSO, Migration statistics; authors' calculation.

As far as smaller regions (NUTS 2) are concerned, apart from Central Hungary, only Western Transdanubia had a positive migration balance, the modest net migration gain of Central Transdanubia disappeared after 2009. Other regions have been characterised by migration losses since the regime change that increased even further in the second half of the 2000s. The biggest losses were registered by the two regions that lag behind the rest of the country in terms of economic development: Northern Hungary and Northern Great Plain (their population decreased by 6,000 and 5,500 people respectively in 2013 due to internal migration).

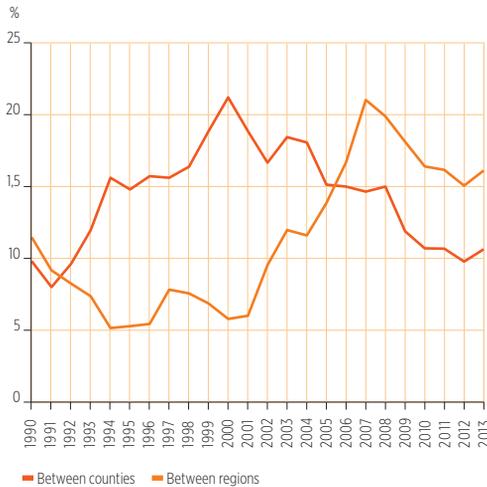
## EFFECTIVENESS OF MIGRATION

One of the most prominent effects of internal migration is the spatial redistribution of the population within a country. The commonly

used crude or total migration rates, that indicate the intensity of migratory flows, are not suitable to capture the redistributive effects of migration. This can be expressed by using the global (covering the whole of the country) index of *migration effectiveness*<sup>6</sup>. The index is calculated by dividing the sum of the absolute value of net migration between pairs of origin and destination locations by the sum of migrations; therefore it indicates the degree of migration balance at a specific level. If the number of inflows and outflows is equal in a given area, the value of the index is zero, their relationship is balanced. Alternatively, the maximum value of the index is one (or 100% on a scale of 100) that can be observed when inflow into a certain area is not followed by any out-migration. The high value indicates a substantial effect of net migration between two territorial units on the redistribution of population.

The index of migration effectiveness – similarly to other indicators of geographical mobility – is very sensitive to the spatial aggregation of data. The county-level and regional time series presented here also demonstrate this by highlighting very different dynamics (*Figure 9*). The trend of migration effectiveness can be divided into a period of growth that lasted until the turn of the millennium, followed by a period of decline. It can be argued that the trend was strongly influenced by the intense and asymmetric migratory relationship between the capital and Pest county, and the decline reflects the slow-down of suburbanisation around Budapest. As far as migration streams between more distant regions are concerned, fewer of these were “unreciprocated” in the 1990s, but the rate of asymmetric relations started to increase sharply after the turn of the millennium and this trend lasted until the financial crisis in 2008. At that time approximately one fifth of migrations represented a population exchange, which then declined somewhat until 2013.

Figure 9: Effectiveness of migration between counties and regions, 1990–2013



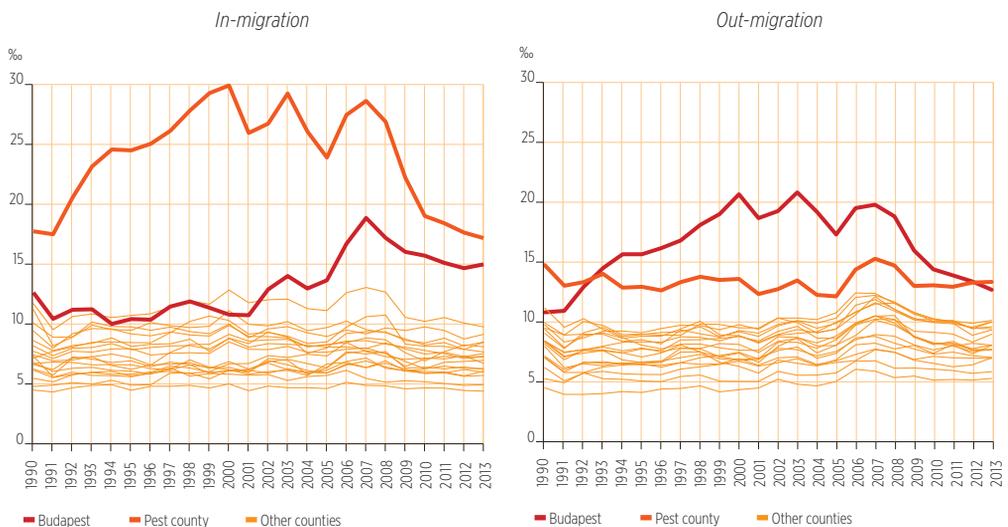
Source: HCSO, Migration statistics; authors' calculation.

## AREAS OF ORIGIN AND DESTINATION

In contrast to the more traditional approach that considers the balance of in- and out-

migration, it also seems worthwhile to examine the components of migration balance separately. The main characteristic of the Hungarian migration system is stability that can be captured particularly well with county-level time series (Figure 10). Apart from Budapest and Pest county, the migration pull and output of counties are characterised by a high degree of stability: crude migration rates for both in and out-migration fluctuate within a narrow range and they show similar trends for all the counties except the two mentioned above. Areas where relative (per 1,000 inhabitants) out-migration was low in the early 1990s, were still similar at the turn of the millennium and two and a half decades later. Highlighting just a few examples, it can be concluded that traditionally few people migrate to Borsod-Abaúj-Zemplén, Szabolcs-Szatmár, Békés and Baranya counties and many to Budapest as well as Pest, Fejér and, since the turn of the millennium Győr-Moson-Sopron counties. Somogy and Veszprém counties are also attractive destinations, however the main pull factor is probably not their labour market but relocation to

Figure 10: Number of in- and out-migration per 1,000 population by county, 1990–2013



Source: HCSO, Migration statistics; authors' calculation.

the areas surrounding the Lake Balaton. Compared to other counties, out-migration is traditionally slight from Győr-Moson-Sopron, Vas, Csongrád and Baranya counties, while it is considerable from Budapest as well as Pest, Tolna, Somogy and Jász-Nagykun-Szolnok counties.

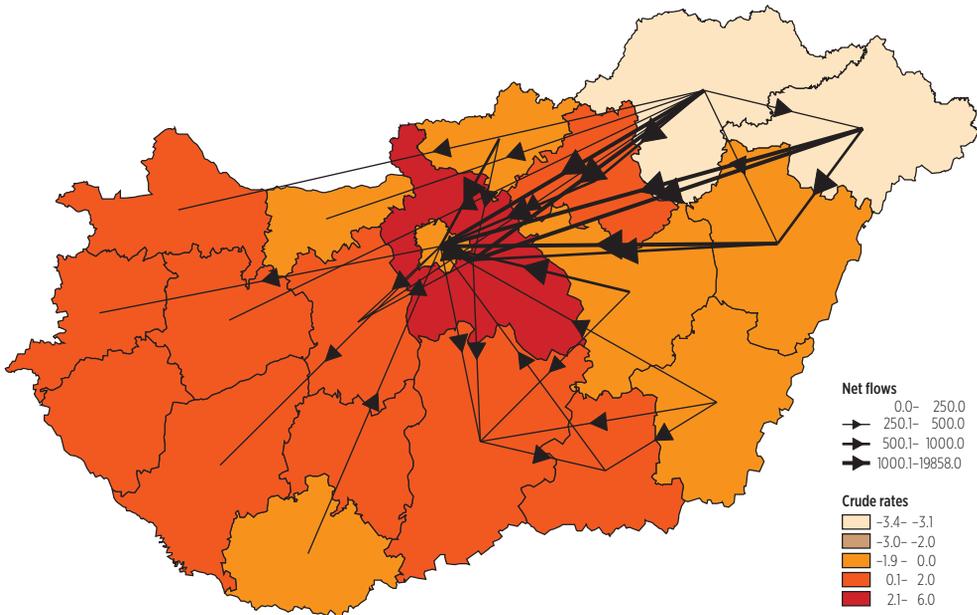
## STRUCTURE OF MIGRATION FLOWS AT THE COUNTY LEVEL

Following the previous argument, changes in the spatial patterns of migration flows will be examined here. Data from the first four years of each decade under consideration is used. In addition to crude internal migration rates, absolute values of *net migration*<sup>6</sup> between counties are represented on the map (with lines). In practice this means 190 potential relationships, however for clearer representation values under 250 people are not included here. The flow maps – as their

name suggests – also show the direction of migration flows (with arrows). In addition to Komárom-Esztergom and Baranya counties, counties in the Eastern part of the country were especially negatively affected by internal migration in the early 1990s (*Figure 11*); in these counties the number of out-migrations exceeded that of in-migrations. In terms of the direction of migration flows: the largest flows were from North-Eastern counties to Budapest, however, on a lesser scale, there was also out-migration (and probably return migration) from Budapest and the North-East to Western counties. In the early nineties a marked suburbanisation got underway around Budapest that shows in the positive migration balance of Pest county. Inter-county flows were by-and-large balanced with the exception of some counties in Eastern Hungary.

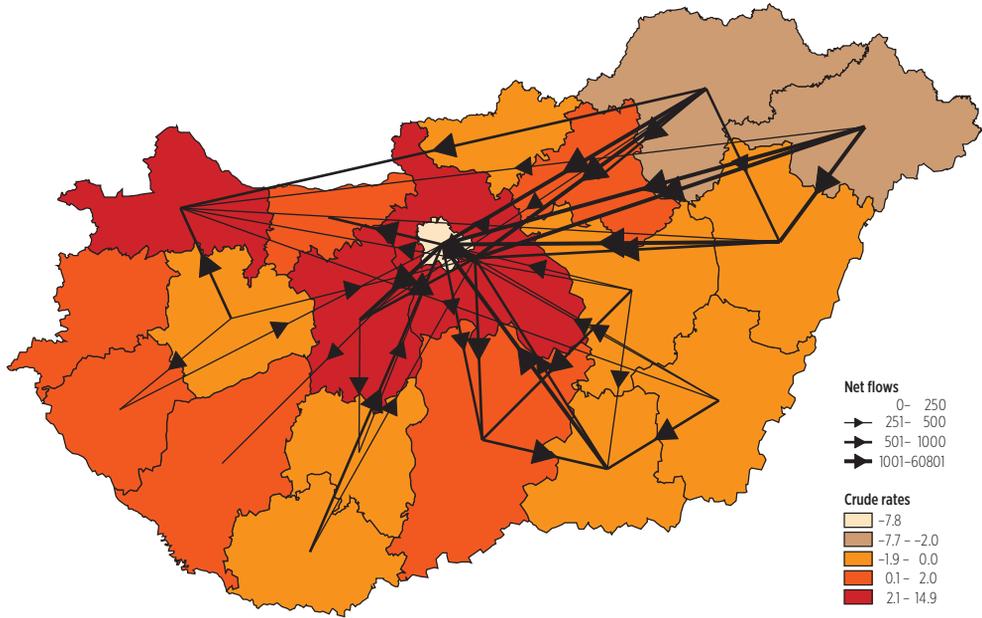
A decade later, between 2000 and 2003, in addition to Baranya, Veszprém and Tolna counties were also characterised by a

*Figure 11: Crude migration rate and the net flows between counties, 1990–1993*



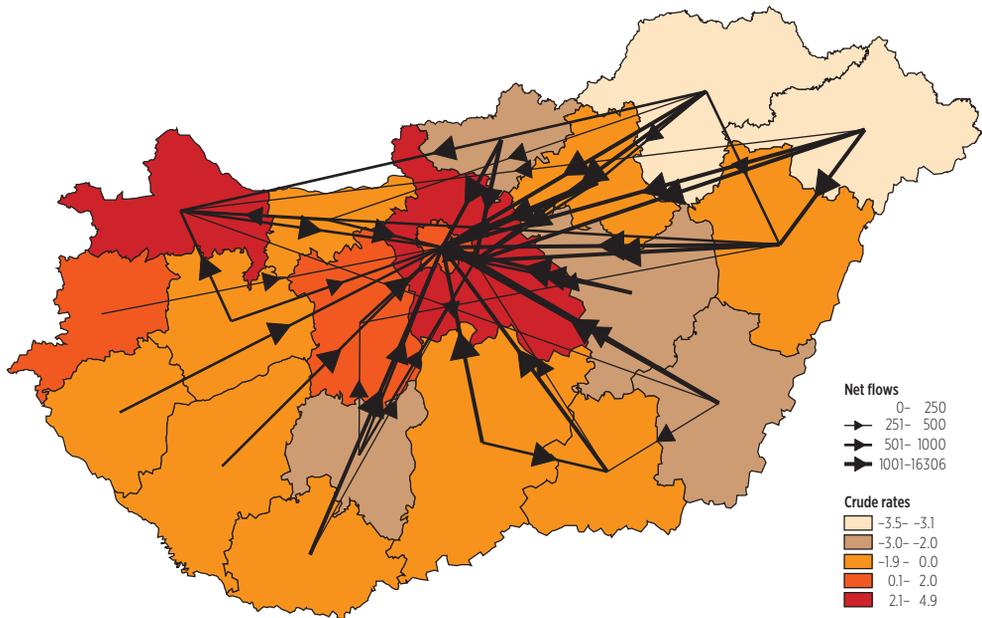
Source: HCSO, Migration statistics; authors' calculation.

Figure 12: Crude migration rate and the net flows between counties, 2000–2003



Source: HCSO, Migration statistics; authors' calculation.

Figure 13: Crude migration rate and the net flows between counties, 2010–2013



Source: HCSO, Migration statistics; authors' calculation.

migration loss; meanwhile in the Eastern part of the country only Bács-Kiskun and Heves counties had a positive balance of migration (Figure 12). Flows between Budapest and other counties became more uneven in favour of the capital. Asymmetry between counties – especially those in the East – was growing; the relationship between Eastern and Western counties was limited to a relatively high volume of migration from Borsod to Győr-Moson-Sopron county.

In the most recent period from 2010 to 2013, only Győr-Moson-Sopron, Vas, Fej-

ér and Pest counties as well as Budapest had a positive internal migration balance (Figure 13). Counties to the East of river Danube were characterised by a migration loss without any exception. The number of people moving to Budapest and surrounding areas exceeded that of moving from the capital to the suburbia of Pest county. Budapest became the main destination, apart from a few exceptions (such as migrations from Veszprém and Borsod-Abaúj-Zemplén to Győr-Moson-Sopron; from Szabolcs-Szatmár to Hajdú-Bihar).

## GLOSSARY

### *Permanent (internal) migration:*

Moves between settlements within a country that involve a change of residence.

### *Temporary (internal) migration:*

Moves between settlements within a country whereby the migrant establishes a new *temporary residence* while retaining their permanent address.

### *Permanent migration balance (net migration):*

The difference between the number of people who register a new permanent address in a specific administrative unit and the number of people who move from this administrative unit and register a permanent address elsewhere in the country.

### *Crude migration rate:*

The number of migrants in a year divided by the mid-year population and expressed per 1,000 inhabitants.

### *Gross migraproductio rate:*

It indicates how many times an individual would move during their life course if the migration rates of a given year were generalised. To calculate it the number of migrants at each age group is divided by the mid-year population of that age group and these single age-specific rates added together.

### *Migration effectiveness:*

It indicates the balance of migration flows between area(s) of origin and destination. To calculate it the absolute value of net migrations is added together and divided by the total number of in- and out-migration and the quotient is multiplied by 100. If the value of the index is zero it indicates a balanced migration relationship, and the maximum value – 100 – shows a fully asymmetric relationship.

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INFOSTAT SK (INFOSTAT Bratislava, Demographic Research Centre): <http://www.infostat.sk/vdc/prdang/charts.htm> (downloaded: 04/03/2015)

CZSO (Czech Statistical Office): [http://www.czso.cz/csu/redakce.nsf/i/casova\\_rada\\_demografie](http://www.czso.cz/csu/redakce.nsf/i/casova_rada_demografie) (downloaded: 06/03/2015)

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## APPENDIX

*NUTS2 regions and counties of Hungary*

