Long-term International Circular Migration: Empirical Evidence from Hungary

1. Introduction

The concept of the usual place of residence is one of the basic elements of the definition of international migration adopted by the United Nations (Bilsborrow et al., 1997; Poulain et al., 2006). According to this concept, migration is a single (non-recurring) event that happens rarely during an individual’s life. A long-term international migrant was generally a lifetime settler and perhaps never returned to his or her motherland. However, migratory movements have been developing as a type of recurring event. Multiple displacements from one home to another have become increasingly frequent during the epoch of globalisation. We argued that circulation, as a part of international migration, should be viewed as interlinked processes rather than a single event. The transnational dimension of migration is increasing. Certain international migrants become circular migrants. They devoted their time and activity to both their country of origin and their destination country (Brickell and Datta, 2011). In general, macro-scale information on international circulars by serial number is scarce. Our research aims to assist in filling this gap.

This paper provides empirical evidence on international circular migrants based on the comprehensive administrative database available in Hungary, and it conceptualises and analyses one of the aspects of the notion of circulation. The aim of this study is to transform the highly theoretical notion of circulation (Jeffery and Murison, 2011) to align this notion with the practice of demography, statistics, migration studies, and population geography.

2. Literature review

Based on the traditional statistical view, migration is a single, i.e., non-repeating event. Long-term migration is considered an exceptional event within the individual life cycle. The steps of the process are strictly separated from each other. From the demographic
point of view, circulation consists of repeatable events, and the analysis of its parity (the number of times that a given individual migrates to a country, or the serial number) is a problem that can be solved through biographical data sets, life course analysis and event history analysis (Henry, 1976; Fischer and Malmberg, 2001; Beguy et al. 2010). Multiple moves of individuals often show particular systematic features. Even the simplest migration system consists of at least two elements. Return migration, typical of this pattern, inevitably includes the preceding migration (King and Christou, 2011). If the migrant explores more than one new country, we have a case of serial migration (Ossman, 2004). Moreover, the multiple moves of individuals interconnect two or more geographical locations (see Figure I). In this section, we analyse the notion of circulation. In migration studies, this notion is both old and new. Circulation involves a system of multiple, recurring spatial movements of individuals. The gross volume of international circular migration has undoubtedly increased, and many new types of circulation have begun to develop. Studies conducted worldwide found that the highly changeable character of circulation was the only consistent feature of the phenomenon (Cassarino, 2008; Newland et al., 2008; Skeldon, 2012).

The definition of circulation is one of the key questions that our contribution will address. Based on an explicit definition, we will select international circulars from the mass of international migrants. To formulate a definition of circulation suited to our aims, we review the recent literature on this topic. Circulation is not an entirely novel idea in the contemporary literature (Vertovec, 2007). According to the widely quoted study of Wilbur Zelinsky (1971: 226), “Circulation denotes a great variety of movements, usually short term, repetitive, or cyclical in nature, but all having in common the lack of any declared intention of a permanent or long-lasting change in residence.” Another more recent recognition of circulation involves aspects of migration: “Circular migration is a continuing, long-term, and fluid pattern of international mobility of people among countries that occupy what is now increasingly recognised as a single economic space.” (Newland et al., 2008: 1). In his essay, Frank Bovenkerk (1974: 5) defined circulation from the perspective of the country of departure as “the to and fro movement between two places, (this movement) includes more than one return (to the place of origin).” The same definition is valid, with little modification, from the perspective of the country of departure. We address the central
concern of this study, including the returns to the destination country (Hungary). In general, in a system including only two countries, the return to the country of immigration is the next step taken by individual circulars in terms of the serial number after he or she returns to the country of origin. In reality, however, circular migration cannot be limited to a binary, pendulum-like movement between two countries (Cassarino, 2008). Flows with a circular character might occur among three or more countries as well. The most recent attempt to define circulation for a purpose similar to that of our research began half a decade ago (Illés and Kincses, 2009) and originated from a supranational organisation. Note that an acceptable definition of circulation has not been formulated by the EU member states. As a result of the Janus-faced process of coordination under the umbrella of the European Migration Network, the following definition has emerged: Circulation is nothing other than “a repetition of legal migration by the same person between two or more countries” (EC, 2011: 12).

A single immigration may mean a migration (from the country of origin to the host country), a return migration (from the host country to the country of origin) or a repeated migration (from the host country to a third country). In our view, circulation contains two or more instances of immigration to the same country. By analogy to the distinction stated by the European Commission (2011: 21), we may identify two different perspectives on non-nationals as viewed from the destination country. We might differentiate between non-national circulars residing in the country of origin (inwards circulation) and non-national circulars settled in the host country (outwards circulation). From a methodological point of view, the analytical value of these two perspectives is completely equivalent. For practical reasons, we decided to utilise the inwards perspective in our Hungarian research. In cases involving two immigrations of the same person to the same host country, we can identify four different cases (host-origin-host; host-third-host; host-third-origin-host; host-origin-third-host) from the point of view of the host country (see Figure 1:). The next logical step can then be taken by considering analogous cases involving three immigrations. The occurrences of three instances of immigration by the same person to the same host country comprise 16 potential cases. In a general sense, n (n=1, 2, 3…) immigrations may occur as \(2^{2^{n-1}}\) different cases from the perspective of the host country.
The system of multiple and recurring migration emerges in the arena of international migration due to the rapid development of information, transportation technology and telecommunication. The distinctive function of state borders has been eroding. The free movement of individuals has become a reality within particular supranational integrations. Scholars have not yet reached a consensus on how to conceptualise the newly emerging multiple and recurrent movements. The migrants did not completely abandon their relationship with their country of origin (Tamaki, 2011). They developed partial affiliations to their destination country through their work, housing arrangements and other activities now included in their lifestyle (Salt, 2001; Waldinger, 2008). The migrants could adopt a strategy of dual or multiple residence. In reality, this strategy involved moving back and forth (Klinthäll, 2006; Tannenbaum, 2007; Lunt, 2008).

Students of transnationalism claim that multiple affiliations are inherent in recent world conditions (Portes and DeWind, 2004; Walton-Roberts, 2004; Lévai, 2006; Papademetriou, 2006; Williams and Baláž 2008). One of the distinguishing features of transnational migrants was that their status transcended the exclusive relationship between the territory of the nation-state and its population (Tóth, J. 2011). Several phenomena involving multiplicity accompanied the more frequent multiple and recurring spatial movements in the era of globalisation. These phenomena included multiple residence (McHugh et al., 1995; Klinthäll, 2006), multiple citizenship (Bloemraad, 2004), multiple property ownership (Hall and Müller, 2004), multiple employment and multi-occupationality (Kaufmann et al., 2004: 753; Lundborg, 2010), multiple social and political activities (Waldinger, 2008), multiple identity (Tannenbaum, 2007; Tamaki, 2011), multiple knowledge (Williams and Baláž, 2008), multiple loyalty (Waldinger, 2008; Sirkeci, 2009; Tamaki, 2011) and multiple partnerships (family, friendly, marital) (Hondagneu-Sotelo and Avila, 1997; Hagan et al., 2008). We are aware that this list was not complete. We could expand the roster. However, we only cited those newly emerging multiple phenomena that might exhibit a close relationship with circulation as a migratory system.
3. Working definition of circulation

For a sophisticated conception of circulatory spatial movements, we develop the necessary elements of the phenomenon of circulation from the point of view of migratory systems. The migration system is no more than the sum of the migration processes, i.e., a set of non-independent associated moves. The simplest example is the two-centre system. In this system, the flows occur between the two centres. In the two-residence case, the first-parity (serial number) return movement to the country of origin is no more than a simple return migration. However, the first-parity return to the country of immigration is sufficient for the occurrence of circulation and is irrespective of the particular residences involved. Note that three interlinked and recurring migration steps are necessary for the creation of circulation.

In summary, the general definition of circulation is as follows: circulation is a type of spatial mobility system containing at least three interlinked and individual return moves (Illés and Kincses, 2009). We intentionally use the broadest concepts applicable to human movements, such as “spatial mobility system” and “move”, to allow a more workable conceptualisation of the notion of circulation with additional connotations of tourism, commuting and migration (Hall, 2005). The concept usually involves return and repetition. For the specific purpose of this research, we create a particular definition. The exact definition of international circular migration is as follows: international circular migration is a type of spatial migratory system including at least three interlinked and return individual migrations among the countries involved (Illés and Kincses, 2012). According to this definition, international circular migration constitutes multiple return moves within the same spatial system.

Because few circular movements are documented quantitatively, data gathering is essential (Newland et al., 2008; Taylor and Bell 2012; Hugo 2013). The present study aims to enrich our knowledge of circulation within an international migration context. Because we focus on Hungary as a receiving country, we concentrate on inwards circulation. Naturally, Hungary is an individual case and may represent an exception. Nevertheless, its statistical system allows us to create a unique macro-level database on
international circular migrants. Following the initial study by Illés and Kincses (2009), two papers addressed international circulation in reference to Hungary.

The first paper was an official report. Ács (2010: 7) defined circular migration as legal mobility involving movement back and forth between two countries regardless of the length of stay. However, she restricted the scope of circulation to labour migration, and her empirical examples (e.g., seasonal workers, researchers and students) relied only on simple migration processes. The movements presented in her paper lacked any characteristics of circulation.

The second paper had an unfinished character and was part of the broader Metoikos research project on circular migration patterns in Southern and Central Eastern Europe. The authors concentrated on field work in the Ukrainian-Hungarian border region (Caglar et al., 2011) and sought to describe different migratory and circulatory patterns. Their descriptions relied primarily on their own qualitative research. The interviewees described their migration-related experiences, but the respondents were primarily migrants rather than circulars. Six main types of legal circular migration were distinguished by the authors based on an unknown number of interviews. Unfortunately, those authors neglected the large amount of Hungarian and Ukrainian literature highly relevant to this topic and failed to recognise the scope of circularity. Accordingly, we did not accept the validity of their results on international circular migrants between Ukraine and Hungary. In that study, the term “circulation” was used as a popular commercial label to manage the project for bureaucratic purposes.

4. Data and methods

The current study’s empirical analysis of international circular migrants was limited to Hungarian immigration data. This choice had several advantages. The data set came from a comprehensive administrative database. The method of data gathering harmonised well with international recommendations. In this study, we concentrate on the aspects of multiple movers related to immigration. As a reference group, of course, we can also distinguish the first-parity immigrants. In our subjective opinion, which may be open to dispute, the main value of this research is that we could distinguish the
international circular migrants within the overall complexity of immigration patterns. In addition, we explored particular aspects of the demographic and territorial patterns shown by the international circular immigrant population in Hungary.

The main disadvantage of this research is its country-dependency. The Hungarian case study occupied the centre of our perspective. The study did not include emigrants from Hungary. From this perspective, we could only distinguish immigrants by parity. For example, we could distinguish those that arrived in the country for the first time, for the second time and for the third time. We did not have precise information about the destination of immigrants who left Hungary between their two stays in the country, i.e., whether such migrants returned to their country of citizenship or emigrated to a third country. For pragmatic reasons, we assumed that the migrants returned to their country of citizenship. Based on the relevant literature, the probability of return migration is far higher than the probability of emigration to a third country. In this study, we analysed international circular migration involving only two countries: the country of citizenship as the source and Hungary as the recipient.

Clearly, given the macro scope of this research (Sanderson, 2010), not all dimensions of circulation can be investigated (Bailey, 2010; Williams et al., 2011). We studied the immigrants for the years 2006, 2007 and 2008 and determined the number of individuals who registered since 2001. Immigrants registered twice, three times, four times and more constitute the international circular migrants, the topic of this paper.

The primary database consists of individual data files on legal immigrants each year between 2001 and 2008. According to the official statistical definition, the term “immigrant” means a foreign citizen who entered Hungary in a given year and obtained a permanent residence or settlement permit for one year or more than one year. This definition is consistent with the recommendation of the United Nations on the gathering of international migration data (Haug et al. 2002; Fassmann et al. 2009). The documented legal status guarantees free movements and appears to encourage border crossing. These data are obtained from the Office of Immigration and Nationality. We utilise data on the flow of immigrants because net migration figures conceal multiple movements, e.g., circulation. The researchers had access to the primary database on international immigrants to Hungary. Individual immigrants were identifiable in this database. The individual data files include the immigrant’s surname, given name,
gender, date of birth, place of birth, marital status, citizenship, and the address of the immigrant’s usual place of residence in Hungary. We established an original method for the creation of a secondary database on international circular immigrants in Hungary as our group of interest. In this method, we compared one of the three years under investigation with the previous years, starting with 2001 (for example, 2006 with 2001-2005, 2007 with 2001-2006 and 2008 with 2001-2007). We created a special computer programme as a multi-level identification system to identify the same individual over different time periods. On the first level of disaggregation, we associated natural persons with the same surname, given name(s), gender, date of birth, and place of birth. This procedure was an essential step towards the identification of circular immigrants. The first results were extracted from the original data set. The subject of the next stage of the analysis was the residuum data file. On the second level, we connected the natural persons remaining with the same surname and given name(s) without any special characters in the letters, gender, date of birth, or place of birth. This stage is necessary due to the large variety of languages and due to the mistakes in spelling made by the officers who recorded the information with or without any documents that could be consulted. On the third level, we abbreviated the family name to the first five letters without any special characters. We did not include the given name(s). This information was combined with the information on gender, date of birth, and place of birth. In the next stages, we did not use the names, but we included any other variables. In practice, we did not find the same persons after the seventh or eighth levels of comparison of the residuum data sets. Overall, we obtained an exceptional secondary database. In this database, natural persons returning different numbers of times to Hungary were recognised as international circular migrants.

We mentioned above that this analysis covers a three-year interval. We chose to investigate flow data from 2006 through 2008. This choice was made because the results (numbers, patterns, structures) for separate years differed markedly year by year. This solution helped to decrease the distortion produced by the highly changeable character of year-to-year long-term circular migration. This characteristic of international circular migration was consistent with Newland and colleagues’ (2008: 1) argument on the highly fluid patterns of international circular migration. Our main aims
were to explore the semi-permanent demographic and spatial patterns of international circular migrants in Hungary.

5. Demographic composition

Between 2006 and 2008, 77,521 foreign immigrants entered Hungary. Of these immigrants, 10,907 have already stayed in Hungary as immigrants. This finding indicates that more than 14 per cent of all of these immigrants were circulars (multiple returnees) with previous personal experience with the country (this percentage could be even higher, but we only had access to data for the years since 2001). In contrast, Constant and Zimmermann (2011) utilised German data to explore the extent of international circular migration within the guestworker population. They used the first 14 waves of the German Socio-Economic Panel data from 1984 to 1997 and found that 62 per cent of all individuals in the sample were repeat or circular migrants. The large difference between the two findings could be explained by the different types of data, the length of the study periods and the populations investigated. Moreover, Germany has traditionally been a country to which immigration occurred over the past half century, but the history of immigration to Hungary began in the late 1980’s. We can confidently anticipate that the Hungarian proportion of circulars is growing in the near future, but it is impossible to estimate the eventual peak level. Unfortunately, the circular guestworker subpopulation was not separated by parity (numbers of exits) in the study of the German data, in contrast to the Hungarian case. We also found that of the 10,907 long-term international circulars (who were registered as immigrants more than once), 75.9 per cent entered the country for the second time, 21.6 per cent for the third time, and 2.5 per cent arrived for the fourth time since 2001. The decrease in these values was in agreement with previous expectations.

Table 1 International immigrants and international circular immigrants by gender in Hungary from 2006 to 2008 (%)
As Table 1 shows, 57.3 per cent of the total number of immigrants were men, 42.7 per cent women. Among the circular migrants, 55.4 per cent were men, 44.6 per cent women. Surprisingly, the gender composition of the circulars in Hungary was similar to that of the German circulars (52.3% and 47.7%, respectively) (Constant and Zimmermann, 2011: 504). We can conclude that a slight male surplus exists among the circular migrants. However, the probability that an international migrant woman becomes a circular migrant is higher than the corresponding value for a man for all the years investigated in Hungary. This finding may contradict the cultural truism that often opposes mobile masculinity to localised femininity. From a gender perspective (Kovács and Melegh, 2007; Stalford et al., 2009), the higher female probability of becoming a circular migrant would represent one of the symptoms of the feminisation process within international migration and would indicate a weakening of the supremacy of economic motives.

Age is an additional aspect of the demographic analysis. The analysis of the age composition of the subjects indicates that children (aged 0-4), secondary or tertiary school students (aged 15-24) and elderly people (aged 55 and up) were less frequent among the circular immigrants than people at an economically active age. The percentage of primary school students (aged 5-14) is equal among circular immigrants and all immigrants. The most frequent age group of circular migrants is 25-54. This thirty-year age group was dominant (51.7 per cent). More than one-third of all circular migrants (35.0 per cent) were aged 25-39. The group aged 40-54 represents 16.7 per cent of the circular migrants.

The average age of circulars will therefore rise according to parity. In addition, the average age of female international circular migrants is younger, according to parity, than their male counterparts. It is highly probable that the women began their immigration careers to Hungary earlier than the men. A comparison with the German data shows that the average age of circulars in Hungary (32.3 years) was approximately equal to the average age of the circular guestworkers (32.9 years) (Constant and Zimmermann, 2011: 504).

Labour mobility would be the predominant source of international circular migration. Many migrants are involved in one or more systems of emigration and return. In the Hungarian labour market, the circular immigrants might feel marginalised
from the host society. Accordingly, they simultaneously retained links to their country of origin by sending remittances, by conducting dual entrepreneurial activities and by moving back and forth (Rédei, 2007). These activities reflect a dual attachment to the source country and the receiving country.

The next portion of the data analysis is the examination of demographic structure with respect to family status. Perhaps the most interesting finding is that the percentage of single people (53.6 per cent) among the circular migrants is higher than that among the non-circulars (47.4 per cent). One possible explanation is that the “mobile” way of life is not typical of those who have formal partnerships, with or without children. The presence of immediate family members may reduce the probability of circulation. This hypothesis strengthens Vertovec’s (2007: 5) speculation on the likelihood of circular migration: “likelihood falls with marriage, … when migrants have children … they are less likely to engage in circular migration” and Constant and Zimmermann’s (2011: 512) findings: “Those immigrants who are the most mobile and open to circular migration are the middle-aged, male, and single migrants”.

However, we cannot state that the probability of circulation is higher for the people without legal partnership than for the people with partners. This conclusion cannot be drawn due to the lower percentage of widowed and divorced circulars. Such findings are germane to arguments associated with the erosion of the traditional concept of the family and the creation of new types of cohabitation.

6. Spatial characteristics

A classification by citizenship shows that circulation is more typical for the citizens of the countries to the east and south of Hungary, such as Romania, Ukraine and Serbia. Because these migrants originated primarily from the Hungarian minorities living in these countries, their language created no real barriers (Gödri, 2010; Tóth, P.P., 2011). According to Table 2, more than one-half of the international circular migrants originated from Romania (50.6 per cent). Citizens of Western European countries or other, more distant countries generally do not return to Hungary as circulars. The
exceptions to this pattern are Germans (2.3 per cent) and Chinese (5.7 per cent). The inclusion of German citizens can be explained by the observation that former Hungarian emigrants and German pensioners moved back and forth between their first and second homes (Illés and Michalkó, 2008). The role of Chinese international circular migrants is explained by the emerging Chinese diaspora and is associated primarily with the capital, Budapest (Egedy et al., 2009; Kőszeghy, 2010).

It is extremely probable that ethnic Hungarians fluent in their own language returned as multiple immigrants from neighbouring countries. Circulation functioned as an original solution to the dilemma of remaining in the homeland (motherland) or going to the home country (mother country) to obtain work or an education (Popov, 2010). Note that the initiatives originating from above (from national and international bodies) failed due to several reasons linked to contemporary history. Circulation, as a spatial process extending upwards from the ground level, has been involved in an effective solution of the situation of Hungarian minorities in neighbouring countries since the beginning of the era of the free movement of people related to Hungary (Kocsis et al., 2006). International circular migration mediates the migrants’ multiple engagement with their home countries and their countries of destination.

Table 2 Distribution of the country of citizenship of international non-circular (1) and circular (2–X) immigrants within each parity of entrance category in Hungary between 2006 and 2008 (%)

Table 3 Distribution of the parity of entrance of international non-circular (1) and circular (2–X) immigrants within each country of citizenship in Hungary between 2006 and 2008 (%)

Table 3 depicts another, contrasting characteristic of the circular immigrants. In addition to the principal countries of origin, Norway, Russia and Syria contribute significant percentages of circular immigrants. The high proportion of circulars within the immigrants from Norway and Syria is consistent with the mass international
immigration of third level students (Findlay, 2011) to Hungary (Langerné, 2009). The relatively significant percentage of circular immigrants from Russia is in agreement with the occurrence of strengthened economic motives and the phenomenon of international retirement migration to Hungary (Illés and Kincses, 2008).

7. Conclusion

The results of this research indicate that the circulation (multiple immigration) of foreigners to Hungary as the host country is a mass phenomenon. Based on the unique data processing method used in this study, more than 14 per cent of all immigrants arriving in Hungary were circular migrants between 2006 and 2008. They had experience with living conditions in the host country due to their previous stay as international immigrants. Of these registered circular immigrants, 75.9 per cent entered the country for a second time, 21.6 per cent for a third time, and 2.5 per cent for a fourth time. Men dominate the international circular migrants, but their dominance of these migrants is smaller than their dominance of all international migrants. The tendency of internationally migrating women to become circulars is higher than the corresponding tendency for men. From a gender perspective, this empirical evidence emphasises the substantial feminisation process within the international migration to Hungary. The most robust finding of this research is that the vast majority of circular migrants are single people (53.6 per cent). It is highly probable that a legally married status ends the circular career of individuals.

Due to the multiple selection processes, the group of international circular immigrants includes a significantly lower share of children, students and elderly people than the total subpopulation of immigrants. Most circular migrants are aged 25-54. Naturally, the age structure of circular migrants is older overall than that of non-circulars. However, in contrast to previous expectation, the average age of international circular migrants does not increase evenly by parity. Therefore, we can assume that the primary selection factors affecting these groups in the population include both the need to make money in the host country and the desire to continue their usual lifestyle in their country of origin. Circulation is most typical for single persons at productive ages.
from Romania, Ukraine, and Serbia. These individuals circulate primarily within well-established ethnic Hungarian networks.

The consistent patterns characterising the demographic composition and the territorial distribution of the country of citizenship reflected the identity of the international circular immigrant subpopulation as a multiply selected group. Upon their first immigration to Hungary, they became separate from the population that was not internationally mobile. Upon their second immigration, they became international circular immigrants, differentiated from the group of foreign citizens with immigrant status who emigrated from Hungary for the first time. With the increase in their serial number (the parity), the populations of circular migrants changed from larger groups to increasingly small subgroups. The international circular migrants generated increasingly homogeneous subpopulations due to the results of these multiple metamorphoses.

We tried to embed our research results in a broader scientific context, but we have found few opportunities to perform international comparisons. The investigation of international circular immigrants on a macro scale is fundamental. The definition of long-term international migration advanced by the United Nations can facilitate the use of the method presented above for the creation of secondary data on international circular migration worldwide. The emerging databases across countries may be important resources for facilitating international comparisons and may allow us to test the robustness of the findings of this case study.

References


Table 1: International immigrants and international circular immigrants by gender in Hungary from 2006 to 2008, (%) 

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<th>Year</th>
<th>All immigrant</th>
<th>Circular immigrant</th>
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<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>2006</td>
<td>55.2</td>
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<tr>
<td>2007</td>
<td>56.4</td>
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<td>2008</td>
<td>59.0</td>
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<td>Total</td>
<td>57.3</td>
<td>42.7</td>
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Table 2: Distribution of country of citizenship of international non-circular (1) and circular (2–X) immigrants by parity of entering in Hungary between 2006 and 2008, (%)

<table>
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<th>Citizenship</th>
<th>Numbers of entering</th>
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<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Romania</td>
<td>27.0</td>
<td>56.0</td>
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<td>13.3</td>
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Table 3: Distribution of country of citizenship of international non-circular (1) and circular (2–X) immigrants by parity of entering in Hungary between 2006 and 2008, (%)

<table>
<thead>
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<th>Citizenship</th>
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<th></th>
<th></th>
<th></th>
<th>Together (2–X)</th>
<th>Total</th>
</tr>
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<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>Romania</td>
<td>76.5</td>
<td>19.7</td>
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<td>0.3</td>
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1 immigration means: migration, return migration, repeated (serial) migration.

Migration

O H T

Return migration

O H T

Repeated (serial) migrations

O H T

Circulation (2 immigration → 4 cases)

O H T

3 immigration → 16 cases

For instance:

O H T

... +14 cases

Circulation:

2 immigration → 4 potential cases
3 immigration → 16 potential cases
4 immigration → 64 potential cases

n (n=1,2,3,...) immigration

In general sense: \(2^{2(n-1)}\)

H: Hungary; O=Origin country; T: Third country