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Highly Skilled Migration. A Romanian Perspective: 2000 - 2009

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Abstract: Highly skilled migration is a subject of strong debates in current times, when there are evident proofs that the quality of human factor is crucial in achieving technical and economic development. Even though brain drain phenomenon and its impact on the economic environment are intensively discussed, insufficient quantitative information regarding highly skilled migration is available at international level, so as to allow a comparative analysis of the real state of facts. Migration in and from Romania is not only a fashionable subject, but a problem that the nation has to face and that will have a strong impact on the country's long term development. The purpose of this paper is to locate Romania's position in the international highly skilled migration, as well as to understand the structure of migration having Romania as source and destination country. We have thus calculated an attractiveness index that helps identifying which are the countries with a higher impact on the highly skilled migration flows in relation with Romania.

Keywords: highly skilled migration; brain drain; human capital

1 Introduction

A central role in migration decision is the level of education of the individual. Experts have shown that there is a direct correlation between the education level and the likelihood of migration. This is partially because people are more prepared to identify more effectively the alternatives in the labor market, thereby reducing the costs of migration. It is also generally accepted that the alternatives for these individuals are more numerous and varied. Economic incentives are also higher for individuals with more thorough training. Knowledge about language barriers are easier to overcome for these categories that also show greater flexibility.

It was relatively obvious during the last decades that destination countries registered a clear benefit from highly skilled immigrants. Thus, beyond the removal of legislative barriers they have actually introduced incentive schemes of this phenomenon. This led to a steady stream of highly skilled Europeans to the USA and Canada after the Second World War. USA and Canada were the first countries to have paid particular attention to immigration policies; they structured a well-differentiated visa system depending on the degree of specialization. Awareness of this problem has led a number of developed countries in Europe to counter weight the phenomenon, by applying similar migration policies. Even though many countries have been continuously trying to understand and analyze the impact migration has on their economies and elaborated complex tools of dealing with this phenomenon, there is still a concerning lack of quantitative information that allows for international comparative analysis in terms of real highly skilled migration flows.

2 International Highly Skilled Flows

Although the phenomenon generally occurs in the exporting countries, most of them do not have many sources of information other than data collected by censuses or some institutions. The data are generally obtained from the countries of destination. However, information about the educational level of immigration flows is not available most of the times and refers mainly to the permanent migration tendency.

The most detailed database that relates to labor mobility is based on birthplace criterion. Data on birthplace stay at the foundation of the most detailed two databases related to migration of qualified persons: the OECD and the World Bank (Docquier, Marfouk, Lohest, 2005). In cases when data are available, these profiles can be subdivided, by place of birth, by period of arrival in the destination country, to allow an overview of the distribution of skills over time, taking into account the fact that these numbers represent survivors of previously incoming large groups. Both Canada and the U.S. Census provide information on their websites for groups coming from the same place of birth. However, information on return migration in countries of origin, or those related to future migration to a third destination, which significantly influences the number of survivors obtained from censuses are not normally available.

Latest data from the above sources refer to 2008 and examine the extent to which a country exports the skilled human capital, as a percentage of total migrants. The analysis is conducted on 199 countries, including Romania, which is a source of emigration to OECD countries (OECD, 2008). At the level of 2007-2008, as an absolute number of highly qualified immigrants in OECD countries, the largest suppliers with an excess of a million people are the UK (1,126 million) and India (1,039 million). The following places are occupied by the former Soviet Union countries (943,000), Philippines (902,000), Germany (884,000) and China (856,000). The next countries are having less than 500,000 emigrants. Romania's position in the top is 19, with about 230,000 emigrants. The above top changes when it comes to analyze the share of skilled migrants in the total migrants. Thus, the country with the highest rate of highly skilled migrants is Taiwan (61.7%), followed by Nigeria (54.7%), India (53.1%) and Malaysia (50.2%). These are nations where more than half of those who have migrated to OECD countries now have tertiary education. The following countries from the list, close as a percentage (between 47% and 50%) are, in descending order: Japan, Zambia, USA, Egypt, Lesotho and Namibia. In this ranking, Romania ranks 139, with a percentage of approximately 22.7%.

To be observed here is the dominant presence of African countries and India, which is the only country among the above that appears in top 5 both as a total number of skilled migrants, and their share of total migrants. It is thus understandable the major concern regarding this aspect, and the abundance of studies regarding the phenomenon of "brain drain" from African countries and India.

There are two main limits in the above statistics: quantifying the level of immigrants in OECD countries, on the one hand and defining when the persons have reached the level of qualification (before or after the time of emigration). However, the analysis provides at least some general information about the human potential of migrant population and their flow direction.

3 Highly Skilled Migration in and from Romania: Attractiveness Index

3.1 Migration Outflows

Up to 2008 Romania ranked 19th in the world as a provider of skilled (tertiary education) migration flows to OECD countries. Between 1990 and 2000, 176,393 people have left Romania according to statistics of skilled migration. These are accounts for about 12% of those who left UK, and about 0.7% of the total population of the country (taking into account only the working population). According to 2008 statistics, the percentage of those who left Romania and received tertiary education stands at 20% of those leaving UK, registering a positive development compared to the largest supplier of skilled labor. However, Romania does not fall within the top percentages of the rate of emigration of highly educated human resources. According to the National Institute of Statistics, the number of migrants between 2000-2009 decreased by almost 38% from the previous decade, up to 109,498 emigrants being registered in the last year.

The share of highly educated migrants in the total number of migrants recorded an average of 27% and varies between 23% and 36%, the peak being reached in 2009, probably due to the less encouraging economic and social policy at national and European level (most educated migrants take the path towards countries in Northern America). In terms of absolute numbers, as shown in the chart below, the number of migrants varies between 2,100 and 3,700, with peaks in 2004, 2006 and 2009, when the totals varied close to the threshold of 3,500.

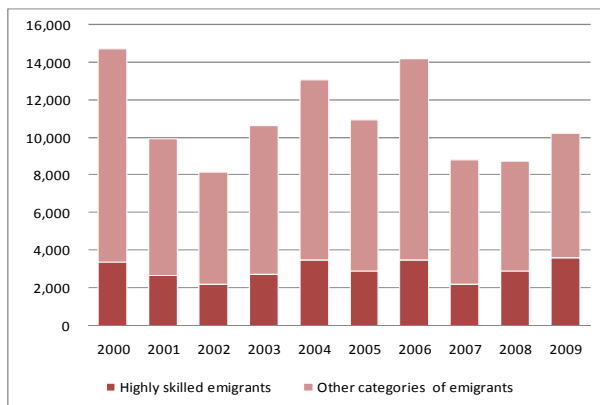


Figure 1 Migration out of Romania - evolution between 2000 and 2009 (based on data provided by the National Institute of Statistics, 2010)

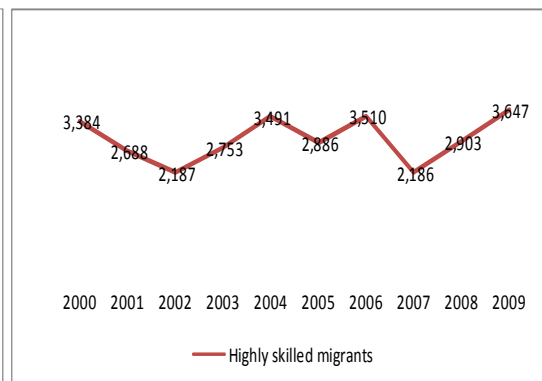


Figure 2 Highly skilled migrants - Romania outflows 2000-2009 (based on data provided by the National Institute of Statistics, 2010)

The following step was to analyze the attraction exerted by certain countries for migrants with higher education in Romania. We have thus calculated an index, which we have named index of attractiveness (I_a), which expresses the extent to which a country draws between those who emigrate from Romania, those with higher education.

Equation 1 Formula of calculation of the index of attractiveness:

$$I_{ax}^y = \left\{ \text{QUOTE} \frac{\text{Number of migrants towards country X in year Y}}{\text{Total number of migrants towards country X in year Y}} * 100 \right\}$$

One can see below (Figure 3) the evolution that the index has for the top three Romanian highly skilled migrants:

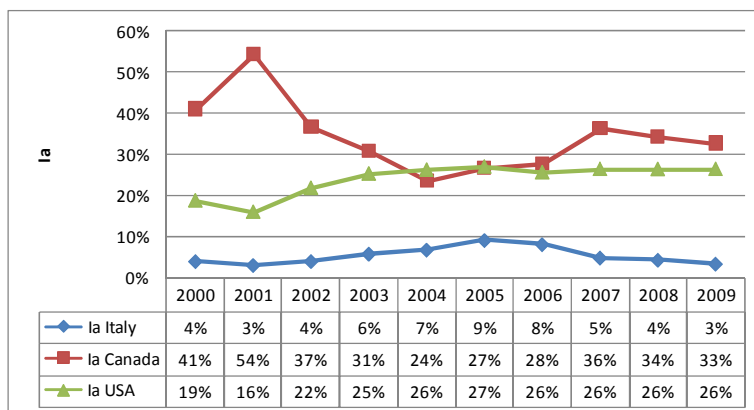


Figure 3 Ia evolution 2000-2009: Canada, SUA, Italia (based on data provided by the National Institute of Statistics, 2010)

The most important destination countries as concerns Romanian migration are Canada, United States, Germany and Italy. While migration to Germany has been closely linked to family connections between ethnic Germans from Romania and people in the country of destination, which affects the structure of the migrant population through highly subjective selection criteria, this characteristic is not valid when it comes to Canada, USA and Italy. Thus, calculation Ia for all destination countries along 2000 - 2009, we found that, among countries that have a major impact on the flows of immigrants in our country, Canada and the United States of America registered the largest index of attractiveness accounting a cumulated index of attractiveness ranging between 50% and 70%. The smallest index of major destination countries belongs to Italy, whose attractiveness index ranges between 3% and 9%. Italy's situation should be accounted for, since it hosts between 10% and 25 % of the total Romanian migrants in the period under review.

Data analysis shows that countries that attract the most highly educated people in Romania are Canada and USA, with an emphasis on the first one. There are, in the author's view, three main factors which have a major impact on the decision to leave and also the acceptance of people with higher education as immigrants of these countries:

- 1) Promising economic conditions;
- 2) The policy of attracting qualified people in these countries by facilitating the visa obtaining process;
- 3) Reduced fear of qualified people when it comes to distance, language and cultural differences;

Similar factors have an influence on the structure of migration to Italy, where it is known that people are looking for other types of qualification (nurses, workers, etc. ...) and barriers related to distance, culture and language are much lower.

3.2 Migration Inflows

Parallel to being a source country, Romania is also the destination of immigration to a comparable extent. According to the National Institute of Statistics between 2000 and 2009, Romania has been country of destination for about 74,000 persons, of which over 20,000 were university graduates. The percentage of highly qualified people out of all immigrants is similar to the ranges of emigrants, between 22% and 36%, reaching an average of 27% over the analyzed period. The weights balance is

equally divided between emigrants and immigrants with higher education, as follows: in 2000, 2005, 2008 and 2009, the share of immigrants with higher education was lower than that of emigrants, while the position changes in the remaining years.

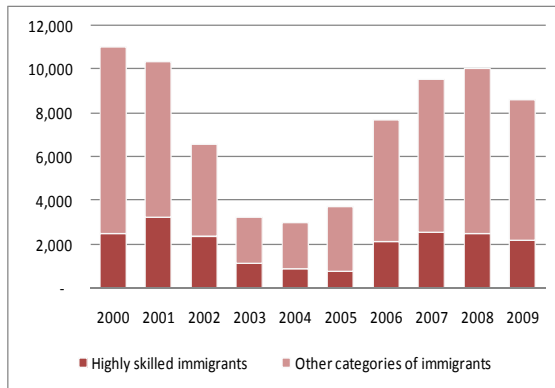


Figure 4 Immigration evolution in Romania between 2000 and 2009 (based on data provided by the National Institute of Statistics, 2010)

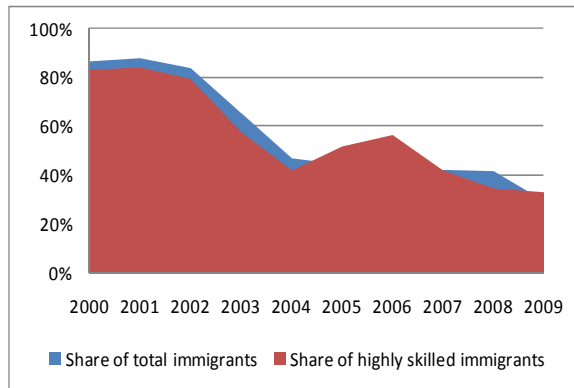


Figure 5. Share of Moldavian immigrants in Romania, out of total immigrants:2000-2009 (based on data provided by the National Institute of Statistics, 2010)

The peculiarity is represented, however, by the country of origin for immigrants in Romania. By simply looking at the data, one may notice the overwhelming weight of Moldova as migrant source country for Romania, especially at the beginning of the decade of analysis. It is obvious that more subjective factors facilitate the transit of persons, such as common language, culture and geographical proximity. A continuously decreasing trend can be observed, nevertheless, in the share of Moldovan migrants by 2009, although it is still the largest source country in the total immigration in Romania. In Fig.6 it can be noticed the trend in share of immigrants from Moldova to Romania, both as part of the total, and that participation in skilled immigration. As can be seen, the total share of these immigrants varied from a maximum of 87% in 2000 to a minimum of 30% in 2009. The decrease was not continuous, a slight increase (3%) recorded in 2007 and 2008 as compared to 2006.

The proportion of highly qualified human resources from Moldova in total skilled immigrants in Romania, is also to be observed. In 2000, 83% of the total flow of skilled migrants came from Moldova. Their weight decreased in parallel with a decrease in the total number of immigrants from this countr, at a faster pace until 2004, then more slowly in 2005 and 2006, where the overall share of the skilled migrants was 17% higher than the total.

As the share of Moldavian citizens in the structure of immigrants decreases, in 2007-2009, that of Italian citizens increases (it is likely here to face with a return migration from Italy). Moreover, other source countries are beginning to have a visible involvement in the phenomenon of emigration to Romania: China, Germany, the United States and Turkey. For the United States and Germany, there is a high chance for this to be a return migration, as well.

As far as the attractiveness index exercised by Romania is concerned, the highest, and constant value - without major changes - it is one related to immigrants from Canada. Thus, the index varies within the limits 49% -55%, slightly lower compared to the variation I_a of Canada in relation to Romanian immigrants (which runs between 44% and 63%). Thus, the balance of highly skilled migration share in relation to Canada is positive for Canada, except for 2007.

According to statistics, Romania has a relatively balanced migration position. Even though it is not a dominant source of skilled migrants, not being a strong destination country has a long term negative impact on the economy. The current situation might be adjusted in two successive steps. The first one is to develop a retention strategy, so as to motivate skilled professionals to stay in the country. The following step is to become attractive for foreign skilled human resources and to become a country of destination.

4 Conclusions

While most developed countries register a positive skilled migration balance, the statistical evolution of Romania's migration phenomenon, as well as its structure in time (highly-skill other levels of qualification), is a clear indication of the current difficulties faced by Romania on the quality of education of most of its skilled human resources. Policies related to migration, the attraction of skilled workforce, quality schools and motivation tools are measures necessary in the retention process of human capital.

Nonetheless, we found that Romanian highly skilled human capital inflow/outflow balance is relatively even. Thus, we can consider the chance that a "brain gain" phenomenon can occur, as well. Moreover, even if on the short term out migration of qualified human resources have a negative effect, on the medium and long term the opportunities that education offers can encourage the growth in interest for a higher qualification within the country. Thus, out of the growing number of skilled people, only some will leave, the rest remaining in the source country to participate at the economic and social development.

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