

## MACROECONOMIC IMPLICATIONS OF BRAIN MIGRATION

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*Increasingly, immigration policies tend to favor the entry of skilled workers, raising substantial concerns among sending countries. The 'revisionist' approach to the analysis of the brain drain holds that such concerns are largely unwarranted. Sustained migratory flows may be associated with an equally large flow of remittances, but also, migrants may return home after having acquired a set of productive skills. Finally, the ability to migrate abroad may boost the incentive to acquire skills by home residents.*

*Brain drain, migration, human capital formation*

In a time when the economic development seems to be long awaited in Romania, one can notice an ever increasing tendency of the highly qualified labor force, and not only, had to choose to reorient their destiny towards more developed economies. It is, therefore, the migration phenomenon that we are currently dealing with and such phenomenon prevailed in Romania subsequently to the 1989 Revolution, and was favored once the country borders were opened to the population to leave. International economy analysts expected a considerable level of migration by both the Romanians and all other citizens pertaining to former communist countries, and yet it did not happen so, given the high expectations people seemed to have once freedom was regained and restored.

Most East-European countries (former communist countries) seemed to have a certain economic development a few years after communism was eradicated. It was not the case for Romania, since reformation and reforms processes failed from the very beginning, which led to our country being positioned long behind other countries, economically speaking. It is only now that we could talk about a beginning of migration in Romania when the highly qualified labor force and trained professionals acutely experienced a lack of clear domestic opportunities. For the past few years, this phenomenon has been a major problem in Romania, triggered by the migration of the highly qualified labor force, actually of the specialized professionals that were supposed to get our country out of the economic dead-end. We shall further on explain the steps a future emigrant must take the concept of intelligence and brain export and we shall analyze both positive and negative effects as generated by this phenomenon, which seems to become more and more internationally spread. We shall, thus, start by explaining the role of the human capital for the countries of origin of the migration. This will assist us in understanding that the migration of the highly skilled and qualified labor force actually prevents the development process of emerging economies. Nevertheless, a new migration-related perspective started to be visualized regarding certain rather subtle benefits.

The human capital acquisition is particularly relevant for the emerging economies that must catch up with the already developed countries. If considered from this point of view, the migration issue gains a new significance and the highly qualified labor force migration particularly turns into a sensitive issue with development –related implications. The brain drain concept refers to the international resources transfer as human capital, e.g. migration of relatively high-educated persons from emerging economies towards developed countries<sup>26</sup>. Although definitions do not always tend to have a uniform line, the “high education” concept generally refers to persons having obtained at least a bachelor level.

The brain drain reduces the economic growth by actually “draining” the active human capital of the source country and additionally by the fact that education investment is not rewarded. The “brain gain” concept

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<sup>26</sup> <http://www.cenpo.ro/files/08%20Migration.pdf>

was first used at the end of the 60`s when developed countries started to absorb highly qualified and skilled personnel. Nowadays it is again a current event and issue, given that the highly qualified labor force migration fluctuation increased considerably as part of the brain “poaching” policy.<sup>27</sup>

In order to underline the loss a country faces due to migration, we must commence by explaining the way that particular country trains its labor force by allotting a considerable amount of the state budget to education in all its stages and levels. If during communism the access to higher education was provided exclusively by the public education institutions, once communism was eradicated there were numerous private education institutions incorporated and which supported the development of the Romanian education system and, implicitly, the increase of the higher education graduates number.

A survey that the CEPES (Centre Européen pour l’Enseignement Supérieur<sup>28</sup>) has recently performed on 7 European countries revealed that the number of persons having attended university courses increased between 1990 and 2000 by 182%.

**Table 1. Evolution of the number of persons having attended graduate courses.**

	1990	1991	1992	1993	1994	1995	1996	1998	1999	2000	Total immutably percentage
Bulgaria	31.1	30.3	31.4	33.2	35.4	39.4	41.2	43.96	42.72	40.82	31
Czech Republic	16	14.7	14.6	19.6	20.8	21.8	23.5	26.05	28.66	29.84	87
Hungary		14.2	15.1	18.1	20.9	23.6		33.48	36.69	40.01	182
Poland	21.7	21.5	23.4	33.8	26.1	24.7		45.68	50.44	55.54	156
<b>Romania</b>	<b>9.7</b>	<b>10.7</b>	<b>16.1</b>	<b>18.7</b>	<b>19.7</b>	<b>18.3</b>	<b>22.5</b>	<b>21.27</b>	<b>23.21</b>	<b>27.32</b>	<b>182</b>
Slovakia			16.1	17.1	18.7	20.2	22.1	26.50	28.85	30.22	88
Slovenia	24.5	27.8	28.2	29.8	31.5	34.5	36.1	53.33		60.55	147

Source: <http://www.cenpo.ro/files/08%20Migration.pdf>

The preoccupations regarding the education adjustment process to the permanently changing society requirements as well as to those related to the European Union adhesion, led to significant modifications of the Romanian education structure, organizing and management. The main changes occurred after 2000 subsequently to the introduction of Act no. 268/2003<sup>29</sup> regarding the amendment and completion of the Education Act no. 84/1995<sup>30</sup>.

The new act regarding adult professional training (Act no. 375/2002<sup>31</sup>) is focused on the accreditation of professional training providers to the purpose of quality increase of both public and private offer. By this Act, the National Council for Adult Professional Training<sup>32</sup> is given the main role in the accreditation procedures. Also, the new Employment Code published 2003, stimulates the development of continuous professional training by forcing employers to provide periodical participations of employees to continuous training courses based on training programs as mutually agreed upon by employers and employees or union representatives.

<sup>27</sup> <http://www.cenpo.ro/files/08%20Migration.pdf>

<sup>28</sup> <http://www.cepes.ro>

<sup>29</sup> [http://legislatie.resurse-pentru-democratie.org/84\\_1995.php](http://legislatie.resurse-pentru-democratie.org/84_1995.php)

<sup>30</sup> [http://www.cdep.ro/pls/legis/legis\\_pck.htm\\_act?ida=6696](http://www.cdep.ro/pls/legis/legis_pck.htm_act?ida=6696)

<sup>31</sup> [http://www.parlament.ro/pls/legis/legis\\_pck.htm\\_act?ida=37858](http://www.parlament.ro/pls/legis/legis_pck.htm_act?ida=37858)

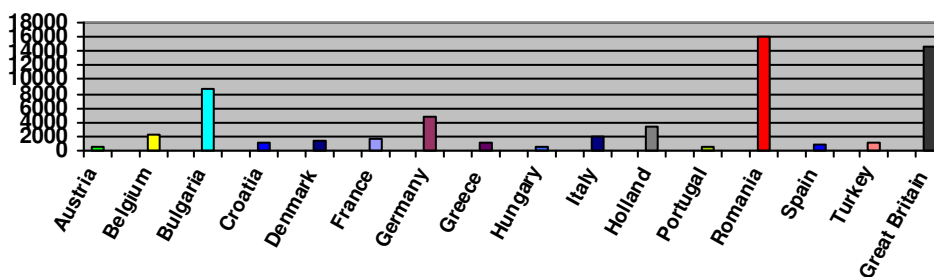
<sup>32</sup> <http://www.cnfpa.ro>

In this context we must also mention two social acts: Act no. 219/2001 regarding the opportunity equality when it comes to higher education attendance by means of study social grants, and Act no. 16/2003 regarding the approval of the Government Emergency Decree no. 96/2002 regarding the supply of I to IV grade pupils with milk and bread-related products.<sup>33</sup> Therefore, given a continuously developing education system, with both lacks and advantages, after the 2007 international school Olympiads, the Romanian pupils obtained 12 gold medals, 30 silver medals, 14 bronze medals and 15 honorable mentions and also two 1<sup>st</sup> prizes, one 2<sup>nd</sup> prize and two 3<sup>rd</sup> prizes.<sup>34</sup>

These results obtained by the Olympiad participants become, in time, true performances and excellences in various lines of business and specialized fields, which places Romania among the countries that are recognized as real specialist's sources. According to an IT IQ report performed by the Brain bench Company, Romania dominates Europe with its over 16.000 certified specialists. Research revealed that Romania occupies the 6<sup>th</sup> place worldwide and the 2<sup>nd</sup> place in Europe regarding intellectual competences and professional training. Said research was conducted based on qualifications in several fields of activity: software, general knowledge, medicine, industry, technology, foreign languages and communication, management and executive positions. Brain bench is the most important agency that performs online research regarding professional qualifications and skills.<sup>35</sup>

Romania occupies the 1<sup>st</sup> place in Europe as number of IT qualified and certified persons.

IT Certifications in Europe Europa



Source: <http://www.absoluteitsolutions.com/romania.php> - visited at 15.04.2008

There are over 300 Romanians as well as an entire software specialist's community working for Bill Gates in Redmond. The most eloquent proof of the Romanian specialized qualification as well as the professional potential thereof was the decision Microsoft made to purchase the RAV Romanian Company. Along with the purchase, Microsoft relocated part of the employees to the Microsoft USA Redmond headquarters. 40 Romanian specialists contributed along with the 200 computer programmers to the Windows 2000 operating system creation. In Germany, the Romanians occupy a third position as IT specialist's number.

In 2006, the Romanians incorporated more than 17000 companies in Italy, i.e. 25% more than they did in the year of 2005. Most of them have civil engineering and constructions as main line of business (75%), trade and commerce (7.6%) and production/manufacturing (5.6%). Most of the Romanian-owned companies were incorporated in Rome (2 700), in Torino (2400), Milan (1300) and Verona (900)<sup>36</sup>Migration plays a very important part within the contemporary social transformations and it is both the consequence of global changes and an impulse for future changes in the origin countries and the host countries. Migration has, first of all, a direct impact on the economic level but it also affects fields such as: employment, society, social protection system, national culture and policies, and international relations, and the inevitable outcome are the incredible ethno-cultural diversity in all countries.

<sup>33</sup> [www.edu.ro/index.php?module=uploads&func=download&fileId=2216](http://www.edu.ro/index.php?module=uploads&func=download&fileId=2216)

<sup>34</sup> <http://www.edu.ro/index.php?module=uploads&func=download&fileId=6807>

<sup>35</sup> <http://www.edu.ro/index.php?module=uploads&func=download&fileId=6807>

<sup>36</sup> <http://www.absoluteitsolutions.com/romania.php>

Job access opportunities in a member state stand for a fundamental aspect of the free movement of persons within the European Union. This freedom includes a person's right to freely move from one state to another either for employment or residential purposes, as self-employed or as employee. The access to the member states employment market implies the right to the equality of treatment and chances regarding work conditions as well as the right to social, economic and cultural integration of the emigrant worker and his/her family in the host country. The workers' right to free movement is completed and supported by a system of coordination of social security systems, as well as the mutual recognition and equivalence of diplomas and degrees. At the European Union level, legal immigration stands for a factor that favors the economic growth provided it is efficiently managed and directed towards deficit sectors.

At the community level, there is no clearly defined policy; there are simply collective policies regarding certain migration-related aspects. Migration is actually regulated by means of standard decrees and legal instruments, which are updated in order to comply with the economic needs of the host countries. The origin countries also intervene in this economic migration process, despite the fact that most of the times, their contribution is a mere reaction to the regulations of the target countries and the main objective is to avoid, for example, an overly selective or an excessive employment flow. In compliance with the provisions as stipulated by Regulation no. 1612/1968 regarding the free movement of workers within the Community, in the European Union the social and fiscal advantages granted to migrant community workers are similar to those of that particular country's citizens. The family of a worker also benefits from the same social advantages. The concept of social advantage as defined by Regulation no. 1612/1968<sup>37</sup> is different from the concept of social benefits as defined by Regulation no. 1408/1971<sup>38</sup> regarding the coordination of the social security systems. As an example of social advantage: the preferential tariff for the railways tickets or the application of the national regime of the minimum wage guarantee in order to provide living means, allowances for the disabled persons, allowance upon child delivery, etc. As to fiscal advantages, the European Community Treaty clearly forbids Member States to stipulate within their legislation that the wage income tax, paid-as-you-earn, be charged to the taxpaying worker when said worker only resides on the territory of that particular State for a certain period of time of the fiscal year. The family members of a Member State citizen that is employed in another Member State and the spouse thereof as well as the descendants under the age of 21 and who are financially supported by said worker, as well as ascendant line dependant relatives of the worker and spouse are entitled to settle down with the worker and to perform, respectively, any paid activity in that particular State, even if they might not be community citizens<sup>39</sup>.

Brain drain has its origin in Antiquity when Athens inhabitants complained about their most brilliant minds having left the territory. The direct origin of the phrase is located in a report that the London Royal Society presented in 1962 concerning the migration of the scientists and specialists from Great Britain to the U.S. Bibliographical documents have been more and more available and abundant starting the '70s, particularly in the directly affected countries. The phenomenon was initially analyzed and scrutinized almost exclusively from the economic point of view, by considering the differences between "the muscle power" and the "brain power". Once the role of the human capital within the economy was defined (and implicitly the influence of the "brain" migration) the concept of brain drain is suitable particularly from the sociological point of view<sup>40</sup>.

The complexity of the brain drain concept is generated by the new specialist's flows towards industrialized countries or emerging economies, due to the activity performed by the highly qualified personnel recruitment transnational agencies, which create their own migration network. While the specialized literature tends to focus mainly on the economic consequences, the "brain drain" impact goes beyond the economic level. The impact has significant implications for the development of the social and political sectors of the countries of origin and reveals the trajectories of the international qualified migration, which, despite its relatively reduced dimension as compared to the unqualified migration, is targeted on strongly developed geographic regions. An emblematic definition explaining the perspective of reports stating that "the irony of nowadays international migration is that many of those having legally migrated from poor

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<sup>37</sup> <http://www.ectap.ro/articole/211.pdf>

<sup>38</sup> [http://www.mmssf.ro/website/ro/dms/281206reg1408\\_71.pdf](http://www.mmssf.ro/website/ro/dms/281206reg1408_71.pdf)

<sup>39</sup> <http://www.ectap.ro/articole/142.pdf>

<sup>40</sup> [http://facultate.regielive.ro/referate/sociologie\\_economie/brain\\_drain\\_cauze\\_efecte\\_si\\_solutii-2810.html](http://facultate.regielive.ro/referate/sociologie_economie/brain_drain_cauze_efecte_si_solutii-2810.html)

countries to developed ones are the ones that the Third World Countries cannot afford to lose because of their highly qualified skills and accumulated professional experience. Ever since migration turned into a real phenomenon, this brain drain not only stands for a loss of valuable human resource but may also seriously influence the Third World countries economic progress”<sup>41</sup>

As for the country of origin, the loss of a part of its highly qualified human capital represents an impediment of the economic development process. Public investments in the human capital professional training are made in order to have professionally qualified personnel, in all fields, and who may contribute to the economic development of the country in question. By leaving the country, the emigrant indirectly causes financial prejudice to the country since he/she leaves the country in order to work for the benefit and profit of another country. Emigration may cause the country a double loss: on the one hand, the loss of the emigrant person and on the other hand the loss, in most cases, of the family too. In time, the emigrant tends to influence the persons close to him/her (i.e. family members, friends, former co-workers) and persuade them into emigrating themselves. Another aspect that was noticed is the significant increase of student mobility. Students participate in a variety of activities in various countries, and most of these activities are funded by Romania in cooperation with other countries, to the purpose of acquiring new knowledge, to get familiar with other cultures and to promote teamwork. Lately it has been thought that this might actually be an emigration strategy, the country losing an ever-increasing number of qualified labor forces from the very period of training, since the students choose to continue their studies in a different country and they shall subsequently capitalize their knowledge in that new country.

Despite the tempting idea of leading a higher standard of living, the emigrant leaves his/her country of origin for another country where the possibility of achieving their dream seems greater. The Romanian emigrant often ignores the consequences he/she might face, such as family break up and interruption of the relations with the Church. Immigrant workers are more often predisposed to compromises regarding the type of activity they are to perform abroad as compared to their professional qualification level and the professional skills as acquired in the country of origin. Interruption of specialized activities has a negative impact on the professional continuity as well as on the skills required in order to continue practicing the old profession when returning to their country. Immigrant workers are often confronted with the lack of knowledge or data regarding their rights or various opportunities they may have abroad. Emigrants may also be lacking information regarding life and employment conditions in the destination country and therefore they sometimes become the victims of human trafficking. Time is a resource the immigrant needs to learn how to be efficient when coming into contact with people belonging to different cultures. An immigrant may easily spend a considerable amount of money in a very short period of time: by losing certain contracts (provided the immigrant leaves the country based on an employment contract that he/she signed in his/her country of origin, e.g. Work & Travel), because of the inefficient relations with persons surrounding him/her, a low moral at the workplace, etc. The adjustment of both the life partner and the family is a widely spread problem. The emigrant may have excellent multicultural skills and may do very well at work, but research indicated that the family members encounter adaptability problems, which means that the emigrant himself/herself shall encounter problems that may lead to his/her prematurely losing the job.

Upon his/her return to the country of origin, the non-community country migrant worker may not benefit from certain social security advantages or may not value his/her abroad employment seniority, because there are no bilateral agreements regarding social security issues. On the opposite side of the Brain Drain concept there is the Brain Gain concept, which refers to the migration positive effects. The concept was created following a symposium that took place in Canada in 2000, when many of the highly qualified Canadians were emigrating to the USA while many of the highly qualified people of various worldwide countries were emigrating to Canada. This phenomenon was given the name of “brain exchange”. We shall try and organize the migration positive effects in two categories, i.e.: the “before effects”<sup>42</sup> (ex-ante- the notion was derived from Latin, meaning before the event) which refer to the positive effects that are identified before the migration takes place, and the “after effects”<sup>43</sup>, the effects that turn visible once migration began. Under the ex-ante effects, we may mention the fact that migration can be a strong

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<sup>41</sup> [http://www.ad-astra.ro/library/papers/Aferro\\_Brain\\_Drain.pdf](http://www.ad-astra.ro/library/papers/Aferro_Brain_Drain.pdf)

<sup>42</sup> <http://www.cenpo.ro/files/08%20Migration.pdf>

<sup>43</sup> <http://www.cenpo.ro/files/08%20Migration.pdf>

stimulus for knowledge and skills acquisition that may be of help during the adjustment process and the professional accomplishment in both the origin country and the foreign country. Given how fast things work, at the end of the century Romania could not only be a “brain supplier” for foreign countries but it may also reach an education level way superior to the average, which may impact future generations. A child’s evolution as a person is not exclusively influenced by a well-developed educational system but also by the family that must be able to impact the child through its own educational positive environment. The imitation of their behavior as well as the development of certain positive convictions and attitudes clearly favors a harmonious growth of the child<sup>44</sup>.

Among the ex-post effects (the after effects) we can include the combined effect of economic growth and migration, which led to an unemployment increase from 8.4% in 2002 to 6 % in the third semester of 2007. Romanian emigrants play a very important part in the economic growth of their country of origin, since the amounts they send home (approximately 3.4-4 billion Euro) are enough to cover almost half of the account current deficit in 2005. The economic pressure that motivates Romanians to emigrate keep decreasing since Romania’s economy recorded one of the fastest growth rhythms in Europe. Economy specialists believe that, given the current economic growth rhythm, it might take up to 20 years for Romanians to reach the Western European standard of living<sup>45</sup>.

Another advantage for the emigrant worker is the contact with the specific civilization and the culture of that particular country. Thus, the new experiences, knowledge and customs the emigrant acquires may have a positive influence on their subsequent individual evolution.

Another favorable aspect of migration: one can easily notice that when living in highly civilized countries, the migrating Romanians see and learn to develop a society –friendly behavior, to observe law and order, to keep clean and to respect their job-related duties, all these combined turned into one big gain for Romania. The employment movement facilitates the spread of technical knowledge and of modern work methods between the countries that are affected by the migration phenomenon. When returning to the country of origin, the migrant worker may take advantage in his/her experience abroad, thus chances are greater to get a job or becoming himself/herself the employer of other persons, and this fact has a major contribution to the unemployment rate reduction. The abroad experience also provides increased employment flexibility.

An increase of migration shall determine an increase of the amounts the emigrants send to their country of origin. The extremely favorable implications on development result from the fact money sent by emigrants are the most stable currency source for poor countries which is their main destination. The State may have both financial-fiscal and social advantages due to the income of its own citizens that perform their activities on a foreign territory. Should the migration possibilities tend to decrease, Romania shall be left with significant brain resources, which will bring but gains. Educated people are more inclined towards emigration even when the income opportunities corresponding to their aspirations are low. At the same time, these people have less adjustment problems since they speak foreign languages and have better skills and competencies that allow them to learn fast. The increase of economic competitiveness is closely related to the importance of increasing technical and informational competences of the labor force. In a nut-shell, we may state that the reform of the vocational and technical education system must lead to the increase of high qualification offer and stimulation of pupils and students to acquire as high as possible a professional training.

The specialists of the wealthy countries start emigrating and shall be immigrating more and more to poorer countries, in order to look for jobs that comply with their professional qualifications and expectations. We considerate that if, on one hand, the negative effects on Romania are of the short-term kind, on the other hand the positive effects are medium and long-termed. Up to present time, our country policies have been as mild as possible; we believe that the State is entitled to claim its investments in the professional training of the people who left the country. We propose the recuperation of the money invested by the Romanian state, in the education of the immigrations directly from the emigrants or from the countries in wich they emigrate.

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<sup>44</sup>[http://articole.famouswhy.ro/influenta\\_climatului\\_familial\\_asupra\\_dezvoltarii\\_sistemului\\_de\\_valori\\_morale\\_ale\\_copilului/](http://articole.famouswhy.ro/influenta_climatului_familial_asupra_dezvoltarii_sistemului_de_valori_morale_ale_copilului/)

<sup>45</sup> <http://www.gandul.info/actual/emigrantii-romani-sustin-economia-propriei-tari-3-4-miliarde-eur.html?3927;267968>

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