

BRAIN DRAIN IN THE GLOBALIZATION ERA: THE CASE OF ROMANIA

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Abstract

Migration is an old phenomenon in the history of humankind. However, the magnitude, complexity, and structure of migration flows in the global era are all unprecedented. According to the United Nations Report “Trends in International Migrant Stock: the 2015 Revision” at world level 244 million international migrants were recorded in 2015. With the increase in the number of migrants, the emigration of ‘high-skilled’ individuals is also growing. OECD and United Nation Statistics show that in the last decade the number of migrants with tertiary education increased by about 70%.

Brain drain is also a well-known phenomenon. Highly educated individuals and scientists have travelled the world in all centuries in search of better study and research, and working conditions, and of new opportunities. Nowadays, in the era of globalisation and, implicitly, of swifter development of international markets, the emigration rate of high-skilled experts exceeds the total emigration rate, which shows the selectiveness of migration at educational level.

The paper presents a brief analysis of the interdependencies between migration and globalisation and of the effects of globalisation on the migration of high-skilled individuals. The trends, structure, and volume of high-skilled labour force from Romania are analysed along with the effects generated by them.

Keywords: migration, globalisation, brain drain, labour market, youth.

Classification JEL: E24, F22, I21, J13, J21, J24, J31, J61-62, J82, O15

1. Introduction

In general, globalization is a dynamic process of intensifying and interconnecting international relations that trigger long-term structural changes at technical, economic, political, and socio-cultural level and at the environmental one, as well.

An essential dimension of globalization is the swift increase in various cross-borders flows: trade, finances but also ideas, ideologies, knowledge about democratic and economic governance, cultural information, media products and people [1] all of them consolidating and mutually reinforcing.

International migration is a phenomenon that might be regarded as old as history itself. However, in the last few decades, the economic, social, and cultural interconnectedness (related to the concept of ‘globalization’) facilitated the migration of an increasingly higher number of people, characterized by the high variety of both migration flows, and of the distance between the countries of destination and the countries of origin.

In this respect, Robert E.B.L.(2008) [2] argued that the contemporary geography of labour force migration reflects the globalization of the world economy and of the labour force markets while an increasingly higher number of countries turned into participants to the migration systems at world level.

In this context, the United Nations statistics [3] show that in 2015, at world level, were 244 million migrants, from which about 58% headed towards developed regions, and that in the period from 1990 to 2015 the number of migrants at world level increased by over 91 million individuals.

Lacking jobs, economic underdevelopment, the low level of wages, over-production, and underuse of experts, lacking research and endowments, employment discrimination, precarious endowments, lacking scientific culture and traditions, dysfunctional institutions, or the wish for higher skills and acknowledgement contribute to the increasing numbers of high-skilled emigrants during the last decades.

At European Union level, two distinct trends may be highlighted with respect to the migration of high-skilled workers: professionals and scientists who are citizens of the European Union and migrate outside it triggering brain drain along with the immigration of citizens from outside the EU who are mobile within the member-states, and contribute to brain gain for the Union. To these trends is added an intense migration phenomenon of high-skilled experts from Central and South Eastern Europe to western countries.

One of the issues faced currently by Romania is generated by the late start in the globalization competition. Only after 1990 and by modest steps, the information society began penetrating our country. As the borders were opened and more new rights and freedoms were available, the migration phenomenon turned more accessible to those eager to turn into adventurous protagonists of the mobility. In just a short time, Romania turned into a state with emigration as mass-phenomenon, its citizens leaving the national territory in favour of permanent or temporary residence in more developed western countries. If up to 2006 the Romanian migration was characterised by a considerable part of the temporary/definitive migration for labour being represented by individuals with at most secondary studies, once Romania accessed the EU on 1 January 2007, a major change occurred regarding the profile of the Romanian migrant. This new migration wave for labour had and has as particularity the mobility for labour of professionals in the context of the economic-financial crisis that seems to set up the foundations of the skilled- and highly-skilled personnel migration for labour.

2. Brief presentation of the globalisation process

The term of globalization launched by the end of the sixties by Marshall McLuhan¹ and Zbigniew Brzezinski², defines a process of expanding, deepening and accelerating process of global interlinking. In this context, globalization is placed in a sphere of change by “linking and expanding human activity across regions and continents” [4].

A differentiation of this process from the ones of localization, nationalization, regionalization and internationalization leads to defining the process of globalization as an extremely complex and controversial process

The most synthetic phrase regarding this complex process is presented by the “United States of America National Security Strategy: A New Era” (2002) where globalization is defined as a process of accelerating economic, technological, cultural and political integration, next to democratic government, market economy, compliance with human rights, economic dynamism and communications’ revolution” [5].

In the specialised literature there is no definition of globalisation under a universally accepted form and, probably, nor a final one. This is because “globalization embeds a multitude of complex processes with variable dynamics reaching out to various fields of the society. It may be a phenomenon, an ideology, a strategy, or all of them. It becomes thereby synonymous to erosion (but not with the disappearance) of national states’ sovereignty and presents itself as a

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“dissociation” of the market economy from the moral norms and institutionalized relations between societies” [6].

Under the conditions of globalisation, “an intensification takes place of social relations all over, by which things that at far distance from one another become interconnected so that events from one place are marked by processes taking place at a distance of many kilometres, and vice versa” [7].

Considering that globalisation is a complex process developing at several levels, in the specialised literature is considered that globalisation acts at the level of five fundamental areas: economy, politics, environment, society and culture, all sizes of globalisation that cannot be clearly delimited one from another. Thus, this global network not only at the level of the actors, but also at the one of thematic fields represents one of the particularities of globalisation.

The supporters of this globalisation process allege that this process supported by the liberalisation of economic policies and by the technological progress leads to obtaining important benefits (improvement of resource allocation, increased competitiveness, more varied options for consumers, increased possibilities of accessing international capital, and investment markets, as well as access to ideas, technologies, and competitive products).

However, in favour of these arguments, the evidences are few. For example, the analysis of the GDP growth rate at world level for the last decades of the 20th century and the beginning of the third millennium show that these are lower than those at the beginning of the seventies, when financial liberalisation began. With respect to the weight of investments in GDP at world level, in general, it was low [8], indicating the intention of realising long-term investments.

Some experts [9] consider globalisation as an extremely unequal process. For instance, increased trade does not lead to the more equitable distribution of underlying comparative advantages. Inequalities exist also regarding the entries of foreign direct investments, in generating ‘new knowledge’ (as a relatively small number of countries continue to dominate in innovation).

The fact that some countries or groups of population within the same country are ‘winners’ and others ‘losers’ in the globalisation process indicates also that there are significant differences in their capacity to meet efficiently the challenges of globalisation.

As outcome of developing the interdependency links affecting currently each individual on the globe, the world turned into a single social system regarding important aspects. As result, the global system, under the conditions of globalisation is not just an environment where particular societies develop and evolve, as social, economic, and political links reach across borders conditioning decisively the fate of those living in each of these countries.

Technological changes of the last decades affect the parameters and product flows between countries. The progresses achieved in the field of transportation, and technologies diminishing the costs of transport, along with the performances in the field of information and communication technology facilitated access for many individuals to a higher volume of available information at insignificant costs. All these developments have considerable implications regarding the nature of production activities, knowledge flows, but also on trading produced goods. Thus, economic globalisation prospers based on the advanced digitalised technology that facilitates the global expansion of companies by allowing them to optimise operations and their aggregates on the global markets, while saving costs for these operations.

Globalisation has deep social and political implications leading sometimes even to negative social consequences, reflected in increased unemployment, larger gaps between wages and profit, and multiplying the grey economy. According to statistics, during the past four decades of the 20th century, the ratio between the richest and poorest countries increased almost three times.

Increased complexity of technological processes, and of the way of developing economic activities impose to individuals the adoption of a new way of vocational training. The requirement of continuing training implies permanent efforts, both intellectual and financial, that many individuals cannot support. Those failing to adjust to the new trends are excluded automatically

and, as result, marginalised. At the same time, advanced technologies annulled spatial-temporal hindrances that people had to overcome in travelling from one locality to another for developing their activity within the company. Still, for some individuals, the disappearance of hindrances has no significance, as they are lacking the possibility of travelling fast and easy. These individuals will assist helplessly to degradation and decay of the economic and social environment of their localities.

As result, it might be said that globalisation brings along radical changes in communications and economy, in reconfiguring domestic markets, the institutional system, the way of life, the human relations and mentalities, and induces a new moral. Globalisation is a process expanding the determinant frameworks of social change at world level as a whole, and is currently a strong process, and its reversibility less probable.

3. Migration in the context of globalisation

The globalisation process regarded from the perspective of migration is an old phenomenon preceding the formation of nation-states. The mobility of paid workers as reaction to labour market forces (both demand and supply) represents an important aspect of mass mobility around the world. Nevertheless, the migration phenomenon interacts also with the political, military, and cultural power, as the global or regional migration models are multiple.

Because economic globalisation emphasises the inequality between nations, migration for many is no longer a choice, but an economic necessity.

Increased social, economic and cultural linkages between countries, improved progress in the field of transportation and information and communication technologies or, otherwise said, the globalisation have all facilitated the migration of an increasingly larger number of people, by diversifying this phenomenon regarding the structure and size of migration flows. Under the conditions in which economic globalisation exacerbates inequality among nations, for many individuals migration is no longer choice, but economic necessity as in the past five decades international migration accelerated and diversified from the viewpoint of origin and destination countries.

Almost two fifths of the world population migrate to Europe and North America, turning the United States, Canada, and Western Europe into some of the most sought destinations for international migrants.

Large part of this migration is determined by economic factors, especially the lack of jobs in the country of origin, and wage differentials between countries. Immigration, especially of the working age population has beneficial effects for the host countries by increasing their labour force potential, thus compensating to a certain extent the low participation of domestic population in the labour market. On the other hand, each immigrant entering a new country is a consumer and user of all types of services and goods, generating consequently demand and, as result, jobs.

The unprecedented developments during the last decades in the field of technology and telecommunications led to diminishing costs for travelling and communicating and thus, to increases in the mobility degree of individuals. These developments allowed to migrants to remain in contact with family and friends, to send much easier money to families remaining in the countries of origin, to travel between destination and origin countries much easier, thus strengthening the migrant networks and transnational links.

The increase of the literacy and education degree due to new technologies' development and communications, to access to 'global' information by TV/satellite, mobile phone, and internet contributed to heightening aspirations and the awareness degree of many individuals in 'traditional' emigration countries and in other countries, as well. In this context, in particular for the last 5 decades international migration accelerated and diversified from the viewpoint of origin countries and destination countries, as well.

In 2015, at world level were 244 million migrants [3] from which about 58% headed towards developed regions. Almost two thirds of total migrants headed towards Europe (76 million persons) and Asia (75 million persons). North America hosted 54 million migrants, followed by Africa (21 million), Latin America, the Caribbean (9 millions) and Oceania (8 million). At world level, migrants represented 3.3% from world's population in 2015, on increase by 0.4 p.p. against the year 1990. The statistics of United Nations [3] indicate that the number of migrants at world level increased by over 91 million persons in the period 1990-2015.

As result of the globalisation, the urbanisation degree of the countries increased also, as over 54% from the world population lives in the urban area in the year 2014 [10]. However, according to the forecasts of the United Nations Department of Economic and Social Affairs until 2015 the urban population will increase from 3.9 billions nowadays, to 6.4 billion.

Migration is also counted among the factors generating urbanisation. Estimating the impact of migration on urban population increase is difficult because of lacking standardised institutional data regarding immigration to cities all over the world. These are destinations for an increasingly higher number of migrants, either international or national. Thus, in cities like Sidney, London and New York migrants represent over one third of the population, in Brussels and Dubai over 50% of the population, while in Seoul the number of foreign residents doubled in the past ten years. At the same time, in Asia and Africa is recorded a rapid increase in the population of small towns. The strong increase of the urban population generates, nevertheless, a high pressure on infrastructure, environment, but also the social structure of the town.

The process of population ageing more emphasised in urban areas represents a determinant factor for attracting migrants in many countries migration becoming a more important factor for population growth and for its structures than fertility and mortality [11].

At the same time, in the urban area are active also social networks attractive for migrants for integration, survival, or economic and educational opportunities. The urban area is the one providing for migrants higher employment opportunities for the high-, but also for the low-skilled ones.

The social networks developed by migrants intensify the links between the origin regions and the destination ones. If we begin by considering Sassen's observation (1999) [12] who argues that individuals who travel and move from one area of the world to another are the ones modelling the material and spiritual culture of the places, than it might be also argued that migration should be regarded as an important component of globalisation, just like trade and finances.

Well-managed urban migration might induce economic and social dynamics that leads to increased capacity of the migrants from the urban area to meet the shocks and pressures. Otherwise, migrants are faced with legal, cultural, and social barriers, but also with hindrances in the way of accessing a complete range of resources, services, and opportunities that cities can provide: formal housing, labour force employment, health care, education and social support systems. As consequence, they are often forced to live in conditions of exclusion, segregation, and vulnerability.

Globalization induces an increase in the number of transnational corporations that aggregate specialised international labour force. Beaverstock's studies (1994) [13], Friedmann's (1986) [14] and Castells' (1996) [15] highlighted that highly-skilled migrants in international corporations represent a vital ingredient for them, and that skilled labour migration flows between the cities of the world might be regarded as having as outcome a "world town".

Migrants have significant contributions to economic, social, and cultural development in the new communities where they arrive, but also in their countries' of origin, in particular due to remittances to family members' remaining in the country of origin. The data provided by the World Bank [16] indicate that in 2015 over 585 billion USD were transferred by immigrants to their countries of origin. Remittances are but an example of the way, in which immigration contributes, among others, to increasing the living standard in the countries of origin, to creating links between towns and other localities of the world, and to creating new socio-economic networks.

The increase in cross-border flows of any type, financial, commercial, ideas, ideologies, and knowledge about democratic and economic governance, about culture and media products, individuals, etc. facilitate the globalisation process and strengthen, at least on short term, the migration links and/or vice-versa [17], [18].

High-skilled international migration, known as “*brain drain*” has known higher intensity in particular after the end of the Second World War.

Brain drain has both negative and positive effects on the countries of origin. Emigration of high-skilled individuals diminishes the growth potential of the country of origin and the welfare of those left behind. For low developed countries, this phenomenon is even more damaging because the emigration rates of skilled individuals exceed significantly the optimum emigration rate.

Another negative effect generated by brain drain is the loss of taxes in the countries of origin, after migrants have left. Education is partially or entirely subsidised by the government, and high-skilled emigrants might leave before paying their debts to the society which leads to diminished supply of public education.

The emigration of experts from important fields of the society (engineers, physicians, IT-experts, etc.) undermine the capacity of a country to adopt new technologies or to mitigate crises in the health-care system. Most times, brain drain increases the technological gap between host- and origin countries because the concentration of human capital in developed economies contributes to the technological progress of the latter.

Brain drain might have also *beneficial effects* for the countries of origin. Remittances, circular migration, participation of high-skilled migrants to businesses/innovation and technological transfer, but also the possible effects on human capital formation in the countries of origin are but few of the beneficial effects of brain drain. However, recent researches in the field suggest that the beneficial effects of high-skilled individuals’ migration are rather limited for the development of their countries of origin.

4. Brain Drain Reasons in the European Union

Free movement within the EU is one of the fundamental rights of the citizens in the community area. Linguistic barriers for high-skilled professionals are not a considerable hindrance and problem, as they find easily employment opportunities in the entire European Union.

The brain drain towards the western area of the Union increased during the last years. For instance, Germany received a large stock of immigrants consisting of managers and high skilled public servants, individuals with superior skills in the educational and social field, engineers and scientists, artists and journalists, etc. in the period 2006 – 2010. In addition, the number of youths who began tertiary education in Germany increased by over 7500 Bulgarian students, 7500 students from Poland, 4500 from Spain, 4300 from Italy and about 3100 Romanian students [19]. Romania and Poland are the most affected member-countries from the Eastern Europe regarding brain drain [20].

Low wages, education expenditures, as well as a low GDP/capita are triggering push factors for brain drain inside the EU. To these are added the high rates of unemployment among youths from southern and Eastern Europe and this is determinant for their decision to seek for occupational opportunities abroad. With an unemployment rate among youths with ages between 20-24 years in 2015, of 48,8% in Greece, 35,8% in Spain, 34,4% in Italy, 30,2% in Portugal, 23,2% in Romania and 17,7% in Bulgaria, youths with higher education migrate out of necessity and not by choice.

Even though in a theoretic perspective, labour force mobility is one of the basic mechanisms of economic equilibrium, still the migration of high-skilled human capital from certain countries/regions of the European Union to other countries of the region might have on long-term the effect of increased economic disparities between member-states. The relative economic effects

depend on the size, speed, intensity and structure of migration flows with respect to the age and skills of immigrants [21].

The brain drain from Eastern Europe created specific deficits on the labour force market especially in the field of medicine, science and research, and IT.

Next to the economic effects, brain drain generates also negative social effects. The loss of high-skilled professionals in health, social services, and education might have severe negative social effects in the affected countries. As only a small number of experts available, the quality of education and services is strained and this affects directly the citizens.

As result, it could be said that by brain drain intellectual, scientific, economic and cultural potential is lost, but also fiscal losses are registered as well which reflect on social solidarity. The taxpayers from the emigrants' countries of origin paid for the education costs of the emigrants and will pay for their care when these emigrants will grow old, as well [22].

On the other hand, for the countries of origin, there is a series of advantages related to the migration of high-skilled individuals, respectively the value of remittances, the creation of scientific and business networks, as well as the possible return migration and the contribution of additional competences gained abroad.

Mayr and Peri (2009) [23] suggest that the possibility of return migration is an incentive for increasing the schooling degree which compensates to a certain extent the negative effects of brain drain. The intention of seeking for employment opportunities abroad increases also the aspiration for better education. As result, an increase is noticed in the numbers of individuals with higher education, thus augmenting also the probability of a higher number of tertiary education graduates remaining in the country of birth.

5. Brain Drain from Romania under the Conditions of Globalization

The free movement of individuals, goods, services, capital and knowledge (including, or in particular scientific-technological knowledge), the unhindered participation to the world circuit of values is a benefit for Romania resulting from the globalization process.

From among these, the free movement of individuals and knowledge represents a great achievement for Romania, considering the restrictions in these fields in the period from 1945 to 1989. But, at the same time, disadvantages emerge as well, such as migration, one of the most widely debated topics at national and international level.

If, up to the year 2006, the characteristic of the Romanian migration was to the largest extent, the temporary migration of individuals with at most middle-skills for labour to western countries, once Romania accessed the EU on 1 January 2007, a major change occurred with respect to the profile of the Romanian migrant. Without a spectacular increase in numbers, the flow of migrant Romanians seeking jobs in Europe gained a particular characteristic with respect to content. In a new European framework, a certain professional segment of Romanian labour force migration became (and continues to be) interesting for the western and northern markets of the European continent, but also for other destinations. This segment is constituted out of higher-educated individuals and health-care personnel increasingly more accepted and requested for their expertise on the labour markets from the economically developed countries of the European Union, the United States as well as for other countries.

The data made available by the National Institute of Statistics [24] regarding emigration reflects Romanian migration only according to countries of destination and age groups, thus lacking information that would describe the emigration according to the educational levels.

Even though no official data regarding the numbers of Romanians abroad exist, the figure is placed somewhere around 3 to 4 million individuals, which places Romania in the European top of migration, and not only.

Most of the Romanians went abroad due to the lacking jobs or to the significant decrease in their incomes. The Romanians who went to work abroad have, in general, secondary education or skills gained by vocational training.

The main reasons for brain drain are related to: lacking jobs, better economic perspective, the underuse of experts, lacking research facilities, the purpose of achieving higher-skills and social acknowledgement, a better education system and improved opportunities for professionals.

According to the Report of the Romanian Court of Accounts [25], the number of Romanian migrants with higher education estimated on the basis of a determinist model is placed around 480 thousand individuals for the period 1997-2013. As result, Romania lost a substantial part of the higher-educated and skilled labour force and the process is far from becoming attenuated in the future. The migration of high-skilled individuals meant less pressure on the labour force market, but at the same time contributed to the process of its de-structuring: some fields began to feel already an acute labour force deficit with respect to high-skilled and trained workforce.

Romania's efforts to school at higher level the young population is annihilated to a good extent, by the migration of high-trained and skilled individuals, mainly to EU member-countries. In other words, Romania spends considerable amounts from public and private sources for their superior schooling, yet the benefits of these financial efforts are externalised. In this context, Romania 'subsidises' the higher-skilling of the European labour force.

6. Conclusions

The globalisation phenomenon emerged in the second half of the 20th century as result of accelerated interconnectedness between countries of the world, by higher flows of goods, services, and ideas, based on the new discoveries in the field of sciences, technologies, and communications.

Globalization is a complex process, sometimes ambiguous, even contradictory that gave birth to new mobility in the international area, one of the most important being the relatively free movement of persons, goods, and capital.

During the last decades, migration turned into a public debate topic and a subject of economic analysis. Globalisation and internationalization of markets trigger new dimensions and components of the migration flows, an increased fluidness of movements.

At world level, migration is on increase, as 3.3% from the world population being included in this phenomenon.

As result of the changes occurring in the present conjecture, the migration models are in continuous change: i) the areas of emigration are dissipated as the ethnicity criterion loses field; ii) the distance criterion turned insignificant and migration flows to far destinations gain ground as preference is given to destinations providing for better professional achievement opportunities and relatively easier conditions of integration into the new communities; iii) temporary migration is fluctuating, its determinant factors being the outcome of the labour market situation in the country of destination.

Globalization and migration are important factors in increasing the urbanisation degree at world level. The urban area provides to migrants higher employment chances, and the social networks they might use for easier integration into the new communities together with higher economic, social, and educational opportunities.

The consequences of migration, of economic, social, and psychological nature affect both migrants and natives. Migration might be beneficial for all parties involved, either sending or receiving countries, or the migrants themselves.

Two of the most dynamic processes of the contemporary world are globalisation and migration displaying both at the same time extreme independence, and on the other side each having own leaders and specific dynamics. By globalisation, the action room for migration increased and thus changes emerged in the nature and models of migration.

During the last years, labour migration increased significantly, in particular for young individuals with outstanding performances and high-skills, thus brain drain remaining an area of interest for transnational companies and for the international scientific research.

Brain drain from some European countries/regions to other countries of the area is a dangerous phenomenon as on long-term it may lead economic stagnation, productivity decreases, lower living standards in the country of origin and, finally, to major imbalances between countries/regions.

The migration of high-skilled individuals to Romania is still a new phenomenon, still incompletely developed and major deficits of statistical data, so that its characteristics, contents, negative or positive effects that might be generated on the society in general, and on the local communities in particular, cannot be satisfactorily researched.

Behaviours, attitudes, and values of this new category of migrants are not the same as those of the medium-, low-, or unskilled workers. The wage of a physician or of a researcher irrespective of how low will still be high enough to allow for ‘family reunion’ abroad. On the other hand, the participation of high-skilled migrants for labour might change into definitive migration much easier than in the case of the migration of preceding waves.

The losses at the level of the society because of labour migration or definitive migration of the high-skilled and expert individuals must be understood in the wider context of professional resources loss that is of educated professionals for whom the skilling costs are increasingly higher.

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