

**DEVELOPING BRAIN GAIN
POLICIES IN MACEDONIA:
PITFALLS AND CHALLENGES**

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CONTENTS

Introduction	6
Basic concepts	7
Methodology overview of the problem of the brain drain in the macedonian context	8
Legal and strategic frameworks	12
Key stakeholders in the field	14
Results of our research	16
Field research: Returnees' experience and suggestions	19
Success stories beyond Macedonia	25
Conclusions	28
Bibliography	32

INTRODUCTION

One important feature of our everyday life is the increased mobility of the human population. As never before, individuals move between cities, countries, regions and continents. Migrants make ever-growing shares of the population worldwide. Migration has become one of the most important political issues and managing migration one of the most challenging policy areas, spread across several fields, ranging from economic sustainability to national security. Migration policy is one of the most important aspects of European integration as well as the process of European enlargement.

One growing sub-field of migration studies is the study of movement of highly skilled individuals. As discussed in the introduction of this volume, several notions are important when discussing this issue. First, mobility is one important aspect of highly skilled professions per se; as such, it is the increasing number of highly skilled individuals in general that affect the migration debate and migration policies. Secondly, the migration of the highly skilled is a global process that affects, more or less, all countries in the world. However, the main differences are seen in the way the migration flows affect different societies. The developed ones are able to compensate the loss of highly skilled labor through attracting highly skilled migrants from other societies or are able to achieve return of the departed ones. The less developed economies however, experience significant decrease of skilled labor on the long run, as the migration of highly skilled remains uncompensated one-way process.

As in many post-communist countries, the flow of the highly skilled has likewise been identified as one of the major obstacles for Macedonia's socio-economic development. Macedonian policy makers have not yet managed to design and implement relevant and evidence based policies that could mitigate the effects of the brain drain by stimulating return migration of the highly skilled and possibly attracting foreign highly skilled workers that could contribute to the development of the research industry, science and the economy in general. Building upon the theoretical premises outlined in the introduction of this volume, this paper aims to contribute to the process of identifying the crucial problems regarding the loss of human capital and to provide with concrete suggestions for alleviating the negative processes in the future. The paper reviews the general issue of brain drain in the Macedonian context by examining the relevant secondary sources in the field, assesses the current state of brain gain policies in Macedonia, identifying the main sets of instruments as well as the stakeholders in the field; it reflects on the experiences of the returnees so far, as well as on their opinion regarding the problem of brain drain and briefly reviews several good practices of brain gain beyond the national and regional borders. Finally, it provides several recommendations about the directions in which brain gain policies should be developed and about the concrete measures that can be taken.

BASIC CONCEPTS

Before proceeding with the paper, we need to make a clarification note on the operational terminology used in this paper. Three concepts are of particular importance: “brain drain,” “brain gain” and “brain waste.”

“Brain drain” is often said to be a pejorative term, standing for the large-scale emigration of highly skilled and highly educated individuals who have obtained advanced education at a post-graduate level and work in the tertiary sector - scientists, engineers and researchers. They are often motivated to leave their countries by various factors of rejection called *push factors*; additional reasons for leaving are attractive or *pull factors*, such as a promising situation in a remote destination. Usually, the sending country’s economy is considered to be losing in the long term, while the receiving country’s economy is perceived to be gaining from such migration trends. Moreover, the sending countries are usually less developed than the receiving ones, making brain drain especially harmful for weaker, unconsolidated economies.

One of the crucial challenges for countries experiencing continuous brain drain in order to sustain their economic growth is to mitigate the negative effects of the flow of the highly skilled. However, this is a rather complicated task. In general, countries try to improve living and working conditions in order to match the offer of better faring economies. The final goal is to instigate a process of return migration or even to stimulate an inflow of highly skilled foreigners to the country and effectively achieve the effect of “brain gain.”

Brain gain is a term coined to refer to the actual gain of human capital from the migration of highly skilled individuals. In its traditional perception, brain gain primarily denotes the actual benefit seen in the increase of human resource in countries that welcome foreign highly skilled migrants. However, both in scholarly and practitioners’ discourse, the term has gradually expanded and is now extensively being used to refer to the process of *brain return*, which designates the return migration of highly skilled individuals to their country of origin after spending a certain time working or studying abroad. It is also discursively close to the concepts of *brain circulation* or *brain mobility*, used to describe the contemporary practice of studying and training abroad and the nomadic lifestyle of researchers and highly skilled workers in general.

METODOLOGY

One of the strongest impressions from our research, which was later confirmed by the answers from stakeholders, is that there is not much possibility for successful monitoring of any brain drain related issue in Macedonia. The lack of statistical data prevents researchers from examining the scope of highly skilled labor migration, but also of the possible effects of policies and programs designed to mitigate their effects. As the State Statistical office has argued:

“Available data do not entirely cover the migration features. Therefore, establishing good databases for migration profiles could be an important element for the creation of appropriate measures and a migration policy.”
(United Nations, 2008)

Due to the objective lack of reliable statistical data, we relied on qualitative methods to assess the state of brain drain, the effects of existing instruments, the work of the stakeholders, and the challenges ahead. Our research comprised the following segments: a) analysis of the discourse on brain drain / brain gain problems; b) sixteen in-depth interviews with stakeholders in the field; and c) a study of the individual experience and the prospects of highly skilled returnees through conducting sixteen in-depth interviews with highly skilled individuals from Macedonia who are either completing their education at post-graduate level abroad, have completed their post-graduate studies and work abroad or have completed their post-graduate studies abroad and have returned to Macedonia.

OVERVIEW OF THE PROBLEM OF THE BRAIN DRAIN IN THE MACEDONIAN CONTEXT

The increasing rate of brain drain has been one of the major problems of Western Balkan countries during their post-Communist transition. Devastated economies, declining work standards, and a deteriorating quality of life have resulted in the general opinion that life elsewhere, and especially in the countries of Western Europe, North America, Australia and Eastern Asia, is better and that the individual pursuit of happiness can be much more successful abroad than at home. In this setting, the highly educated and highly skilled individuals have been those with the best chance of migrating abroad, as the demand for their knowledge and experience has been relatively high and paid off well for many of them. Their permanent relocation abroad has been a major hallmark of post-Communist transition.

Brain drain has been pointed as a crucial problem for the Macedonian economy ever since the early nineties. General estimates point to a very high level of emigration of the highly skilled, although there is no relevant study that can provide in-depth and accurate data on the phenomenon. Vedran Horvat (2004) described the problem of brain drain in Macedonia as a “significant” one, accompanied by “little awareness that a problem exists”, and has argued that “almost no research has been carried out in order to examine what impact political instability has on highly skilled labor migration out of the country.” Furthermore, Horvat (2004) argued that basically there have been no sound policies, strategies or any measures taken or planned, that could address this problem, labeled by the author as “exodus” of the highly educated and the highly skilled. Similarly, in previous studies conducted by the Center for Research and Policy Making from Skopje (2007), it was argued that brain drain is “one of the biggest problems of the country, linked with loss of investment in human capital, a creative work force, etc.”

The single factor taken as an indicator of the intensity of brain drain in Macedonia is that provided by the World Bank (2008), pointing to the fact that the emigration rate of tertiary educated people from Macedonia is 20.9%, as of the year 2000. Given that this rough estimate is concerned with the period before military conflict in the country, it is likely that this figure might easily have increased in the period after 2001. The Country Profile for Macedonia issued by the International Organization for Migration (2007) confirms that after its independence, Macedonia saw a brain drain trend approximate to that of the whole of South East Europe, and that it “(has) suffered from brain drain, with a strong decline in the number of researchers throughout the 1990s.” The study points out that in the second half of the 1990s, the total number of scientists in the field of natural sciences and engineers working in research and development fell dramatically by over 70% (from 1.332,7 per million people to only 387,2). Furthermore, the IOM study shows that 12 to 15,000 young, educated, and highly skilled individuals left the country in the ten years after the mid 1990s. The IOM survey also stressed the lack of strategies and policies for combating this exacerbating trend.

Brain drain, however, is not an isolated phenomenon. In the Macedonian context it is interdependent with the aim of young people, not necessarily highly skilled, to emigrate primarily in Western European or North American countries. A large-scale survey on the aspirations of young people in Macedonia conducted in 2006 backed up this hypothesis, stating that “the majority of young people (...) express a desire for permanent relocation” (Taleski et al, 2006). The survey pointed out that the main push factor is the discouragingly high level of unemployment and the great probability of having a meager salary or unsatisfying position if one finds a job in Macedonia.

The generally high level of unemployment, the “long-lasting period of unfavorable conditions” of the labor market in Macedonia and the disturbingly precarious conditions for young highly educated people, have been pinpointed as crucial factors for the high level of brain drain in the case of Macedonia. As Margareta Nikolovska (2004) argues:

“The significant presence of unused, younger, skilled labor serves not only as a factor limiting the growth of the Macedonian economy, but is also the main reason for the unwillingness of young people to get married and have children. This results in unfavorable demographic developments, and forces people to work and live abroad. In circumstances such as those described above, the idea of migrating abroad is very attractive among the unemployed, especially among those with higher education who have been waiting for a job for a long period of time. The young higher educated people and professionals who already have a job, but are not satisfied with their wages, including young scientists and students who are close to finishing their education, represent a large group of potential Macedonian emigrants”.

However, alongside economic factors, it should not be forgotten that there are other “push” factors that perpetuate the process of brain drain. As Horvat (2004) puts it, the questionable democratization of the country, accompanied by the decline of institutions in the system and the political instability that peaked during the military conflict in 2001, are also factors that motivate highly educated individuals to leave. Additionally, the supposed rule of law, high level of corruption and compromised democratic governance give the impression that work still needs to be done on Macedonia’s democracy (see Daskalovski, 2010). Moreover, as Ylber Sela (2008) argued, the Macedonian state and public administration, still fails to embrace meritocratic values and as a result the dominant model of individual advancement is not via qualifications, but rather through personal and especially political ties. Political ties are considered to be also a determinant of success in the business, academic and even the civil sector, as politics in general has been used and abused as a means of financial gain. All of this contributes to increased dissatisfaction with life in Macedonia, which later on results in a growing desire to emigrate to a more prosperous society and if having left already, a decreased desire to return.

Highly skilled individuals have additionally been affected by more specific factors besides these general reasons. For instance, one extremely de-motivating factor for Macedonians who have graduated from universities abroad and who return home are the complicated, described by many as “Kafkaesque”, procedures for recognition of degrees obtained at a foreign university - procedures that are also quite expensive in the light of the country’s living standard. As a study by the CRPM has pointed out:

“(...) In order to validate a diploma earned abroad Macedonian universities often ask the candidates to rewrite their theses, or take additional exams. If the academic standards at the local department are different than those at the graduate school (where) one studied abroad, there is a risk that your diploma might be downgraded. (...) A special problem is the recognition of diplomas of multidisciplinary or interdisciplinary studies. (...) In fact, many Macedonian students educated abroad have problems with the recognition of their higher education diplomas once they return to their home country. Based on an independent research and a questionnaire that was circulated among Macedonian students that have graduated abroad, the Center for Research and Policy Making has identified different problems that our students face validating recognizing their diplomas by the Macedonian institutions. (...) About 70% of these (interviewed) students have not even tried to apply for recognition of their diploma, 20% still waiting for a response by the Ministry of Education. Only 10% of these Macedonians graduates of distinguished universities such as (the) London School of Economics, or Cambridge University have had their diplomas recognized, although many after up to (a) 12 months’ long procedure” (Center for Research and Policy Making, 2006).

In 2008, a new Law on Higher Education was enacted, which, among other things was supposed to significantly improve the recognition procedure. However, the prospect of efficient practice is doubtful since the procedure still fully depends on action by the Minister of Education himself (Law on Higher Education of the Republic of Macedonia, 2008). The persisting risks of downgrading the diploma, the problematic recognition of degrees in interdisciplinary, multidisciplinary and specialized studies and the high fee for the procedure itself, as well as the considerable translation and notary costs are persistent obstacles.

The inability of official institutions to properly recognize certain specialties also corresponds to the reality of the Macedonian labor market, where certain qualifications (such as advanced science, interdisciplinary social science or advanced research) are simply in demand and there is not enough room for people with these backgrounds to further their careers.

Furthermore, scientific research in Macedonia is not well funded. The budgetary investment in science and research in 2009 was under 0.5% of the country’s GDP, compared to the 3% objective of the European Union, while private investment is insignificant. The Macedonian research industry is less competitive compared to more developed countries and is not linked with other spheres of the economy (Commission of the European Communities, 2009). Especially demotivating is the case of the social

sciences. According to a study by the CRPM (2008), the situation is far from promising, as the Macedonian social science sector has a very low capacity and cannot benefit potential returnees who want to engage in research. Furthermore:

“the number of research projects conducted (i.e. financed) in the social science sector is among the lowest. This may mean that the social science topics are not considered a public interest, or that these researchers more frequently tend to finance their projects on their own (since they typically cost less than the ones in technical, technological and medical sciences). Also, the existing structures (although in place) insufficiently promote and encourage social science research, which causes Macedonia to be poorly represented in the international social science research networks (...) This situation has the danger of affecting the quality of the research conducted, because the standards for what constitutes a good research are not clearly defined. (...) The lack of public funds especially affects the research activities of the state universities and institutes. Hence, they tend to additionally apply for funding from international donors in order to be able to realize their research activities. However, this prevents them to always conduct the studies they believe are important, but instead need to adapt to the requirements set by the funding institution” (CRPM, 2009).

Apart from the poor conditions in the country, highly skilled and highly educated migrants are motivated to relocate and stay abroad by certain pull factors as well, which stretch beyond the socio-economic sphere. The tendency of the European Union to ease entry, legalize status and provide more benefits for highly skilled workers and for prospective students, rather than for older, less skilled workers and part-time “guest workers” is one such issue. In addition, universities in the developed countries often provide full scholarships that cover all expenses and fees, compared to the modest scholarships awarded by Macedonian institutions, which are insufficient to cover the costs of student life. Finally, many highly skilled individuals decide to pursue a career abroad because of personal reasons, such as the desire to experience a new culture, to live in a metropolis or simply to enjoy their individual liberties and exercise their right to mobility.

LEGAL AND STRATEGIC FRAMEWORKS

There are several general legal acts that address the problem of brain drain in Macedonia. However, there is no particular act that refers solely to the problem itself. It is usually placed in the context of migration or labor migration.

The single most important strategic document regarding migration issues overall, including labor migration and alleviation of the brain drain effect, has been the *National Resolution on Migration Policy 2009-2014* introduced by the government of the Republic. Some of the basic principles of the Resolution, among other things, are “the primacy of long-term macro-economic utility based on free migratory movements” and the responsibility of the state for the return of members of the Macedonian diaspora (see Government of the Republic of Macedonia, 2008).

In terms of labor migration, the main goal is “to monitor and harmonize the national legislation with the EU *acquis*, (...) the creation of a centralized database on foreigners, and improved employment procedures concerning foreign employees able to fill the labor market gap for desirable and needed skills, such as investors and highly skilled professionals in various disciplines” (ed. Kupiszewski, 2009). The Law on the Employment and Work of Foreigners, passed in 2007, regulates labor immigration in Macedonia. The main instrument that regulates labor immigration is the work permit, which is issued on the basis of equal treatment and non-discrimination, upon request by the worker or the employer (ed. Kupiszewski, 2009). On the other hand, the Law contains provisions and measures for regulating (limiting and stopping) the inflow of migrants in cases of increased migration, regulates the presence of self-employed workers, penalizing foreign workers with large fines but it does not focus on the immigration of highly skilled individuals in particular.

Macedonian migration policy is especially concerned with the diaspora. The diaspora is important economic factor as a lot of remittances and foreign direct investments come from Macedonian citizens abroad or foreigners that have family ties in Macedonia. Additionally, with the National Resolution on Migration, the diaspora is seen as a potential factor in overcoming the negative impact of the brain drain and initiating brain gain in the country. As the IOM (2007) report suggests,

“According to the resolution on the country’s migration policy (...) the main policy aim in relation to the Diaspora is to mitigate the negative impact of brain drain on the country’s socio-economic development and growth. Among the countervailing measures to stem the loss of local skills and knowledge are efforts to facilitate temporary or circular migration and to promote return, including temporary returns for expatriates to benefit from their special skills and expertise in various fields of importance to the country’s growth, and that are not otherwise available. As part of this endeavor, the government is considering a number of measures to be able to assess the size and geographical spread of the diaspora communities more accurately, including the establishment of a database and the registration of particular categories of Macedonian expatriates whose support and

contribution would be of particular value and benefit to the country and its citizens". (Diaspora Mapping).

The Resolution (Government of the Republic of Macedonia, 2008) sees emigration from Macedonia as an "intense" process and criticizes the lack of accurate data in this regard. It points to three most common types of emigration after 2000: the type motivated by the idea of uniting with family members that are already abroad; the temporary economic migration of young people seeking part-time jobs for a limited amount of time in more developed countries; and the brain drain or increased emigration of young highly skilled people, which is often permanent and therefore has a negative impact. This brain drain is labeled as "worrying" for the future of the country.

Yet, there is an evident lack of advanced and concrete policies that could involve the diaspora in the issue of brain gain. The only direct measures taken are in the field of brain circulation, since every year the government provides scholarships for several students to complete their professional training abroad, after which they are obliged to come back to Macedonia and work in the public administration for an arranged period of time.

KEY STAKEHOLDERS IN THE FIELD

Five categories of stakeholders can be distinguished in the field of brain gain in Macedonia: a) government and public institutions; b) institutions of higher education and research institutions; c) international organizations working in the country; d) civil society actors and e) representatives of the business sector.

The National Resolution on Migration has determined the government institutions involved in the process of regulating brain drain and achieving brain gain. In the Resolution, the institutions designated as responsible for mapping the diaspora and creating databases of separate categories (especially for the highly skilled) are the Ministry of Foreign Affairs and the Emigration Agency; for measures to enhance brain circulation the responsible institutions are the Ministry of Labor and Social Policy and the Ministry of Foreign Affairs; for the measures on improving return procedures the responsible institutions are the Ministry of Labor and Social Policy and the Ministry of Foreign Affairs; for the measures to establish virtual programs for returning, or return through the ICT the responsible institutions are the Ministry of Labor and Social Policy, the Ministry of Foreign Affairs and the Ministry of the Economy; and for the creation of policies that would reduce brain drain and initiate brain gain the responsible institutions are the Ministry of Labor and Social Policy, the Ministry of Foreign Affairs and the Ministry of the Economy.

Regarding the residence, employment and the integration of foreigners in Macedonia, measures for the continuous employment of foreigners, and policies directed towards the highly skilled, the responsible institutions, according to the Resolution, are the Ministry of Labor and Social Policy and the Agency for Employment.

Other than these government institutions, we consider the Ministry of Education and Science as another stakeholder. This Ministry is involved in student exchange programs, which are an important factor in brain circulation. It is also engaged in general policies concerning young people, students and academics. Most student exchange and cooperation programs are supposed to be carried by the National Agency for European Educational Programs and Mobility, a public institution established by the government. Similar activities are carried out by the Agency for Youth and Sports. We have also taken the Chamber of Commerce and the Immigrants' Center as public institutions related to the field of brain drain / brain gain. The former is an institution that provides a link between public policies and the economic sector, and the latter is a public and rather autonomous organization whose mission is to foster ties with the Macedonian diaspora. Another stakeholder is the Government Secretariat for European Affairs since it is responsible for implementing and supervising the processes of approximation between Macedonia and the EU in every aspect, including labor migration policy.

Institutions of higher education have high stakes in the brain drain / brain gain field since they are directly involved in working with students and young people. Moreover, they also carry out research and surveys and can provide solid expertise on this issue. In addition, non-government organizations dealing with student exchanges and youth issues are directly involved in these processes and therefore considered important stakeholders as well. International organizations that are important for the development of brain gain policies are those dealing with migration: the International Organization for Migration, the United Nations Development Programme, the European Union delegation in the Republic of Macedonia, and the Migration, Asylum, and Refugee Regional Initiative. The stake of the business sector lies in the potential return of highly skilled people, for they will have the opportunity to choose their employees from a larger pool of candidates with higher qualifications. They can also participate in the development and implementation of brain gain policies through taking part in programs that would target highly skilled returnees. However, in our research representatives of the business sector had only a limited role, as we were focusing primarily on knowledge and the design of policies, a field in which not many people working in private companies have expertise. However, informal conversations with people working in the private sector were conducted in order to assess their experience and viewpoints.

The general impression of the process of interviewing stakeholders was that their capacities in terms of knowledge and interest in the topic did not meet the project's

expectations. Out of 27 attempted interviews (with representatives of 10 government institutions or public organizations; 4 international organizations; 5 representatives of institutions of higher education; and 8 non-government organizations), we only managed to conduct 16. In the 11 cases where we did not manage to complete the interviews, either the interviewees refused to answer the questions at the personal meeting or via email, or we failed to arrange an interview.

From the interviews that were successful, it can be seen that the stakeholders are usually not very familiar with existing European labor migration policies, but many of them are familiar with student exchange programs and consider them important instruments in achieving brain gain. There was almost no feedback on questions regarding brain drain and brain gain-related policies and programs on a national level, which only adds to the assumption that there is a serious lack of such policies and programs, and/or serious shortcomings in terms of their dissemination. Regarding perception of their effects, it is also very illustrative that not a single respondent had any idea about the existence of any concrete results of brain drain or brain gain in the country. The majority of the interviewees assumed that there is increased student mobility as a result of the student exchange programs. Their suggestions for overcoming gaps in the field were mostly grounded in the fact that there are no relevant data on labor migration from/to/in Macedonia, in general. Looking at the proposed measures for achieving brain gain, the stakeholders generally focused on financial incentives for returnees.

RESULTS OF OUR RESEARCH

Perspectives and Challenges

Analysis of discourse on the effects of regulation and work in the field of brain drain, based on a review of the relevant literature, as well as 16 semi-structured interviews with stakeholders in the field, provided the following indicators: a) the single most important way of achieving brain gain is through participation in European student and research exchange programs, whose implementation is scarred by the lack of capacity of Macedonia's higher education institutions and structural problems such as corruption; b) there is a worrying trend of not utilizing the potential of skilled individuals who have returned after advancing their knowledge abroad; c) the gradual deterioration of workers' rights and the tortuous regulation of the flow of the foreign workforce impedes brain gain; d) e cooperation with the diaspora is not oriented towards potential economic benefits, including the possibilities for joint brain gain initiatives.

a) Student and research exchange programs

Several representatives of the stakeholders stated that student exchange programs have resulted in increased student mobility. In their opinion, the involvement of students from Macedonia in European exchange programs is on the rise. The assumption is that students receive a good education through which they improve their skills and competences and after their return they contribute to increased quality in the domestic labor market. Similarly, representatives of youth organizations that participate in the internship and volunteering programs stated that through the experience that students acquire abroad has the same effect of improving their starting positions in the labor market, but also improves the overall level of the market itself. Some of the stakeholders claim that regardless of a possible increase, not a large number of students from Macedonia are actually involved in mobility programs. In addition, Macedonian universities are not ready to accept foreign students as part of the exchange, which is also a factor limiting the participation of Macedonian students in this process. Furthermore, the lack of capacities of Macedonian educational institutions to provide the necessary conditions for attracting foreign students is a negative indicator in potential brain gain. Moreover, even the student mobility programs suffer from structural flaws, such as abuse by their executives and corruption. A paradigmatic example of this is the extreme case of corruption within the National Agency for European Education Programs and Mobility. The National Agency was involved in a major financial fraud committed by its head, while it failed to implement the tasks agreed with European institutions that were generally intended to help Macedonian researchers and students (Open Society Foundation Institute Macedonia, 2010).

b) Brain waste

Another remark made by experts in the field (Filkov, 2010) is that there is a demeaning trend demonstrated by public offices in terms of the utilization of highly skilled returnees in Macedonia. It is often the case that students or young working people who are sent abroad to complete their education, advanced programs and training and obtain important experience, knowledge and skills, are placed in unsuitable positions after their return to the homeland, for which they are either over-qualified or not qualified at all. This impression was confirmed by our research on the prospects of young highly skilled returnees, since some of them complained about their unfavorable position after their return to Macedonia. In these cases, the problem of brain waste emerges, for the investment in advanced training yields no dividend. "Brain waste" in general, is a term that is used to refer to situations where the migration of highly skilled individuals leads to either brain overflow (too many highly skilled workers competing for a limited number

of positions on the labor market where some of them are forced to accept positions for which they are overqualified) or simply a situation where, for instance, highly skilled returnees are not efficiently integrated in the labor market in the country of origin (they face objective barriers to pursuing a career according to their qualifications). The improper use of individual capacities can harm returnees' personal well-being and future development and therefore is considered a detrimental waste, not only of human resources, but also human dignity. The standard usage of the term "brain waste" is to denote, for instance, the reality of skilled migrants from developing countries who in their destination countries work in positions for which they are overqualified because of given circumstances. In this context, brain waste is also used to depict the same trend with people returning to their country of origin.

c) Domestic and foreign workers' rights

Another factor that impacts negatively on efforts to achieve brain gain is the gradual deterioration of workers' rights. As one study has pointed out, from independence up to 2010, many workers' rights in Macedonia were reduced or abolished (Saveski et al., 2010). The soaring rates of unemployment encourage employers to mistreat their employees, as the potential workforce is vast and for most positions a replacement can be found immediately.

Furthermore, the possibility of achieving brain gain by attracting highly skilled foreign migrants is frustrated by the arduous procedure for obtaining a Macedonian work permit. The CRPM has pointed that bureaucratic procedures are more for foreigners, even among the highly skilled, who are willing to work in Macedonia. The reasons for this situation are

"not (...) purely economic, but also legal and administrative. The complicated administrative procedures and the feeling of being a priori rejected by the society because of being a foreigner may prevent many people from emigrating to Macedonia, and make some of those that have done this question their choice. Hence, the country becomes deprived of many individuals that are highly educated and have the possibility of contribute towards the country's development. This only adds to the problem of brain-drain from the country and further hinders the country's progress. In addition to the trend of highly educated professionals leaving Macedonia, a parallel trend of less educated illegal immigrants coming to work in the country occurs" (Center for Research and Policy Making, 2007a).

d) Cooperation with the Diaspora

Ineffective collaboration with the diaspora is another indicator of the failure of the institutions to stimulate brain gain. Although it is listed as one of the goals of the government in the National Resolution on Migration Policy, there have been no significant achievements in terms of linking up with the diaspora for the purposes of achieving brain gain. First of all, institutions constantly fail to keep track of the movements of Macedonian citizens abroad (Center for Research and Policy Making, 2007b). Secondly, there has been a failure in terms of mapping the diaspora, of people that are not Macedonian citizens, but in a way have personal ties or an interest in the country (Damjanovski, 2008). Third, the government Agency of Emigration, the public organization the Emigrants' Center, as well as many diaspora associations, are primarily engaged in cultural and religious activities abroad, rather than in strengthening economic cooperation between Macedonia and the Macedonian diaspora. There are only occasional civil society-inspired attempts to utilize the human capital from the Macedonian diaspora, at least for the purposes of "virtual return" or for the formation of knowledge and skill based networks. The only benefit the Macedonian economy has from its diaspora is the high level of remittances which most often take the form of personal transfers of money by Macedonian emigrants to their families back home (Damjanovski, 2008).

FIELD RESEARCH: RETOURNEES' EXPERIENCE AND SUGGESTIONS

The aim of the field research was to explore the experience and the opinions of highly skilled emigrants/returnees originating from Macedonia on the prospects of returning to the country. The results were used to reflect on the current situation of the processes of brain drain and brain gain. They were also used as important indicators of brain gain efforts and serve to help formulate policy recommendations and guidelines for stakeholders.

For the purposes of the research, we selected a sample of 16 individuals from Macedonia who had recently studied, completed their studies at postgraduate level, or worked in a position requiring advanced skills abroad in the countries of the European Union. In terms of gender distribution, three respondents were male, eleven were female and two requested that no details about their identity should be disclosed. As regards education, one was a PhD holder, four were post-graduate students, eight had master's degrees and the rest requested that no information should be disclosed on the matter.

The method we used was an in-depth written semi-structured interview which focused on assessing the factors that influence the individual decision to return in Macedonia or to pursue a career abroad and interviewees' preferences as to the standards they are looking for in order to come back, stay and contribute to the Macedonian economy. Given the delicate position in which some interviewees found themselves, at their request, they remained anonymous. We also sent out a survey in the form of a standardized questionnaire with several multiple-choice questions, which was addressed to foreign highly skilled individuals used as a sample case, asking them for their preferences regarding the opportunity to return and contribute to the Macedonian economy. This was used in order to examine the possibilities and factors for achieving a brain gain effect by attracting highly skilled migrants from abroad, but also to collect opinions regarding the policy recommendations.

When it comes to the reasons to move abroad, and especially to move to more developed countries, most of our interviewees shared the opinion that this decision is motivated by the desire to work and study in better conditions, have the possibility to choose from a variety of positions, professions and specializations, and live in a society where meritocratic values prevail. Furthermore, young people considered the living standard and the overall quality of life to be higher abroad.

In terms of the prospects for education, training and advancing their personal skills, our interviewees answered that they decided to study abroad "motivated by the lust for knowledge" or motivated by "innovative curricula, possibilities for exchange, working with renowned professors, and networking with skilled young people". Additionally, many prospective graduates were motivated by the possibility to advance in unique and advanced fields and disciplines, which are not yet available in Macedonia. One interviewee said that study abroad was influenced by the good reputation of the school and the education system. Many interviewees mentioned the desire to acquire "international experience" or as one interviewee said, to experience "life in Europe" and life in a big cosmopolitan city. Others said that they needed to be challenged by the higher standards at universities abroad, get more valuable degrees compared to those Macedonian universities could offer, and ultimately improve themselves by becoming independent of their parents. For some, the main motive was the possibility of being awarded an international scholarship that covers fees and accommodation costs and includes a personal monthly allowance, which is several times higher than the modest Macedonian scholarships.

When it comes to working abroad, most interviewees argued that they were looking for a career away from Macedonia primarily because of the higher salaries, the better protection of workers' rights compared to Macedonia, but also because of the opportunity and encouragement to develop their skills, an aspect that many believe

Macedonian employers lack. Some of the interviewees suggested that by working abroad, they could gain more skills in a faster period of time compared to having the same job in Macedonia. Structural advantages, such as the absence of nepotism, a “professional environment that excludes ethnic and political criteria”, freedom of speech and the possibility to decide freely for themselves were additionally mentioned by one of our interviewees as reasons to study and work abroad.

The majority of the interviewees were skeptical about the advantages of returning to Macedonia after obtaining higher education qualifications or practical working experience abroad. The main reasons for return, in their opinion, are private matters, such as family and cultural ties, feeling homesick, and as one interviewee ironically said, the “warm weather” typical of the country. Others assumed that some highly skilled individuals return to Macedonia for altruistic reasons, wanting to invest their advanced knowledge and skills for the progress of the country. This was the case with some of our interviewees. Moreover, in the view of some interviewees, a certain number of people who return to Macedonia are motivated by opportunism since they have connections in politics and therefore the prospect of a political career. Another category of highly skilled returnees are those who did not “make it” abroad due to lack of opportunity because of protectionist policies, especially in the years of economic crisis, and in general, because of the disadvantageous position of foreigners compared to the domestic workforce. Pressures on migrants in developed societies can have a cultural manifestation as well, which one interviewee described as the uncomfortable “feeling of being a foreigner”. This can also be a motive for young people to return to Macedonia.

Finally, as suggested by our interviewees there is a category of young highly educated and highly skilled people who assume that they have a relative advantage over their peers from Macedonia since they have better qualifications. In their opinion, a foreign degree would mean fewer barriers on the Macedonian labor market compared to those in the developed countries. Therefore, they optimistically decide to come back, with high expectations that are not necessarily fulfilled.

The experiences of the interviewees do not yield a solid pattern that can provide a definitive answer the question of the fate of returnees. While some of our interviewees expressed satisfaction with their life upon coming back to Macedonia, the general impression is that there are more interviewees who regret having returned. Those interviewees who did return and enjoy promising careers, insist that their education abroad was a crucial factor in their professional success. Others, even if they managed to find a job and earn a decent salary, are still dissatisfied with their decision to come back, primarily because of the impossibility of finding a job corresponding to their qualifications and interest and because of the lower standards of work. One

interviewee made the cynical remark that his current job is reducing his IQ, alluding to the compromise they had to make by coming back to Macedonia. Others started out enthusiastic about their return to the country, but soon experienced disappointment at the lack of opportunity for them to make a contribution.

In their view, the general problems that make returnees feel unhappy upon their return to Macedonia are the overwhelming apathy, the political and social insecurity, the lack of professional standards, and the politicization and corruption of the public, economic and civil sectors. Some argue that they miss living in a metropolis and the opportunity to travel. One of the interviewees mentions "the healthy lifestyle" they had abroad. Another interviewee, although relatively satisfied with the decision to return, admitted that he is still looking for a job abroad because in Macedonia there is:

"absence of possibilities for advancement through one's career and self-improvement, as well as low level of work ethics, exploitation of the subordinated, selfishness of the superiors, opportunistic behavior, and the general feeling of being stuck in the state of apathy where nothing changes".

Several other interviewees agreed that they have not been able to utilize their knowledge and skills gained abroad. The relatively satisfied and the unsatisfied returnees intended to pursue a career abroad because they found it more profitable, challenging, and more promising than jobs in Macedonia. Almost none of the interviewed returnees worked in a position for which they qualified. Their impression is that in their homeland the relevant institutions do not appreciate higher educational qualifications. One interviewee commented that "knowledge and degrees have no value in Macedonia" and that employers are unprofessional to the extent that they do not even respond to job applications and inquiries.

At least four of the 16 interviewees resembled paradigmatic cases of brain waste. The most drastic was a returnee who obtained a Master of Law degree from a prestigious university abroad, but upon returning to Macedonia could not find a job. The three others are cases of young highly skilled individuals who were awarded scholarships by the Macedonian government. This type of scholarship is provided for prosperous young people willing to study abroad. Nevertheless, these scholarships oblige the recipients to return to Macedonia after graduation and work for the government for at least a few years in order to 'pay back' the scholarship. What usually happens, however, is that these returnees do not get offered a position nor do they get a suitable offer, matching their skills and potentials. Therefore, one of the returnees who had to give up excellent possibilities abroad in order to come back and pay off his scholarship, feels as if he was forced to come back and did not have a chance to make a voluntary decision. These

interviewees are extremely disappointed with their present status, as their progress does not depend on qualifications/results, but rather on the will of the minister in charge. What they find especially frustrating is that they are far more qualified than their superiors. Another similar case concerns a highly skilled individual who used to work in Macedonia, then went for further specialization abroad. Upon return, he was hired for a position outside his field of expertise and ended up earning less than before he went to study abroad.

Asked whether they know of positive cases of other returnees, the interviewees came up with divided answers. One of the interviewees, however, suggested that even though many returnees are not overtly happy to be back, they are still relatively happier than most people in Macedonia since they have a higher value on the labor market. However, the majority of interviewees pointed out that they knew of negative cases of highly skilled individuals whose return was not beneficial either to them or to the Macedonian economy. One interviewee stated that knowledge gained abroad is not appreciated in Macedonia and is even belittled in conservative circles.

While only a few consider that achieving brain gain in Macedonia is “mission impossible” in terms of motivating highly skilled emigrants to return, the majority of interviewees had plenty of recommendations regarding the development of measures that would increase the rate of brain gain in the country. Some emphasize the need for a well-analyzed, compact database of Macedonian students abroad, which would be accessible to employers. This could enhance the process of headhunting of highly skilled people who have received training at institutions of excellence. One of the interviewees argued that institutions should first try to retain those people who have already returned since they are not in the most favorable position and this projects a rather negative image of the country to potential returnees.

Almost every interviewee suggested implementing concrete macroeconomic measures, such as providing aid for highly skilled returnees unable to find a job after coming back, granting jobs to those who were awarded government scholarships and planning higher salaries for returnees. A few interviewees also argued that the system needs further improvement in regard to the recognition of foreign degrees.

Interviewees willing to work in the field of research and in general, pursue academic careers, point out that in order to achieve brain gain, Macedonian institutions of higher education and research need to develop advanced curricula, establish more sub-specializations and interdisciplinary departments, grant access to academic resources and adopt meritocratic values in which individual qualities and achievements will be the sole criteria for advancement. The need to embrace meritocracy is highlighted by most of those interviewed. In addition, they demand a more open approach towards

returnees, provision of the necessary intellectual freedoms, and assurance of the basic conditions needed to apply their skills and knowledge.

In general, the interviewees suggest that before turning towards developing concrete brain gain policies, the state needs to carry out deep structural reforms, not only in relation to brain gain but beyond this area. The functioning of legal institutions, de-politicization of the public administration, making loans more affordable, improving the infrastructure and social welfare institutions, and reducing travel and communications costs are measures recommended by the majority of the interviewed highly skilled returnees and individuals currently residing abroad.

The control group consisted of a random sample of 38 highly skilled foreigners (19 from the EU27, 10 from other European countries, 3 from North America and 6 from Asia), of who 37 were graduate students or held Master's or doctoral degrees. Asked if they would ever consider working in Macedonia, the vast majority answered that it would depend on the conditions offered. However, almost one fifth of them would never consider such an opportunity. A small number answered that they would not come to Macedonia because they assume Macedonia is not a place where they can advance professionally. One respondent remarked that during his studies, he had never received any information about relevant research institutions in Macedonia in his field. However, other more personal reasons were listed, such as unwillingness to travel and the image of Macedonia as not being an interesting destination in the long term.

The two main factors that determine where these young highly skilled foreigners might continue their career were the relevance of the institution in which they would work and the size and character on the city in which they would live. For the majority, it was most important to be a part of a famous institution or organization and to live in or near a big city. A large number of them want to live in a developed country and almost no one places any importance to being close to home.

Respondents from the control group provided abundant and diverse answers to the question as to what Macedonia, and, generally speaking, countries in the region should do in order to attract foreign highly skilled migrants. The precondition for this, however, according to several respondents was first to avoid the brain drain of local young citizens by offering good quality education, partnerships with renowned universities or research outlets, and to encourage foreign investment, which will in turn stimulate the job market. In order to attract highly skilled individuals in general, domestic institutions need to offer their own highly skilled labor force better pay and give young people more responsibility rather than treating them, as one respondent ironically mentioned, like "photocopy boys/girls".

Quality of life can attract foreign highly skilled individuals, especially the younger ones. Alongside the economic aspect of the living standard, respondents mentioned public transport, for instance, as a very important feature facilitating everyday life.

The respondents suggested promoting the country and the region to the rest of the world and especially, promoting success stories in business, culture, the arts and so on. Several respondents argued that the wars of the last two decades and political crises have scarred the image of the region and therefore made it repellent to highly skilled foreigners who are unfamiliar with it. One respondent was practical in suggesting a much greater Internet presence and the utilization of new media aside from political and tourist promotion of the country.

Many respondents had the impression that institutions and the scientific community in Macedonia do not network enough with the rest of the world. They suggest initiating international camps, summer schools and transnational projects beyond the region of South East or even Eastern Europe that would open international eyes to what the country has to offer. Good networking and personal contacts are recommended as valuable resources that can improve the image of the country apart from the impression made by high level political representatives. Similarly, respondents recommended "opening up" the research industry to cooperation with foreign institutions and private enterprises. Finally, one respondent argued that if "it can be established that English is commonly used in the country, it would be more attractive to foreigners to consider working there."

Another set of suggestions was to develop and establish particular institutes or think tanks that could become globally significant, and to focus on specialization in one particular area rather than a large number. The creation of this kind of success story would attract both highly skilled returnees and foreigners and in the long term would pave the way for improvements in other fields as well.

SUCCESS STORIES BEYOND MACEDONIA

The alleviation of brain drain is not just a challenge for Macedonia and the Western Balkans. For instance, the European Union faces notable migration of its highly skilled workers as well. Most significant is the trend of relocation of researchers and scientists. European researchers' preferred destination is the United States and to some extent, Japan. Although there can be hardly found an exact data on the migration of the highly skilled European scientists, many European institutions have acknowledged the rising emigration of highly skilled professionals, and labeled it as an important issue. Therefore, the European institutions have adopted a multi-layered policy

approach towards overturning brain drain and achieving brain gain. There are several legal instruments that improve the mobility of researchers and highly skilled workers and programmes that regularly allocate abundant share of European budget for human resources, which to a great extent address the issue of brain drain and its reversal into brain gain. However, one general remark on the Union's labor migration policy however, has been that while lately it focuses on the enhancement of the rights and the benefits for the highly skilled workers, it neglects the rights of the rest (Flamigni and Plaetevoet, 2009).

The measures taken at European level, first of all are intended to standardize and improve the legal status of the highly skilled individuals and especially the ones in the researcher industry, their social security. There are also specific macroeconomics policies consisting primarily of direct investments in the research industry. Other policies are intended to meet the individual needs of the highly skilled emigrants. They are mostly focused on providing incentives for them to come back if they have left, or to migrate somewhere in the Union, but not out of it. This type of policies consists of measures such as languages courses that would help the emigrants integrate within the European Union, assistance for the researcher's family, financial stimuli in the form of grants, fellowships, scholarships, friendly taxation and increased salaries and advanced protection of the intellectual property. Finally, the European Union is a major agent in the process of stimulating brain circulation among graduate students through the implementation of the student exchange programmes, the most successful ones being Erasmus and Erasmus Mundus.

Although Macedonia is a candidate state and aspires to full European Union membership, the cases that it can relate more to in terms of brain gain policies are the ones of the post-communist and the post-colonial countries.

The most successful brain gain stores come from the developing world. In addition to China and India, who devote large resources to the mobilization of the highly skilled, an emerging success story is the one of the transnational African initiative to involve highly skilled emigrants in the development of the sending countries (Ekekwe, 2010). The leading organization in this process has been the African Diaspora Policy Centre (ADPC), based in the Netherlands, working on the connection between African Diaspora in Europe and their countries of origin. Their most important project so far has been the compilation of a so called "African Diaspora Skills Database", which provides an extensive list of highly skilled Africans residing in Europe and a list of scientific and research oriented institutions from Africa. The ADPC also carries thorough research, holds experts meetings and works in the field of building scientific capacities in African countries.

Another, more proximate example is the brain gain programme of neighboring Albania. Supported by the United Nations Development Program, the Albanian government along with the institutions of higher education, after completing thorough research on the issue carried in collaboration with the University of Sussex, has launched the national Brain Gain campaign, centered on an internet portal which post job openings for highly skilled Albanians residing abroad. Furthermore, the program offers aid for returnees. Additionally, brain gain officers are appointed at every University in the country.

CONCLUSIONS

This paper has tried to fill the vacuum of qualitative research work on some of the reasons for and aspects of the flow of highly skilled migrants from Macedonia. First, it surveyed the roots, manifestations and effects of the process of brain drain. Then, it analyzed the defense mechanisms of Macedonian institutions, arguing that there has not been a coherent, solid evidence-based policy, strategy or plans to alleviate the detrimental effects of the gradual diminution of human resources caused by brain drain. The original contribution of the paper lies in its field research component, which investigated the personal narratives of highly skilled returnees to Macedonia and offered a comprehensive overview of the motives and determinants of a highly skilled individual's decision to pursue a career at home or abroad, which was complemented by the perception and suggestions of highly skilled foreigners. The findings in the paper confirm the assumptions made by previous scholarly and policy analysis that structural problems, such as substandard economic conditions, a questionable rule of law, the lack of meritocratic values, and uncompetitive science and research industries, together with the better quality of life offered in the cities of more developed countries are the major factors that make the idea of pursuing a career abroad more appealing than staying at home. Their reintegration at home seems hardly achievable and costly.

Challenges for developing brain gain policies and issues that need to be addressed	Proposed solutions and measures
Structural problems (failing economy, partial rule of law, spoil recruitment system in the public institutions and political pressure on private businesses render questionable image in the eyes of young people)	Further reform and development; analyze perceptions and views of returnees as a special target group and include them in the broader strategy. Actively promote meritocracy. Involve CSOs and the business sector in policy making, especially when it comes to brain gain issues. Work on the makeup of society not just for attracting tourists and mobilizing political support but also for making it likeable by all categories of citizens.
Lack of statistical data on migration (and especially migration of the highly skilled)	Stimulate joint efforts of the Ministries of Internal and Foreign Affairs, as well as the State Statistical Office, in order to update the data and create a database of the highly skilled Macedonian citizens living abroad.
Unwillingness/difficulties of the highly skilled Macedonian citizens to return home	Provide legal and financial incentives for them, their families and employers. Stimulate the research industry in order to create jobs and improve standards for highly skilled individuals. Invest in higher education. Devise brain gain and career centers network. Improve workers' rights.

Unwillingness/difficulties of highly skilled foreigners to move to Macedonia	Revise legislation on employment and workers' rights; devise friendlier work-permit legislation. Improve higher education infrastructure in order to attract exchange students to compensate for the outflow of domestic ones.
Brain waste of government scholarship holders	Instigate thorough monitoring of their cases. In case they cannot be granted a post in the public administration, providing alternative employment.
Lack of involvement of the Diaspora	Reframe the mode of cooperation with the Diaspora; shift the focus from culture to economy and cooperation. Create link with highly skilled emigrants through new media to promote knowledge and success at home.

Unfortunately, this research belongs to the pile of work unable to provide any quantitative estimates regarding the range, the stratification and the tendencies in the migration of highly skilled. The same remark has been repeated across all of the relevant studies on the topic of brain drain in Macedonia. Therefore, the process of policy design is highly conditioned with the gathering of precise data on the migration of the highly skilled in the last decade. Given the dimensions of such a project, it is clear that it has to be conducted by large research institutions. At the same time, future research into this problem will have to be accompanied by harmonizing the data of various state institutions, such as the Ministries of Internal and Foreign Affairs and the State Statistics Office. A quantitative survey such as this should not only list, but also categorize migrants according to their skills and research interests.

Quantitative data is not only necessary for mapping the scientific Diaspora, but also for monitoring the re-integration of returnees. In this regard, obtaining accurate statistics on returning migrants is another precondition for creating a successful brain gain policy. Since our research revealed an alarming pattern whereby some returnees are employed in positions for which they are overqualified or in fields disparate to their qualifications, the new brain gain policy will have to address this issue as well.

At the same time, the most important measures that need to be taken in order to initiate the process of transforming brain drain into brain gain are conditioned by the successful outcome of structural reform of the political and legal systems and general improvement of the socio-economic situation. As seen in the analysis, the main "push" factors perpetuating the outflow of highly skilled individuals are basic problems related to the country's democratization process. Issues such as full implementation of the rule of law, anti-corruption measures, and protection of workers' rights as well as the adoption of meritocratic values are problems that hamper not only brain circulation, but are serious problems of far wider significance. The lack of involvement of civil

society organizations in the process of governance and the political pressure on private businesses remains another unfavorable factor.

Based on the interviewees' responses and on a review of the success stories, the first set of concrete measures to address the concrete brain drain issue and help into its transformation into brain gain needs to provide multi-dimensional incentives (financial and legal, in the first place) for potential highly skilled returnees or immigrants from foreign countries, as well as for those who have already returned. The financial measures should consist of instruments such as financial aid or supplementary grants for the highly skilled and the companies who hire them, while the legal measures should help combat the struggle with bureaucracy during the process of employment and regulation of legal status, as well as the issue of work permits and other documents to foreign highly skilled citizens.

Furthermore, the government in cooperation with the higher education institution needs to design and implement a long-term investment plan in higher education, and facilitate the transition of the young highly educated individuals on the labor market. Better working conditions overall and the offer of more attractive job opportunities that would match offers abroad in terms of salary, working schedule and support in continuous training are prerequisites for achieving a stellar research industry, but also for attracting returnees and foreigners. Institutions of higher education need to stimulate their research units and kick start the research industry, which is currently in a state of depression. They also need to establish career and alumni centers, appoint brain gain officers as in the example of Albania, and become facilities through which opportunities for practical work for students will be offered. In addition, the government and institutions of higher education need to be motivated to network with institutions worldwide, introduce international programs, introduce English and other world languages as instruments of teaching and research in as many departments as possible, update academic curricula and reduce the barriers preventing the inclusion of outsiders in the narrow academic elite. Focusing on the development of one particular branch or the creation of one particular centre of excellence and creating particular success story as opposed to the holistic approach should be also considered in the initial stages of revamping the research industry. Correlation between these institutions and the business sector is an absolute necessity.

Finally, no successful brain gain initiative can be imagined without strong cooperation between domestic and Diaspora institutions. So far, Macedonian state institutions have fostered strong political ties and utilized the potential of the Diaspora for political mobilization primarily around questions of identity. However, economic cooperation between the two sides and especially cooperation in the field of brain gain has yet to happen. In this sense, the preparation of an index of highly skilled

individuals from the country who work or study abroad, the so-called mapping of the scientific Diaspora, is an absolutely necessity. In the comparative cases mentioned, such databases have been important in enabling domestic institutions to contact some highly skilled labor migrants in order to hire them in the country of origin. Similarly, the launch of brain gain Internet portals and the use of new technologies could stimulate “virtual return” and knowledge-sharing, but also to gather the scientific Diaspora in one place and facilitate the return of our human capital.

BIBLIOGRAPHY

1. African Diaspora Policy Centre, <http://www.Diaspora-centre.org/>
2. Brain Gain Albania, <http://www.braingain.gov.al/>
3. Center for Research and Policy Making (2007a). Macedonia. Grupa 484: *Migration and Development: Creating regional labour market and labour migrants circulation as response to regional market demands* (124-178). Belgrade : Grupa 484
4. Center for Research and Policy Making (2007b). *Strengthening cross-border cooperation in the Western Balkans Regarding Migration Management - Macedonia*. Skopje: CRPM
5. Center for Research and Policy Making (2008). *The assessment of research capacities in social sciences in Macedonia*. Skopje: CRPM
6. Center for Research and Policy Making (2006). *To study (abroad) or not? The problem of the recognition of diplomas issued by foreign universities*. Skopje: CRPM
7. Centre for Social and Economic Studies (2006). *From Brain Drain to Brain Gain: Mobilising Albania's Skilled Diaspora*. Tirana: UNDP
8. Commission of the European Communities (2009). *The Former Yugoslav Republic of Macedonia 2009 Progress Report*. Brussels: Commission of the European Communities
9. Ekekwe, Ndubuisi (2010). *A Look Into Brain Drain and Brain Gain in Africa. Nigeria Plus*. Retrieved 20 October 2010 from <http://www.nigeriaplus.com/a-look-into-brain-drain-and-brain-gain-in-africa-by-ndubuisi-ekekwe/>
10. Filkov, German (2010). Speech at the public debate "Economy and Brain Drain", Skopje
11. Flamigni, Nicola and René Plaetevoet (2009). "EU Policy on Labour Migration: Implications for Migrants' Rights", *Thematic Reports: Social Watch*.
12. Foundation Open Society Institute Macedonia (2010). *"Is the Government Turning EU into Monument?" Fourth report on the process of Macedonia's EU accession*. Skopje: FOSIM
13. Government of the Republic of Macedonia (2008). *Resolution on migration policy of the Republic of Macedonia. 2009-2014*. Skopje: Government of the Republic of Macedonia

14. Horvat, Vedran (2004). "Brain Drain. Threat to Successful Transition in South East Europe?", *Southeast European Politics*, 5/1, 76-93.
15. International Organization for Migration (2007). *The Former Yugoslav Republic of Macedonia: Migration Profile*. International Organization for Migration
16. Ivan Damjanovski (2008). "From the Outside Looking In: the Role of the Diaspora in the Macedonian EU Integration Process and Socio-Economic Development" in ed. Andreas Breinbauer, *The Role of Migration and Diaspora in the Political and Socio-Economic Reform and EU Integration Processes in South East Europe*, 235-250 (Vienna: IDM)
17. Kupiszewski, Marek. Ed (2009). *Labour migration patterns, policies and migration propensity in the Western Balkans*. International Organization for Migration
18. Law on Higher Education of the Republic of Macedonia (2008).
19. Nikolovska, Margareta (2004). "Employment, Education, and Emigration: The FYR of Macedonia", *Higher Education in Europe*, XXIX/3, 319-328.
20. Savevski, Zdravko et al (2010). *Obezvrednuvanje na trudot: analiza na trudovopravnata legislativa vo periodot na tranzicijata [Devaluation of labor: analysis on the labor legislation during transition]*. Skopje: Lenka
21. Sela, Ylber (2008). "The dynamics of reforms development in Macedonia and its approach towards the European Union" in Omer Eroglu et al. *Integration of the Western Balkans into Euro-atlantic structures - Future challenges*, 73 - 86. International Conference on Balkan Studies, Epoka University, Albania
22. Taleski, Dane et al. (2006). *Youth aspirations survey in Republic of Macedonia*. Skopje: Friedrich Ebert Stiftung
23. United Nations Development Programme (2007), *Brain Gain. Engaging Diaspora in Albania's Development*. Tirana: UNDP
24. United Nations (2008). Conference of European Statisticians: Globalisation and its influence on the active population in a country in transition - Note by the State Statistical Office of The former Yugoslav Republic of Macedonia. Paris.
25. World Bank (2008). "Migration and Remittances in Macedonia, FYR" in *Migration and Remittances Factbook*.