

THE INTERRELATION BETWEEN MIGRATION AND HUMAN CAPITAL REPRODUCTION IN ARMENIA



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BETWEEN MIGRATION
AND HUMAN CAPITAL
REPRODUCTION IN ARMENIA**



AN INITIATIVE OF GEBERT RÜF STIFTUNG IN COOPERATION
WITH THE UNIVERSITY OF FRIBOURG

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Իջևանի մասնաճյուղի և ԵՊՀ Սոցիոլոգիայի
ֆակուլտետի գիտական խորհուրդների
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On the basis of human capital theory's critical analysis the multilevel and multilateral approach to the investigation of the interrelation between migration and human capital reproduction in Armenia has been elaborated in which the special role of migration risks has been presented. Due to the analysis of the results of sociological research the explanations of the factors of interconnections between migration motives and migration behavior and human capital investments in target groups have been made. Proposals on human capital group-oriented reproduction in the context of migration risks management have been made.

The book can be useful for scientists, universities' lecturers and students as well as for those involved in implementation of public administration policy.

Մարզպանյան Հ., Աստվածատուրով Ս., Մարկոսյան Ռ.

**Միգրացիայի և մարդկային կապիտալի վերարտադրության փոխառնչությունը
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Մարդկային կապիտալի տեսության քննադատական վերլուծության հիման վրա մշակվել է Հայաստանում միգրացիայի և մարդկային կապիտալի վերարտադրության փոխառնչությունների հետազոտության բազմամակարդակ ու բազմակողմ մոտեցում, որում կարևոր դեր է հատկացվում միգրացիայի ռիսկերին։ Իրականացված սոցիոլոգիական հետազոտությունների արդյունքների վերլուծությունը թույլ է տվել բացահայտել տարբեր թիրախային խմբերում փոխկապվածության գործոնները միգրացիայի դրդապատճառների ու միգրացիոն վարքի և մարդկային կապիտալի բաղադրամասերում ներդրումների միջև։ Առաջարկություններ են արվում ըստ թիրախային խմբերի մարդկային կապիտալի նպատակաուղղված վերարտադրության ճանապարհով միգրացիոն ռիսկերի կառավարման վերաբերյալ։

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INTRODUCTION

The novelty of this research

Armenian history is replete with mass migrations, as the Armenian people have suffered expulsion, genocide and forced displacement over the centuries. The underlying causes of each event are varied and include geopolitical, religious, national, traditional and other factors. Forced relocation has led to a distortion in Armenia's sex ratio, its reproductive and intellectual potential and its moral and ethical values. The twentieth century was no exception to this trend; it began with the massacre and expulsion of approximately 1.5 million Armenians from the Ottoman Empire and ended with the large-scale migration of Armenians in the aftermath of the collapse of the Soviet Union.

The return of Armenians to their homeland from other Soviet republics and foreign countries commenced in the 1920s and continued until the early 1980s. From the 1960s until the early 1980s, the main Armenian migration trend was stable due to the repatriation of ethnic Armenians from other Soviet republics (mainly Georgia and Azerbaijan) and from foreign countries. Armenia also experienced significant seasonal labour migration to other Soviet republics – and to Russia, in particular – since 1960.

A slowdown of the country's socio-economic development in the second half of the 1970s and the early 1980s led to a negative net migration of the Armenian population. However, the volume of this negative net migration amounted to 10,000–12,000 individuals annually – only 0.3% of the population. Moreover, this negative balance did not lead to more serious consequences during this period, such as deteriorating demographics and deformation of human capital reproduction, because of Armenia's 15–18% natural growth rate. Over the 1989–1991 period, this trend reversed and net migration became positive due to an influx of refugees and forced migrants who were displaced by the conflict in Karabakh, the war with Azerbaijan, and the massive earthquake in Spitak and its surrounding regions. Furthermore, after the Armenia's independence (in 1991), the country experienced a large-scale transition that greatly influenced the nature of its human capital formation and led to massive migration flows.

The relevant research shows that during the last two decades, approximately one million citizens of the Republic of Armenia have emigrated, the number of resident Armenian citizens considering emigration increased significantly, and Armenian youth have become pessimistic about whether they will be able to realize returns on human capital investment while remaining in their homeland. In addition, Armenia has faced dire geopolitical, demographic, economic and social

challenges related to its state of “no war, no peace” with respect to Azerbaijan, rampant unemployment and poverty, an ageing population, migration, and severe social injustice and stratification, among other roadblocks to the country’s natural development.

To understand the newly emergent socio-economic issues in Armenia and to evaluate and clarify potential solutions in both theory and practice, the interrelation between migration and human capital reproduction must have become of key importance. Thus, this research examines the particularities of the processes of human capital reproduction and migration in Armenia. In examining this particular issue, the framework of this research accounts for numerous interrelated micro, mezzo and macro social factors, including the personal motivations for investing in human capital, the low return on human capital, the role of the social sphere in the enrichment of human capital, and the causes, types and consequences of qualified labour migration (e.g., “brain drain” or “brain flow”).

All these processes are understood as political, economic and cultural transformations that occur within society and that reflect various social risks. Moreover, these developments give rise to new social risks, in turn. In a transitional economy, emerging social risks stem from numerous unique factors and become manifest in particular ways. Based on this study’s goals and objectives, the research team segregated and analysed the generalized risks of expanded human capital reproduction and the emerging migration risk among the nation’s young population, in particular.

The preparedness of the research subject

In the latter half of the 20th century, scientific research relating to the theoretical and methodological postulates of human capital concepts – and their further justification and concretization – was launched and developed (*Becker G., 1962, Thurow L., 1970, Putnam R., 1995., Stark O. 1997, Wallis J., 2004., Nureev R., 2009, Zakharenko R., 2010, etc.*). In particular, the theoretical and methodological approaches to physical, human and social capital delineation and evaluation were presented by Coleman and other well-known theorists (*Coleman, J.S., 1988, Wallis, J., Killerby P., and Dollery B., 2004, Durlauf S., Fafchamps M., 2005, Keefer Ph., Knack S., 2005, Rupasingha, A., Goetz S..J, and Freshwater D., 2006, Koubek J., 2013*).

Research related to certain aspects of the concept of human capital (primarily in the context of human development) has previously been conducted in Armenia (*Harutyunyan L., 2011, Marzpanyan H., 2010, Avetisyan K., 2005, Hambardzumyan A., 2009, Begrakyen E, 2013, etc.*). In research in Armenia, issues related to human capital accumulation and expanded reproduction have been identified and clarified

both theoretically and practically. It is generally acknowledged that countries with knowledge-based economies are the most competitive in terms of human development opportunities and priorities and that the main driving force in such economies is the human capital possessed by members of its society.

Concurrently, particularly during recent decades, extensive theoretical and practical research has been conducted in the field of migration at both the international and national levels (*Dustmann Ch., 2010, UNDP Armenia, 2009, McKenzie D., 2007, Castles S., 2009, Harutyunyan L., 2003, Marzpanyan H., etc. 2006*). Early migration theories focused mainly on poverty issues, including the cumulative causation theory of migration proposed by Gunnar Myrdal (*Myrdal G., 1957*) and the Harris-Todaro model (*Todaro M., 1969; Harris J. and Todaro M., 1970*). The more recent migration literature has emphasized the well-known push-pull theory (*Massey D., Arango J., Hugo G., Kouaouci A., Pellegrino A., Taylor J., 1998*), the importance of family strategies in migration decisions (*Stark O., 1991*), quantitative theory and the dependency approach (*Brettell C., Hollifield F., 2000*). Among the groups considered in economic studies of migration behaviour, youths and the most vulnerable groups of society are of particular interest (*Frey H., 1987, Stark O., Wang Y., 2005, Stark O., 2006, Domina T., 2006*). Notably, studies addressing the essence, particularities, causes and consequences of family migration have also been undertaken by a number of Armenian researchers (*Harutyunyan L., 2011, Eganyan R., Mnatsakanyan R., Gharibyan G., 2011*).

However, research on the link between migration and the formation and reproduction of human capital is rare. Because these two scientific issues are traditionally viewed as two separate priorities in both economic and sociological studies, researchers in both fields have proposed discrete solutions to a number of complicated questions that theoretically and practically relate to both issues.

In sum, because both migration and human capital reproduction have traditionally been examined separately in socio-economic research, their interrelation has not been deeply or systematically analysed in either theoretical or practical research. In the current context of globalization, it has become clear that the movement of human capital, which aims primarily at increasing returns, contributes to labour migration processes. The impact of the regional and international mobility of labour resources on the nature of human capital reproduction varies by country

In the RA, contemporary migration processes have been presented and interpreted from various perspectives, including social strata emigration, stable stereotypes, labour market impulses, reduced income disparity, adequate standards of living and family problems, among others (*Yeghiazaryan A, Avanesian V., Shahnazaryan N., 2003, Minasyan, A., Poghosyan, A., Gevorgyan, L., Chobanyan H., 2008, Marzpanyan H., etc., 2006, Grigoryan A., 2013, Harutyunyan L. 2011*). Although

all the approaches to this subject are important in their own right, they share a common and significant flaw: the lack of a systematic interpretation of the causal interrelation between migration and human capital reproduction.

The interactions between migration and human capital reproduction lead to highly undesirable social risks. Reducing these risks should be considered not only a factor in socio-economic development but also a precondition for social tolerance, social trust, social partnership and, ultimately, relations based on social justice, particularly for the younger generation. L. Sjaastad (*Sjaastad L., 1962*) was one of the first researchers to highlight and analyse these interactions by investigating the causes of migration within the framework of the concept of human capital investment. His studies highlight the micro-economic impulses of migration as a factor that ensures the maximum return from personal investment in human capital.

This research discussed above indicates that although the topic of migration is included in studies on human capital reproduction, these studies a) primarily consider internal labour migration and b) are based on microeconomic analysis, which interprets the behaviour of the “homo economicus” (rational human) in a developed market system. Moreover, the previous research reflects the particularities of Western societies and conforms to the realities of economically developed countries, which are characterized by established social, economic and legal institutions and do not struggle with those social issues that are specific to transition economies.

In modern Armenia, the concrete manifestations of migration risks are significantly different from those in economically developed countries and are difficult to predict. These manifestations reflect the widespread phenomenon of both individual and collective mobility. At this juncture, a new scientific issue emerges, i.e., the adaptation of the theory of human capital based on a methodology that is guided not only by concepts of radical individualism but also by social utility.

Moreover, the interrelation between migration risks and human capital reproduction has not been studied comprehensively in Armenia. Interviews with members of different socio-demographic groups in the country indicate a growing need to develop a policy targeted specifically at preventing the negative influence of migration risks on human capital. These risks can evolve into national security threats in the current climate of market globalization and intense labour mobility (*Koubek J., 2013, Martin L., 2004, Tishkov V., Nureev R., 2009*).

Goals and Objectives of the Research

This research aims to investigate and identify the interrelation between human capital reproduction and migration in Armenia through theoretical and practical

scientific analysis and to reveal the means of increasing the effectiveness of the formation, enrichment and usage of human capital by reducing migration risks.

Specifically, this research seeks to achieve the following objectives:

- Conduct a bibliographic analysis of the interrelation between migration and human capital reproduction;
- Propose hypotheses on the interrelation of migration flows and human capital reproduction in Armenia;
- Reveal Armenia's particular migration risks and the potential impact of these risks on human capital formation;
- Reveal the particularities of migration and human capital reproduction in Armenia in the context of their causal links;
- Develop and introduce logical flowcharts, diagrams and other graphics that show the interconnection and interdependence of migration and human capital formation in Armenia;
- Verify the feasibility of the hypothesis by means of qualitative research and evaluate the socio-economic consequences of migration risks in Armenia in the context of the impact of these risks on human capital reproduction;
- "Perform a secondary analysis of the previous quantitative researches by comparing them with the results of this qualitative research."
- Propose recommendations for managing migration flows and expanding human capital reproduction in Armenia.

Research methodology

Based on the goals and objectives of this research, an original methodological approach to studying the interrelation between migration and human capital reproduction has been developed and applied in this study. Notably, most studies addressing this problem (migration) focus on the quantitative or quantitative-qualitative aspects of research. In this study, the logic of the research takes a more deductive flow, and the numerical data and quantitative patterns are accorded much more importance as an outcome.

In the present research, an attempt was made to conduct a qualitative analysis of the respective phenomena and processes by revealing their content and the subjective perceptions and interpretations of the direct bearers of the issue. The methodology is designed to reveal real-world contexts and their everyday perceptions and construction. Because a qualitative survey methodology was adopted, this study did not adhere to the requirements of statistical representativeness or quantitative sampling; instead, the study was based on the methodological principles of case-study investigation. The choice of the case was justified during the preparatory

phase of the research, i.e., during the multi-dimensional analysis.

The method of exclusive and typical case comparison was employed to analyse and compare the data gathered from two target regions in Armenia. The capital city Yerevan was chosen as a key target because its numerous socio-economic characteristics make it a necessary region in conducting an analysis of the interrelations between migration and human capital reproduction in Armenia. The Tavush region was selected as a peripheral and exclusive target region; this choice is justified by its location on the longest and most dangerous segment of the Armenian-Azerbaijani border – which is a powerful incentive for migration by itself – and by the presence of a branch of Yerevan State University, which offers relatively broad opportunities for human capital formation in the region.

The research consisted of the following stages.

1. Preparatory stage:

- Analysis of the relevant bibliography within the research framework and collection of statistical data;
- Study of the current legal and legislative framework pertaining to the topic;
- Analysis and interpretation of the results of research on migration processes in Armenia in recent years;
- Formation of hypotheses on the research topic; and
- Selection of the research's target groups.

2. Field research or primary data collection phase:

- Investigation of reasons, manifestations and particularities of migration risks in Armenia;
- Investigation of the particularities of human capital reproduction in Armenia; and
- Specification of migration factors that have positive or negative effects on human capital formation for different socio-demographic groups.

3. Results formulation, summary and clarification phase:

- Formation of charts on causal links between human capital reproduction and migration;
- Drawing of short conclusions on the particularities of the interrelations between human capital reproduction and migration;
- Organization of roundtables with stakeholders and experts for the discussion and clarification of results; and
- Recommendations for a coordinated resolution of human capital movement and migration flows based on conclusions from the research.

The data for this research were collected between August 2013 and September

2014. Preference was given to qualitative data collection methods and instruments. In particular, a combination of three primary data collection methods was used: expert interviews and discussions, in-depth interviews, and focus group discussions with representatives of target groups. The combination of these different methods ensured the quality, reliability and accuracy of the gathered information by allowing for triangulation of the data (*Patton M., 1990*).

Taking into account the primary results of the source analysis, eight well-informed and acknowledged native experts on the focus of our study were selected. During the field research phase, semi-structured interviews were conducted with these experts; during the outcome summary phase, round table discussions were conducted.

The information obtained from the experts, together with a review of the theoretical and secondary analyses were used to formulate the guidelines for the interviews and focus group discussions and to organize the data obtained. In-depth interviews were conducted with two primary target groups: potential migrants and returnees. Overall, 128 in-depth interviews were conducted: 96 with potential migrants and 32 with returnees. Respondents were selected based on previously developed criteria and collectively provided a certain proportion of ages, genders, education, locations, family status, employment, etc.

New hypotheses were formulated based on the data processing, which was followed by parallel focus group discussions to check these hypotheses. Two focus groups were held with students (with a view to determine the emerging trends in migration risks among students with accumulated human capital): one with registered unemployed Armenians (with a view to determine the link between the qualifications of unemployed individuals and their migration orientation) and the second one with employees of respective regional units (with a view to identify changes in migration orientation).

Focus groups consisted of 9-14 participants who were pre-selected based on stipulated eligibility criteria. The collected data were reviewed and summarized in records that were archived based on principles of anonymity and privacy protection.

Basic Hypotheses of Research

At the initiation of the project, numerous hypotheses were set forth to clarify the research subject, project orientation, spatial and temporal coverage, target groups, scope of issues and content of in-depth interviews. These initial hypotheses were based on an obvious fact: following Armenia's independence, the interrelations between human capital reproduction and migration processes have undergone significant changes. Thus, the basic hypotheses outlined below address not only

the scope of these interactions in Armenia but also – and more importantly – the modern trends in how these interactions are changing.

- The influence of strategies designed to ensure the material well-being of families regarding the formation of migration risks is gradually decreasing, weakening the impact of economic factors and activating psychological and socio-political factors regarding migration;
- The formation of human capital continues to generate migration risks but with less intensity, whereas the risks associated with general labour migration have increased;
- Armenia is considered a country rich in human capital, but “brain drain” is now becoming less of a problem;
- Although migration has both positive and negative effects on human capital reproduction, the negative effects are significantly dominant in Armenia in the context of structural changes in human capital and with respect to the workforce in general; and
- A unique expression of human capital is social capital, whose role is increasing in the decision-making process of the workforce regarding the choice between employment and labour migration.

Research outcomes

The basic outcomes of the research are as follows:

- The organization, evaluation and revision of theoretical approaches to the interrelation involved in migration and human capital reproduction;
- The interpretation of the role of migration risks in human capital reproduction, with an emphasis on the expectations of young people;
- The interpretation of the interconnection between an individual’s social capital and his migration orientation in Armenia as a local characteristic of human capital reproduction;
- An explanation of the nature of investments in human capital and the impact of these investments on the migration behaviour of different social groups;
- Proposals for reducing migration risks in the context of the expanded reproduction of human capital; and
- Recommendations for improving human development processes in Armenia in the context of increased effectiveness of human capital formation in the nation.

CHAPTER I.

**THE THEORETICAL-METHODOLOGICAL
APPROACHES TO THE STUDY OF THE
INTERRELATION BETWEEN MIGRATION AND
HUMAN CAPITAL REPRODUCTION**

1.1. Human capital as the reason of workforce migration

The concept of human capital concept has deep ideological roots. Classical economists (U. Petti, A. Smith, A. Marshal) isolated the factors that would later be recognized as the components of human capital. In particular, these economists saw a direct link between the growth of national wealth and the education, health and working skills of the population, placing particular emphasis on the knowledge of the population and the role of technology. Contemporaneously, classical workforce resource studies were based on the homogeneity postulate of work, which is too abstract and unrealistic an assumption (Ashenfeiter Layard R. 1986).

In a separate field of economic thought, the concept of human capital was introduced in the 1960s, as the unprecedented acceleration of technological progress and the launch of the knowledge-based economy offered an objective basis for both reviewing and transforming the concept of “workforce” into a major driving force of the economy. The initial postulates of the concept were formulated by T. Schultz, (*Schultz T., 1963*), and the basic theoretical model was presented in the book titled “Human Capital”, by G. Backer (*Backer G., 1964*). In this way, historical descriptive approaches were adapted to the modern field of econometrics.

Traditionally, the concept of capital has been interpreted as a tool for creating and adding value, although it also has properties that are related to reproduction, self-expansion and accumulation. Moreover, the inclusion of material resources (e.g., land, financial investments, commodity reserves and fixed assets) as capital in an economic cycle is a necessary but not sufficient condition for the creation of additional products. Thus, in the process of producing material goods and providing services, the growth of value is directly impacted by human capital.

It is important to isolate human capital as a factor in production because this form of capital leads to much higher productivity and contributes to the creation of additional comparative and competitive advantages. According to a more general approach, human capital is the sum of the knowledge, abilities and skills of the workforce. To improve the quality of human capital, continuous investments must be made in health care, education, training, socio-cultural development and other areas (*Nureev R., 1999, Zakharenko R., 2010, Begrakyen E., 2013*).

Investing in human capital can increase a population’s production and consumer skills, thereby significantly changing their income structures. In other words, human capital includes not only the sum of a person’s innate abilities but also the amalgamation of properties that is formed during an individual’s lifetime. Innate abilities are thus only considered contributing factors to the effective formation of human capital.

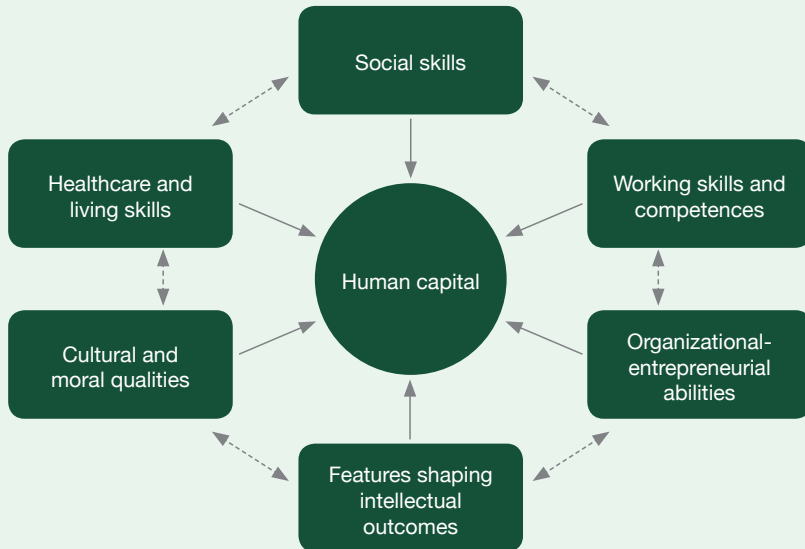
The concept of human capital focuses primarily on investments in people and on

an evaluation of the effectiveness of such investments. Therefore, human capital is defined as the set of innate abilities, tertiary education, acquired professional skills, social status, creative potential, mental and physical health, and motives that together create the opportunity to gain income.

Human capital is also often presented as the reserves of health, knowledge, abilities, culture and experiences that are used to produce goods and services and to increase the revenues of an individual, person, company or society. In one form or another, the basic fields of human capital formation in a society are the employment, education, health and socio-cultural systems of that society.

Human capital is not homogeneous in structure. G. Backer identifies the following elements as components of the individual as a production force: education capital (which includes both general and professional knowledge), health capital, professional training capital (e.g., qualifications, competences, skills and experience), migration capital, economically significant information, and the motivation to engage in economic activity (*Backer G., 1964*). L. Thorow highlights the importance of political and social stability in the formation of human capital because such stability provides the most acceptable and favourable environment for the comprehensive development of an individual (*Thorow L., 1970*).

Some authors also emphasize an individual's activity level, responsibility, work ethic and overall level of development. Contextually, the process of human capital formation involves the accumulation of certain abilities that are exploited under certain conditions. The separate components of human capital and the interrelations among them are introduced in Chart 1.

Figure 1. The main components of human capital and their interrelations

Let us consider the features of several major components of human capital.

- **Health Capital** (bio-physical): an individual's physical stamina, immunity against diseases and working capacity, all of which are essential in any professional field. Health is the most important factor in labour productivity and is a prerequisite for human capital reproduction.

- **Working capital:** an individual's working abilities, which are capitalized because investments in the qualifications of an employee yield increased returns for both the employee and the company. More complex jobs require higher levels of employee qualifications, skills and experience. This component of human capital highlights the delimitation between workforce and human capital. According to the approach adopted in this study, an individual's working capital is a special form of human capital that is formed by the individual's qualifications and thus contributes to workforce productivity (Poghosyan M.R, 2014).

- **Mental (intellectual) capital:** an intellectual value obtained through creative work when an individual has a certain talent. This value may be alienated from the creator; it may also be patented and secured by copyright as the creator's sole property, in which case the creator determines the areas and forms of its application. Intellectual property is included in economic turnover as intangible assets of an enterprise. Most theoretical and practical research is conducted by investing in intellectual capital, which enables research that produces innovative outcomes.

- **Organizational-entrepreneurial capital:** a value acquired by developing and applying entrepreneurial skills in business and management. At the beginning of the 20th century, J. Schumpeter explained the unique role of innovative and organizational skills in the development of both individuals and society (*Schumpeter J., 1934*). Individuals with innovative and organizational skills can develop them further by targeted training and practice. The exceptional skills formed thereby constitute organizational-entrepreneurial capital.

- **Cultural-moral capital:** the value of an individual's moral and cultural-ethical qualities, which are formed by the individual's environment, upbringing and education. Business ethics and morality are features of any employees in any field; these attributes are no less important to the economy than work, intelligence and skill.

- In modern society, an individual's standard of living, quality of life and social status depend greatly on the individual's accumulated human capital and its application. The effectiveness of human capital is influenced by an individual's ability to engage in **social reciprocity** (i.e., his social capital), which is a unique manifestation of human capital. The value of any form of human capital can be assessed based on the investments made in this particular form and the return on those investments. The value of social reciprocity is shaped by social, economic and cultural environments and serves the interests of both the public at large and its individual members (*The Human Capital Report, 2013*).

Among the methodological issues of human capital assessment, quantitative measurement is considered particularly important. The index used by the World Economic Forum to measure human capital is derived from indicators in four basic sectors:

1. **Education sector** indicators represent quantitative and qualitative aspects of primary, secondary and higher education that are linked to the requirements of the labour market and the quality of labour.
2. **Healthcare and welfare sector** indicators describe the physical and mental characteristics of the population across all life stages.
3. **Labour and working capacity sector** indicators capture the work experience, skills and competences of the workforce.
4. **Opportunity** indicators relate mainly to the extant conditions for the natural reproduction of human capital (e.g., business activities, protection of intellectual property, opportunities to realize business and organizational capabilities).

The advantages of using such an approach to calculate the human capital index

are obvious. This approach considers factors that influence all aspects of human capital, from its formation to later investments in it. In addition, an individual's biophysical abilities, social relations, livelihood and development opportunities, and mental characteristics play decisive roles in the measurement of returns on human capital. Therefore, it is necessary to present the value of human capital not only in an economic-statistical context but also in a social context, in which the social usefulness of human capital accumulation becomes apparent.

The World Economic Forum regularly ranks countries in terms of human capital accumulation. These rankings are based on quantitative measurements of accumulated human capital that are reflected in the economic growth, stability and competitiveness of these countries. Most of the first dozen countries on this list are developed European countries; Switzerland is ranked first (see *The Human Capital Report*, 2013).

According to the 2013 report, Armenia ranks 73rd among 122 countries (see Appendix 2, Table 1) in human capital. Armenia's low rank is primarily caused by its high unemployment rate and weak business opportunities compared with developed countries (see Appendix 1, Table 4). A comparative analysis shows that even among developing countries, Armenia fails to occupy a competitive position in the ultimate realization of business capacities (see Appendix 1, Table 5), which leads to migration risks in the country.

Nonetheless, there are certain peculiarities in the case of Armenia. Thus, an analysis of the role of human capital in Armenia should attribute a greater role to external factors, such as the availability of the diaspora. In the mid-1990s, there was an inflow of Armenian businessmen who brought a new culture of business organization to the country. This culture was based on Western entrepreneurship and was somewhat instructive for local businessmen (*Hergnyan M., Makaryan A., 2006*). Surveys of experts indicate that this positive phenomenon primarily affects large businesses and accumulations of capital. By contrast, the operators of small and medium-sized enterprises in the diaspora who are unfamiliar with the current business environment, economic relations and behavioural norms often face serious risks of bankruptcy.

The realization of an individual's human capital occurs in the context of employment. In employment relations, economic interpretations of the behaviour of "homo economicus" are based on the assumption that the individual always strives to make rational decisions. For example, an economist answers the question "How are feminine professions created?" based on theoretical justifications that are functional in nature. For example, an economist might argue that women are uncertain about the continuity of their employment and are thus involved in fields in which termination of the working experience is less harmful.

Alternatively, sociologists might address this question by focusing on changes in perceptions of the professional orientation, social status, career, autonomy and financial independence of women. In developed countries, the increase in part-time employment is linked to the feminization of labour, which is rational in the sense that part-time employment is more suitable for women who voluntarily choose not to work a full day.

In the context of the concept of social relations, M. Granovetter has introduced a unique mechanism for obtaining employment (*Granovetter M., 1974*) that is more related to the characteristics of the reality in modern Armenia. He focuses on the manner in which information regarding vacant positions is disseminated, which is no less important in the selection of a job than the specific characteristics of the job. Information gathering is not a purely technical process, nor is it the result of individual actions alone. Instead, empirical studies indicate that individuals who either found or changed jobs for the most part used information from unofficial sources. In Armenia, personal contacts in clubs, the workplace or cafés play a more important role than formal announcements regarding vacant positions or applications sent to employers. Moreover, formal announcements in the mass media, for example, pass through several filters of informal discussions and become widely accepted only after certain “clarifications” by the employer.

Notably, individuals who used informal sources are more satisfied with the job they found and with the income they earn. Moreover, the most effective informal sources are so-called distant connections, as opposed to close links with relatives and friends. Whereas weak connections enable one to significantly expand the scope of gathered information, strong connections are more effective in emergency situations, when time is limited. Success in finding employment is based mainly on an individual's social position. In other words, in addition to investing in human capital, investments must be made in reputation and relations. An individual's social network, along with his professional qualifications, constitute important economic factors in advancing in the labour market.

Similarly, when assessing human capital as a factor in migration, the feasibility of pure neo-classical economic interpretations also becomes doubtful (particularly given the current situation in Armenia). Thus, the neo-classical approach to labour migration in different countries is based on differences between labour supply and demand and assumes that labour resources migrate from one country to another based on such differences, seeking a higher return on human capital. It is also assumed that migration is an integral element of household strategy; for example, family members may seek to increase their collective income through the migration of one family member, which minimizes the economic risks. This type of strategy explains the money transfers of labour migrants who send money from the host country to their homeland to support the family.

Of course, the neo-classical approach greatly helped Armenian researchers identify the causes of forced labour migration in the first decade of the country's independence, when households were trying to survive an unprecedented economic recession. However, subsequent developments have shown that migration driven exclusively by economic factors occurred only during that particular period of migration. In the 21st century, the migration behaviour of the Armenian population does not fit well into the framework of a purely neo-classical approach; in other words, there are changes in migration levels with no links to economic factors.

Therefore, the methodology used to research the issue of migration is better based on cumulative causation theory, as developed by G. Myrdal. This theory ascribes key roles to the social-networking and structural-historical approaches to migration analysis. These approaches are particularly well-suited for explaining the migration behaviour of Armenians. For centuries, Armenians lacked their own state and were surrounded by large empires, which forced them to migrate as a means of survival. Armenians maintained this migration tradition and applied the labour migration model in the Soviet Union as well. Moreover, a new form of labour migration, the exploration of new working opportunities in other territories has emerged (referred to as leaving for "virgin soil"); in certain villages, male labour migration has become a common means of supporting the family.

Research shows that this tradition of labour migration, which is reflected in the ubiquitous labour migration of men, has become a universal means of family livelihood in Armenia, particularly in villages and small towns. Many young men living in these areas never made serious efforts to find a job in Armenia; instead, like their fathers and grandfathers before them, these young men simply left their homeland, either for a short time or permanently. Thus, relying on migration as a vital means of solving problems is not a new phenomenon but has developed over time into a cultural-behavioural stereotype reinforced by centuries of experience.

Currently, however, the behaviour of only one-third of young Armenian migrants can be explained by this family strategy. The weakening link between migration processes and family strategy is the result of modern stereotypes that are emerging among Armenian youth that are due in part to the migration policies of other countries. In particular, the relatively favourable employment conditions for graduates of foreign universities in various host countries have become a primary driver of the new migration trend. The influence of this factor is particularly strong in Central and Eastern European countries.

Therefore, although migration previously had an exclusively socio-economic basis, migration in the modern era also solves certain geopolitical issues, which establishes a link to the issue of state security (*Geopolitics, 2007*). When analysing the social motives for migration in Armenia or evaluating the efficiency of human

capital use, it is impossible to neglect the impact of the gender risks, such as those that are evident in the imbalance between employment and labour market demand. Thus, the vast body of evidence describing aspects of this risk shows, among other things, that although the percentages of women and men on hired staffs do not differ significantly (46% female, 54% male), the percentage of men among employers (80%) is much higher.

The importance of gender policy has been stressed both in scientific publications and public discourse, particularly in the context of establishing an effective system of risk management. However, analysis of this issue currently resides in the domains of gender inequality (as a manifestation of an emotional response to social injustice) and feminism – but not in the field of rational targeting. Notably, in this case, neither the mechanisms for implementing gender policy nor its parameters are specified.

Broadly speaking, Armenia needs a gender policy and should promote the ideological and worldview orientations of its gender groups, including those regarding the formulation and implementation of decisions related to migration behaviour. In Armenia's employment field, horizontal discrimination is in most cases explained by gender preference. A more vivid manifestation of gender imbalance is vertical gender discrimination, whereby the positions and average salaries of women are significantly lower than those of men, even in fields traditionally associated with female employment.

Regardless of whether a woman's educational qualifications and professional training are superior to those of men, most institutions are headed by men. This imbalance is particularly striking in the healthcare industry. Currently, there are approximately 13,200 doctors in Armenia, of which 8850 (66.5%) are women. However, studies reveal that only 15 of the 100 medical centres in Armenia have woman directors. If we also consider the fact that the lower-level positions of the medical care system (caregivers, assistants, orderlies, etc.) are almost entirely occupied by women who are paid less than men, it becomes apparent that income differentiation in the healthcare system is intolerably high and characterized by clearly manifested vertical discrimination.

The situation is nearly the same in public administration, local self-government bodies, industrial enterprises, the service sector and the financial/banking system. Moreover, there is a significant difference between the average monthly net incomes of men and women in Armenia. Women's average monthly net income in 2011-2013 amounted to 63% of the average monthly income for men, and the income of self-employed men was almost twice as high as that of self-employed women.

Problems specific to men have also arisen in the Armenian labour market and employment sector. For example, because men are more widely involved in seasonal work (housing construction, road construction, agriculture, etc.), the

percentage of unemployed men reaches up to 80% when temporary or seasonal work ends. There are similar statistics regarding individuals who are killed or injured by accidents at the workplace. Repeated sociological surveys conducted through interviews of unemployed individuals registered in various territorial employment centres reveal that gender risks of having (lacking) a job most frequently stem from the particularities of human capital use, which is reflected in different manifestations of human behaviour.

First, the majority of those who apply to territorial employment centres are women (who account for 70% of the officially registered unemployed), which is based not only on their desire to find a job but also on their willingness to receive unemployment benefits and to take advantage of certain privileges (including family subsidies and opportunities for humanitarian aid) that allow women to contribute to the family budget. In addition, the vast majority (90%) of participants in training courses are women, which shows that women are not only more active in the labour market but also more flexible and adaptable. However, it is clear that the negative effect of stable societal values and the risks associated with migration induce women to remain within the bounds of their traditional roles. In addition, the loss of a job and subsequent long-term unemployment of women in a labour market with few business opportunities leads to significant decreases in their individual human capital.

Studies have also shown that among unemployed men and women in different age groups and with different educational backgrounds, there are several models of similar behaviour that depend on the perceived value of a previous job. Certain unemployed individuals view their previous jobs merely as a source of welfare. Through pragmatic behaviour, these unemployed individuals are determined to decrease their personal risks. They are inclined towards a ratio of expenditures and outputs that pre-determine their efforts to find a job, their willingness to develop a new specialty through training, their desire to engage in business and their willingness to participate in seasonal or temporary work. Unemployed individuals with indifferent behaviour display a quiet or indifferent attitude towards their previous work. Without any claims to a profession, representatives of this group experience lower levels of individual and group risk and have greater opportunities or luck in finding jobs.

The majority of individuals characterized by professional behaviour seek jobs in professions chosen based on considerations of self-esteem and professional status. Thus, the risks of using individual capital and the prospects of finding a job are lower in this group of unemployed individuals, but the timelines are longer than those in the other categories of interviewees.

The monitoring of the above-mentioned “structural strategies” of behaviour by

separating unemployed individuals into groups permits the conclusion that each behaviour model can be planned from the perspective of reducing the risk of personal human capital use, based on the readiness to enter new professions.

In sum, imbalance between the labour market, employment and income is a serious factor in increased migration risks. Each of the primary factors that lead to migration (poverty, unemployment, low income and lack of confidence) are in some way based on gender discrimination and result in the inefficient use of human capital.

1.2 Migration risks in the context of human capital reproduction

Since the collapse of the Soviet Union, significant research has been devoted to the study of migration processes. Over the last two decades, Armenia has acted as both a donor country that sends labour migrants to the labour markets of numerous host countries and as a recipient country that accepts inflows of forced migration.

The official statistical data on net migration in Armenia during 2000-2013 are presented in Appendix 2, Table 5. The findings of research conducted in Armenia over the past several decades relate mainly to the various forms of migration flows. Experts argue that the causes of migration are constantly changing and that migration processes can be divided into three main stages (Roger R., 2006):

Stage 1. Forced displacement:

Migration records were accurate during the Soviet period because of the strict requirement that a person be registered at his or her place of residence. Consequently, population movements were generally correctly reflected in government statistics. This accuracy allowed Armenian authorities to prevent migration risks, which is indicated by the fact that during 1980-1987, the outflow from Armenia constantly exceeded the inflow.

In 1988, Armenia experienced a turning point when new types of migration risks arose and the rates of migration increased dramatically. The first wave of migration in the 1980s was caused primarily by a devastating earthquake in 1988. The second wave was caused by the forced displacement of the Armenian population from Azerbaijan due to the Nagorno-Karabakh conflict. Approximately 420,000 individuals immigrated to Armenia from Azerbaijan, including 160,000 individuals who immigrated between 1988 and 1991. In 1990, net migration was 36,100, which was the highest rate during this period. Given this background, we argue that migration risks during this period were typically conflict-generated in nature and that the nature of migration risks was a unique feature of human capital formation during that time.

Stage 2. Socio-political migration:

The new wave of migration and associated risks was observed in 1991-1992. The main cause of this wave of migration was the socio-political shock caused by the collapse of the Soviet Union. Approximately 100,000 individuals left Armenia during this period, most of whom could not adapt to the new socio-political conditions. Our findings show that these processes were due in part to internal factors but were exacerbated by external factors, such as the softening of visa procedures for former Soviet citizens by the US authorities. Armenians were quick to take advantage of this opportunity because there was an extant large and strong Armenian diaspora in the US.

Stage 3. Socio-economic migration:

The third stage began in mid-1992 and continues through the present. During this period, the main factor is more socio-economic than socio-political in nature. This stage can be divided into two sub-stages, which differ from one another in terms of the causes of migration. In the first sub-stage (1992 to 2000), individuals left Armenia primarily because of its unfavourable economic conditions, whereas in the second sub-stage, socio-political factors (such as social injustice, non-democratic elections, etc.) were added to the purely economic factors as the cause of migration.

Since 1992, in the post-Soviet period, migration records have become less accurate and reliable because the majority of emigrants who leave the country no longer officially register in their new places of residence. In addition, a significant number of emigrants illegally obtain citizenship in other countries illegally, without abandoning their Armenian citizenship. In these conditions, the standard methods used in the past to monitor migration are no longer viable. Thus, nearly all studies of Armenian migration employ passenger traffic data as their statistical base. In this case, net migration is calculated as the difference between the number of arrivals and the number of departures. As a result of the closed borders with Turkey and Azerbaijan and the unstable internal political situation in Georgia, individuals could not migrate via ground transportation during the 1992-1999 period. The only means of migration was air transport, which is why only data related to air travel passengers are typically considered as relevant migration data.

During the 1988-1998 period, the reproductive potential of the population of Armenia decreased by 33-35% (Human Development Report Armenia 1999). Population declined by 18% during these years. Even in post-war Germany (after its defeat in World War II), the population decrease was much lower – approximately 12%. It is generally assumed that the negative net migration of Germany over these 10 years amounted to between 750,000 and 780,000 people.

With reference to the specifics of the first sub-stage, the following three periods can be delineated:

1. A period (1992-1995) of unprecedented socio-economic crisis and recession. During this phase, approximately 800,000 individuals left Armenia; only 400,000 of them had returned by 2006.
2. A period (1995-1998) in which the economic downturn was overcome and positive expectations emerged, which led to a significant reduction in migration flows from the country.
3. The post-election period (1998-2000), which was characterized by social, moral and psychological problems, in addition to purely economic problems.

We believe that migration flows during this period resulted mainly from dissatisfaction with the results of the presidential and parliamentary elections in 1998 and 1999 and with the reconstruction of political forces after the October 1999 terrorist act in Armenia's parliament.

The second sub-stage can conditionally be divided into two periods based on two contradictory trends observed in migration records.

1. The first period of the second sub-stage encompasses the 2000-2008 period, which were characterized by a significant improvement in the balance of migration. A constant increase in positive net migration was observed in 2004.
2. The second period, lasting from 2008 through today, has been characterized by a significant deterioration in the balance of migration. This deterioration has been driven by the presidential election of 2008 and the subsequent killing of civilians during post-election protests. In addition, the effects of the global financial crisis began to negatively impact Armenians' welfare during this period.

Analysis of the migration processes in Armenia shows that approximately 85% of immigrants have moved to the former Soviet Union (mainly Russia, which accounts for approximately 80-85% of this 85% figure). Most of the remaining 15% moved to Europe and the United States. The estimated annual flow of emigrants during the last decade amounts to 50,000–60,000 individuals. Regarding migration to Russia, it is salient that the large scale of migration is determined by economic, social and psychological factors. The most important economic factors include the traditionally high demand for mobile and qualified specialists and the higher incomes offered abroad, i.e., factors that tend to establish more favourable economic conditions. In particular, these factors have contributed to the decrease in aggregate human capital in Armenia.

However, the following factors are also important contributors to new migration risks:

- more convenient methods of cash and other transfers from Russia;
- the favourable business environment;
- the relatively high competitiveness of Armenians in the Russian labour market;
- traditional seasonal labour migration to Russia;
- knowledge of the language and similarities in culture and mentality; and
- similar life experiences and values.

At this juncture, we should mention that certain researchers, particularly followers

of the so-called “world system theory”, have found that international migration is particularly likely among past colonial powers and their former colonies because cultural, linguistic, administrative, investment, transportation and communication links were previously established and allowed to develop (free from outside competition during the colonial era), leading to the formation of specific transnational markets and cultural systems and values (Massey D., Graeme S. 1993). In Armenia, active migration processes evolved around a relatively large segment of the population, a major part of which had been involved in previous migration processes and had borne both the positive and negative consequences of migration. Migration processes changed Armenia and its society, transforming them into a laboratory in which to explore the reasons for and consequences of migration.

The results of a sample survey conducted in 2010 in Armenia are used as a basis for the selection of the most significant causes of migration. The plurality of emigrants (approximately 1/3 of respondents) cited the high level of unemployment as the main reason for leaving Armenia, despite the fact that official statistics on unemployment show that the unemployment rate was low at this time. However, methodology matters with respect to these measurements. According to official statistics, “people who do not have a job but try their best to find one” are considered the unemployed. Although this mechanism seems reasonable at first glance, it has serious drawbacks and cannot objectively provide or assess reliable data on migration.

Another group of emigrants noted various social, political, and psychological reasons for emigration. Family reunion is one of those reasons. Many emigrants leave Armenia not only to find a well-paying job but also because one or more family members is already living abroad. Families that left the country in the early 1990s sought a minimum livelihood for their families but have in fact achieved much more. These families do not consider returning home; instead, they endeavour to help other family members find well-paid positions outside Armenia.

This trend is particularly noticeable in recent years, which experts believe is attributable to two main causes:

1. Positive economic developments in the country of residence (particularly in Russia, where the living conditions of immigrants have improved significantly in recent years); and
2. The appreciation of the national currency (Armenian National Dram), which has reduced the purchasing power of private transfers from abroad, which in turn creates additional incentives for a family reunion (Migranova L., 2008).

Obviously, the likelihood of bringing an entire family home is lower than that of bringing one family member back.

The most frequently mentioned socio-political, moral and psychological reasons for leaving Armenia include the following:

- the insufficient pace of socio-economic reforms;
- dissatisfaction with the country's social, moral and psychological conditions;
- the deep polarization of Armenian society; and
- the rapid loss of hope for positive changes.

Migration risks are manifestations of social risks that shed light on the reasons for migration and on both positive and negative social, economic, political, geopolitical and cultural consequences. As such, migration risks have become an important and topical issue in many countries of the former Soviet Union, including the Republic of Armenia. Nonetheless, the traditional study of migration issues has a weak link, or even no link at all, to another important issue: human capital reproduction. These two scholarly issues are traditionally considered separate matters and have been detached from one another in both economic and sociological research. Consequently, this research proposes/offers separate solutions for a number of pressing and actual theoretical and practical issues.

Existing studies of migration processes that interpret the nature, reasons, factors, consequences, tools of regulation, etc. of such processes typically omit the study of migration risks in this context. Thus, it might be stated that issues related to migration risks have not yet been included on the scientific agenda in Armenia as a distinct area of study. The situation discussed above is most likely related to the fact that human capital theory originally had a sufficiently specified ideological basis. This ideological basis was for the most part a reflection of the attributes of Western values and corresponded to the realities of post-industrial society, which is characterized by developed social, economic and legal institutions and is not beset with the social issues that have emerged during Armenia's (and other nations') post-socialist transition period.

The migration issue has been addressed to a limited extent in fundamental studies on human capital formation, accumulation and reproduction. However, these studies implied certain restrictions of a discretionary nature based on the following:

- as a rule, they were based on the micro-economic neo-classical approach and interpreted the rational behaviour of a «homo economicus» individual in the conditions of a market-based system (*Marzpanyan H., Astvatsaturov S., 2013*); and
- they consider the return on human capital in assessing the impact of internal labour migration.

Meanwhile, under the conditions of the new world order, foreign labour migration processes have acquired an intense nature in a number of countries with transition

economies and in Armenia in particular. This intensity indicates the unprecedented spread of both individual and collective mobility phenomena. Thus, it has become necessary to address a new scientific issue and clarify the concept of human capital in a manner that reflects the content of the phenomena occurring in such transitional societies. It has become clear when studying the interaction of human capital and migration processes in Armenia, for example (in contrast to developed Western countries), that such studies must be guided not only by the well-known principles of consistent individualism but also by a platform of social usefulness.

Such issues are irrelevant in economically developed Western countries because internal labour migration aimed at increasing the level of return on human capital in the political-economic systems of these countries leads to more efficient use of human resources in society. Of course, this discussion does not mean to imply that developed countries lack social issues or social risks. However, the solution to socially encountered problems in developed countries is generally linked to improvements in government activities, in the institutions of civil society or even to political struggle – but never to mass emigration.

Unfortunately, significantly different schemes of thinking and behaviour that are rooted in the Armenian reality limit the potential solutions to the above-described problems. In an environment characterized by relatively low returns on human capital, the risks to which a significant portion of the population are vulnerable, including social isolation, legal insecurity, financial hardship, discrimination and unemployment, among other risks, are concentrated in the risk of migration; these risks serve to transform the theoretical possibility of mass migration into a harsh reality.

In light of the market reforms and the new social environment in Armenia, migration processes lead to undesirable consequences, such as demographic “swamping” and, more importantly, a lower working-age population, population ageing, the decreasing sex ratio and the age composition of labour resources, the “moral depreciation” or loss of qualifications for a significant portion of the population, lack of access to modern education, and reduced human development opportunities. Given this situation, the complete formation, accumulation and reproduction of the country’s human potential is clearly almost impossible.

Further, given the above-described situation, the issue of human capital reproduction is largely translated into another area of concern: the identification, documentation, assessment and effective management of migration risks. The problem is that the emigration of individuals or groups – which undoubtedly stems from the vital needs of households and increases individual welfare – eventually begins to contradict social welfare and thus leads to the decomposition of total human capital. This development creates new social risks in society and relates not only to the issue of human capital accumulation but also to sample reproduction.

Human capital reproduction is a complex and continuous process that includes the formation, accumulation, use and consumption of its components. Moreover, the individual components of human capital (working skills, competences, physical abilities, organizational and entrepreneurial skills, cultural and moral qualities, etc.) are closely interconnected with one another, creating a “synergistic effect”. Therefore, the consistency of human capital reproduction is important because it indicates whether the reproduction of the individual components of human capital is aligned with the overall process.

The nature of human capital reproduction can be classified into several groups (see Appendix 2, Table 3). However, although human capital reproduction is characterized by diverse trends and scopes, the professional literature proposes to calculate consistency indexes of human capital reproduction on an interval of 0 to 1.0 to evaluate the consistency of human capital reproduction processes (Galiev E., 2009). Scores closer to 1.0 indicate more consistent reproduction of the individual components of human capital, which occurs in countries with developed economies (see Appendix 1, Figure 1). In developing countries such as RA, scores on the indexes of human capital reproduction are much lower. Respective studies conducted in Armenia show that education and strong working skills play significant roles in the consistency of the human capital reproduction process in Armenia. In our opinion, the human capital reproduction consistency index in Armenia is similar those of developing countries. The migration risks associated with different segments of the population have both positive and negative impacts on all stages of the human capital reproduction process (see Appendix 2, Table 4).

Migration flows also have significant effects – both positive and negative – on human capital reproduction (see Appendix 2, Table 4). In general, the parents of families of potential migrants are reluctant to have new children or to invest in the education of family members, both of which would create new professional skills for the local labour market. Moreover, returnees also affect human capital reproduction, not only by providing additional physical human capital resources but also by bringing new qualities to available human capital resources. Returnees disseminate work experiences acquired abroad in their homeland, which creates new migration risks among the population of potential migrants.

Migration directly impacts the quantity and quality of human capital not only in the homeland but also in the host countries. Labour migration reduces the reserves of human capital in the homeland, and mass emigration – or the “brain drain” – threatens national security. However, the outflow of labour can also – to some extent – alleviate social tensions, decrease unemployment rates and facilitate the inflow of remittances, all of which have positive effects on the country’s economy. Conversely, the inflow of emigrants into the host country provides cheap labour to fill jobs that are typically shunned by the locals (e.g., heavy construction, cleaning

and jobs involving health hazards). However, emigration can also have a negative impact on the labour market of the host country because a cheap workforce creates the risk of increased unemployment, which indirectly affects the quality of human capital resources in the host country. It appears that host countries are beginning to invest in the training and communication skills of emigrants – which hinders the reproduction of intellectual capital – by allocating intellectual capital formation resources.

Conversely, emigration not only alleviates social tensions and poverty in the homeland but also prevents “unjustified investments” in human capital by means of the outflow of excess manpower from the country. Thus, the sociological survey we conducted shows that interest in higher education is waning in Armenia because it is considered a somewhat “unjustified investment in education”. In particular, there are several specialties offered by the country’s universities that are not in demand in the domestic labour market, and individuals are reluctant to join the army of unemployed university graduates (see Appendix 2, Figure 2) – which includes a rather significant number of potential emigrants.

Returnees improve the quality of human capital resources not only by sharing experiences gained abroad but also by disseminating information about migration risks. Potential migrants are not always aware of the potential threats posed by migration. Frequently, emigration is presented to the population in glowing terms, which is well received by potential migrants who are displeased with their social status and who are trying to leave the country. When returnees reveal the difficulties that may be encountered during and after migration, potential migrants reconsider their desire to emigrate.

Migration has various negative effects on migrants. For example, migration decreases the stability of the migrants’ families and weakens the migrants’ social capital. Labour migrants, particularly men, who live apart from their families for years may attempt to normalize their living arrangements by establishing informal marriage ties abroad, occasionally even agreeing to civil marriage. In such situations, the affection felt by the emigrants towards their families may decrease, causing the emigrants to view their families as mere financial obligations. Similar behavioural changes can be observed among the wives and children who remain in the homeland. Specifically, due to long periods of absence, family members in the homeland may come to view the emigrant father as little more than a financial resource.

Migration in Armenia, which aims to solve problems related to human survival, is often considered an effective means of reducing poverty and improving family welfare. However, we believe that migration provides increased welfare and reduced risk only for the individual and only in the short term. Moreover, the current

situation renders it difficult to evaluate the social benefits of migration and neglects macro-social risks related to total human capital reproduction in the country.

Analysis at the mezzo social level is difficult because the role of numerous social institutions (education, science, health, etc.) is not fully clarified in the human capital reproduction mechanism. Nevertheless, the failure of social institutions leads to various institutional risks for different groups and sub-groups of people. The observation and analysis of migration risks through the prism of institutional risks unites the micro- and macro-levels of human capital reproduction. Undoubtedly, it is not methodologically correct to compare the individual benefits and microanalysis of human capital formation and consumption with the macro-analysis of that process because the two processes are interconnected through the above-mentioned institutes. Sociological surveys confirm that components of migration risks are connected to institutional risks and are viewed and evaluated differently by different individuals.

Moreover, from the perspective of human capital formation, the specific content of institutions differs significantly across various social groups. For example, certain social services are either unavailable to the low-income classes or are available to the low-income classes at lower quality than that offered to other classes (high-income professionals and successful entrepreneurs set relatively high quality standards for services). Among the Armenian public, the view that Armenia is rich in terms of human capital remains predominant. To support this view, reference is typically made to Armenia's favourable Human Development Index/HDI ranking (which results mainly from Armenia's relatively high life expectancy and high education scores). However, this ranking does not mean that there is no cause for concern.

Today, the primary negative consequences of the migration process in Armenia relate to human capital reproduction. In this regard, it must be emphasized that the migration rate is particularly high in the 20-50-year-old age group (which primarily consists of employable individuals of reproductive age). Data from the National Statistical Service of Armenia underscore this situation: 63% of individuals who migrated are 20-50 years of age (National Statistical Service of Armenia, 2013).

In addition, migration is exacerbating the deterioration of the sex ratio in the population, which raises the issue of reproduction. Men typically exhibit higher levels of migration activities. In cases of mass migration, the share of men in the population of the host country increases dramatically while the portion of women in the population of the donor country increases. Among women in the donor country, the number of single mothers tends to increase because the majority of men who spend a large part of the year in another country tend to form new families, divorcing their wives in the donor country and abandoning those families there. The current divorce rate among couples married between 1 and 4 years in Armenia is high.

All these factors discussed above negatively affect the process of human capital reproduction. Moreover, the impact of emigration on the devaluation of human capital is both quantitative and qualitative in nature. First, human capital reproduction is negatively affected by the reduction in the natural growth of the population. Second, the “brain drain” and “forced idleness” of the high-quality workforce diminishes existing human capital. The loss of intellectual potential in a country translates into the loss of its future; in connection with the foregoing, a nation’s investment in human capital is frequently described as an investment in that nation’s future.

Such concepts, along with the current functions of social institutions, have created a paradoxical situation in Armenia: the return on human capital and its use are almost entirely of a “consumer” nature because they are realized only at the micro level and do not generate macro-level social benefit. Undoubtedly, the unfavourable global distribution of human capital (i.e., the significant differences in levels of return) contributes to the outflow of human capital during periods of globalization, and the human capital that remains in the country cannot generate long-term stimulatory effects on the country’s socio-economic development. Consequently, quantitative and qualitative enhancements to the educational system, for example, are ultimately ineffective because these enhancements become unjustified social generosity, diminishing human capital even further.

1.3 Multi-lateral interrelations of migration risks and human capital reproduction

The research topic is both relevant and novel:

- 1) No specific scientific research has been conducted on migration risks in the context of human capital reproduction in Armenia; and
- 2) Sociological surveys are primarily based on quantitative methods of information gathering and analysis, whereas qualitative methods (in-depth interviews) are rarely used.

Undoubtedly, the overall process of accumulating, using and reproducing individual and aggregate human capital is influenced by migration risks. However, the primary issue in evaluating the impact of migration risks is that the above-mentioned process has a probabilistic character.

Clearly, an individual who is guided by rationality believes that his expenses or investments in human capital will be compensated. However, in reality, this process is rather risky because an individual might spend tangible resources and time on studying, acquiring knowledge, developing skills, etc., without knowing whether his investments will generate the expected return in the near future. In this regard, one must determine the acceptable level of risk associated with the accumulation of human capital that might promote an individual's goals, i.e., the issue of acceptable/potential risk is always relevant.

It can be argued that individuals frequently experience losses rather than gains as a result of investing (time and money) in their respective specialties, particularly in the presence of migration risks. However, it can be countered that migration has a positive influence on the development of individual potential and eventually will have a positive influence on the realization and reproduction of the human capital of the country. In this regard, it is also important to clarify the extent of and form in which individual components of human capital influence migration processes and thus become factors in the migratory behaviour of actual migrants and in the moods and expectations of potential migrants regarding migration.

The following objectives of the multi-factor analysis should be highlighted:

- 1) It seeks to reveal migration risks and their influence on individual and cumulative capital;
- 2) It seeks to reveal both negative and positive aspects of migration – and the losses and gains caused thereby – in terms of the reproduction of individual and cumulative human capital;
- 3) It seeks to reveal factors in/reasons for migration behaviour that are individual components of human capital; and

- 4) It seeks to reveal the social mechanisms that affect the interrelation between migration and human capital reproduction.

This study of the interrelation between migration and human capital emphasizes both the grouping and analysis of risk factors with multi-factor variables (see Figure 1). In addition, migration risks develop at the micro, mezzo and macro levels. Over time, these risks are modified and displayed at the individual, household and regional levels. We have attempted to group the risks that emerge within the framework of the interrelation between migration and human capital into multifunctional variables.

Migration behaviour changes over time because the expectations and aspirations of potential migrants evolve after migration is accomplished and the migrant is faced with new problems and difficulties. Our interviews show that emigrants who intend to build a future for their children outside of the country occasionally change their minds over time and return to Armenia to give their descendants an Armenian education and the opportunity to live in their homeland. In this respect, the time risk factors ($a_1 \dots a_n$) of migration are taken into account in qualitative analyses of human capital reproduction. In addition, inertial migration risks ($b_1 \dots b_n$), which were formed in the past and are not yet resolved, often influence the formation of human capital. Thus, the desire for labour migration in rural areas, which originated in the Soviet era, has been transmitted from generation to generation and continues to pose a risk for the reproduction of human capital.

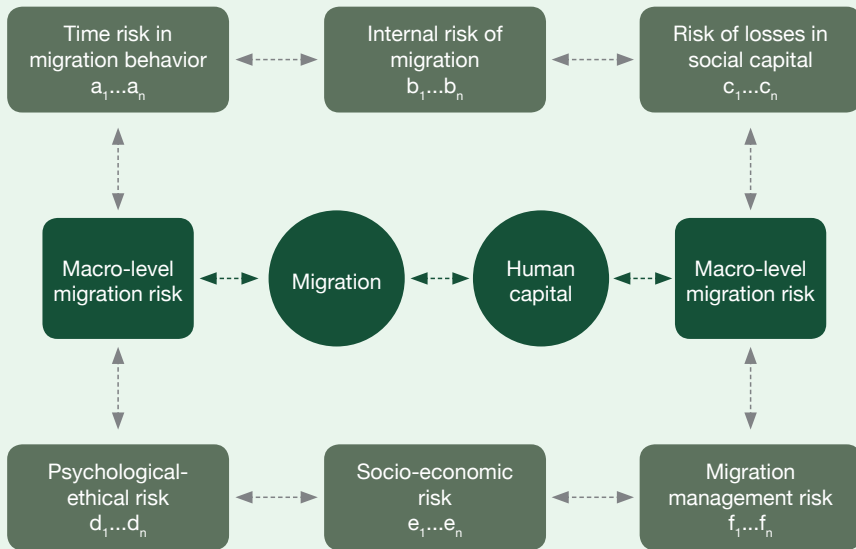
The loss of social capital also involves human capital dispersion risks ($c_1 \dots c_n$). Migration itself causes major changes in accumulated social capital because immigration negatively influences partnerships, individual reputations and mutual trust. To account for these risk factors, an analysis of the interrelation between migration and human capital should have the following trilateral format – “migration - human capital - social capital”.

Although prior migration processes in Armenia have mainly involved socio-economic risks (unemployment, low income, poor living conditions, educational qualifications, etc.), psychological-ethical factors are an important issue in the current framework of migration-human capital interrelation ($d_1 \dots d_n$). Our research shows that loss of faith in the future, disagreement with the actions of state authorities, regional geopolitical instability and skepticism about political stability are motivations for emigration, even among population groups that have not faced the socio-economic risks ($e_1 \dots e_n$) of migration and are financially stable.

Finally, effective migration management risks ($f_1 \dots f_n$) should be considered in the model of multifactor variable risks formed within the framework of the migration-human capital interrelation. State campaigns, publicly funded labour training, a favourable socio-economic environment for returnees and the attraction of foreign

investments significantly impact the behaviour of migrants, which in turn affects the reproduction of human capital.

Figure 2. The framework of multifactorial interrelations between migration and human capital reproduction risks



The interrelation between migration risks and human capital reaches a balance at the macro-economic level, which can be clearly shown by graphical analysis (see Appendix 1, Figure 3a). Thus, the value of accumulated human capital in the country (V) decreases as a result of increased migration (E). Therefore, increased migration, which reduces the population, also reduces public and private investments (F) in human capital. Emigrants' remittances (M) to their relatives rise as the result of increasing workforce migration flows. These remittances are re-directed to the reproduction of human capital (education, healthcare, improved social conditions, etc.) and thus positively contribute to the value of accumulated human capital (see Appendix 1, Figure 2a). Consequently, a balanced human capital funding situation is established at the macro-economic level (see Appendix 1, Figure 2a, point a_0). Human capital reproduction is financed by both public and private resources – and particularly by private remittances from emigrants. Migration flows become relatively stable and effective when a balance is reached between internal investments and external remittances in the human capital reproduction financing system.

Thus, migration has a positive impact on human capital reproduction due to increased emigrant remittances. The families of labour migrants make significant

investments in the human capital reproduction process using remittances from abroad to ensure their children's education, healthcare, intellectual growth, quality of life, etc. According to data from the Central Bank of Armenia (www.cba.am), the inflow of private remittances in 2014 was 1.9 billion USD, which represents 18% of the Armenian GDP. The largest share of private transfers – approximately 80% – originate in Russia. However, foreign transfers are not permanently sustainable, and their reduction can disrupt the balance between migration flows and human capital reproduction.

For example, during the last global financial crisis (2009-2012), private remittances to Armenia by emigrants decreased drastically because the economies of the host countries experienced rapid downturns. Consequently, jobs were eliminated in the host countries and unemployment rates increased, particularly among emigrants. As a consequence of the reduction in foreign transfers, emigration flows from Armenia increased, negatively influencing the value of the accumulated human capital in Armenia. The situation was further exacerbated by Western sanctions against the Russian Federation, which led to further rapid reductions in the incomes of Armenian labour migrants in Russia, which in turn reduced remittances to Armenia. During the first five months of 2015, the inflow of private transfers to Armenia amounted to 283 million USD, which represents a 40% decrease in comparison with the same period from the previous year (*RA CBA directory*).

Figure 2b (Appendix 1) clearly depicts the breach in the balance between migration flows and human capital reproduction caused by decreased remittances and the consequent increase in migration and further reduction in the value of human capital. The downward movement of the (M) curve indicates that a reduction in remittances causes increased emigration from point a_0 to a_1 . The reduction in remittances also leads accumulated human capital in the country to decrease from point V_0 to V_1 because domestic investments (F) in human capital stop growing. The balance between migration flows and human capital reproduction is also disrupted by decreased domestic investments in human capital reproduction. The tuition for higher education is relatively low in the Republic of Armenia. The availability of an inexpensive education (relative to the cost of education in Western countries) in Armenia encourages the younger generation to obtain tertiary education in their homeland and then employ it in the foreign labour market.

Figure 3c in Appendix 1 also clearly shows that the breach in the balance between migration flows and human capital reproduction caused by decreased domestic investment contributes to the prevention of emigration. Specifically, the downward movement of line (F) indicates that a decrease in domestic investments leads to reduced emigration from point a_0 to a_2 . The elimination of free professional education funded by the state causes the reduction of accumulated human capital from point V_0 to V_2 because foreign transfers (M) to human capital do not increase.

In short, migration has an essential role in the process of human capital reproduction. Migration has an in-depth manifestation and is also displayed through horizontal stripes, producing both negative and positive effects in both the host country and the homeland. In light of the multifaceted impacts of migration, countries that manage to find a balance between migration and human capital reproduction will benefit.

Migration processes have a major impact not only on human capital but also on social capital. Thus, the analysis of “migration - human capital reproduction” interrelations should consider certain components of social capital as manifestations of human capital. This issue is particularly relevant in countries like Armenia, in which the legal, social and economic institutions that are characteristic of a civil society are not yet established. An individual forms social capital by interrelating with society and engaging in various socio-economic relations. Social capital makes it possible to acquire favourable positions in the workplace, politics, the social environment and everyday life.

Social capital disseminates information, establishes trust among business partners, converts the positive reputation of an individual into public property, mobilizes resources meant for public programs and promotes charitable activities. Thus, social capital is a valuable resource that contributes to “the capacity of society to achieve common goals through collective efforts” (Durlauf S., Fafchamps M., 2005).

Collective cooperation contributes to the formation of social networks through which information is shared and arrangements are formed among participants. The activities of social networks aim to serve not only personal interests but also the public interest. However, one cannot earn an effective return on social capital unless there is mutual trust among the members of the social network.

Social capital is a set of real and potential resources that a person acquires after he/she has been involved in a more or less institutionalized network of relationships of mutual recognition. These relationships can become manifested in business situations, social groups (family, class, community, political party, etc.) or even organized targeted actions (environmental movements, protests, strikes etc.). Their origin and extension imply an established degree of closeness among participants; however, this type of closeness frequently does not involve physical (geographical) proximity or even economic or social closeness.

The volume of social capital possessed by an individual depends on the number and strength of the ties he develops, and by mobilizing these ties effectively, the individual can obtain certain benefits. Social capital does not directly result in economic or cultural capital. Even among social groups, social capital is never

fully independent of accumulated human capital resources. From this perspective, social capital can be interpreted as a manifestation of human capital.

Cooperation, mutual trust and collective behavioural norms are important pillars of social capital, and the absence of any one of these constituents will undermine the foundation of the developed social ties (*Putnam R., Bjornskov Ch., 2006*). Migration processes, which typically have destructive effects on established relationships, significantly reduce the value of accumulated social capital, which in turn negatively affects the reproduction of human capital. In this regard, we consider it fruitful to analyse the “migration - human capital - social capital” trilateral interaction (see Appendix 1, Figure 5).

In essence, social capital is formed from norms regarding individual behaviour, mutual trust among individuals and “networking” activities, all of which increase the quality of accumulated human capital resources. On one hand, social capital has a regulatory role in society because it is based on mutual trust and influences human capital reproduction “horizontally” – with no government interference. On the other hand, social capital significantly influences the efficacy of formal institutions and thus has a “vertical” influence on human capital reproduction.

The social capital accumulated by individuals contributes to the increased value of human capital through personal ties. Moreover, information regarding job vacancies is shared through formed social capital, and employment opportunities are created by the support of “friends-relatives”. Employment opportunities generated by social capital are particularly evident in the Armenian context. The nation’s small geographical size and other features of Armenian culture, foster frequent contact among relatives. In this environment, hiring decisions are frequently based less on applicants’ professional merits than on the pleas of applicants’ supporters.

Social capital has a distinct role in this context. On the one hand, a “patron” can help secure a job for an individual. On the other hand, a job seeker benefits from the general/collective behavioural norms that he possesses by using his social connections within society and by using his friends and relatives to find a job. Moreover, social capital serves not only individual interests but also the public interest. In this respect, human capital acquires new qualities from social capital, particularly in terms of improvements to individuals’ self-organizing properties. Active involvement in group decision-making processes, pursuit of the public interest and the elimination of personal ambitions not only enrich social capital but also have a positive impact on the quality of human capital reproduction. In this situation, we observe the “vertical” impact of social capital on human capital. Specifically, the manifestations of an individual’s self-organizing properties and the combination of these properties with the public interest can resolve public issues that might actually be better addressed by the authorities.

Migration causes significant fluctuations of social capital resources/reserves because human mobility undermines the accumulation of social capital. Hence, it is reasonable to evaluate the role of migration in the “human capital–social capital” interrelation (see Appendix 1, Figure 6). This figure shows that the interrelation of social capital (S) and human capital (H) is introduced through route a (the manifestations of this interrelation were discussed above). However, when the interrelation of social capital (S) and human capital (H) becomes trilateral through the introduction of migration (M) as a third party, the balance between social capital and human capital is broken because of the b and c routes.

Thus, migration flows act as ‘carriers’ of social capital because movements of the public mean changes in social capital. During emigration, individuals typically leave their social capital in their homeland, which leads to its deterioration (see Appendix 1, Figure 7). However, individuals who work or study abroad for a significant period of time frequently succeed in establishing business or social ties in the host country. When these individuals return to the homeland, they attempt to utilize these new ties to reaffirm their positions in society. In this regard, during re-emigration, the returnee not only tries to recover the connections he once had in the homeland but also to “import” the social capital that he developed abroad. Through this process, migration exerts a positive influence on the accumulation of social capital reserves in the homeland.

Moreover, experience shows that returnees “importing” social capital has a stronger impact on human capital reproduction than emigrants “exporting” social capital. The positive (+ ΔS ,) and negative (- ΔS) impacts of migration flows on the value system (ΣS , +a, -a routes) of social capital are presented in Figure 7 of Appendix 1. In addition, the balanced impact of migration inflows and outflows on social capital reserves is highlighted because social capital can influence the quality of its reproduction. However, this social capital was acquired by the emigrant abroad more quickly than the social capital previously acquired in the homeland and has more productive features.

When the social capital acquired abroad is transferred to and applied in the homeland, the increased quality of social capital causes an increase in the reproduction of human capital (H) (see Appendix 1, Figure 7, route b). Thus, the process of human capital reproduction involves multi-layered and multi-featured risk factors, which will be discussed in the following chapter.

CHAPTER II.

**THE PARTICULARITIES OF THE INTERRELATION
BETWEEN MIGRATION AND HUMAN CAPITAL
REPRODUCTION IN ARMENIA**

2.1 Motives for population migration and human capital movement

According to the definition adopted in this study, migration is the movement of individuals from one region to another – involving a permanent or temporary change of residence – to conduct professional, cultural, educational and other activities and to improve one's quality of life.

Motives for migration can be classified into two groups: internal and external. A classic example of migration prompted by internal motives occurred in England at the end of the 18th century, when the development of the textile industry deprived farmers of their land, creating an outflow of rural labour to industrial cities as the technological revolution simultaneously reduced the demand for labour in England. As a consequence, England experienced significant emigration.

After achieving its independence, migration motives in Armenia were primarily external. The collapse of the Soviet Union effectively severed the economic, technological and cultural ties between the self-sufficient and newly independent republics, which not only caused an economic downturn in all these republics but also resulted in a move towards lower-level technology users while economic relations were becoming more sophisticated. Armenia, which once had significant industrial potential, quickly became a predominantly agrarian country. In urban areas, industrial enterprises that previously served customers in other parts of the Soviet Union were first forced to shut down and were then privatized. Ultimately, these assets were sold, eliminating or devastating the companies.

Tens of thousands of employees of these enterprises were left without jobs. Because they failed to find other employment in Armenian cities, they were pushed towards migration. Rural areas also experienced difficulties. Because of the RA land privatization programme, agriculture was unindustrialized. Individual farmers were unable to cultivate their respective plots of land – which from the industrial perspective were microscopic – because the existing (and available) machinery and technology were designed for large areas of land and industrial agriculture. Due to the lack of capital (loans), investment and organizational skills, individual farmers were unable to run large livestock farms or agro-processing factories.

Due to the liquidation of scientific, technological and supply institutions – particularly the machine and tractor suppliers that had served the country's agro-industrial sector – agricultural production was conducted using ineffective traditional methods, which nearly transformed the Armenian agricultural sector into a subsistence economy. Because of the economic collapse, the branches of major industrial enterprises in large villages – which had utilized the excess workforce of industrial agriculture – were closed. Thus, the rural inhabitants who worked in

industrial enterprises also became unemployed as agriculture concurrently became unprofitable (*Manukyan S, 2013, page 3*).

As a result of the sharp downturn in industrial production, a significant portion of the now-unemployed workforce moved to the services sector, particularly retail trade and public catering. In light of these structural shifts, a continuous flow of the population from rural areas to larger towns – mainly to Yerevan (the capital) – soon developed. The human capital in rural areas has gradually grown old and depreciated, and the concentration of labour in the Armenian capital led to a severe imbalance between supply and demand in the labour market, which in turn triggered the formation of new migration risks. Labour migration from Armenia increased. The large-scale emigration of the young labour force from the homeland was coupled with a vast increase in remittances from migrants who found jobs abroad (see Appendix 2, Figure 6).

After Armenia became independent, a less obvious development that decreased the risks of unemployment and created employment opportunities was expanded higher education services as private universities were established. The number of private universities in Armenia has recently exceeded eight dozen, which is a substantial number for such a small country. This situation initially reduced the risk of unemployment among young people aged 18-22 years, who found temporary employment in the education sector. In addition, thousands of teachers were given the opportunity to teach in their homeland, albeit with rather low remuneration compared to Western standards. However, most university graduates either failed to find a job in their chosen profession – thus joining the growing army of unemployed university graduates – or accepted jobs for which they were over-qualified. Ultimately, the growing population of unemployed university graduates developed emigration views and has thus been affected by the constantly increasing migration risks.

Therefore, Armenia has faced serious risks related to the ineffective use of human capital and even its dispersion – risks that remain topical to this day. Migration from Armenia is motivated not only by high unemployment rates and deteriorating financial conditions but also by moral-psychological factors that have led to a loss of faith in the prospects for a successful future or to other pessimistic expectations that might disrupt the smooth reproduction of human capital.

Numerous sociological surveys conducted in Armenia (such as the survey conducted by the Institute for Political and Sociological Consulting (IPSC) for “The Quality of Life Index” in 2012) in addition to the present study have presented the following standard question to respondents who were inclined towards migration: “Why do you want to leave Armenia?” Although many respondents provided economic reasons for wanting to leave Armenia (e.g., “The salaries are low”, “The

living is difficult”, “The taxes are high”), serious socio-psychological motivations were also revealed. Responses along the lines of “There is no future for me or my children in Armenia”, “I want to live in a civilized country”, and “The moral-psychological atmosphere in this country is unbearable” were frequently expressed. There are several important reasons for migrants’ loss of faith regarding their future in Armenia.

For example, after the earthquake in Spitak, significant external aid was provided to Armenia. However, the bulk of this aid was either wasted or used inefficiently, which delayed recovery in the disaster zone for decades. As a result, thousands of inhabitants of the disaster zone not only lost their homes and their jobs but also lost their faith that they would recover their positions in society because most were ignored by that society.

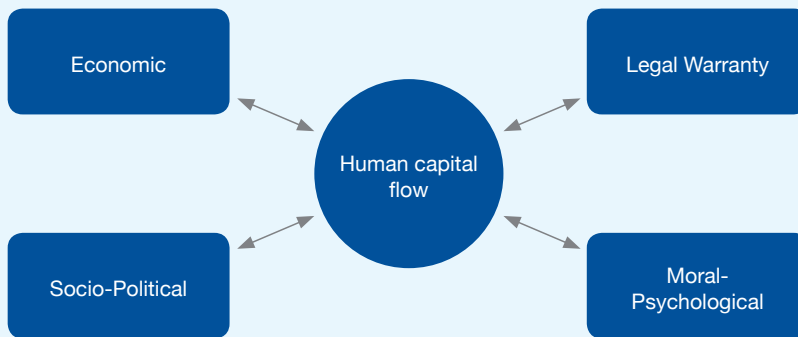
Moral-psychological losses were also observed among participants in the national liberation movement. The success of the Artsakh liberation war, which initially created a huge patriotic and psychological boost for the Armenian population, might have mitigated (to some extent) the first wave of migration from Armenia during 1991-1995. However, this event had a short-term influence on the population because participants in the war did not receive appropriate recognition. Numerous freedom fighters were ignored and have since emigrated. The negative moral-psychological mood among the population deepened as a result of the oligarchic system that rapidly developed in the Armenian economy despite the fact that such a system violates free market rules.

Thus, the majority of the wealth of the society – its human capital and, in particular, its intellectual potential – was either discarded or used ineffectively, leading to deep disappointment among various social groups in the nation’s social development processes and problem-solving capabilities. In recent years, more visible manifestations of discontent and unrest can be observed among various segments of the population – particularly among the youth – towards government practices that provide unpopular and unfair solutions to various social issues (e.g., transport and electricity tariffs, introduction of funded pensions, and taxes). For a portion of the population, such cases increase the motivation to emigrate from Armenia as a means of expressing discontent with governmental policies.

In addition, many individuals favour the notion of emigration because they are unhappy with unfair attitudes towards themselves or their family members. In-depth interviews with a relatively well-off segment of the population (the representatives of small and medium-sized businesses) reveal that such individuals most often decide to emigrate when they face the risk of injustice, arbitrariness or corruption in the tax system. Among hired employees, similar decisions may be based on unfair or arbitrary treatment by their employer, discrimination, unjustified wage reductions or termination of employment.

The increase of collective and subjective dissatisfaction in Armenia essentially means that macro- and micro-migration risks based on socio-psychological motives are rapidly increasing among both wealthy and non-wealthy segments of the population. The migration behaviour of individuals is also greatly influenced by the lack of a sense of legal protection and the absence of social guarantees, which are particularly strong migration motives among vulnerable segments of the population. Thus, the interconnections of migration motives that lead to the flow of human capital can be illustrated with the following chart.

Figure 3: Interconnection between migration motives and human capital flow



Of course, this chart presents only a general picture of the interconnections between migration motives and human capital flows. The degree to which a particular individual is inclined towards migration and his migration behaviour are equivocal from the perspective of his human capital realization opportunities.

First, each age group faces specific risks. As the age of a potential migrant increases, the number of opportunities to find a job in his chosen profession decreases. Additionally, each sample group establishes different priorities for the individual elements of human capital based on its unique sub-cultural characteristics. For example, the top priority for one person may be to work in his specialty, whereas the top priority for another person might be to maximize his income. A third person might value his inclusion in a certain class of individuals, whereas the fourth might prefer to work less and lead a healthier life.

Research shows that in the host country, emigrants are for the most part united by the same incentive – to provide financially for themselves and their family. In other words, the pragmatic approach dominates the use of their individual human capital; because emigrants are unable to earn incomes in their respective specialties, they must tap into their full human potential.

One of the social manifestations of the reproduction of migrants' human capital is ethnic entrepreneurship. There are many positive examples of ethnic entrepreneurship in different countries of the world, such as Chinese, Cuban,

Korean and Armenian entrepreneurs in the United States of America; Indian, Pakistani and Bengali entrepreneurs in Great Britain; North-African entrepreneurs in France; and Turkish entrepreneurs in Germany (Shapero A., Sokol L. 1982). The social marginalization of migrants is the most important factor in the promotion of ethnic entrepreneurship. Ethnic entrepreneurship is influenced by various factors, including language differences, the foreign cultural environment, the reserved attitudes of the locals; employment discrimination, obstacles to the pursuit of a professional career, and difficulties in acquiring higher social positions in society. Migration issues are becoming a type of filter that is surmounted by the most responsible, efficient (hard-working) and knowledgeable individuals.

Ethnic migrants typically attach more importance to their financial situation than to their social status. Because they are less concerned about the behavioural norms of the host society, they are more flexible in terms of adopting novel promotion strategies and innovations. However, in the context of relatively isolated ethnic communities, there is demand for the products and services traditionally consumed by the given ethnic group, which results in a type of “sheathed” business that is endowed with capital, a workforce, information and orders.

Meanwhile, representatives of ethnic minorities often have essentially no choice but to operate their own businesses in the retail trade or services sector and thus opt to establish cafes, restaurants, shops or clubs. A small number of ethnic minorities establish businesses in the modern/nowadays industrial branches (excluding the construction industry). The financial markets and the large and wholesale trade sectors typically remain inaccessible to these ethnic minorities (*Ward R., 1987*).

Not all ethnicities attain entrepreneurial success. For example, emigrants from the Caribbean Basin, Latin America and Ireland are less active as entrepreneurs than other ethnicities. This distinction is not the result of racial-biological differences but stems instead from the nature of the social relations of the given ethnicity throughout its historical development.

Studies reveal that ethnic minorities with strong links to the community and the support of relatives in their entrepreneurial initiatives are most successful (*Radaev V., 1993*). The nature and structure of an individual’s social ties is important not only for ethnic entrepreneurs but also for any other type of entrepreneurial activity. From a network approach perspective, it can be argued that the social capital return for an entrepreneur is equal to the use of his own personal links and the structural holes of others (*Burt S., 1995*).

In Armenia, migration risks are not linked exclusively to external migration processes. Recently, the immigration of native Armenians to their homeland has been observed, although this flow is irregular and weak in nature. Independent experts have noted that there are no developed compound projects for immigrants

in Armenia that would enable them to obtain decent living conditions, a favourable business environment, tax incentives, etc. One of the first steps in this direction is a project to construct a separate district in Ashtarak City for Armenian immigrants from Syria. This project will be supported primarily by charitable contributions.

Nonetheless, the issue of providing support to immigrants, including transitory immigrants, remains unsettled because the lack of a coordinated immigration policy in Armenia prevents the inclusion of immigrant potential in the overall human capital of the country. Given the great volume of migration outflows relative to migration inflows, the relation between Armenia and the Armenian diaspora should be considered. Indeed, the core value that attracts Armenian expatriates back to Armenia is the notion of the “homeland”.

However, the perception of the homeland may be somewhat distorted due to particularities in the value system formed by a life abroad. For new generations of Armenian expatriates (the emigrants’ children), Armenia is an ethnic homeland, but the return home is becoming more problematic because Armenia’s perceived image as the ethnic Armenians’ own state is gradually diminishing. The transformation of national identity into ethnic identity is one of the most negative manifestations of migration risks, putting both ethnic culture and values at risk (*Sarkisyan N., 2009*).

Some experts believe that in addition to human capital reproduction, the natural reproduction process of generations is at risk in Armenia because the country has not developed and implemented a reasonable demographic policy. During the last two or three decades, the vector of demographic development in Armenia has a negative orientation because Armenian society is rapidly transforming into an aged population. Currently, older individuals (pensioners) account for 15% of the country’s population.

This situation has arisen based on a number of interrelated factors that have led to the deterioration of the sex and age structure of the population, including the increased minimum marriage age, reduced birth rates, increased lifespans, the unprecedented growth of selective abortions and the migration of the young workforce, particularly young men, from the country. As a result, a generation of adults is not engaging in the process of reproduction.

There is no doubt that in Armenia, in contradistinction to Western societies, the primary reason for the above-mentioned negative demographic processes is deteriorating living conditions. The demographic policy of the Armenian government does not yet include a strategy to promote the increase of young families and childbirth, such as by providing financial incentives for newly married couples, granting married couples certain privileges, arranging child care and/or improving employment and housing conditions.

2.2 Manifestations of migration risks in the target social groups

Official Armenian statistics present the balance of people leaving from and arriving in the country by year based on the data obtained from border crossings, and this balance has been negative for years (Appendix 2, Table 5). However, the official data do not depict the real picture of migration in the country, particularly in terms of its causal links to human capital reproduction processes. Therefore, it is first necessary to identify the manifestations of migration risks in different socio-demographic target groups in qualitative sociological surveys; then, the link between investments in human capital and certain types of migration behaviour must be determined.

To gather the information necessary to achieve these objectives, qualitative research has been undertaken within the framework of this project in the Tavush region and in Yerevan. However, at the preparatory stage of this research, it became obvious through expert analysis and pilot in-depth interviews that the manifestations of migration risks within different socio-demographic groups are quite specific, regardless of the similarities among groups. Thus, the representatives of respective target groups were selected and surveys were conducted among the following segments of the population:

- 1/ urban and rural inhabitants;
- 2/ populations of areas on the Armenian border and non-border areas;
- 3/ employed and unemployed individuals;
- 4/ individuals with and without tertiary education;
- 5/ junior- and graduation-year students;
- 6/ returning emigrants and seasonal workers; and
- 7/ potential and actual migrants.

Not only do migration motives and risks differ among the selected groups, but the human capital reproduction processes also differ. The target groups of urban inhabitants, employed individuals and those with higher education are basically guided by psychological-moral migration motives, whereas the groups of rural inhabitants, unemployed individuals and those without higher education are guided primarily by economic motives.

I used to have a small grocery store in one of the suburbs of Yerevan. Initially, everything was going well. However, when I tried to expand my business and increase the size of the store, I faced issues with the tax authorities and other control structures (the Sanitary and Epidemiological

Inspectorate Service, Fire Service, and the Municipality). Small businesses are not protected in our country, and when you try to advance, you encounter additional, sometimes even artificial, barriers instead of getting support from the relevant authorities. Now I am forced to shut down my activities. I have sold the store and decided to leave for Krasnodar region, Russia, to start a business there.

Male, 43 years old, Yerevan

The interview excerpt presented above reveals that the motivation for migration was not the family's financial situation or the difficulties of earning a living but were instead an entrepreneur's vulnerability to external forces. This case shows that although the first years of Armenian independence were characterized by the migration of predominantly low-income and poor families, there are now migration risks for successful businessmen. Because entrepreneurs lack clear guarantees for the protection of their capital and their sustainable businesses, they are planning to move abroad to conduct their activities there. Such intentions lead to the outflow of both physical and human capital.

A manifestation of the increased migration risks among businessmen in Armenia is the 15% increase in remittances for business purposes from Armenia to other countries between 2010 and 2014 (RA CBA Directory, 2014). Interviews show that the primary reasons for emigration among urban inhabitants in Armenia relate to cultural shock caused by transition reforms in Armenia. The social "price" of transition reforms has often been too high in Armenia. Specifically, the rapid implementation of socio-economic reforms (accelerated privatization, liberalization of the financial sector, radical redesign of the financial sector, etc.) that aimed to promote the formation of a free market system significantly worsened the living conditions of the majority of the population and depreciated the accumulated social capital in the society. As a result, the potential for mutual trust and cooperation among members of society, among different segments of society and between government institutions and society at large has significantly decreased.

As a young specialist, I worked as an engineer for nearly a decade in the factory of Yerevan Automated Control Systems Scientific Research Institute named after S. Mergelyan. After the collapse of the Soviet Union, the factory was closed and I was able to purchase a bakery. Until today, I have worked together with my family members in my own bakery and managed to earn a living. However, I am disappointed with my business because it is very hard work. My family does not sleep at night because they must bake bread. I cannot accept the fact that my wife and I, as well as my two children,

have higher education in engineering but must do a baker's work. If I could sell the bakery at an appropriate price, I would not miss the chance to go abroad with my family forever. I know that an emigrant with higher education will face difficulties in finding a job abroad, too; however, I believe that after a few years my children will have normal jobs that are unavailable in their homeland. I have totally lost my hope and faith that I will find an engineering job in Yerevan without the intervention of friends or other intermediaries.

Male, 55 years old, Yerevan

In Armenia's urban areas, in which most of the workforce with subject-specific and general competencies lives, it is difficult to find jobs due to the major structural changes in the economy. Armenian employers are not legally restricted from hiring highly qualified professionals for low-paying positions that require lower levels of qualification; by contrast, this process is regulated in developed countries. Consequently, there are limited opportunities for human capital realization in Armenia, particularly in large cities, which leads to migration risks, in turn.

Thus, in Yerevan, one frequently meets salesmen, intermediary traders, taxi drivers, construction workers and even janitors who have university educations and are fluent in several languages, although they rarely use their educations and skills in their current jobs. Although these individuals are more or less capable of supporting their families with these jobs, they are frequently inclined to emigrate due to the influence of moral-psychological factors. Many Armenians prefer to perform low-paying jobs abroad, out of the sight of their relatives and friends and outside of their homeland. Moreover, working abroad gives hope to an individual that he might advance in his career in the future, whereas there is no such hope in his hometown because he has lost the social and human capital he once enjoyed.

Our research shows that migration risks among urban inhabitants are primarily driven by economic incentives rather than legal-warranty or moral-psychological reasons. Rural inhabitants go abroad mainly to solve their subsistence problems and not because they fear that they will not realize their professional ambitions in their homeland. For these reasons, we face a rather low rate of re-emigration among urban inhabitants, whereas re-emigration by rural inhabitants is more frequent.

The research shows that rural inhabitants traditionally leave more frequently for seasonal work while their families remain in Armenia. Even during the Soviet era, when rural economies operated under the Communist system and nearly everyone had jobs, some rural individuals, particularly those in the mountainous and the northern regions, emigrated to other Soviet republics for seasonal work and returned to their villages with substantial amounts of money.

Leaving for “virgin soil” is a tradition in our family. My grandfather and father were engaged in this form of labour migration. Currently, I leave for Siberia every spring to do construction work. In the beginning, I was going with my father, but now I go alone. I work as a builder in the housing construction industry. My family has accepted the idea that I leave for work each year. There is no source of income in the village, the majority of people lack jobs, and the main source of livelihood consists of money transfers from Russia. Personally, I am satisfied because I can take care of family household necessities and pay the tuitions of my two children studying at the university. If I had an opportunity to find a job in our region, I would not go to Siberia and would stay near my family.

Male, 49 years old, Tavush Region / Yakutsk

In contrast to large cities, a major reason for outflow from rural areas is the inadequate social and living conditions and the lack of basic infrastructure. Their remoteness from healthcare and educational institutions, the shortage of domestic support facilities, the poor condition of rural roads and the lack of rural cultural centres prompt rural inhabitants, particularly young people, to move to large cities; if they fail to find jobs in the city, they are tempted to emigrate. Notably, only 31% of urban inhabitants were displeased with the operation of social infrastructure, compared to 88% of rural inhabitants.

I work as a veterinarian at a private cattle farm in our village. The owner does not pay badly, and I can cover family expenses. However, our village, which is located in a high mountain area, is far from the regional centre. My family doesn't have access to basic social services and to high-quality health care services. My daughter and son study in Ijevan; they will get their degrees in economics. They rented a flat there until they graduate. They have decided not to return to the village after they finish. They will try to get international scholarships and travel abroad to continue their studies and obtain Master's degrees.

Male, 56 years old, Tavush Region

The manifestations of migration risks in rural areas have been classified into groups of people from border areas and non-border areas. The research shows that in villages on the border, socio-economic motives for migration are supplanted by issues of residents' security, many male residents of border villages in the Tavush

region have military contractor jobs. Although they receive remuneration for protecting the Armenia-Azerbaijan border, they are displeased with the lack of security guarantees.

We might assume that the increased employment in certain border villages due to military contractor jobs, together with the privileges given to individuals living there (e.g., tax and education privileges) would reduce the risks of migration. However, the results of the survey show that security issues are a primary concern of the population in these areas. Some families, although they have sufficient income, attempt to leave the border area because the roads, houses and buildings are occasionally exposed to acts of military aggression – for example, several school buildings in Tavush region villages were bombed during teaching hours.

As a consequence, many residents of border villages, regardless of their socioeconomic status, justify migration decisions based on concerns about the physical safety of their families.

My husband has already been under contract in the military service for three years. Of course, his salary is adequate to cover our household needs, but I am very concerned for the safety of my family. My children still attend kindergarten, but I do not want them to go to school in the village. If we find a job for my husband in Russia, like most of the people in our village, we will definitely leave because I am worried for the security of both my husband and our children.

Female, 26 years old, Tavush Region

Interesting conclusions can be drawn from the data obtained in our in-depth interviews of university students and graduates. It should be emphasized that students today are much more independent in terms of making decisions about their future, including decisions pertaining to their mobility, whereas in the 1990s, students' migration behaviour was typically determined by family strategies.

The most interesting observation regarding university students is that migration inclinations are not manifest among undergraduate students; these students are at first willing to find a job in their profession after graduation and to continue living in their homeland. However, within two or three years, in the final year of their studies, students are more inclined to continue their education or to find employment abroad. The migration inclinations of graduation-year students are largely shaped by moral- and socio-psychological factors; in general, Armenian students do not have serious livelihood or economic problems because these matters are handled by their parents.

The typical progression of students is as follows: after successful completion of entrance exams and admission into the university, the first year-students' outlook on life is cultured by their enthusiasm and excitement to further their studies or work plans. Unfortunately, in the later years of their studies, students gradually arrive at the conclusion that there is a prevailing social injustice in society. They see that a significant number of graduates who excelled at the university fail to find jobs, whereas other graduates who never displayed any proficiency in their studies obtain desirable jobs due to the patronage of influential friends and relatives. Many graduates need such patronage or other tools of influence to advance their careers. As a result, psychological disappointments and increased tendencies towards migration can be observed among progressive students during the course of their education.

In the first year, I intended to get a Master's degree after my Bachelor's degree, but I have changed my mind because I am sure that I will not find a job in my specialty. I do not see any sense in spending time and financial resources on an education that is not adequately valued by employers. It is all the same to the employer, whether you have a Bachelor's or a Master's degree. They value and pay both the same. In addition, you can rarely find a job without the support of a relative, even if you have a Master's degree. For these reasons, I find it appropriate to continue my education abroad.

Female, 21 years old, Ijevan

Many in-depth interviews were conducted with returnees or seasonal workers (and/or their family members) to discover their different motives for migration behaviour. The interviews reveal that returnees were more deeply affected by difficulties encountered abroad, including residency bans, illegal employment, communication difficulties, their children's loss of national identity, lower remuneration compared to locals, discrimination based on nationality, violations of occupational health and safety standards, a lack of physical security, and separation from their family, among others. These types of unresolved issues and/or the unacceptability of possible solutions frequently convince emigrants to return to the homeland permanently.

By contrast, seasonal workers ignore or dismiss the risks of migration. They either accept the situations created by migration risks or find sufficiently effective ways to prevent or counteract these risks. The migration behaviour of seasonal workers is motivated by the constant desire to travel abroad to earn a living. Thus, there are significant differences between returnees and seasonal workers in the factors

that influence migration behaviour. The behaviour of returnees can be explained by moral-psychological or socio-psychological motives. Typically, permanent returnees feel deep resentment towards the foreign country; they do not try to hide this resentment and even disseminate it among their acquaintances. By contrast, migrants that travel abroad for seasonal work are more inclined to ignore the risks of migration because the economic motive for migration remains the top priority for them. It is no accident that migrants who have adopted a “seasonal work” lifestyle prefer to emphasize the benefits of working abroad (relatively high remuneration, remittances to family members, acquisition of new skills and production experience, formation of social capital abroad, etc.) and downplay the threats and risks a migrant typically encounters abroad.

My neighbours leave for Novosibirsk for 8 months every year for seasonal construction work. In a few months, he has new acquaintances and is able to find a convenient and highly paid job. Last year, I asked him to include me in the construction brigade and travelled to Novosibirsk with him. However, I was greatly disappointed because my expectations were not fulfilled – the salary I received was much lower than promised. They explained to me that there was no work for a plasterer that year. As a result, I had to work as a heavy labourer on the roofs of skyscrapers, without any registration, work permit or security guarantees, and I did not have adequate living conditions. Twelve of us lived in a seven-room cabin, and we experienced constant anguish, fearing that our illegal status would be found out by the local authorities. A significant amount of the money I earned was spent on the way and covered my daily expenses. I have decided never again to leave for work abroad. It's better stay in the village and farm than choose a temporary job abroad; it brought only hardship and forced me to leave my family.

Male, 30 years old, Tavush Region

This interview describes the migration risks that were deemed unacceptable by a young man who had migrated to Russia to earn his living; therefore, he made the decision to return to his homeland and not to work abroad again. Although these risks also apply to regular seasonal workers, they do not play a decisive role in shaping seasonal workers' migration behaviour.

For instance, the neighbours of the above-mentioned young man have quite a different attitude towards migration risks. The matriarch of that family, whose husband was in Russia, was asked, “Why does your husband continue to leave

for seasonal work, when your neighbour decided never to leave for seasonal work again after travelling to Russia with your spouse once?" She answered as follows:

My husband has been going to Russia to work for many years. Initially, he experienced great difficulties and hardships, but he eventually overcame them. We had no other choice because we could not earn a living in the village. My children study at the university on a paid basis, I am a housewife, and we only earn subsistence income from the farm. My husband clearly realized that it would be very hard if he did not work abroad and made every effort to overcome the difficulties he experienced during his first trip abroad to work. Now, most of those difficulties are in the past because my husband found ways around those obstacles after years of working in Russia. I think, however difficult my husband's absence is, he will have to continue to leave for work abroad for several more years, until my children find their place in life and have stable jobs and incomes. As for our neighbours, let them be a little more patient and overcome the difficulties of labour migration, which initially seem more painful than they actually are.

Female, 47 years old, Tavush Region

Returnees often only weakly express the economic incentives of migration, indicating that these incentives no longer dominate their migration motives. The interviews reveal that the incomes earned by returnees abroad are generally higher than those they currently earn in the homeland. However, many returnees maintain that the psychological or other non-economic costs of going abroad to work are far more significant to them than purely economic interests.

In my younger years, I was a student in Moscow, and I graduated from college in the food industry. Because I have a professional education and speak Russian, 7 years ago, I easily got a job in a Russian city as a restaurant chef. My family lived in Yerevan, and I worked in Russia. I managed to financially support my daughter's family in Yerevan, and I covered the tuitions of my grandchildren. In those years, although my daughter wanted to move her family to be near me, I did not agree because the customs of the city where I was working were too alien to me. In the evenings, I used to see drunk teenagers in the street with beer bottles in their hands, and in the morning, used syringes were strewn across the main entrance to the building. How could I agree to move my grandchildren to an environment where I could

not adapt! Currently, I have returned to Armenia and tell my acquaintances not to leave for Russia because the socio-psychological and cultural costs in a foreign environment outweigh the economic benefits.

Male, 62 years old, Yerevan / region near Moscow

Appendix 1, Figure 8 contains a summary of the survey results of actual and potential migrants. The results indicate that there are significant differences in migration risks between these two target groups, although for certain factors, the differences between them are smaller.

The unemployment issue accounts for 24% of the inclinations to migrate among potential emigrants and 38% of the inclinations to migrate among the actual emigrants. Although potential emigrants are displeased with their status, they live in relatively normal socio-economic conditions and have thus not yet made the decision to migrate abroad for work and/or permanent residence. For actual emigrants, the economic motives for migration are of vital importance – extended periods of unemployment and poor social conditions have forced these emigrants to take extreme measures, including emigration. The results of the interviews show that social relations account for 8% of the inclinations to migrate of potential emigrants but 25% of the inclinations to migrate of actual emigrants.

Potential emigrants still have a certain social status in their homeland; they are trying to preserve social ties with their acquaintances, to adhere to group norms for individual behaviour, to foster an atmosphere of mutual trust and engage in networking activities because they recognize the negative consequences of the loss of social capital. The maintenance of social capital motivates the migration behaviour of more actual emigrants than potential emigrants because actual emigrants understand that they have lost or are quickly losing the reserves of their accumulated social capital, which provides an additional reason for migration.

The role of the psychosocial factors involved in migration behaviour is also significantly different for potential and actual emigrants. Specifically, moral-psychological factors account for 25% the migration tendency of potential migrants but only 5% of the migration tendency of actual emigrants. In this regard, the following circumstance should be taken into account: actual emigrants have already undergone the phase of intense moral-psychological tension (when they were making the decision to emigrate) whereas this tension remains intense among potential migrants.

The impact of the family reunion factor also differs between actual and potential migrants. The family reunion factor accounts for 3% of the migration motivations of actual emigrants and 1% of the migration motivations of potential emigrants. These

results may be explained by the stepwise-cumulative nature of family migration. Specifically, family members capable of work emigrate first and work abroad for several years and then settle down, at which time they decide whether to move their family members abroad as well. This behaviour is not fully conceptualized among potential migrants, who are dissatisfied with their lives but have not yet made a final decision about emigrating from the country.

My sister's husband and their eldest son moved from our village and have worked in Tula, a city in Russia, for two years. My sister used to receive financial support from them and did not have financial issues, like we do. However, when the family was separated, my sister suffered significantly and missed her son and husband; she did not wish for anything else but the reunion of her family. Recently, my sister and her younger son also moved to Tula because her husband had obtained a permit for the temporary registration of the family. I speak to my sister on the phone every week, and she seems to be happy. She keeps on stressing that she easily overcomes the difficulties abroad because her husband and eldest son are with her. Now, she urges me to move to Tula with my family, but we have not yet made a final decision because we are not ready for the migration obstacles.

Female, 32 years old, Tavush Region

Continuing one's education has a much greater impact on the migration behaviour of potential migrants (18%) than on the migration behaviour of actual migrants (2%). The interviews of young people reveal that students who have not yet decided whether to leave Armenia are more willing to continue their education abroad, which has a significant impact on their migration behaviour. However, young people eventually realize they must overcome financial, linguistic and socio-cultural obstacles to obtain an education abroad. Thus, although the prospect of studying abroad excites many young people at the pre-emigration stage, this enthusiasm gradually diminishes after they leave the country.

My brother used to study at the Ijevan Branch of Yerevan State University. In the second year of his Bachelor's degree he decided to continue his education and pursue a Master's degree abroad. He began intensive efforts to improve his English; he even travelled to Tbilisi to take the GMAT exam to enable him to apply for scholarships at universities abroad. He did not succeed in that endeavour

but never gave up on the idea of leaving the country. It has already been a year since he left for Poland, but he does not wish to continue his education there any longer because he is now aware that the difference in salary between specialists who have higher education and those who lack it is not very substantial.

Male, 28 years old, Ijevan

Although the impact of educational motives differs significantly among actual and potential migrants, the impact of career enhancement aspirations on their migration behaviour is much smaller: 20% and 15% for actual and potential migrants, respectively. In this case, the moral-psychological factor plays an important role in shaping the behaviour of the different groups of emigrants. Both individuals who have previously left the country and individuals who are simply considering it place great importance on rapidly improving their living conditions abroad. Both groups are confident that after overcoming the difficult early years of emigration, they will start to earn as much as the locals do, accumulate sufficient social capital, and even obtain competitive positions in their chosen professions.

Therefore, satisfying career ambitions has a nearly equivalent impact on both potential and actual emigrants. To sum up the discussion on the various manifestations of migration risks in the target groups, we conclude that these manifestations are to some extent causally related to human capital reproduction processes. In this context, the analysis of interrelations between migration behaviour and investments in human capital is warranted.

2.3 Interconnection between migration behaviour and human capital investments

To date, there has been no in-depth analysis of this issue in Armenia. The dominant perception is that inefficient investments in human capital can significantly increase individuals' inclinations towards emigration. How does migration behaviour affect planned investments in human capital and its reproductive nature? Is migration behaviour determined by low returns on investments in human capital, or do existing migration inclinations shape the extent and direction of investments in human capital? There is virtually no research clarifying these issues.

Of course, the notion that investments in human capital are determined by migration inclinations is itself complicated. Moreover, existing causal links can be more clearly identified by analysing the results of the in-depth interviews with target group representatives. We have attempted to explore the influence of investments in human capital on its formation and reproduction processes in Armenia, particularly on the mezzo-social and macro-social spectrum. However, the link between these investments and migration behaviour is not straightforward, and some conclusions can be drawn only through indirect comparisons.

For example, M. Voskanyan analyses the nature and characteristics of this issue, particularly with respect to research and scientific-pedagogical fields and notes that there is a striking imbalance in the Armenian labour market between the demand of employers for personnel with higher education and the labour supply. Thus, in the first decade of the 2000s, there was unmet demand for health care providers and builders, whereas universities were graduating too many economists, lawyers and teachers.

Moreover, despite the fact that the share of students in the total population was tending to grow, the higher education sector was not meeting market needs but instead produced specialists who were not sought by the labour market (*Voskanyan M., 2010*). Moreover, many universities cannot even guarantee the natural reproduction of the necessary teaching staff. The problem is that most PhDs are unwilling to engage in teaching or research activities at universities because they prefer other professional activities. This trend suggests that the educational system is becoming less attractive to the specialists that it produced and who received scientific degrees and titles. In addition, M. Voskanyan analyses statistical data in the educational field and shows that there is an obvious difference between the numbers of university applicants and graduates. Specifically, only one-half of students graduate. (*Voskanyan M., 2009*).

This topic was addressed by one of the participants in the interviews conducted within the framework of this research:

In recent years, there has been a decrease in the number of university applicants and, subsequently, in the number of students in both public and private sectors. This is due to the joint influence of numerous migration, demographic, socio-economic and socio-cultural factors. Moreover, the decrease in the number of university applicants can be considered a specific response to the labour market, which is overloaded with certain specialties. This development presents a number of new challenges. First, the establishment of new universities (including branches of well-known foreign universities) loses its meaning. Afterwards, it becomes necessary not only to improve competitiveness among universities (although this issue is also very important) but also to initiate the effective use of human capital, its long-term strategic allocation and its reproduction. To achieve an effective solution to these emerging issues, it is necessary to conduct academic, administrative and structural optimization of the higher education system because this system is the basic platform for producing specialists.

Female, 62 years old, Yerevan

Taking into consideration the above-mentioned facts, we conclude that the effectiveness of the overall human capital formation and realization process in Armenia is quite low because there are weak links among the economy, education and science. Clearly, this factor has an impact on the emigration inclinations of individuals who have obtained higher education. Some instability is observed in investment at the macro- and micro-economic levels to qualitatively and quantitatively expand human capital. The research results show that there are significant differences in the levels of interference by various factors in the overall human capital reproduction process.

We have grouped the fields that play the most significant roles in human capital reproduction into three levels of interference: macro/mezzo level, micro level and external environment.

- General education
 - Cultural environment
 - Social protection level
 - Healthcare
- }
- public macro/mezzo/
-
- Tertiary education
 - Training
 - Development of professional skills
- }
- micro level
-
- Armenian diaspora
 - Re-emigration
- }
- external environment

The results of our research show there is much stronger interference in the human capital reproduction process at the macro level than at the micro level.

According to the participants of in-depth interviews, the state, non-governmental organizations, diaspora associations and various international funds have conducted projects in the country to solve a number of significant human development issues. These projects include road construction, clean water supply, reconstruction of schools and the construction and modernization of healthcare institutions. However, healthcare services and social protection measures directed towards certain vulnerable segments of the population do not satisfy even the most basic human needs. As a result, serious risks related to human capital reproduction have emerged, particularly in urban areas.

My son left his wife and two children in Armenia to go to Sweden and managed to find a job there, now he supports us. It is impossible to get along without his help because my daughter-in-law does not work and only receives an unemployment benefit, which is not even enough for one week. At my age, the pension is very low. My eldest grandchild studies at the university on a tuition basis, and the youngest has been disabled since childhood. He is confined to a wheelchair and receives a disability benefit, which is also a small amount of money. In our city, not even the basic necessities are provided to disabled people. There are also insurmountable difficulties with mobility and employment of people with disabilities. My son tells me about the care provided to disabled people in Europe. Now, he is striving to move his family to Sweden and to finally create the conditions to improve the quality of life of his disabled son.

Female, pensioner, 67 years old, Ijevan

The lack of clear priorities and the insufficiency and imbalance of public and private investments in human capital are factors that generate additional emigration risks. The Armenian government has failed to allocate sufficient resources to establish effective social protection systems not only for the disabled but also for the unemployed and pensioners. The lack of financial resources allocated to these areas, combined with the blatant manifestations of oligarchs' wealth – large homes, expensive cars, security guards and other luxuries – inevitably affects the migratory behaviour of the population and thus influences the human capital reproduction process.

The lack of public investment in programs for vulnerable social groups creates pro-emigration attitudes not only among individuals who belong to those groups but also among the individuals near to them because close friends and relatives must bear the entire burden of their care, which should ideally be covered (at least partially) by the state. In Armenia, one of the most unacceptable forms of social injustice is the inaccessibility of educational services for a significant portion of the population. In Armenian families, higher education has always been considered extremely valuable and thus obstacles to higher education lead to increased migration risks.

Research shows that in the European higher education area, different countries have different schemes for providing educational services to their citizens. For example, Scandinavian countries offer free undergraduate studies, but in France and Italy, which are also economically developed countries, the majority of undergraduate students are enrolled in tuition-based educational systems (Appendix 1, Figure 10).

In Armenia, although undergraduate studies are not provided exclusively on a tuition-based basis, the number of students enrolled in tuition-based undergraduate educational programs has increased relative to the number of students enrolled in free educational systems (Appendix 2, Table 7). In contrast to many developed Western countries, in which the obstacles inherent in tuition-based educational systems can be overcome through flexible student loan programs, the process of investing in human capital through credit resources is still developing in Armenia.

In Armenia, educational loans are provided at high interest rates and require security guarantees, making them inaccessible to many students. As a result, there are cases in which students are unable to attend university because they cannot afford the tuition, which causes profound disappointment and fosters emigration inclinations. Moreover, tuition-based educational services are often inaccessible to students from distant regions and villages. Regardless of their abilities and talents, these students are commonly deprived of the opportunity to obtain higher education due to financial issues.

Thus, higher education is becoming “elite” or even “monopolistic” in Armenia,

particularly in specialties such as jurisprudence, economics, political science, diplomacy and Asian studies. In short, disproportionate public and private investments in human capital deepen the perception of social injustice in Armenian society, which in turn foments discontent among the population, leading to new waves of migration.

This year, my daughter graduated from our village school with distinction and she is willing to continue her education in one of the universities in the capital. However, because of limited financial resources, she is deprived of this opportunity. My husband and I calculated and determined that we would have to spend approximately 6000 AMD (15 USD) daily to cover the tuition fee, rent a flat and take care of her living expenses. This is a very heavy financial burden for us; hence, we gave up on the idea of continuing our daughter's education. As you know, in reality, very few students are enrolled in free education, and free room and board is not provided. It is very unfair that the child may not be able to get a higher education because of a lack of money. If we have an opportunity, we will emigrate from Armenia.

Female, 37 years old, Tavush Region

The family of the woman quoted above is in not only financial but also human poverty. The children in this family do not have access to higher education, which has become an influential factor in the family's migration inclination.

Some interviewees justified their investments in education and health based on the decision by them or their family to seek permanent residence abroad.

I study at the pedagogical university. I will graduate soon and have a degree in song and music education. However, apparently, I will not use my acquired professional skills in Armenia because our family is going to move to my uncle's house in the USA. Eleven years ago, my uncle moved to the USA as a tourist and lived there illegally for several years, but eventually he managed to legalize his residence there. He started working as a construction labourer but later established a wholesale construction materials business and he is currently satisfied with his business. Three years ago, he came back to Armenia for a few months, sold his flat and emigrated from the country with his entire family. My uncle told us about the major obstacles he initially faced abroad, related not only to his illegal residence but

also to the language gap, his unfamiliarity with the local legislation and his lack of a suitable profession. Given the difficult experience of my uncle, our family is very seriously preparing for our departure to the USA: all our family members are strengthening our knowledge of English, I am studying the methodology of teaching music in American music schools, and my parents are making use of preventive medical and dental services.

Female, 22 years old, Yerevan

Clearly, this family is planning to receive returns on investments in human capital abroad. Numerous families demonstrate such behaviour because the return on investments in human capital is significantly higher abroad than it is in Armenia. In this case, the final decision to migrate becomes a factor that promotes investments in human capital.

Therefore, although investments in human capital have a positive impact on Armenia's economy, they might also create adverse risks of emigration. Specifically, in addition to the brain drain that can be observed in international labour markets, the tendency of developed countries to attract a "cheap workforce" from developing countries is evident. It is well known that individuals in developing countries who possess competitive professional skills are frequently offered attractive working and living conditions abroad, causing many young specialists to leave their homelands. The host country thus manages to create an army of immigrants with professional skills without any significant financial investment. These immigrants acquire education and work experience in their homelands but prefer to reap the return on their accumulated human capital in the host country.

After completing her Master's degree in applied mathematics, my daughter started to work at the Yerevan branch of an Armenian-Canadian company specializing in information technologies. She performed her duties perfectly; in addition, she is fluent in French. Top management noticed her at once, and within a year she received an invitation to work in Canada. Of course, my daughter accepted the invitation and currently works as a programmer with a very high salary at the headquarters of the company. She constantly urges me, my husband and my son to make the final decision to move to Canada.

Female, 51 years old, Yerevan

Interrelations between investments in human capital and the migration behaviour of the workforce are also observed with regard to professional training. Professional development courses and continuing education of employees that aim to improve employees' professional skills and to expand their capacities directly contribute to improving human capital, particularly in terms of quality.

In Armenia, we face a situation in which employers are not particularly interested in spending large sums of money to increase the qualification levels of their employees. Compounding this issue is the fact that most employees cannot afford to pay for professional training courses because they earn average or below-average wages and most of their income goes to pay for basic household necessities. As a result, specialists' skills and competences often become outdated. However, neither the employer nor the employee invests the funds necessary to solve this issue, which leads to the risk that work duties will be performed improperly and may even lead to the employee's dismissal. The lack or inefficiency of systems to upgrade professional qualifications not only leads to dissatisfaction among employees but also contributes to the development of emigration inclinations.

I worked as an accountant at the college for approximately 25 years. Although I never made a single mistake in my work, the director fired me because I did not have the skills to implement an accounting system based on international standards of financial accounting. I had asked the director numerous times to send me to training courses but was rejected because money was not allocated for that purpose. I did not earn enough money to pay for training on my own. As a result, a conflict emerged involving the director and me and I was fired. It has already been a year since I became unemployed, and I cannot find a job because of my age; most employers prefer young specialists. If everything stays the same, I will move to Russia and join my son's family there.

Female, 55 years old, Yerevan

As the interviews quoted above show, migration risks related to investment in human capital are not created only at the individual level. Instead, among some groups of youth, migration risks are systematic in nature. One example of a systematic migration risk is the large number of students applying for international scholarships to continue their education abroad. Clearly, students who obtain international scholarships are elite Armenian students, and a substantial portion of them never return home after studying abroad.

Another example of the systematic formation of migration risks is the “green card” lottery, as a result of which more than 2,000 individuals emigrate from Armenia to the USA on an annual basis. Moreover, there is a recent tendency to involve more individuals with competitive specialties and professional skills in the lottery framework. The goal of the host country is obvious: to “import” existing human capital and thereby avoid additional investments.

I graduated from the YSU Department of Physics with a Bachelor’s degree 5 years ago and could not find a job in my specialty. Then, I decided to enter a Master’s program, hoping I would be able to find a job with a Master’s degree. However, the situation remained the same after I graduated from the Master’s program; there was no job in my specialty. To cover my living expenses, I work as a retail specialist in a shop, but I am displeased with my work status. I am aware that a physicist’s work is appropriately valued in the USA. For this reason, I have participated in the green card lottery for the past two years so that I can legally live and work there.

Male, 26 years old, Yerevan

The examples presented above clearly illustrate the negative impact of migration behaviour on the human capital reproduction process in Armenia. However, it must be acknowledged that migration behaviour can have a positive impact on the quality and quantity of human capital in Armenia, which in turn benefits the country’s economy. Such economic benefits are obtained when migrants return and use the experience and skills acquired abroad in the homeland. In this case, we observe the “import” of human capital – as opposed to its “export” – without any investment by the homeland.

Discussions

The number of Armenian expatriates is approximately three times that of their compatriots living in the Armenia. After the independence of Armenia, the diaspora Armenians had an opportunity to start businesses in their homeland. Eduardo Eurnekan, an Argentinian-Armenian businessman who owns 49 large airports abroad, commenced activities in his historic homeland by acquiring the company “Armenia International Airports”. Afterwards, he made significant investments in the development of a wine-making business, establishing dozens of hectares of vineyards. In 2006, he also acquired 95% of the shares of “Converse Bank” CJSC.

Currently, the organizations of this businessman employ foreigners as well as Armenians because Eduardo Eurnekian prefers foreign specialists, particularly in the upper layers of management. Through these investments, numerous new workplaces were opened in the agricultural sector and a number of local specialists received training abroad in an experience exchange. The diaspora businessman has continued to engage in effective activities in his homeland and is presently expanding his scope of activities.

A topic discussed with the experts during roundtable discussions

In the business sectors discussed above, private and public interests are harmonically combined, which contributes to improvements in the quality of human capital in these areas. At the outset, foreign experts and specialists who work in organizations belonging to diaspora Armenian businessmen disseminate their experiences and skills among the locals. Through this process, the locals are exposed to new management cultures and progressive manufacturing technologies, which in turn improves the quality of local labour. In addition, investments by businessmen from the diaspora initiate a process in which jobs are created in various fields. For example, hundreds of hectares of new vineyards have been planted, enabling the individuals in the surrounding villages to find work. In addition, a drip irrigation system was installed in the new vineyards, which requires specialized engineers and technologists in the water supply field.

In parallel, new enterprises and specialized job positions were created in the wine-making industry, in which a large part of the vineyards' production is sold. Meanwhile, increased incomes and technological modernization are observed at all levels of the production chain. Based on an analysis of the above-described developments, experts emphasize the need to attract investments in human capital through systemized immigration flows from abroad.

By making investments and establishing businesses in their homeland, Armenian representatives living abroad bring a unique and systematic character to the overall expanded human capital reproduction process in Armenia. Given the interrelations between investments in human capital and the migration behaviour of the Armenian population, we might observe both positive and negative outcomes. Consequently, the factor analysis of interrelations between the migration behaviour of various target groups and human capital reproduction acquires a special significance and will foster the development of specific mechanisms to organize these processes.

2.4 Factorial analysis of interconnections between migration and human capital reproduction based on target groups

Currently, the regulation of external migration processes is primarily legislative in nature. Nevertheless, there is no doubt that from a strategic point of view, migration can be regulated successfully by exerting an intentional influence on various factors and processes of human capital reproduction. The interconnection between migration and the nature and content of the human capital reproduction process is apparent in the use of the total human capital of the country. Specifically, if there are no conceptual approaches to the effective use of human capital in Armenia, there will be no embedded mechanisms, which means that one of the most important factors in the regulation of external migration processes will be ignored.

Figure 8 in Appendix 1 depicts the typical directions of human capital flows in Armenia. This schematic reflects the inefficient use of human capital in Armenia by showing the unorganized dispersion and outflow of a significant share of the country's human capital. It further shows that the Armenian economy lacks the capacity to fully utilize the available supply of human capital in the country. A significant part of this human capital is simply pumped out of the economic system through increased labour migration and unemployment. The involvement of individuals in work activities for which they are under- or over-qualified also implies migration risks because it indicates the dispersion or highly inefficient use of human capital.

In a developing country, the intensity of the human capital reproduction process is typically constrained to some extent by the country's economic system because the economic structure and development trends of the country do not create significant demand for labour resources with appropriate quantitative and qualitative parameters. Unfortunately, such countries also lack the necessary conditions, resources and opportunities to invest in human capital.

The situation in Armenia is quite different: here, the processes of human capital reproduction and the demand for human capital generated by the economy are not sufficiently consistent. Many experts believe that the total volume of investments in human capital in Armenia continues to outpace the structural and institutional changes in the economy. For that reason, in some segments of Armenia's labour market, we observe a substantial long-term disruption between supply and demand. The inevitable result is a human capital "surplus" and its subsequent outflow abroad.

The Armenian situation thus highlights the importance of developing and implementing methods to regulate the migration flows of individual social groups

that stem from the characteristics of the human capital reproduction system. Based on the various target social groups in Armenia, we believe that it is possible to influence human capital reproduction processes in a manner that will prevent migration risks and promote more efficient use of the country's workforce.

Table 8 in Appendix 2 presents the factors interrelation matrix between human capital reproduction and migration in terms of different social groups. This matrix was prepared by us based on an analysis of the results of the in-depth interviews, focus groups and discussions with different target group representatives. Studies conducted among students reveal that the factor representing the utilization of returnees' skills and capacities is not directly connected to the modification of students' migration behaviour (a_1b_1 factor). The same applies to the a_1b_3 factor: re-training does not significantly affect students' migration inclinations. However, the social networking component of human capital reproduction affects students' decisions to leave the country and either work or study abroad.

In most cases, the youth who are willing to leave the country or have previously decided to migrate refuse to continue their education in their hometowns. Instead, they wish to move abroad and continue their education there. Thus, the professional training component of the human capital reproduction system of Armenia has little impact on the migration inclinations of students, whereas the impact of the social networking component is significant.

I am a fourth-year student in the Bachelor's program of the Department of Economics at YSU's Ijevan Branch. However, it has previously become clear to me that I will not find a job in my specialty in the Tavush Region. I do not want to continue my education in Armenia. I am currently involved in intensive English courses and plan to apply to international education programs and get my Master's degree from any foreign university.

Male, 21 years old, Ijevan

The labour market in Armenia is overwhelmed with certain "elite" specialties – law, economics, management, finance, international relations, Asian studies, etc. – and it has become nearly impossible to find a job in these areas without the support of substantial social ties. Therefore, graduates of middle and high schools and their parents consider it reasonable to pursue further education in pre-vocational and vocational education systems, which are shorter and cheaper than the universities and – most importantly – there is demand for numerous types of vocational specialists (e.g., bakers, crane operator, tractor drivers, plumbers, bricklayers) in the labour market. Thus, the strong link (a_1b_6 factor) in the "education system–

labour market” relation plays a decisive role in the decision whether to enrol in a vocational program, which in turn often diminishes the migration inclinations of youth.

My husband is a builder and has been travelling to Russia for seasonal work for nine years. We manage to cover daily living expenses. We do not consider it necessary to save money for our daughter’s higher education because there is little hope of finding a professional job in our region. Soon, my daughter will get vocational education to learn hairdressing. We have decided to open a hairdresser’s salon in the village, and then my husband will not leave for seasonal work anymore.

Female, 36 years old, Tavush region

Research among the unemployed shows that their migration inclinations are significantly diminished through the process of maintaining and reproducing their human capital when there are real opportunities to re-train and expand their labour skills and competences (a_2b_3 & a_2b_5 factors).

The unemployed typically belong to socially vulnerable classes and are relatively willing to engage in hard physical labour or unappealing work that requires lower qualifications. They consider such employment temporary and are willing to endure it for the sake of earning money, which will help to alleviate the financial and social tensions affecting their families.

Discussions

Beginning in the Soviet era, a tangible proportion of the population in the Tavush Region has traditionally left for seasonal work. However, after the independence of Armenia, the number of men flying to Russia for seasonal construction work became enormous because these men had become unemployed after the liquidation of industrial enterprises and collective farms. Since 2012, rapid development has taken place in Dilijan. In particular, large investments have been made to establish an international graduate school in Dilijan and to construct a financial centre there. We faced a situation in which the construction labour potential of the city population was inadequate to staff such mega projects. As a result, the unemployed people from Dilijan, as well as from nearby villages, gradually became involved in various construction activities after receiving short-term training. They now reject the prospect of leaving for seasonal work, preferring to work in their homeland.

A topic discussed with the experts during roundtable discussions

It might be concluded based on these discussions that the injection of additional labour competencies into unemployed individuals has a significant impact on the migration inclinations and behaviour of this vulnerable group. Specifically, after short-term retraining programs, they managed to find jobs in their homeland and abandoned the idea of working abroad, where they would earn a much higher salary but would also be forced to confront numerous migration risks.

Consequently, short-term training courses that teach specific job skills currently play a significant role for a certain segment of the Armenian labour force in terms of improving the migration situation through human capital reproduction processes. Such training will undoubtedly decrease unemployment by preventing the expansion of emigration risks.

Interviews with long-term migrants and returnees reveal that the acquisition of targeted labour competencies, that is, the retraining of the workforce, plays a decisive role in their resettlement in their homeland, as well as in neutralizing their possible migration inclinations (a_3b_3 & a_3b_5 factors). We should also note that returnees, particularly young returnees, typically possess new types of human capital that were acquired abroad. Many newly acquired competences are of general nature, such as self-organization, commitment, perseverance, tolerance, independent decision-making, consideration of the public interest, in-depth understanding of national values, etc. Human capital qualities acquired abroad not only increase the value of total human capital but also have a noticeable positive impact on the individuals surrounding the returnees.

However, long-term migrants also face specific risk factors. For example, there are inevitable obstacles to the recovery of the social capital such migrants once possessed in their homeland but lost because of emigration. In addition, it may also be difficult to find profitable applications for the labour skills they acquired abroad. For these returnees, the desire to emigrate and work abroad is more likely to return or even intensify (a_3b_1 & a_3b_7 factors).

Certain migrants, regardless of the nature of their work and the amount of their earnings, simply cannot adapt to the foreign value system. As a result, these migrants review their migration inclinations, decide to reject their status as an emigrant, and return to their homeland. The returnees make investments in their re-qualification and professional training in accordance with the requirements of the local labour market, which allows them to make a positive impact on the human capital reproduction process and facilitates their reintegration into the local environment (a_3b_5 factor).

Discussions

Increased fares for public transport became an issue in spring 2013; fares were set to increase by 50% at the beginning of the summer. At that time, young people initiated large-scale demonstrations in the capital to protest the fare increase. Many young people encouraged citizens to use public transport and pay the previous fare of 100 AMD; others initiated daily protests in front of the municipal building. Finally, another group of youth marched along town bus stops and urged private vehicle owners to take passengers who were travelling in the same direction. Ultimately, protest organizers succeeded in defeating the increase in public transport fares; because of them, citizens use public transport with the previous tariff of 100 AMD. Interviews with young people reveal that the organizers of the third group of youth described above were primarily graduates of foreign universities who moved to Armenia after graduation.

A topic discussed with the experts during roundtable discussions

Interviews of participants in the protest against increased public transport fares in Yerevan reveal that the protest they initiated was spontaneous in nature. Notably, many of the young people united by the protest had commendable self-organizational skills. Moreover, young people who had received educations abroad more clearly recognized the public interest at stake with a fare increase and prioritized the public interest over their own personal interests.

Interviews were conducted with seven protest participants. Three of the seven interviewees indicated that they did not use public transport but used their own cars instead. Nevertheless, they could not remain indifferent to the increase in public transportation fares. Thus, these youth made a decision to actively participate in the protest and to fight until their collective goal was achieved, despite the absence of any personal interest in the outcome. When asked whether they would have acted the same way before studying abroad, five of the seven respondents stated that they did not fully realize the prevailing nature of the public interest before studying abroad and two of them found it difficult to give a clear answer.

These events demonstrate that Armenian students who study abroad acquire new attributes as a result of the experience: bold behaviour, self-organization, independent decision-making, service in the public interest, etc. Moreover, by introducing their new outlook on life to Armenian society, these students replenish the country's human and social capital with additional attributes. It is no coincidence that the number of youth involved in the above-described protest increased daily. Ultimately, the protest included young people not only from Yerevan but also from various other regions. Most of the protest participants previously exhibited rather passive behaviour with respect to activities aimed at protecting the public interest.

Thus, returnees, whether they are students or labour migrants, disseminate new ideas, skills and competencies throughout their workplaces and among their relatives and friends. These ideas, skills and competencies previously would have been inaccessible to the individuals who remained in the homeland due to a lack of information and face-to-face communication. However, this benefit provided by returnees does not receive the appropriate attention in the context of considering changes in the quality of human capital. For a country like Armenia, which has a vast diaspora and a huge army of labour migrants, the transfer of experience gained abroad can be a significant factor in the country's socio-economic development.

I worked as a chef in Vladikovkas, Russia for two years. I have returned to my homeland and continue my activities in a restaurant in Yerevan that specializes in Caucasus cuisine. I had no difficulty in finding a job here since I had learnt food preparation subtleties in Vladikovkas that were not known to Armenian cooks. It was not only about the secret recipes but also about providing a unique appearance to the dishes, which was greatly appreciated by the manager of the restaurant in Yerevan.

Male, 32 years old, Yerevan/Vladikovkas

The interviews with returnees reveal that many exhibit two stages of behaviour with respect to the disclosure of migration risks. While they are living and working abroad, they typically avoid disclosing the real risks of migration and instead focus primarily on their achievements, both large and small, when speaking to relatives and friends living in the homeland, omitting the difficulties. However, after the migrants return home, they disclose the challenges endured abroad in an effort to "justify" their return by stressing the real motives for their changed outlook on emigration.

In so doing, returnees involuntarily disseminate information that paints a more realistic picture of migration risks, which can have a serious impact on the decisions of potential migrants by forcing them to reconsider their planned migration behaviour. As a result, the volume of human capital outflow from the country decreases somewhat (a_3b_4 factor).

A few years ago, my brother was unemployed and at that time he left for California, USA with a tourist visa. He lived and worked illegally there for more than one and a half years. He sent money to our family every month and tried to assure us that he was doing quite well. When the illegal status of my brother was discovered by the local authorities, he was deported. Only after his return did he tell us in detail

about the hard work he did, which local people refused to do. Moreover, he was paid half of the normal salary for that work. He also had serious problems with his roommates; these were not just minor day-to-day problems but also bore national and cultural characteristics. After the return of my brother, most of our friends abandoned the idea of leaving for the USA permanently.

Female, 21 years old, Yerevan

Labour migration also creates a serious risk of family destruction. A labour migrant living abroad, particularly one who has achieved a certain measure of success, is frequently unwilling to return home; he might be attracted to the higher income, improved work environment, superior living conditions, broader opportunities to realize his individual human capital or other features of living abroad. However, the family of the emigrant may not be willing or able to leave the country to reunite with their emigrant family member. This situation involves not only financial issues but also legal, moral and socio-psychological complexities. Regardless of the reasons, the disruption of families has a severe negative impact on the physical and psychological development of children. In particular, it greatly complicates the issues of their education, upbringing and healthcare.

Discussions

G.M., a young officer in one of the international mobile operators in Armenia, discovered during a workshop conducted abroad that the remuneration for the same work he did in Armenia was much higher abroad. He managed to sign an employment contract with the company to work abroad. G.M.'s work overseas was highly attractive not only in terms of salary but also in terms of experience exchange, career growth and socio-cultural environment. G.M.'s young wife was against her husband's travelling abroad because he earned an acceptable income in Yerevan, had established solid career connections and enjoyed the respect of the community. However, the primary reason for the wife's protest was of a family nature – she did not want to live apart from her husband. However, her husband assured her that the separation was temporary and that after his return, he would be promoted and receive an increase in salary. Nonetheless, although G.M. was abroad on temporary basis, he extended the contract with the company and prolonged his overseas employment. After two years of living abroad, G.M. no longer wishes to return to his homeland, even at the cost of separation from his family. His wife is sure that he prefers to establish roots abroad and create a new family there rather than reunite with his existing family.

A topic discussed with the experts during roundtable discussions

The expert analysis of the above-described situation indicates that labour migration brought the young family to the brink of collapse; over time and space, their respective perceptions of the value of family unity diverged. After living and working abroad for a long period of time, the young husband ultimately found a “temporary” partner. Over time, this relationship gained a more regular and permanent nature and eventually became serious, leading the man towards a new marriage. These changes did not go unnoticed by his wife at home; she sensed subtle behavioural changes in her husband towards his family during conversations by phone and Skype. Naturally, this new behaviour influenced the wife’s mental state and brought frigidity into the marriage.

Thus, labour migration to some extent leads to the loss of family warmth and can contribute to the destruction of families, particularly young families. The social and national values system is perceived in totally new ways; in Armenian society, stereotypes relating to family unity, the family “breadwinner” and family upbringing, among others, are gradually collapsing, which of course influences the nature and content of human capital reproduction. Thus, experts indicate that labour migration in a society can promote not only the destruction of families and outflow of human capital but also the devastation of developed social capital (a_4b_7 factor).

In the example presented above, the young husband had already established strong social ties in his homeland; employers had noticed him, which had a positive influence on his being sent abroad for long-term workshop. He had garnered respect and trust among his partners and was considered a developing and promising professional. However, after permanent residence abroad, the social capital that G.M. had acquired in his homeland has almost entirely vanished. Instead, he is trying to create new social ties, find his place and become established in the new foreign environment.

Many labour migrants, while undergoing the hardships of labour migration, attempt to make investments in the expansion of their professional skills and competencies so that they can find profitable employment when they return to their homeland. In the context of human capital reproduction and the migration behaviour of a population, the financial resources and competencies that are acquired abroad can prevent further increases in migration flows if the necessary conditions are created (a_4b_5 factor).

My oldest son left for Russia six years ago and took a job driving a concrete mixer in Kazan city. In 2009, the construction industry slowed down; he lost his job and stopped sending money to the family for approximately 11 months. Our family’s financial situation was not promising. We decided with my husband to send our youngest son to

join his brother because the latter had found a job on a cattle farm that had a need for additional labourers. Currently, both of my sons are in Russia and will come back to their homeland after saving some money, so that they can establish their own cattle farm in our village.

Female, 52 years old, Tavush region

Certain labour migrants who left their families in the homeland and have become eager to reunite with them after establishing permanent residence abroad employ strictly rational and “cunning” behaviour, which can be summarized as follows: educate the children at home, but reap the expected return on education abroad. In this context, although the continuous reduction of the number of free educational systems by the government exacerbates the struggle of low-income families with students, it also creates a rationale for such families to reconsider their migration behaviour (a_4b_2 factor) if they have expectations of receiving a free education in Armenia and then emigrating (a_4b_2 factor).

My husband and son have gone to the Krasnoyarsk region in Russia to work. My daughter and I stayed at home. My daughter will finish high school with distinction this year. She is going to enter medical college, hopefully for free. We are very willing to leave Armenia and unite with our family. However, my husband urges me to wait several years, until my daughter graduates from college because the education of foreigners in Russia is on a tuition basis and rather expensive.

Female, 41 years old, Yerevan

Latest research conducted in Armenia among the employed population shows that migration risks are triggered not only because of insufficient income or living conditions but also because of the loss of social capital. The effective use of human capital decreases when there is inconsistency in group behavioural norms, breaches of mutual trust among individuals or discordant “networking” activities.

For example, the interviews indicate that the loss of mutual trust, which is an important component of social capital, increases the migration level even when there is a rather large supply of skilled human capital. Conversely, an atmosphere of full mutual trust provides certain assurances regarding the natural reproduction of human capital, which becomes a powerful mechanism in the prevention of migration (a_5b_7 factor).

My brother worked as a finance specialist at an Armenian commercial bank and was respected among both relatives and colleagues. Three years ago, based on an unintentional fraud in banking transactions, he was convicted and sentenced. It has been a year since he was released but he cannot find a job in his specialty, although he is a good finance specialist. Society seems to have rejected him. The majority of his friends ended their relationships with him; the rest are either unwilling or unable to help him. With great difficulty, my brother found a dispatcher's job in a house items store. He is displeased with his status: he is already sure that he has lost his position in society and wants to emigrate.

Female, 22 years old, Yerevan

The aforementioned interview was among those conducted with potential migrants and reflects the irreparable consequences of the interviewee's brother's loss of social capital. After his conviction, he can no longer engage in pro-social behaviour because he has lost the trust of his colleagues. A person who has been convicted of a crime and been punished loses the "warm glow" that he once enjoyed in both business and social environments. In Armenia, society typically changes the norms of interrelations with former prisoners, which means that a convicted person often loses his social capital, which in turn encourages him to leave the country. Our analysis of numerous interviews permits the conclusion that the shortage of social capital or its loss directly contributes to the proliferation of emigration risks in Armenia.

Two years ago, my daughter received her Bachelor's degree from the Department of Economics at YSU's Ijevan Branch. She proved to be a good specialist during her internship in a commercial bank and was sure that she would find a job easily. However, after graduation from the university, she could not find a job in her specialty. She actively applied for jobs in response to job vacancy announcements; however, employers did not even invite her to interviews. Instead, her friend, who was not particularly bright in her professional knowledge and skills, very easily found a job in a bank. Most likely, her friend's father played the deciding role in that situation because he is a general accountant and has strong ties in the financial field. My daughter was greatly disappointed but did not give up. She participated in international contests, won and left Armenia.

Male, 54 years old, Ijevan city

Discussions

In one of the communities of the Tavush region, a businessman from Yerevan decided to build a mini hydroelectric power station on the fast flowing mountain river. Central and local authorities permitted the construction of the hydropower station, but the villagers were unhappy with that decision because they believed that the hydropower station would significantly reduce the volume of irrigation water from the river. The founder of the hydropower station – who was, by the way, the village mayor’s son-in-law – was not worried about a deficiency in the irrigation water because he had his own interests, i.e., to produce and sell electricity. However, his interests interfered with those of the local people who were involved in agricultural activities. A large number of daily protests, group discussions and arguments from the locals stopped construction of the hydropower station and ultimately forced authorities to cancel the decision to operate a mini hydropower station on the river.

A topic discussed with the experts during roundtable discussions

The expert analysis of the above-described situation indicates that in practice, possession of “working” social capital does not require strong ties with high-ranking officials or involvement in on-line social networks, such as, Facebook, Twitter, etc. Rather, the public interest can play an important role in the formation of social capital because it unites the goals of individuals. In this example, the daily gathering of residents at the village centre strengthened the relationships among them that were based on common interests, mutual trust and awareness of the need for collective action. By establishing these social ties, multiple individual interests were transformed into one public interest.

Through this process, the existing supply of human capital was enriched with new qualitative characteristics, such as self-organization, self-management, courage, collective decision-making abilities, skills in joint action, etc. As a result, from a community perspective, social capital is already being reproduced at a new qualitative level because every village resident is gaining more confidence not only in his own activities but also in the collective behaviour of the community. An Armenian proverb is particularly apt in this case: “United we are a rock, divided we are sand”. This centuries-old idea is appropriately applied to fixed collective ties based on common interests, that is, to the existence of social capital.

Eight years ago, the difficult social situation of my large family convinced me to apply for the refugee temporary admission program, and my family and I left for Europe. I am a teacher by profession, and I had worked as a foreign language teacher for many years at school before I left

the country, thereby establishing strong business ties. My wife – who, by the way, is also a teacher – and I have returned to Armenia and left our four children abroad. I am now convinced that it is no longer possible to restore the relationships I once had in the educational environment, and it is also very difficult to find a job in one of the schools in the capital. My wife and I are attempting to open a private school for pre-school children. I am trying to use my personal ties in Europe for this purpose; my European colleagues have promised to provide financial assistance through foreign donor organizations. The process has launched and I am currently in negotiations with local authorities to establish the private school.

Male, 58 years old, Yerevan

The migration behaviour of this interviewee has had bilateral consequences. Because of his long period abroad, he lost the social capital he once had in Armenia, but he has acquired new social capital abroad, which he is trying to exploit as he re-enters his homeland. Thus, the loss of social capital due to emigration is somewhat compensated by the alternative capital “imported” by returnees (a_6b_7 factor).

CONCLUSIONS

The following general conclusion is drawn from the theoretical and practical analysis conducted within the framework of this research: in countries with migration traditions similar to those in the RA, it is time to develop a methodologically grounded, solid system of scientific criteria and specific indicators that will reflect the actual interconnections between human capital reproduction and migration risks. Of course, this is a subject for future research.

In Armenia, such comprehensive research should contribute to the development and implementation of a relatively long-term and effective migration policy, a policy that will enable the country both to benefit from the advantages of labour migration and to compensate its deficiencies in human capital accumulation and reproduction. Based on the research regarding the multilayer interconnections between migration and human capital reproduction, we have drawn numerous conclusions and make multiple recommendations for regulating the migration flows in Armenia through targeted reproduction of human capital. The basic guidelines are presented below.

Risks related to social isolation, legal insecurity, financial vulnerability, age and gender discrimination, unemployment, etc., which affect a significant portion of the population in Armenia by yielding low levels of return on human capital, lead to stronger migration inclinations – or even mass emigration inclinations – which is the most negative form of migration. The research shows that the impact of human capital reproduction factors differs significantly among various social groups. The motives for migration behaviour that are linked to human capital reproduction also differ among these groups. Notably, there is a more tangible impact on human capital reproduction processes at the macro and mezzo levels than at the micro level.

The lack of a clear strategy and defined priorities for human capital investment in Armenia has created an intolerable imbalance in human capital investments among different social groups. Indeed, Armenia has failed to allocate sufficient resources for the social protection of disabled individuals, the unemployed and pensioners. The lack of investment in these areas affects the migratory behaviour of the population by promoting the creation and propagation of migration inclinations. There is also an imbalance in the structure and direction of public and private investments in the higher education system. Certain specialties in higher education have become “elite”, which justifiably generates discontent among broad segments of the population and fosters emigration inclinations among them. There are striking manifestations of social injustice not only in the field of tuition-based education but also in the fields of private healthcare and cultural, household and other service sectors. Such services are inaccessible to the bulk of the population living along the border and in mountainous areas.

Armenia offers rather limited opportunities for the realization of skills and competencies of its quality workforce, which creates considerable emigration inclinations among the population, particularly among the youth. There are no mechanisms stipulated by Armenian legislation or other regulatory acts to restrict employers from hiring highly qualified professionals for low-paying jobs. The inefficient use of qualified human capital has a negative impact on the migration behaviour of the population. Urban residents who perform work for which they are over-qualified are able to resolve certain social issues because they have jobs; however, they frequently decide to emigrate for moral-psychological reasons. Specifically, they find it more tolerable to perform such menial work abroad, out of the sight of their relatives and friends and outside of their homeland.

Rural inhabitants go abroad primarily as a solution for the issues they are leaving and not because they fear that they will not realize their professional ambitions in their homeland. In other words, the economic factor in migration prevails among rural residents. For this reason, we face a rather low ratio of returnees among urban inhabitants whereas returns among rural residents are frequently observed.

Armenia lacks a consistent balance between the human capital reproduction system and the labour demands of the economy; the growth of investments in human capital significantly outpaces the economic development rates. Given the relative surplus of human capital, there is a significant gap between labour supply and demand in various segments of the labour market. In this situation, the emigration of labour resources, particularly young people, is inevitable. In this context, identifying and implementing migration flow settlements through targeted human capital reproduction should be highlighted. In the 1990s and 2000s, the majority of emigrants were from low-income and poor families. Today, however, there are migration risks among successful businessmen because there are inadequate guarantees for the protection of their capital and businesses; hence, these businessmen are planning to move abroad to conduct business there. This type of migration behaviour leads to the outflow of not only physical capital but also human capital.

Interviews and focus group discussions with students reveal that during their years of higher education, they gradually develop pessimistic expectations regarding their future and eventually acquire migration inclinations.

Among returnees, the moral-psychological factors of migration prevail over the economic factors. Compared with seasonal workers, returnees take migration risks more seriously and justify their decisions to return to the homeland based on the considerable obstacles faced by emigrants abroad.

Migration flows are unique “carriers” of social capital because changes in the developed social capital are reflected through these flows. By leaving their

homeland, emigrants effectively destroy the social capital they have accumulated up to that time. However, returnees endeavour to use the experience and social connections acquired abroad in their homeland, thereby re-establishing their positions in society. The effectiveness of human capital use decreases when there is inconsistency among group behavioural norms, the mutual trust among individuals is breached, or discordant “networking” activities are undertaken. In human capital reproduction processes, the stability of behavioural norms builds confidence, thereby ensuring strong tools not only for the reproduction of social capital but also for the prevention of emigration.

By contrast, insufficient social capital can promote increases in migration inclinations even when there are reserves of high-quality human capital, if such capital is not used in a targeted way. The effectiveness of investments in human capital and the migration behaviour of the workforce are strongly interconnected. In the field of professional training, enhancing the skills and competencies of employees has a direct positive impact on the natural reproduction of human capital and on the expected return. Armenia currently faces a situation in which employers are not particularly interested in spending large sums of money to increase the qualifications of their employees. The employees, in turn, are unable to fund their own re-qualification because they receive relatively low wages that are generally consumed by routine household expenditures.

Graduates of middle and high schools and their parents consider it reasonable to continue students’ education in pre-vocational and vocational education systems. Such systems are short and cheaper than universities and – most importantly – they create greater opportunities for graduates to find jobs. Thus, the strong relation between “education system” and “labour market” plays a decisive role in the natural and consistent reproduction process of human capital.

The research among the unemployed indicates that their migration inclinations are significantly weakened if they develop additional labour skills and competences. Short-term, targeted training courses that teach specific job skills play a significant role in the maintenance and reproduction of the human capital of the unemployed, decreasing the level of unemployment and preventing the creation of migration risks.

The following generalizations and recommendations drawn from our analysis of the interrelations between migration and human capital reproduction may be useful for establishing an effective system to prevent and manage migration risks in Armenia.

- Armenia must develop a national migration policy concept that clearly presents the real interrelations between human capital reproduction and migration risks. The concept must clarify the scope of measures and mechanisms that will both restrict the outflow of the country’s human capital

and promote human capital “imports”. With respect to the latter, utilizing the advanced experience acquired by the returnees while abroad should be emphasized, in particular.

- In Armenia, there is a breach of both horizontal and vertical balance in the process to reproduce the individual components of human capital, which may cause constant and serious risks of migration. The necessary prerequisites for the consistency/harmonization of the components of human capital may be as follows: continuing education, training programs organized by employers, coherence between the labour market and academic programs, and social programs co-financed by the public and private sectors.
- The overall efficiency of investments in the human capital reproduction process is low. There is an extremely low level of return on human capital, and the distribution of investments in the individual components of human capital is uneven. As the efficiency of investments in human capital decreases, the migration inclinations of the population increase. Human capital reproduction can be regulated in different target social groups through a mechanism that prevents migration risks and increases the effectiveness of the use of human capital. In this regard, the centre of gravity of tertiary education must be transferred from universities, colleges and vocational schools to short-term retraining courses for targeted social groups that emphasize and apply the new ideas and technologies acquired by returnees while abroad.
- The trilateral interconnection between migration, human capital and social capital should be used to promote the effective management of migration flows. For this purpose, we recommend correcting the imbalance between migration flows and human capital reproduction by means of the targeted use of social capital. In this regard, there is significant emphasis on the establishment of a civil society institute in Armenia and on the values system it should pursue by creating an atmosphere of mutual trust, ascribing priority to the public interest, demonstrating the self-organizational properties of individuals and orienting individuals towards the pursuit of group interests. As a result of active cooperation among all public management units (such as the state, public organizations, mass media and local authorities), the restoration and maintenance of a publicly acceptable level of social justice will play a regulatory role not only in the effective management of migration flows but also in the harmonization/consistency of the human capital reproduction process.

The importance of a gender policy has been emphasized, particularly in the context of establishing an effective system of risk management, both in scientific publications and public discourse. However, given its current setting, this issue is in the domain of gender inequality as a manifestation of an emotional response

to social injustice or in the domain of feminism but not in the field of rational targeting. In this case, neither gender policy implementation mechanisms nor their parameters are specified. Nevertheless, broadly speaking, the country needs a gender policy and should promote the ideological and worldview orientations of its gender groups, including preparing and making decisions regarding migration behaviour.

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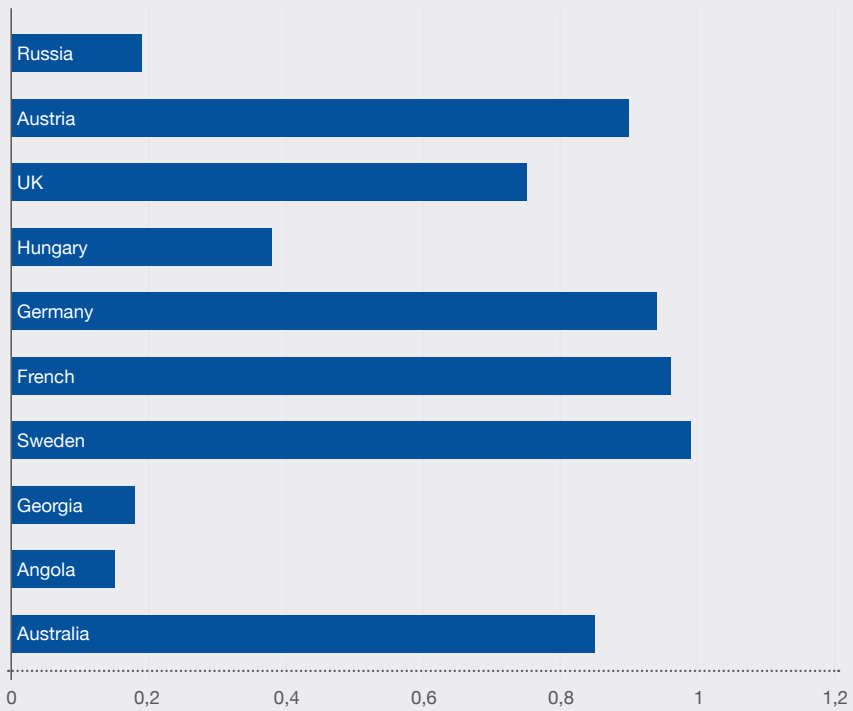
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APPENDIX 1: **DIAGRAMS**

Diagram 1. **Indexes of the proportionate reproduction of human capital**¹.



¹ Source: Galiev E., Sh., Human Capital Reproduction in Economic Cycle Range, PhD Thesis, Kazan, 2009

Diagram 2a. The interrelation of the value of human capital and net migration with a balance between transfers and investments.

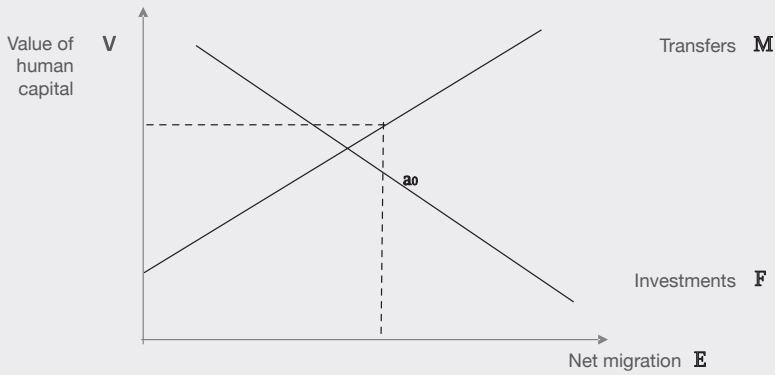


Diagram 2b. The impact of reduced transfers on the value of human capital and on net migration with respect to sustainable investments.

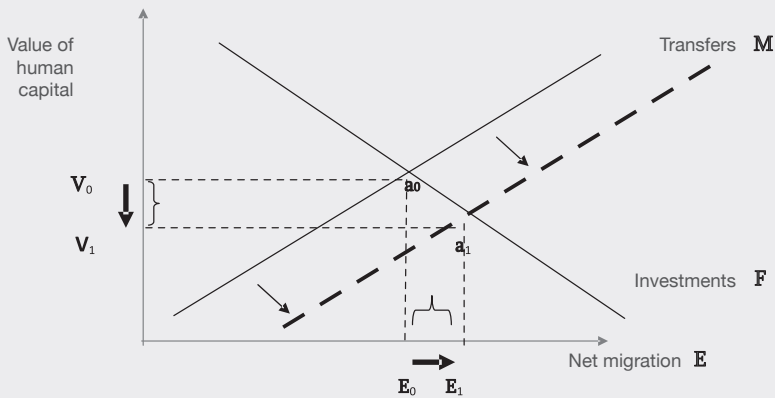


Diagram 2c. The impact of reduced domestic investments on human capital value and on net migration in the case of sustainable transfers.

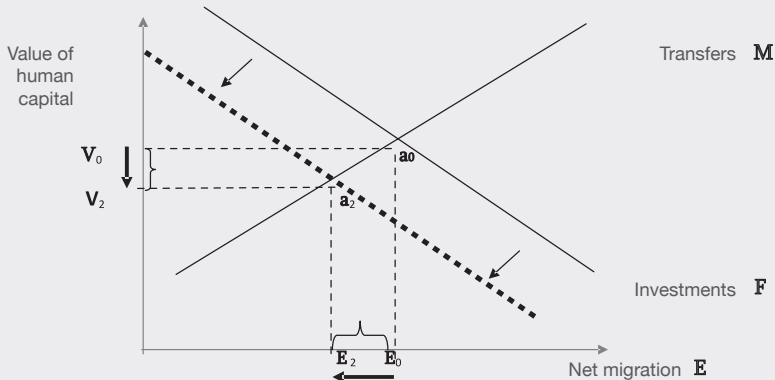


Diagram 3. **Human Capital Index Structural Performance in Armenia (2013)².**

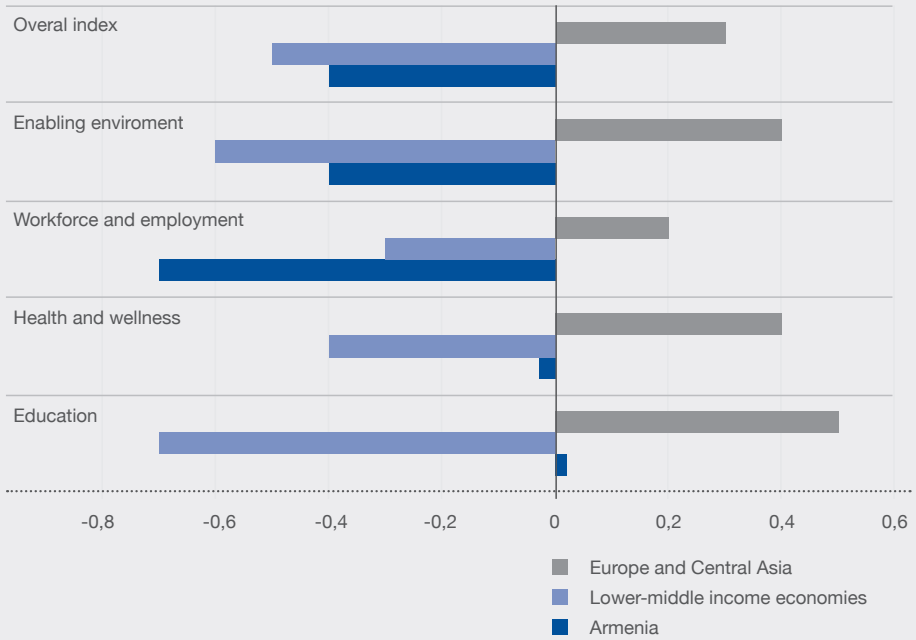
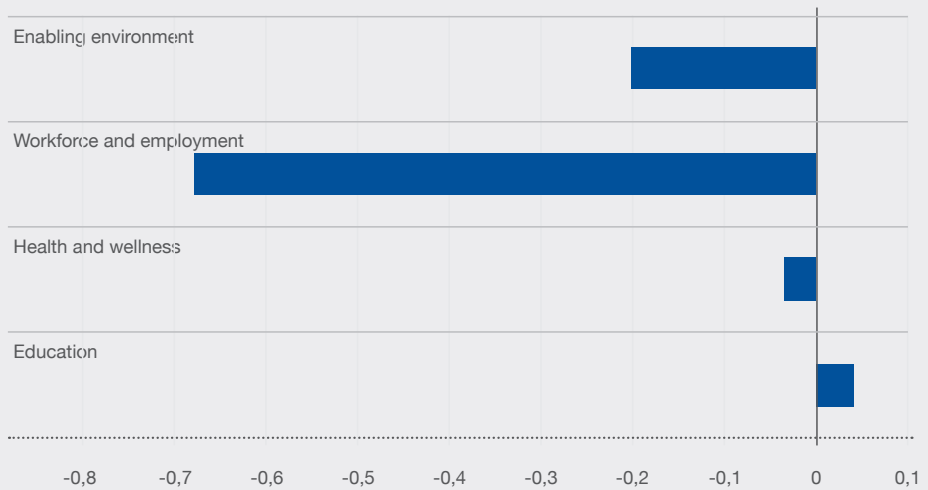


Diagram 4. **Structural comparative description of the human capital index based on the world ranking scale, 2013³.**



² The Human Capital Report, 2013, World Economic Forum, part 2, page 64.

³ The Human Capital Report, 2013, World Economic Forum, part 2, page 63.

Diagram 5. "Migration - social capital - human capital" trilateral interrelation.

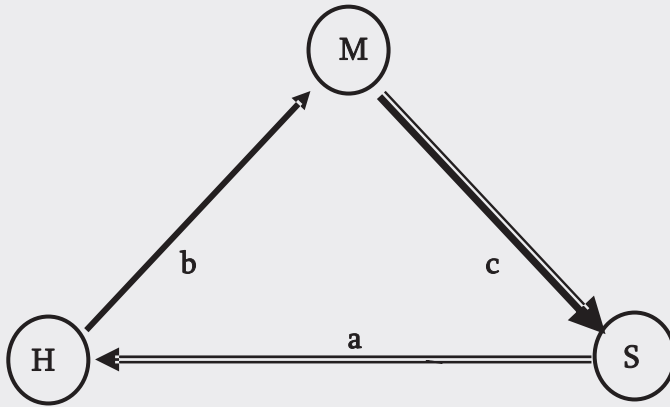


Diagram 6. The positive and negative impacts of migration on social and human capital.

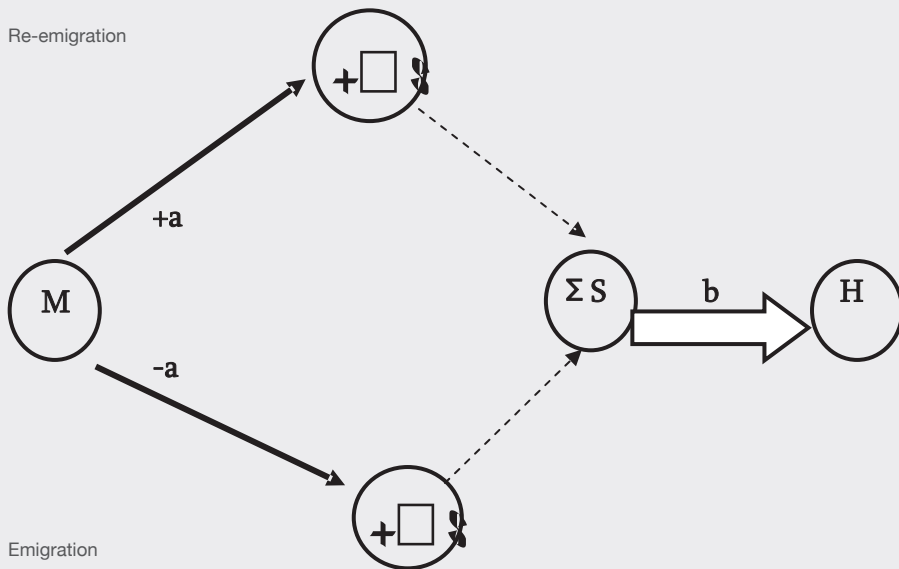


Diagram 7a. **Reasons for Migration Among Potential Emigrants.**

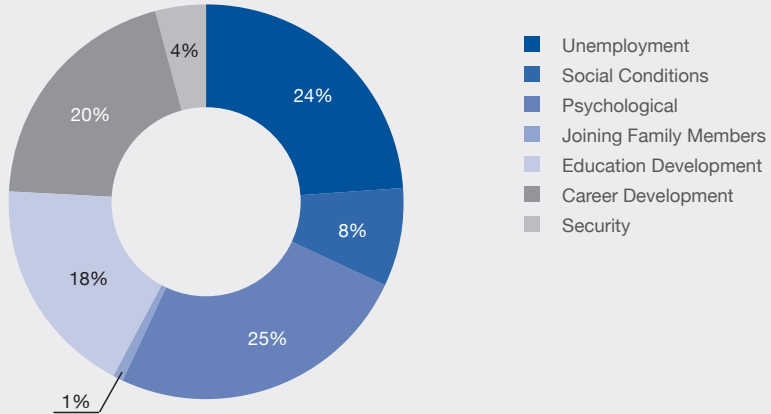


Diagram 7b. **Reasons for Migration among emigrants.**

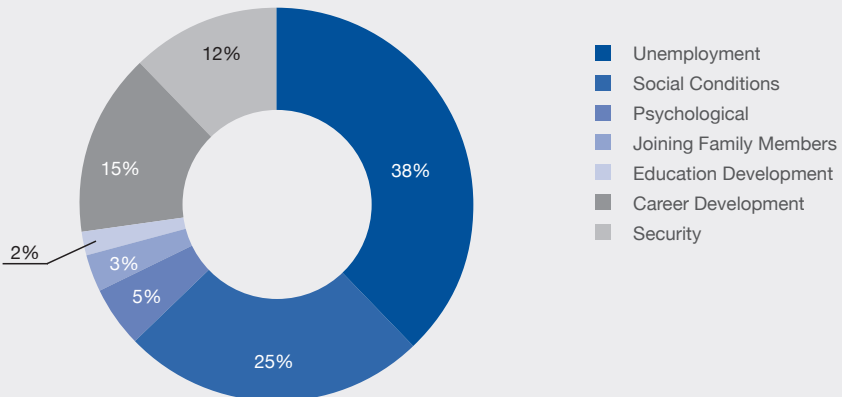
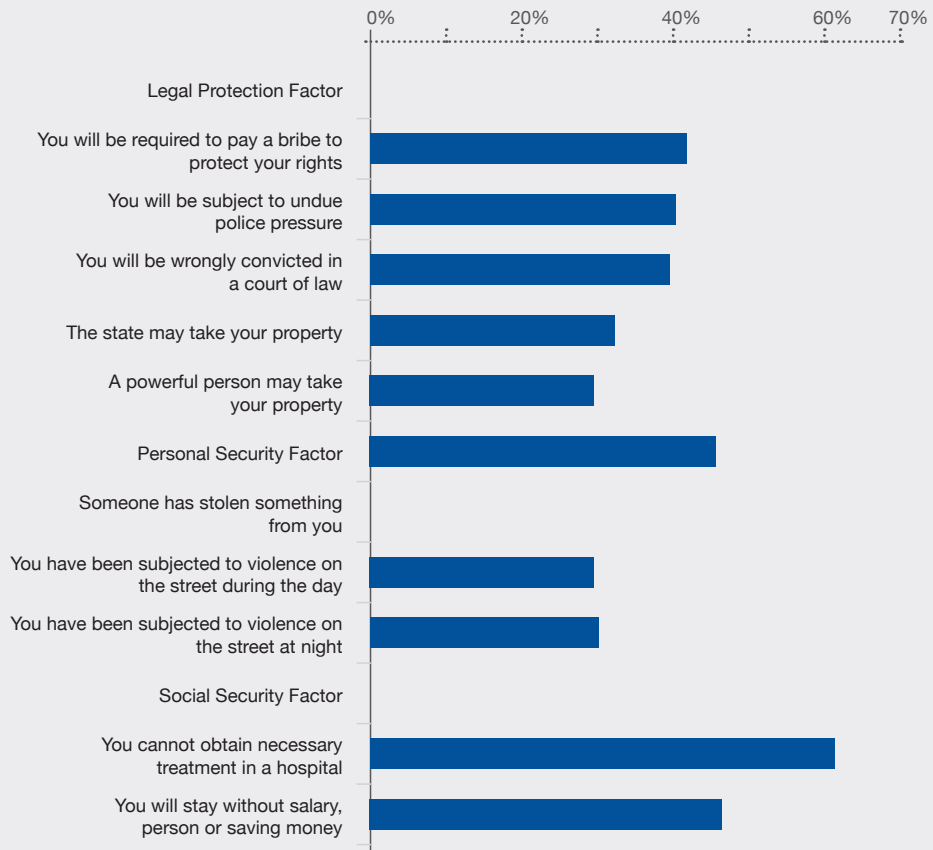
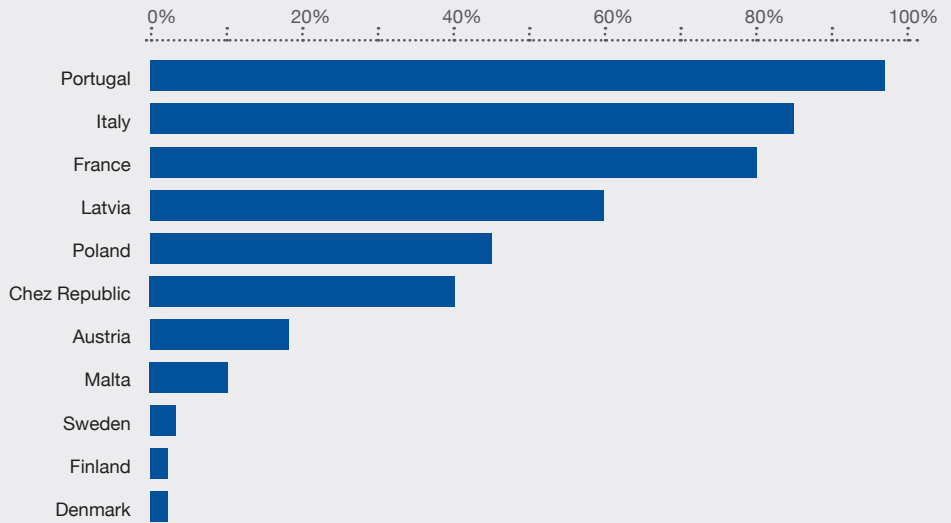


Diagram 8. “How likely is the following... to occur?” survey results in RA⁴.



⁴ The European Higher Education Area in 2012: Bologna Process. Implementation Report, page 95. <http://eacea.ec.europa.eu/education/eurydice>

Diagram 9. **The ratio of Bachelor's degree students paying for education in the 2010/2011 academic year (%).**



APPENDIX 2: **TABLES**

Table 1. Human capital index ranking scale for 2012⁵

Countries	General index		Education		Healthcare and welfare		Labour and working ability		Opportunities environment	
	rank	point	rank	point	rank	point	rank	point	rank	point
Switzerland	1	1.455	4	1.313	1	0.977	1	1.736	2	1.793
Finland	2	1.406	1	1.601	9	0.844	3	1.250	1	1.926
Singapore	3	1.232	3	1.348	13	0.762	2	1.345	5	1.471
Holland	4	1.161	7	1.106	4	0.901	8	1.150	4	1.484
Sweden	5	1.111	14	0.977	2	0.960	6	1.154	10	1.351
Germany	6	1.109	19	0.888	8	0.877	9	1.149	3	1.522
Norway	7	1.104	15	0.970	6	0.890	5	1.182	8	1.373
UK	8	1.042	10	1.031	17	0.682	10	1.072	7	1.384
Denmark	9	1.024	18	0.891	3	0.943	12	0.932	11	1.330
Canada	10	0.987	2	1.355	20	0.548	15	0.875	17	1.168
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Armenia	73	-0.218	60	0.042	71	-0.035	113	-0.678	64	-0.201

⁵ Source: The Human Capital Report, 2013, World Economic Forum, part 1, page 12.

Table 2. **The officially registered unemployed in the real sector of the Armenian economy in March 2014⁶**

Groups of population according to different characteristics	Total (in 1000s)	% to total number	amongst			
			women (in 1000s)	% to total number of women	Rural residents (in 1000s)	% to total number of rural residents
Total	60.4	100	43.8	100	8.6	100
Insurance experience						
< 1	4.1	6.8	2.7	6.1	0.5	6.3
1 >	35.5	60.3	26.5	60.5	4.4	50.8
Without experience	19.9	32.9	14.6	33.4	3.7	42.9
Age						
16-18	0.4	0.7	0.3	0.6	0.1	0.9
19-24	6.1	10.0	4.4	9.9	1.1	12.6
25-30	8.6	14.3	6.5	14.8	1.3	15.4
31-34	6.9	11.4	4.8	108	0.9	10.4
35-45	15.3	25.3	10.9	24.9	2.1	24.0
46-54	13.2	21.8	9.6	21.9	1.9	21.6
55 and above	10.0	16.5	7.5	17.0	1.3	15.1
Education background						
Higher	9.1	15.1	6.8	15.5	0.8	9.0
Incomplete tertiary	0.3	0.4	0.2	0.5	0	0.2
Vocational	13.4	22.1	10.8	24.6	1.5	16.9
Preliminary professional	4.2	6.9	2.8	6.4	0.4	4.8
Special general	0.3	0.5	0.2	0.4	0	0
General basic	4.1	6.8	2.6	6.0	1.0	11.2
Primary	0.4	0.6	0.2	0.5	0.1	1.6

⁶ Source: Social-economic situation in Armenia for January-March 2014, p. 104, RA National Statistical Service.

Table 3. **Classification of the forms of human capital reproduction**

Classification criterion	Forms of human capital reproduction
Reproduction enrolment	<ul style="list-style-type: none"> - Simple - Expanded
Reproduction level	<ul style="list-style-type: none"> - Mega-economic - Macro-economic - Mezzo-economic - Micro-economic - Individual
Reproduction field	<ul style="list-style-type: none"> - Real sector of the economy - Commercial services - Public services
Reproduction target group	<ul style="list-style-type: none"> - Human capital reproduction among the employed population - Human capital reproduction among the unemployed population - Human capital reproduction among those incapable of working
Quality aspects of reproduction	<ul style="list-style-type: none"> - Quantitative changes in human capital - Qualitative changes in human capital - “Innovative” changes in human capital
Financial aspects of reproduction	<ul style="list-style-type: none"> - Public funding - Funding from organizations and employers - Funding from individuals - “Blended” funding

Table 4. **The impact of migration on human capital reproduction**

POSITIVE IMPACT	NEGATIVE IMPACT
<p>Homeland of emigrants</p> <ul style="list-style-type: none"> - Dissemination of new working skills and competences by the returnees - Removal of "excess manpower" from the domestic market - Reduced level of unemployment - The flow of money transfers is directed into capital investments - Disclosure of migration risks - Improved quality of capital 	<p>Homeland of emigrants</p> <ul style="list-style-type: none"> - Squandered human capital - Squandered social capital - Decreased return on investments in human capital - "Brain drain" and outflow of qualified specialists - Destabilized families
<p>Host country</p> <ul style="list-style-type: none"> - Qualified labour for relatively low remuneration - Performance of strenuous and dangerous work that natives are reluctant to perform - Automatic increase in human capital resources. 	<p>Host country</p> <ul style="list-style-type: none"> - Decreased demand for labour and risk of increased unemployment - Implementation of labour for which emigrants are over-qualified - Use of human capital quality reproduction resources to train emigrants

Table 5. Net migration in Armenia in 2000-2013 (thousands)⁷

Years	Arrivals	Departures	Net Migration
2000	399.7	457.2	-57.5
2001	508.2	568.6	-60.4
2002	590.7	593.4	-2.7
2003	618.3	628.5	-10.2
2004	739.9	737.8	2.1
2005	845.8	833.3	12.5
2006	983.7	962	21.7
2007	1293.6	12.96.8	-3.2
2008	1397.2	14.20.2	-23
2009	1432	1457	-25
2010	1754	1800	-46
2011	19.45.1	1989	-43.9
2012	21.91.9	22.34.7	-42.8
2013	24.76.4	25.07.5	-311
Total	171.765	174.860	-3095

⁷ Source: The State Migration Service of the Ministry of Territorial Administration in RA, www.smsta.am.

Table 6. The dynamics of money transfer inflow for 2005-2013 (transfers addressed to physical persons for non-commercial purposes through Armenian banking system) based on data provided by the Central Bank of Armenia.

Years	Volume of transfer inflow (thousands USD)	Increase / decrease compared with previous year (%)
2005	752 821	116.9
2006	960 917	127.6
2007	1 319 840	137.3
2008	1 635 307	123.9
2009	1 124 119	68.7
2010	1 293 736	115.1
2011	1 546 959	119.6
2012	1 687 263	109.1
2013	1 869 788	110.8
Total	12 190 390	X

Table 7. Expenditures of State Budget of RA by Functional Classification (mln drams)⁸

Nature of Function	2009	2010	2011	2012	2013
General public services	113.006	143.280	154.107.9	160. 488.8	188. 137.5
Defence	130.211	147.555	145.491.0	152. 766.8	182.019.0
Security and judicial activities	69.464	67.443	72.517.1	76.668.6	91. 399.6
Economic relations	133.835	112.452	83.955.7	71.086.7	128.316.1
Preservation of the environment	3913	4926	6630.4	7032.2	4601.1
Housing	21.106	42.818	43.848.5	14.303.5	21.727.7
Health	56.169	56.131	63.312.4	64.498.9	64.355.3
Culture, sport and religion	16.298	16.103	17.581.4	22.821.8	18.644.3
Education	107.529	97.790	106.085.0	102.783.5	103.094.7
Social Security	243.634	244.168	256.176.3	291.731.6	297.376.9
Reserves	33.943	21.649	36.803.5	41.919.8	43.217.3

⁸ Source: Armenian Statistical Service, Yearbook, 2014, page 386.

Table 8. The interrelation factors matrix between migration and human capital reproduction

Factors Target groups	Application of skills of returnees b_1	Organization of life-long learning b_2	Re-qualification trainings b_3	Coverage of migration risks b_4	Acquisition of targeted skills b_5	Education- labour market link b_6	Provision of return on social capital b_7
Students a_1	F	C ↓	F ↑	E ↑	D ↑	C ↑	C ↓
Unemployed a_2	E ↑	D ↑	C ↑	E ↑	C ↑	D ↓	F
Returnees a_3	C ↓	D ↑	C ↑	D ↑	C ↑	E ↓	C ↓
Labour migrants a_4	E ↑	D ↓	E ↑	D ↑	D ↑	F	C ↓
Employed a_5	F	D ↑	C ↑	E ↑	E ↑	F	C ↓
Rehabitants a_6	D ↑	F	C ↑	E ↑	C ↑	F	E ↑

The level of connection with migration behaviour:

C – high, D – medium, E- low, F- zero

↑ preventing migration

↓ promoting migration.

APPENDIX 3: QUESTIONNAIRES USED

Questionnaire for the potential migrants

1. *Why are you planning to leave?*
2. *With whom are you leaving?*
3. *Do you intend to find a job in your specialty?*
4. *How do you foresee life in a new place?*
5. *Are there any difficulties related to living in a new place? What type? What are the positive and negative aspects of leaving Armenia to live in another country?*
6. *Do you intend to leave for a particular country? Why? Do you have relatives or colleagues there?*
7. *Did (will) you make the decision to leave on your own, or did (will) your decision depend on the opinions of your parents, children, husband and/or wife?*
8. *For what period of time do you plan to leave?*
9. *Is it accurate to say that finding a job after graduation is another reason for you to leave?*
10. *How do you support yourself here? What is your financial situation/are you employed? What is your income? Do your family members have jobs or any other sources of income? Do you have a house, apartment and/or land? Do your children work or study?*
11. *What is motivating you to emigrate? Are there any specific reasons?*
12. *If your reasons for leaving were resolved, would you stay in Armenia? What would convince you to stay in Armenia (e.g., salary, status, specialty, services, education, healthcare system)?*
13. *What is your attitude towards the Armenian environment?*
14. *Do you work in your specialty?*
15. *Would you like to continue your education, embark on a new profession, or find a job in your profession with a higher salary? Would any of those things cause you to consider leaving your homeland?*
16. *If you or your family leave Armenia, who will work here? Given that you have acquired your education and specialty in Armenia, is it not possible to apply your skills here? What would you need to do that - the support of the state, relatives, friends, and neighbours?*

Questionnaire for the returnees

1. Why did you leave?
2. With whom did you leave?
3. What type of work did you perform (was it in your specialty)? How did you support yourself in the new place?
4. How long did you live outside of Armenia?
5. What did you like/dislike abroad?
6. Are you happy that you left Armenia?
7. What brought you back to Armenia?
8. For how long are you back? How frequently do you come back to your homeland?
9. Did you return alone or with your family?
10. In your opinion, what has changed here since your last visit? If you have noticed any changes, please, specify what they are and why?
11. Did you face any difficulties in the new place? If yes, please specify.
12. Did you obtain citizenship in the new place, or only permission to live and work there?
13. Who typically helped you to solve various issues encountered abroad (friends, relatives, local population, the legal system, RA state bodies)?
14. Did you leave for a particular country? (Why that country/place in particular? Do you have relatives, friends or work colleagues there? Did anybody advise you to go to that place?)
15. Did you make the decision to leave on your own, or was the decision made with the family (was your decision based on the opinion of your father, parents, or wife/husband)?
16. For how long did you initially intend to leave (a month, 3 months, half a year, more than a year, indefinite time period)? What is your current intention? What does your decision depend on? What does the length of time abroad depend on?
17. How did you support yourself here? What was your financial situation (specify your income in thousands of AMD)? Did you work? Did you have a flat/land/house? Did your family members have any income? Did they work? Did your children study or work? What about your parents, relatives?
18. How would you describe your living conditions now/how do you support yourself now?

19. What were the primary reasons you left (low income; no prospects for a normal life; no prospects for the future (yours or your children's); inadequate conditions for starting a family; fear of renewed war or of social or political instability; poor medical care; poor quality of the educational system; reluctance to serve in the army)?
20. How old are you? What is your educational background? Do you study now/where? What is your specialty/qualification? Do you work/have you ever worked in your specialty? Does/did your work satisfy you?
21. What problems do you observe here? Are these old problems, or are there new problems emerging in addition to existing problems?
22. What should be changed here (specify particular issues, directions) (living conditions, healthcare, education, wages, the employment process, the role of the regions in relation to the capital)?

Online questionnaire for labour migrants abroad

1. Do you have an opportunity to find a job in your specialty?
2. How do employers treat migrants?
3. Are you adequately remunerated for the work you do?
4. What obstacles do you face when looking for a job (language, professional, socio-cultural)?

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