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Understanding the dynamics between migration and human capital.

Comparative results of the ETF's migration surveys in Armenia, Georgia and Morocco

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Introduction

Most ETF partner countries have difficult labour market conditions that lead to significant labour emigration. Increased labour mobility across borders brings the skills issue onto the international agenda, while education systems are increasingly under pressure to produce qualified human resources both for domestic and foreign labour markets. On the other hand, human mobility both depends on and generates new forms of capital – including social, financial and human capital, requiring more attention to the skill dimension of mobility. Yet the relationship between individual level of education and their decision to migrate is highly variable and will depend on labour market dynamics in both home and host contexts. Features of education and training systems can explain high or low employability of emigrants abroad but not why they migrated. Indeed, better performing education systems may produce contradictory effects on migration: (i) decreasing 'push' factors through full access to education, training and labour market by all, responsiveness of training system to market needs and creation of more and decent jobs; (ii) increasing 'pull' factors through better preparation of potential migrants in terms of their professional qualifications and skills for receiving labour markets and better integration in host societies.

Thus education seems to increase the opportunity for migration but decrease the economic incentive for migration. It is one of the enabling factors for higher job mobility both within regions and between countries – which can be linked indirectly to by the 'migration hump' theory of Philip Martin: higher economic and social development lead to higher human mobility due to higher access to information, tools and funds. Migration also means mobility of knowledge and skills, learning new ones and using them in labour markets – all with implications for brain drain, brain gain, brain waste and brain circulation. As an EU agency promoting education and training in countries where labour market opportunities are very limited and labour migration is a common fact, ETF is interested in the complex interaction of human capital and migration, particularly for understanding the overall costs and benefits of migration in relation to skills and human capital.

This was the starting point of the large scale ETF surveys conducted in three sending countries (Armenia, Georgia and Morocco) during the period of October 2011-June 2012 to explore the relationship between migration, education, skills and employment. Two separate but related questionnaires were used to interview 4000 people in each country (2600 potential migrants and 1400 returnees) – involving a total of 12 000 respondents. For the purposes of survey, potential migrants are defined as citizens between the ages of 18 and 50 present in the country of origin at the time of the survey. The returnees are defined as anyone aged 18 or over with at least three months experience of living and working continuously abroad and returned no more than ten years previously. A stratified random sampling was used for potential migrants to obtain a nationally representative sample reflecting the key characteristics of national populations as a whole. Additional snowball method was used for returnees due to the difficulty of finding returnees in every sampling unit.

This paper is based on the results of these surveys, focusing only on the variables related to education, skills and work experience of migrants. The survey data include more than 250 variables for each target group (i.e. potential migrants and returnees); all of which cannot be presented here, but a detailed ETF comparative report is available on the overall results of the surveys.[1] Specifically, the paper presents and discusses the cross-country data on the following nine dimensions of the relationship between migration and human capital:

- intention to migrate and education/ training as a reason for migration
- relationship between education level and intention to migrate
- relationship between work status and intention to migrate
- relationship between education level and destination
- returnees' work experience abroad and use of skills
- study and/or training received abroad and recognition of qualifications
- use of remittances and savings for education
- work experience and use of skills after return
- migration and return outcomes by education levels

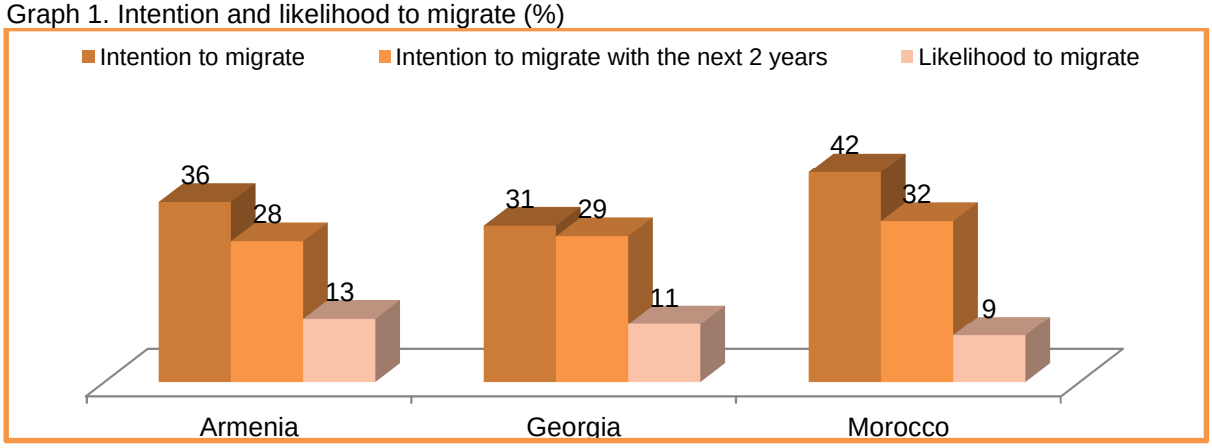
[1] Armenia country migration report: http://www.etf.europa.eu/web.nsf/pages/Migration_and_skills_Armenia
Georgia country migration report: http://www.etf.europa.eu/web.nsf/pages/Migration_and_skills_Georgia
Migration et compétences au Maroc: www.etf.europa.eu/web.nsf/pages/Migration_and_skills_Morocco
Comparative migration report - Armenia and Georgia:
http://www.etf.europa.eu/web.nsf/pages/Migration_and_skills_Armenia_and_Georgia

It must be emphasised that the analysis here is mainly of descriptive nature, the first step of the data presentation before the use of any inferential statistics, which could shed a better light on possible relationships among the variables of our interest. This is because the paper aims to give first a general overview of the nine dimensions identified on the link of human capital and migration in countries of origin. Last but not least, the sample of potential migrants is fully representative of 18-50 age group in the countries, while the sample of returnees has limited representativeness. The latter could catch only those who actually 'returned' to country, thus excluding migrants (and diaspora) currently living abroad. For a full representativeness, similar surveys in destination countries would have been necessary.

1. Intention to migrate and education/ training as a reason for migration

The potential migrant survey included questions 'whether seriously thinking to move and work abroad' and 'how likely it was for the respondents to leave within the next 2 years' to understand the intention of people for migration. Those who answered 'yes' to the first question and, at the same time, 'very likely' or 'quite likely' to the second question are further called 'potential migrants', those who reported that they are not thinking to move abroad or are (very) unlikely to leave with the nest 2 years are called 'non-migrants'. Therefore, comparisons are made in our analysis between these three groups of migrants emerged from the surveys: non-migrants, potential migrants and returnees. The share of potential migrant sample who declared their intention to move abroad and also the likelihood to leave with the next two years was 28% in Armenia, 29% in Georgia and 32% in Morocco (Graph 1). This means that large majorities of people aged 18-50 in these countries do not intent to migrate.

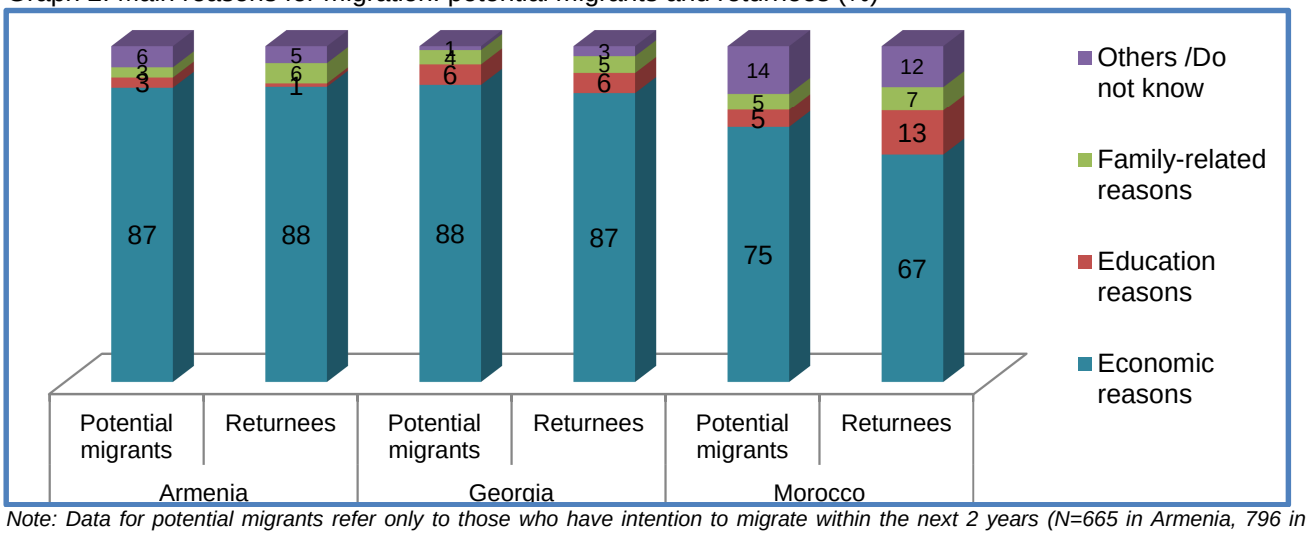
Graph 1. Intention and likelihood to migrate (%)



Note: Missing data below 1 %.

To test the seriousness of intention, a propensity to migrate indicator was constructed using seven variables: the likelihood of migration within six months; the likelihood of migration within two years; the ability to finance the move; the ability to speak the language of the most likely destination; the subjective assessment of whether the respondent has information about the destination; possession of at least four of the six documents necessary for migration (passport, visa, work contract, work or residence permit, acceptance letter for study or training); and a subjective assessment of no difficulty obtaining the remaining documents. According to the index, only 9% of Moroccans were able and ready to leave, followed by 11% Georgians and 13% Armenians. The difference between migration intention and real ability is the highest in Morocco, reflecting attractiveness of migration as an idea but limited access available for legal migration opportunities.

Graph 2. Main reasons for migration: potential migrants and returnees (%)



Note: Data for potential migrants refer only to those who have intention to migrate within the next 2 years (N=665 in Armenia, 796 in Georgia and 823 in Morocco); missing data below 5%; no sub-group in case of returnees if not specified in the notes.

The main reason for migration is overwhelmingly economic, even more so in Armenia and Georgia (Graph 2). Having no job, unsatisfactory wage and career prospects and the need to improve living standards together explain 75% of the migration intention of potential migrants in Morocco, although it was slightly less important in the case of returnees (two-third). However, 'education' as a reason for migration is relatively sizeable in Morocco, reaching to 13% among returnees, and 6% among potential migrants in Georgia. This is a positive finding, as in such cases migration is used for the increase of one's human capital and, potentially with their return after education, also for the enhancement of its level in the countries of origin. In Morocco, main reasons for leaving for sizeable respondents were also linked to dissatisfaction with living in Morocco and liking to live in possible destinations (all within the category 'other' in the Graph).

2. Relationship between education level and intention to migrate[2]

Comparing education levels of non-migrants, potential migrants and returnees may identify the trends in the educational profile of migrants and give us some indications for any potential brain drain. Migrant groups by education categories highlights the overall high education levels in Armenia and Georgia where schooling is virtually universal, and low education levels in Morocco where more than half of non-migrants have never attended school.[3] This distinction leads to different interaction between education and migration (Table 2). In Armenia, returnees are more likely to have completed lower secondary and upper-secondary education (both general and vocational), suggesting secondary general and vocational education path leading more likely towards migration. Out of three groups in Armenia, returnees appear to be the least educated group and non-migrants the most educated group, with potential migrants between the two (closer to non-migrants).

In Georgia, non-migrants are better educated involving more university graduates and potential migrants appear to be the least educated group, with higher shares of lower secondary and upper-secondary education (both general and vocational paths). The share of those with vocational education (both upper secondary and post-secondary vocational) is the highest among returnees and the lowest among non-migrants. This suggests that in the two countries, highly educated people are more likely to succeed in the local economies and make use of their knowledge and skills at home than lower educated parts of population, more in Georgia than Armenia, and their intention to migrate is relatively lower. Thus, the returns from education seem to be higher in the case of this group.

[2] For a cross-country comparison, this paper classifies the education levels as "low" (corresponding to ISCED 1-2), "medium" (corresponding to ISCED 3-4) and "high" (corresponding to ISCED 5-6) unless specified otherwise.

[3] Census data give the following education levels for 15+ population in Morocco: 80% with primary/ basic education, 12% with medium education and 7% with higher education. The education levels of 15+ population in Armenia and Georgia in census data are one-fourth with university degree, almost two-third with upper and post-secondary education and 10% with low education in both countries.

Table 2. Detailed education levels of potential migrants, non-migrants and returnees (%)

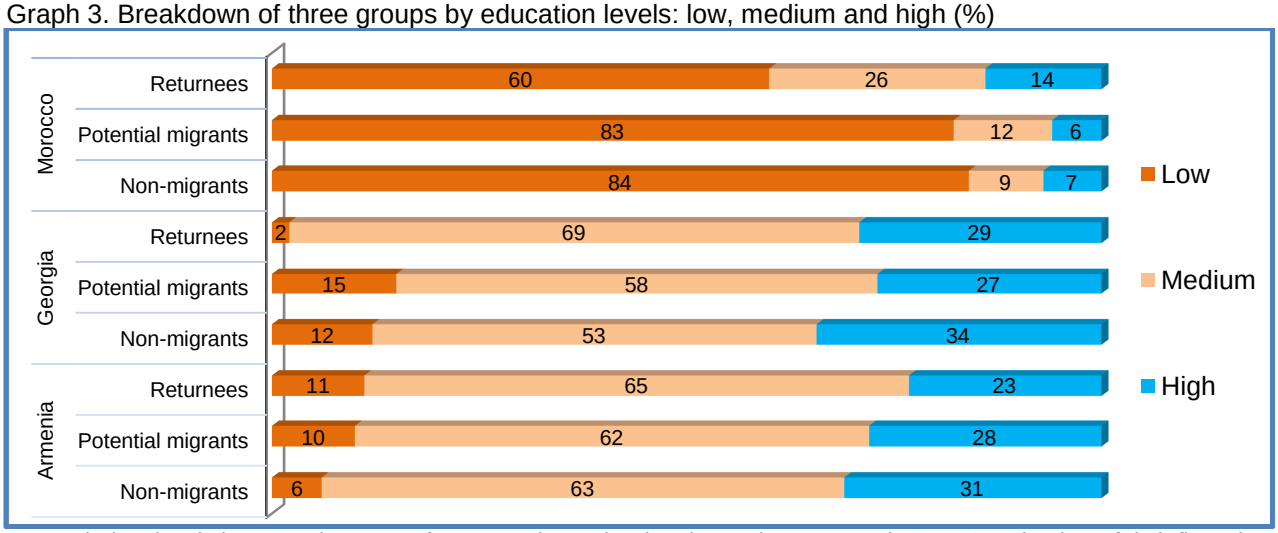
EDUCATION LEVELS	**Non-migrants** (18-50 age group)	**Potential migrants** (18-50 age group)	**Returnees** (18-50 age group – age at the time of first migration)
ARMENIA			
No schooling	-	-	-
Primary or less	0	0	0
Lower secondary	6	10	11
Upper secondary general	40	39	42
Upper secondary vocational	6	5	9
Post-secondary vocational	17	17	14
Higher education	31	28	23
GEORGIA			
No schooling	-	-	-
Primary or less	1	0	0
Lower secondary	11	15	2
Upper secondary general	28	32	40
Upper secondary vocational	15	16	17
Post-secondary vocational	11	10	11
Higher education	34	27	30
MOROCCO			
No schooling	51	41	20
Primary or less	21	26	23
Lower secondary	11	15	17
Upper secondary general	7	8	18
Upper secondary vocational	2	2	4
Post-secondary vocational	1	1	4
Higher education	7	6	14

Note: Missing data below 1%.The group of returnees is restricted to those who were aged 18 to 50 at the time of their first migration (N=1339 – Armenia, N=1262 – Georgia, N=1319 – Morocco).

In Morocco the picture is more complicated. All groups have far lower levels of education than in other countries, while non-migrants have the lowest level of education: 51% have had no formal education (including more than 30% illiterates). The share of no schooling is 41% among potential migrants and 20% among returnees. Thus, the lack of education seems to contribute to low intention of migration among the lowest-educated group. Out of three groups, returnees appear to be the most educated group, contrary to the least educated group of non-migrants. Potential migrants stand between the two, but relatively fewer university graduates want to migrate. The fact that returnees are proportionally more represented at higher education and secondary general education raises the question of a slight 'brain drain' trend. However this cannot be proven as the sample of returnees does not include all migrants abroad. Moreover, women represent a high share of non-migrants, who have lower intention to migrate than men and they are at the same time lower educated than men in the Moroccan context.

Looking at the aggregated education categories, the feature common to Armenia and Georgia is that it is those with higher education who has less intention to migrate (Graph 3). This is clear in Georgia, where 34% of non-migrants have completed higher education, compared to 27% of potential migrants. In Armenia, the share of university graduates is close between potential migrants and non-migrants (28-31%), but higher than in the case of returnees (23%). Given the high proportion of potential migrants in the youngest age group, it is possible that individuals who are currently studying are counted as less educated. In case of the differences between potential migrants and returnees, there may also be a generational difference behind the lower levels of education of returnees in Armenia. Moreover, the majority of returnees in the sample were men which tend to be less educated than women. Finally, given the nature of the sample of returnees, we may also assume that a share of highly educated may have stayed in destination upon successful migration experience.

Graph 3. Breakdown of three groups by education levels: low, medium and high (%)

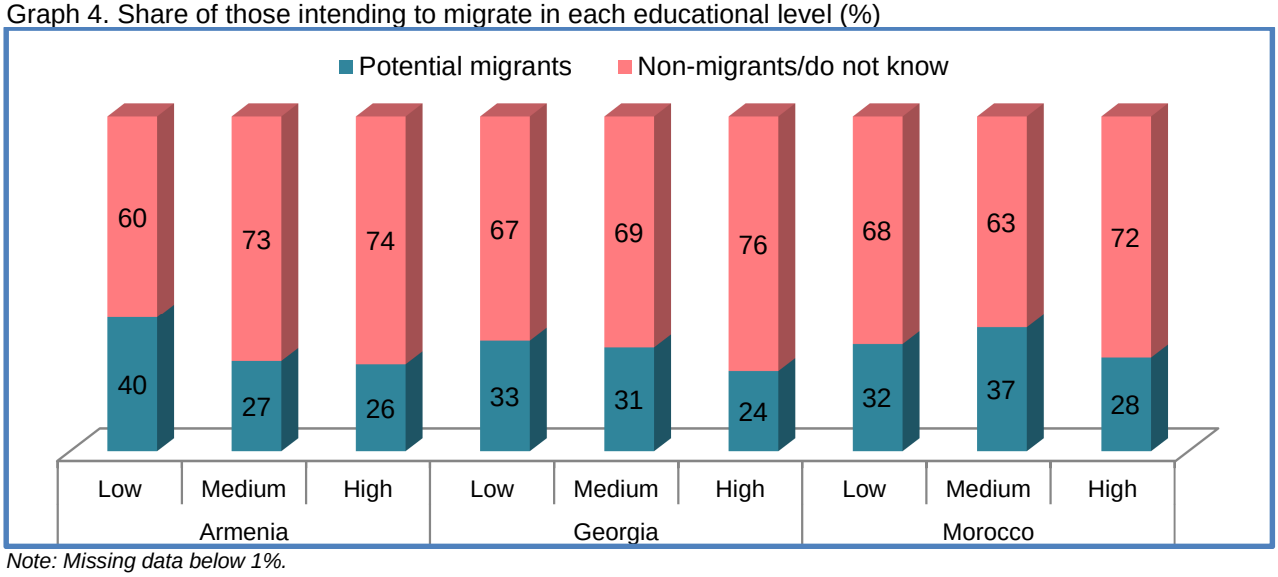


Note: Missing data below 1%. The group of returnees is restricted to those who were aged 18 to 50 at the time of their first migration (N=1339 – Armenia, N=1262 – Georgia, N=1319 – Morocco).

Contrary to Armenia and Georgia, in Morocco the best educated group are returnees, with 14% of high-educated, while this group is 7% among non-migrants and 6% among potential migrants. A comparison of the education levels of returnees before and after migration reveals that while the educational levels of migrants did improve during migration, even before migration they were the most educated group. This may mean that migration in the past has been quite self-selective towards the better-educated, or a higher number of better-educated migrants actually returned to Morocco so that the survey could catch them. Besides the limitation of sampling, education as a reason for migration has been relatively sizeable and the majority of returnees in the sample were men which tend to be better educated than women. Finally, there is a difference between the intention to migrate and readiness to migrate. In general, the most educated were most ready to leave in Morocco, suggesting that this is the group with the means to move abroad.

Looking at the migration intention in each educational level separately (Graph 4), the share of potential migrants is the highest among the low-educated in Armenia (40%) and Georgia (33%), while this is the highest among the medium-educated in Morocco (37%). This is mainly due to the differences of the average education levels of populations – lower in Morocco and higher in Armenia and Georgia. In reality, individuals with primary and secondary education are the most likely potential migrants in all countries, but this group forms 'the lowest educated' in Armenia and Georgia, while they are in 'the medium-educated' category in Morocco, due to the sizable share of illiteracy and no-schooling. Indeed, migration seems unlikely at very low (or lack of) education, suggesting an 'education hump' (similar to the famous 'migration hump' identified by Phillip Martin).

Graph 4. Share of those intending to migrate in each educational level (%)



Note: Missing data below 1%.

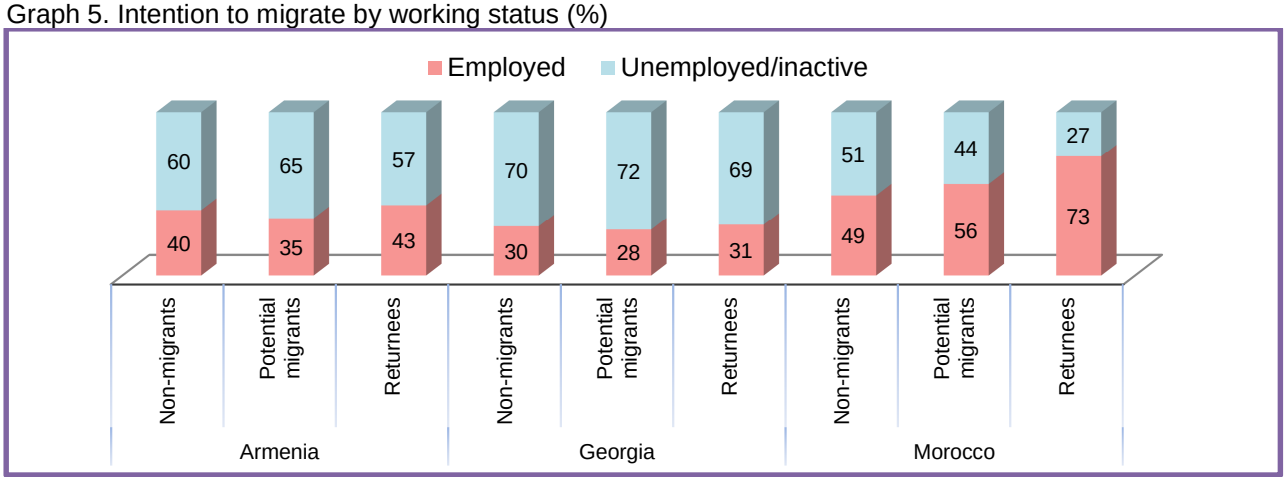
Comparing education levels of women and intention to migrate indicates opposite pattern in Armenia and Georgia: female potential migrants are significantly better educated than men in both countries. Also post-secondary vocational education is more common among female potential migrants. This gender difference provides the examples where potential migrants are better educated than non-migrants in two countries.

It must be emphasised that despite the differences among three groups (non-migrants, potential migrants and returnees), education/ skill levels of migrants largely reflect the overall education levels of populations and the structure of education systems in countries of origin. For example, migrants from Armenia and Georgia are more likely to have medium and higher education and migrants from Morocco less likely to have higher education. Moreover, the share of people with vocational education (both upper secondary vocational and post-secondary vocational) is quite considerable in Armenia (between 22% and 23% across three groups) and Georgia (between 26% and 28% across three groups). This reflects the larger size of vocational education systems (VET) in those countries. In contrast, vocational education is very rare in Morocco (3%), reflecting the miniscule size of VET in the education system.

3. Relationship between work status and intention to migrate

Employment level is low in all three countries, albeit with variations (Graph 5). On average, only one-third of respondents in Georgia and around 40% in Armenia were actually employed at the time of survey. The intention to migrate is positively correlated with lack of work in these countries: potential migrants are more likely lacking jobs compared to non-migrants. Currently 35% of potential migrants are working compared to 40% of non-migrants in Armenia. This is 28% and 30% respectively in Georgia, a factor inciting emigration. Interestingly, the situation is the opposite in Morocco: higher share of potential migrants works (56%) compared to non-migrants (49%), so the intention to migrate is positively correlated with having a job. This may be linked to the specificity of non-migrants who are more likely women with much lower level of education (or no education). Low/no education decreases the labour market participation of women. Finally, returnees seem to be the most employed group in all countries. Morocco shows the highest difference, with 73% of returnees employed compared to 49% of non-migrants. This is a positive impact of migration on both activity levels and employability.

Graph 5. Intention to migrate by working status (%)



Note: Missing data below 5% except for the group of potential migrants in Morocco (8%).The employed consist of those who worked at the time of interview or those who were on holidays, strike or on sickness leave.Th group of returnees is restricted to those aged 18 to 50 (N=1365 in Armenia, N=1128 in Georgia, N=1122 in Morocco)

The status of "currently not working" might be linked to either unemployment or inactivity, and gender has an impact on this relationship. In both Armenia and Georgia, being out of work has no significant effect on the desire to migrate for women, indeed more working women intend to migrate in general. Whereas unemployed men are more likely to express a desire to migrate: a quarter of Georgian men who were seriously thinking of moving abroad had been employed, which rose to a third amongst those who did not wish to go abroad. The pattern was similar in Armenia, so men's desire to migrate is more responsive to unemployment.

Given higher inactivity of women, Table 3 presents the activity, employment and unemployment rates among the three groups (total, male and female rates). Activity rates are consistently the highest among returnees and the lowest among non-migrants in all three countries. This is valid both for men and women (less for men

in Armenia), indicating positive impact of migration experience on activation. The most dramatic change is among the women returnees: 81% of them is active in Armenia (69% of non-migrants), 87% of them active in Georgia (61% of non-migrants) and 69% of them in Morocco (35% of non-migrants). Total employment rates show similar pattern with the highest employment of returnees in all countries. However, the picture is different by gender. Employment rates of male non-migrants are the highest, lower for returnees and the lowest for potential migrants, signalling male sensitivity of migration intention to employment (slightly different in Morocco). Women returnees exhibit the highest employment rates, followed by potential migrants. Female non-migrants tend to be inactive and this makes the difference in particular in Morocco and Armenia.

Table 3. Activity, employment and unemployment rates (total, male and female) by three groups: potential migrants, non-migrants and returnees (%)

	Activity rate	Employment rate	Unemployment rate
ARMENIA	Total (M / F)	Total (M / F)	Total (M / F)
Non-migrants	76% (85 / 69)	40% (52 / 31)	47% (39 / 55)
Potential migrants	81% (86 / 74)	35% (37 / 33)	56% (56 / 56)
Returnees	86% (87 / 81)	43% (42 / 50)	50% (51 / 38)
GEORGIA	Total (M / F)	Total (M / F)	Total (M / F)
Non-migrants	73% (88 / 61)	30% (36 / 26)	58% (59 / 58)
Potential migrants	82% (87 / 74)	28% (27 / 29)	66% (69 / 61)
Returnees	91% (94 / 87)	31% (31 / 31)	66% (67 / 64)
MOROCCO	Total (M / F)	Total (M / F)	Total (M / F)
Non-migrants	58% (83 / 35)	49% (74 / 26)	16% (11 / 27)
Potential migrants	71% (84 / 51)	56% (70 / 33)	22% (17 / 34)
Returnees	87% (92 / 69)	73% (77 / 56)	16% (16 / 19)

Note: Missing data below 5% except for the group of potential migrants in Morocco (8%); the figures between the brackets are for males (M) and females (F). The employed consist of those who worked at the time of interview or those who were on holidays, strike or on sickness leave.The group of returnees is restricted to those aged 18 to 50 (N=1365 in Armenia, N=1128 in Georgia, N=1122 in Morocco)

Finally, the unemployment rate of male potential migrants is always the highest and non-migrants the lowest (returnees in-between). Indeed, the intention to migrate is positively correlated with higher unemployment rates in all three countries, which reaches to a total of 66% in Georgia, 56% in Armenia and 22% in Morocco. On the other hand, women returnees in Armenia and Morocco have the lowest unemployment rate. The much lower unemployment rate in Morocco can be explained by high inactivity among women and high share of agriculture artificially increasing employment levels. Despite all the cautions mentioned before, therefore, migration intention is largely linked to unemployment and migration experience itself seems to increase the activity and employment levels, more dramatically for women.

Nature of employment also affects migration. In Armenia, potential migrants are more represented among the casual workers and the self-employed group and less represented in salaried jobs. Similarly, potential migrants include more casual workers in Morocco and more self-employed in Georgia. This reflects the fact that precarious and unstable jobs encourage migration. In Armenia, most potential migrants work as skilled or unskilled workers, while in Georgia most of them are skilled workers. Non-migrants are over represented among the professionals and skilled workers in both countries. In Morocco, potential migrants mainly work as unskilled workers and are underrepresented in all other fields. This indicates that limited skills contribute to intention to migrate. Returnees were less likely to work as professionals compared to non-migrants and potential migrants in Armenia and Georgia, though in Morocco they were more than three times as likely to work as professionals than the other two groups.

In all countries potential migrants are the least represented in public administration. These jobs tend to be attractive since they are typically permanent and so carry a degree of security. Furthermore, current or latest work sectors of non-migrants and potential migrants are very similar, with a distinct profile for returnees in three countries. The most obvious difference is the larger proportion of returnees working in construction (typically males) in Armenia and Georgia, while Moroccan returnees are less represented in this sector. Except construction, Armenian returnees have similar work sectors to non-migrants and potential migrants. In contrast, in Georgia and especially in Morocco, returnees reflect a more ‘modern’ employment profile; e.g. smaller share of agricultural work and concentration in services sector such as hospitality or ICT. Returnees are also less found in domestic and personal services (a sector more common for women).

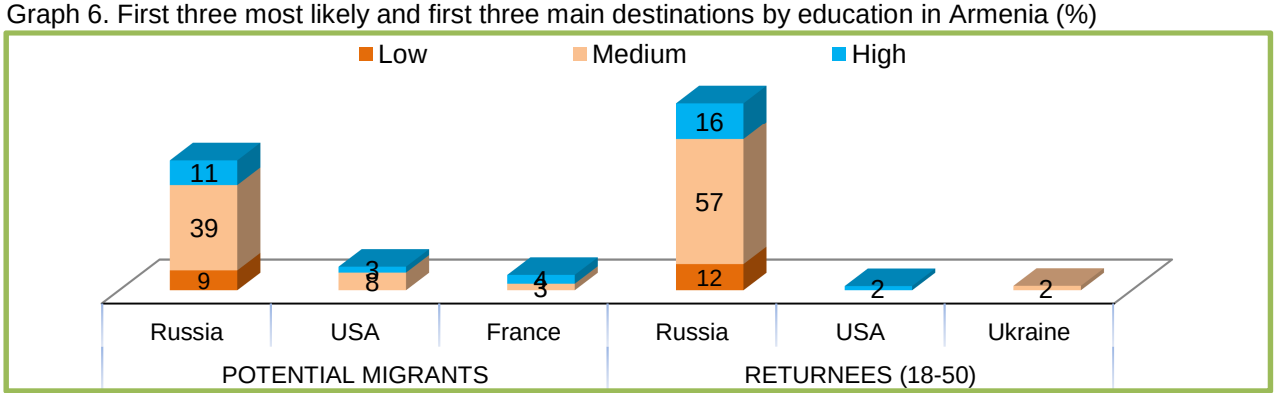
4. Relationship between education level and destination

It can be assumed that in most cases the actual destinations of returnees reflect the migration realities of potential migrants more accurately than the aspirations of would-be migrants. Although the data does not include migrants who never returned back, it largely represents the contrast between the reality of migration possibilities and the uncertainty of potential migrants' aspirations. In both Armenia and Georgia, the most frequent destinations for returnees are less popular among potential migrants. The vast majority of Armenian migrants aged 18-50 returned from Russia (85%), and although Russia is also the most commonly cited likely destination among potential migrants, the proportion in this case falls to just above half. This pattern is clearer in Georgia, with more diverse destinations after the deterioration of relations with Russia.

Potential migrants in both Armenia and Georgia (especially the highly-educated) are more likely to express a preference for migrating to countries in North America and Western Europe in numbers far exceeding the proportion of returnees from those destinations. The USA is clearly the most popular choice for the highly-educated in both Armenia and Georgia. Together, the USA, Canada and five EU destinations (France, Germany, UK, Spain and Italy) account for about a quarter of the most likely destinations cited by Armenian potential migrants (mostly high-skilled), compared to only 5% in the case of returnees aged 18-50 in that country. Similarly in Georgia, almost half of all potential migrants (mostly high-skilled) cite USA, Canada or one of the five EU countries as their most likely destination, but only 14% of Georgian returnees aged 18-50 have actually returned from those countries. It is not entirely clear whether this reflects pure aspirations or the fact that most high-skilled migrants never returned back.

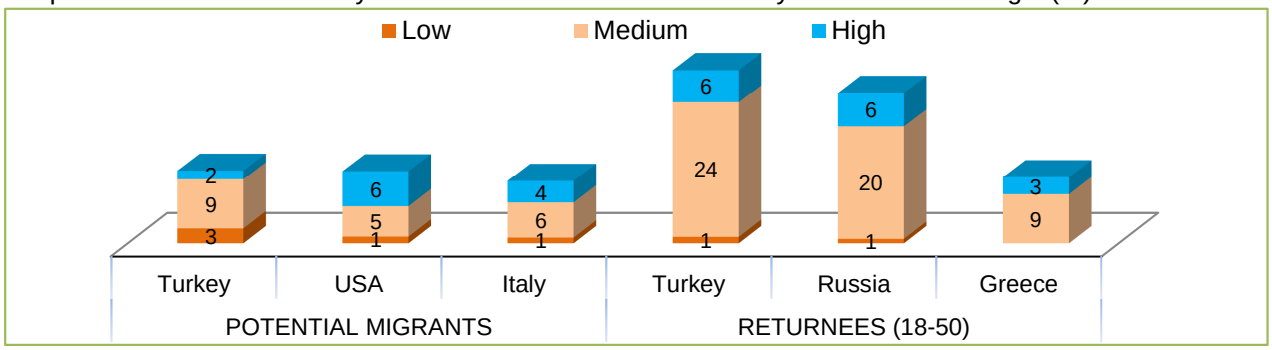
Graph 6 gives first three most likely destinations for potential migrants and first three main destinations for returnees by education levels in Armenia. Main destinations for the Armenian returnees aged 18-50 are Russia (85%), USA (2%) and Ukraine (2%), while the shares of three most likely destinations for potential migrants are slightly different: Russia (58%), USA (11%) and France (7%). Visa-free entry to Russia and historical links and geographical vicinity make this destination dominant for Armenians. The share of low-skilled migrants is quite low and medium-educated migrants largely dominate the flows. Having said that, a considerable number of the highly-educated migrants still go to Russia than to any other country in terms of absolute numbers.

Graph 6. First three most likely and first three main destinations by education in Armenia (%)



First three main destinations for returnees and first three most likely destinations for potential migrants are much more diverse in Georgia, spreading from Russia to Turkey, some EU destinations and USA (Graph 7). The deterioration of country's relations with Russia since 2000 and the visa requirement applied to Georgians triggered this change, together with visa-free entry to Turkey as an alternative. Georgian returnees aged 18-50 mostly came from Turkey (32%), Russia (27%) and Greece (12%) but the percentages of potential migrants who cite these countries as their most likely destination are less than half the returnee figures: Turkey (14%), Russia (12%) and Italy (12%). The share of low-skilled is very low across the board and the medium-educated migrants dominate the flows. However, destinations like the USA and Italy attract more higher-educated migrants.

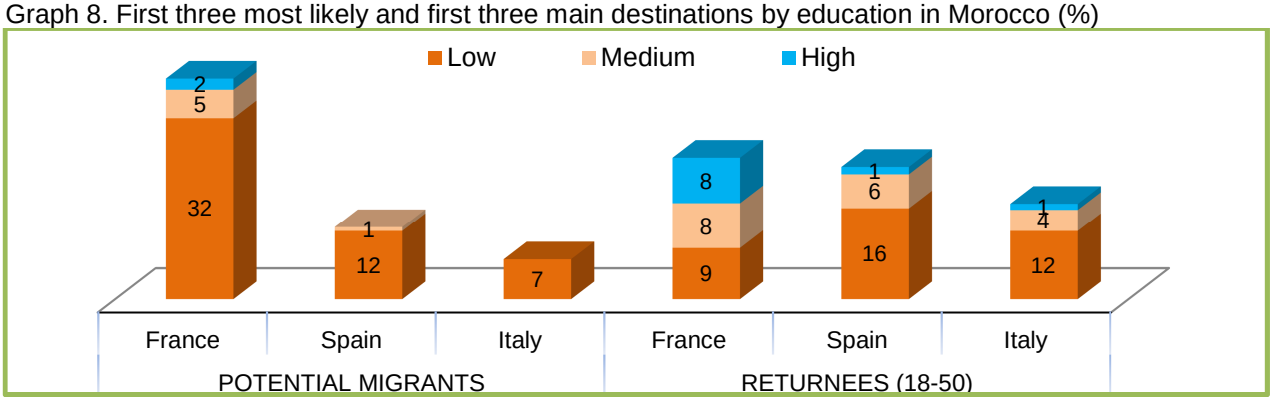
Graph 7. First three most likely and first three main destinations by education in Georgia (%)



Morocco has a very different geography of migration, dominated by Western Europe. Moroccan potential migrants cite eight Western European countries (France, Spain, Italy, Belgium, Germany, the Netherlands, Switzerland and the UK, in order of significance) that together account for 77% of expressed intentions to migrate and 78% of destinations of returnees aged 18-50. In contrast, the total EU share as a destination is low in Armenia (only 7% of returnees aged 18-50 and 18% of potential migrants) and Georgia (25% of returnees and 39% of potential migrants), although the difference of EU shares between returnees and potential migrants could reflect a change in attitude of Armenians and Georgians as their aspirations turn more towards Europe.

Graph 8 shows a different picture of education levels of migrants in the first three most likely destinations and the first three main destinations in Morocco. The main destinations for Moroccan returnees aged 18-50 are France (25%), Spain (24%) and Italy (18%), which are also the three most likely destinations in order of significance: France (39%), Spain (13%) and Italy (8%). It must be emphasised that returnees in our sample may not necessarily reflect overall size of migrants in these destinations (e.g. France), due to the fact that our survey caught only those who actually returned back and many others established abroad as diaspora. In all cases, the flows are dominated by the low-educated migrants, particularly in Spain and Italy. Although France is an intended destination for many low-skilled potential migrants, a relatively high share of higher-educated migrants returned from France, indicating international student flows (brain circulation). This may be explained by the higher number of Moroccans who migrated for education purpose, and France seems to be their natural preference for higher education studies.

Graph 8. First three most likely and first three main destinations by education in Morocco (%)

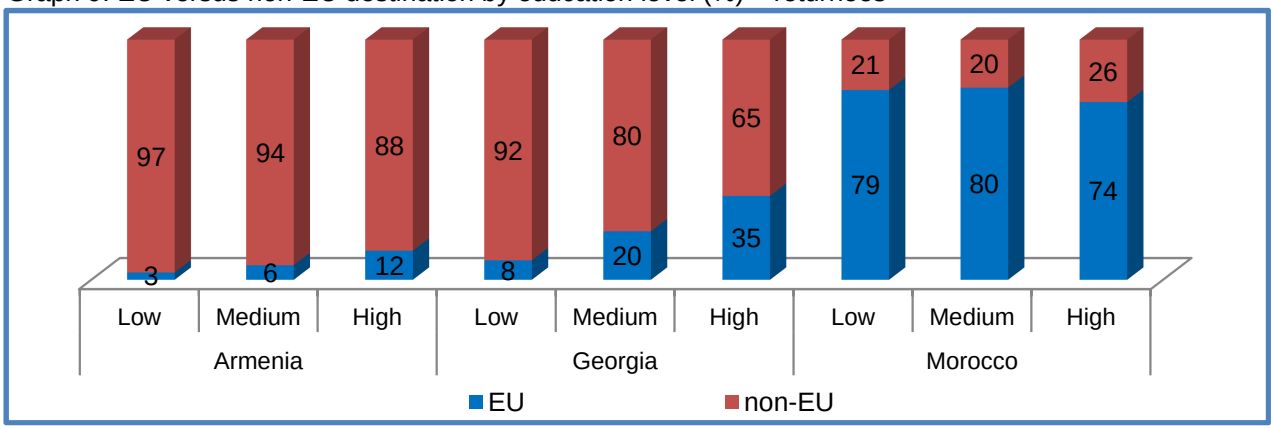


For Morocco, the remaining 20% of non-European expressed migration destinations is accounted for partly by the USA and Canada, which figure more highly as aspirations than as return, particularly for the high-educated. Saudi Arabia, the United Arab Emirates and Qatar together account for the remaining 8% of destinations for Moroccan potential migrants. The discrepancy between the destinations of returnees and the most likely destinations cited by potential migrants can be explained by a natural preference for migrating to the wealthiest countries where they expect to find better jobs. Nonetheless, proportionally the higher educated were the most represented among the returnees from Canada and the USA, followed by few others returned from France and UK.

It is interesting to see the position of the EU in attracting talent given the most preferred destinations of the highly-educated migrants. Despite the small shares, Graph 9 clearly shows that EU is relatively more attractive to the high-educated migrants in Armenia and Georgia. This is also confirmed by higher shares of

Armenian and Georgian potential migrants with higher education who intend to migrate to the EU countries. However, the picture is the opposite for Morocco: the share of returnees who migrated to an EU country is higher among those with low or medium levels of education, which is also valid for potential migrants. Nonetheless, the differences in preferences between education levels are not large, which may be explained by the importance of France (and less UK) for post-graduate studies for the Moroccan high-educated migrants.

Graph 9. EU versus non-EU destination by education level (%) – returnees



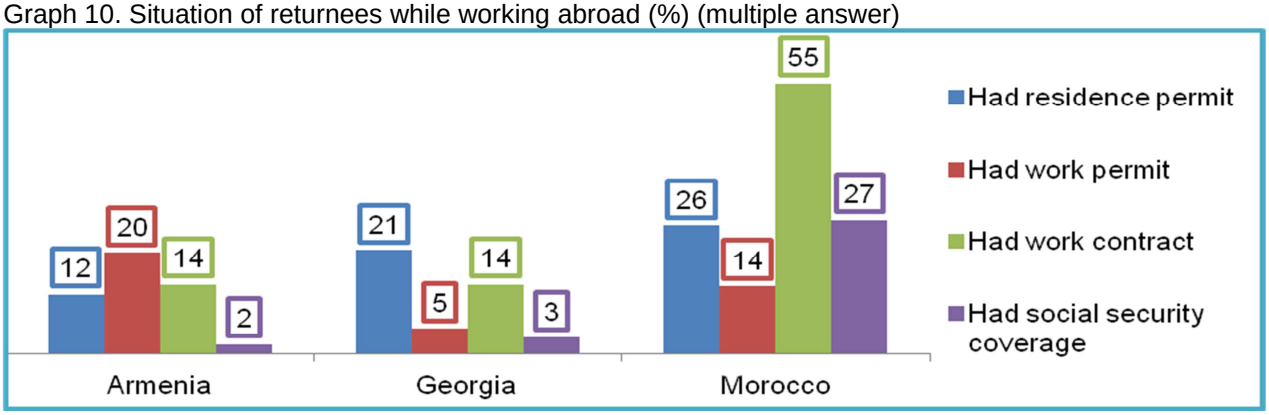
Note: Missing data below 3%. The group of returnees is restricted to those aged 18 to 50 (N=1365 in Armenia, N=1128 in Georgia, N=1122 in Morocco)

Gender analysis of the data indicates relatively minor differences between men and women. In the case of Armenia and Georgia, EU receives more female and more educated migrants but the best and brightest tend to migrate to the USA and Canada. Male migrants travel overwhelmingly to Russia, while much larger proportions of women returned from Germany, Greece, Poland and Turkey. The difference in the educational levels of male (lower) and female (higher) migrants and the jobs available to migrants in destinations may explain these differences. Most common jobs found in Russia by men are in the construction sector, while in the EU countries it is the sector of (domestic) services which requires females. Gender difference is less pronounced in the case Morocco, though France was cited as the dominant preference by female potential migrants (43%).

5. Returnees' work experience abroad and use of skills

Average time per migration was the shortest in Armenia (9 months), followed by Georgia (17 months). The longest time per migration is recorded in Morocco (6 years on average). Overall, 41% of Armenian returnees, 23% of Georgian returnees and 18% of Moroccan returnees migrated more than once, indicating a certain degree of circular pattern, particularly in Armenia. The graph 10 shows the share of returnees who had residence and work permits, work contract and social security coverage. Although these are legal obligations in most destinations in which migrants worked, the vast majority of migrants seem to have lacked them, especially Armenian and Georgian returnees. The Moroccan returnees experienced better working status as a majority had work contract (55%) and 27% of them had social security coverage. After return, only 3% of Armenians and Georgians could transfer their social rights to home country, while this is 32% for Moroccans. This is probably linked to the longer duration of Moroccan migration and the relative openness of social security systems in Europe as the main destination of Moroccans.

Graph 10. Situation of returnees while working abroad (%) (multiple answer)



Note: Missing data below 2%.

Approximately a third of Armenian and Georgian migrants had spent some time without work while abroad. Moroccans were significantly more likely to have spent time unemployed abroad (54%). As they had also spent a much longer time abroad, more than five times as long on average, the more frequent unemployment could simply result from a longer period of time away or the visa policy of destination limits circular movements. The total reported periods without work among returnees were similar in Georgia (5.5 months on average) and Armenia (5.6 months on average) but substantially longer in Morocco (10.2 months) again reflecting the longer period of migration.

Work sector abroad was highly gendered. The majority of Armenian migrants worked in construction (53%), almost all men. The other sectors common to Armenian migrants were commerce (12%), manufacturing (9%) and transport (8%). Georgian migrants were concentrated in construction (27%) and domestic/personal services (28%), which were the almost exclusive preserve of men and women respectively, followed by agriculture and hospitality. Moroccan returnees reported a much more diversified range of work sectors, orientated more towards the service sector, with significant proportions reporting work in hotels or restaurants (18%) and commerce (11%), but also in agriculture (15%) and manufacturing (11%).

Returnees had similar patterns of work type while abroad. The most common work type is salaried work, which dominated the experience of Georgian and Moroccan returnees, accounting for 79% and 71% of work respectively. Armenian returnees were less likely to be salaried workers (45%) and more likely to be casual workers (43%). Given the dominance of salaried work in all countries, it is not surprising that skilled and unskilled work is the most common. The main difference between the countries is the exact balance between these two. Armenia and Morocco had virtually identical proportions of returnees engaged in skilled and unskilled work – just under half unskilled and about a third skilled. Only one-fourth of Georgian returnees had worked as unskilled workers, whereas two thirds had worked as skilled workers.

Table 4. Correlation between education levels of returnees and job type performed abroad (%)

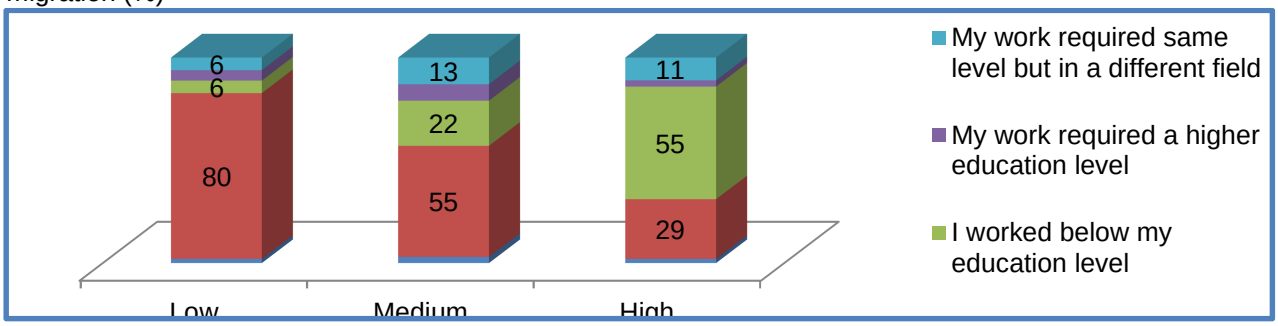
JOB TYPE	ARMENIA			GEORGIA			MOROCCO		
	EDUCATIONAL LEVELS (%)								
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Senior and middle manager	4	9	14	0	0	1	4	10	30
Professional	4	7	18	3	10	21	2	3	19
Skilled worker	34	38	26	76	67	57	39	48	39
Unskilled worker	59	47	42	21	23	21	53	38	12

Note: Missing data below 5%.

When returnees' education levels prior to migration were analysed by the work types performed abroad, low correlation was found between their education level and job type (Table 4). Indeed most migrants from Armenia and Georgia worked abroad as skilled or unskilled workers, irrespective of their educational level. In the case of Morocco, there is relatively a better match between the education level and the job type performed, mainly due to the overall lower levels of education. Moreover, almost half of the high-educated migrants worked as middle or senior managers or professionals, which could be facilitated by longer (and more likely legal) stay abroad, higher frequency of studying in country of destination and the presence of large

diaspora networks. The results show a large mismatch between education levels of returnees and the jobs they had access to on the foreign labour market, in particular in Armenia and Georgia.

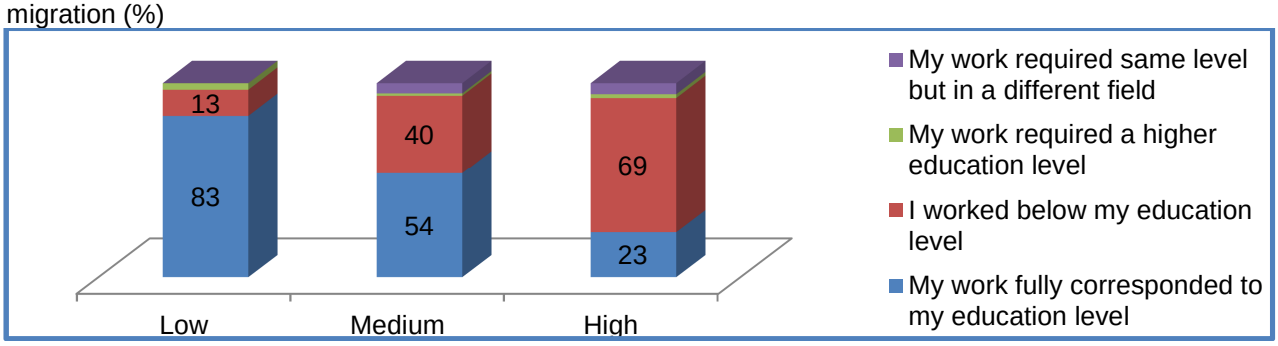
Graph 11. Perception of returnees in Armenia: Correspondance of work abroad with education level prior migration (%)



Note: Missing data below 1%.

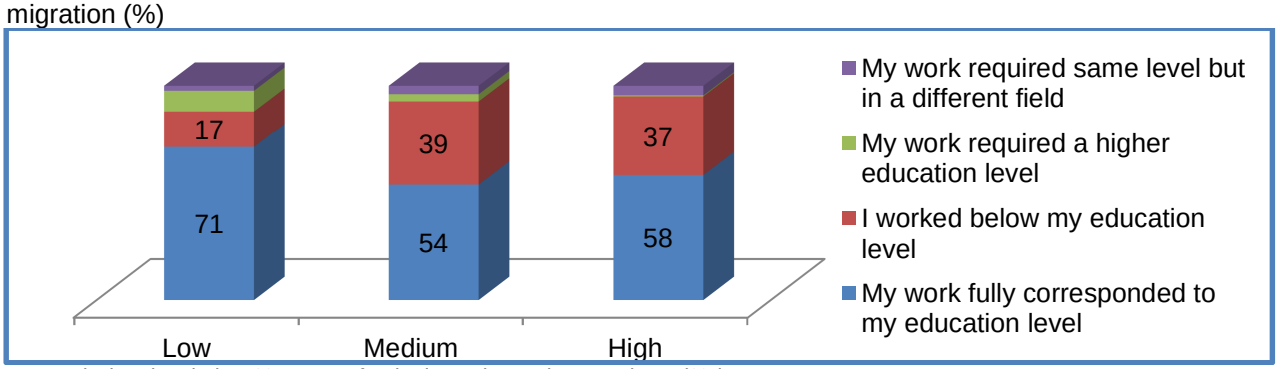
That is shown also in the case of the question, where returnees were asked about their subjective opinion on the correspondence between the longest job they held abroad and their educational level. In Armenia, overall 28% of respondents considered that their job abroad was below their educational level (Graph 11). This perception of mismatch rose dramatically among the high-educated migrants (55%) and women (40%).

Graph 12. Perception of returnees in Georgia: Correspondance of work abroad with education level prior migration (%)



In Georgia, almost half of all returnees (48%) reported having had jobs below their educational level, indicating a more serious 'brain waste' potential (Graph 12). Working below education level (perception of mismatch) is the most dramatic among the high-educated migrants (69%) and women (61%). Finally in Morocco, only 26% of respondents considered that their job abroad was below their educational level (Graph 13), while this perception of mismatch increases with education level (37% of the high-educated migrants), with no difference of gender. In general, this suggests that the migrants' potential is not fully used abroad, which may have a particularly negative impact on migrants themselves, whose levels of qualification deteriorate. This, as a consequence, may also have a negative impact on their chances upon return to their home country.

Graph 13. Perception of returnees in Morocco: Correspondance of work abroad with education level prior migration (%)

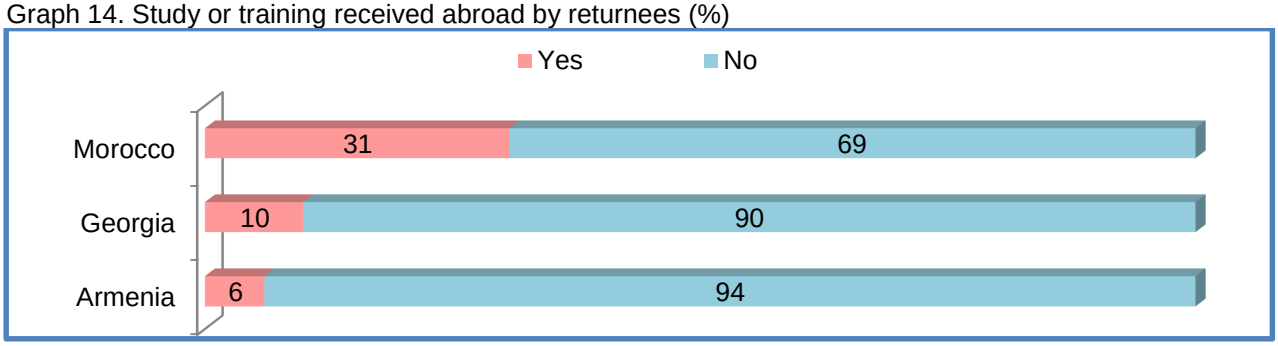


Note: Missing data below 3% except for the low-educated respondents (6%).

6. Study and/or training received abroad and recognition of qualifications

The opportunity to receive training or to study while abroad is one of the central potential benefits of migration. Indeed, potential migrants (both sex) widely held the conviction that migration could enhance both their skills and qualifications. In Armenia 65% of potential migrants thought that it was 'very or quite likely' that they would benefit from migration in human capital terms. In Georgia this rises to 86% and in Morocco 91%. This reveals very substantial agreement that migration can potentially have significant human development benefits. Yet as seen in graph 14, the large majority of returnees in all three countries reported to have received no education or training abroad.

Graph 14. Study or training received abroad by returnees (%)

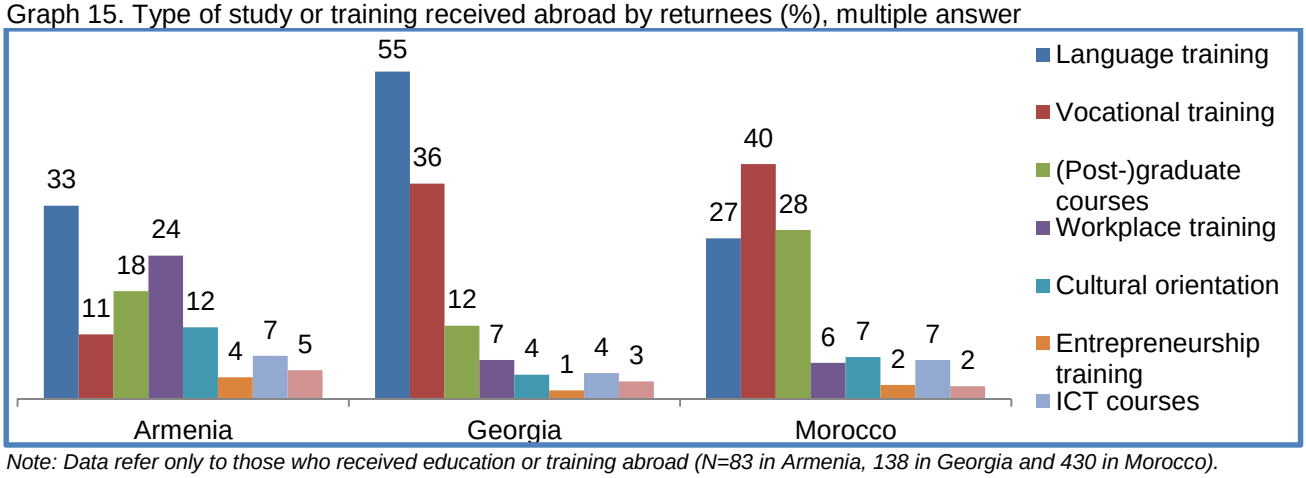


Note: Missing data below 1%.

This picture varies by country and by gender. Armenian and Georgian migrants are less likely to have received any education or training, particularly the case for men. Overall, only 10% of Georgians and 6% of Armenians received some kind of training abroad. On the other hand, quite high share of Moroccans reported that they received training abroad (31%), with higher share of men attended training. The greater incidence of training amongst the Moroccan migrants can be partly explained by the longer period of migration abroad, but also by the fact that education was more frequently the aim of their migration.

The Graph 15 provides details of the study or training received by the migrants who reported receiving training. The total populations of concern are 83 from Armenia, 138 from Georgia and 430 from Morocco. In Armenia, a third of them received language training; a quarter received workplace training and 18% took some kind of post-graduate course. In Georgia, more than half were engaged in language training; more than one-third took part in vocational training and 12% in post-graduate courses. In Morocco, vocational training was the most significant, reported by 40% of those who received training, followed by post-graduate courses (28%) and language training (27%). A key additional piece of supplemental information is the low share of trained returnees who could prove their new skills and training by a certificate. The share of these returnees with a certificate from abroad was only 7% in Armenia, rose to 19% in Georgia and 27% in Morocco. Thus, the majority of returnees could not demonstrate the skills value of their migration once they return.

Graph 15. Type of study or training received abroad by returnees (%), multiple answer

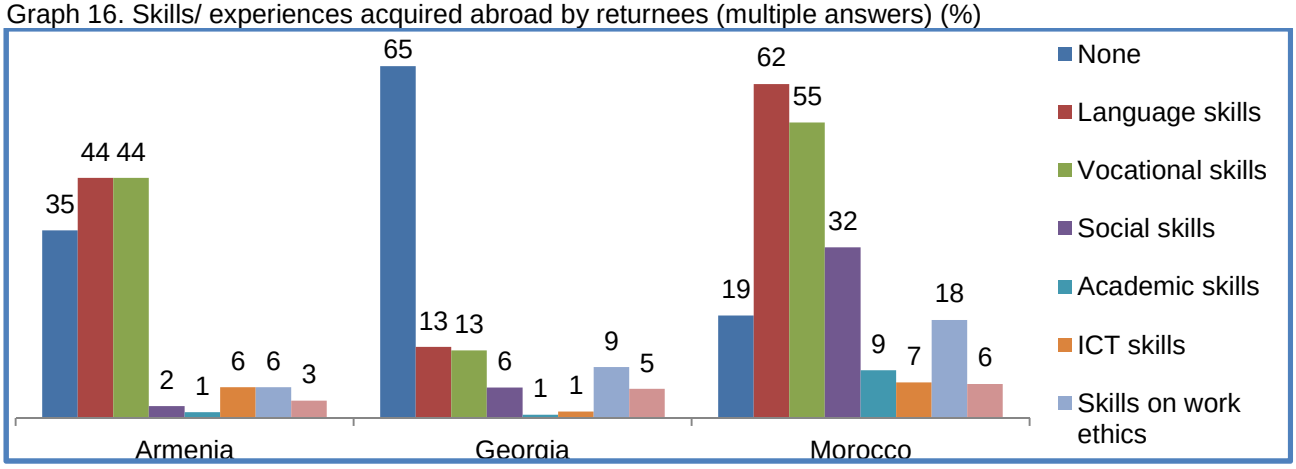


Note: Data refer only to those who received education or training abroad (N=83 in Armenia, 138 in Georgia and 430 in Morocco).

The main skills and experiences gained abroad were asked to all returnees in which 65% of Georgians, 35% of Armenians and 19% of Moroccans reported no skills and experiences acquired abroad (Graph 16). Among

those who report to have gained useful skills and experiences abroad, the responses were similar. Vocational and technical skills were acquired by 55% of Moroccan respondents, 44% of Armenian respondents and 13% of Georgian respondents. Language skills were also widely cited, from 62% in Morocco, 44% in Armenia to 13% in Georgia, followed by skills related to work organisation and ethics, which varied from 18% of Moroccans to 9% of Georgians. This also suggests that despite the low match of education level of respondents and the kind of work performed abroad (pointing to a limited use of respondents' existing skills), some gains in terms of new skills and experiences have been obtained by many respondents, mainly in Morocco and Armenia.

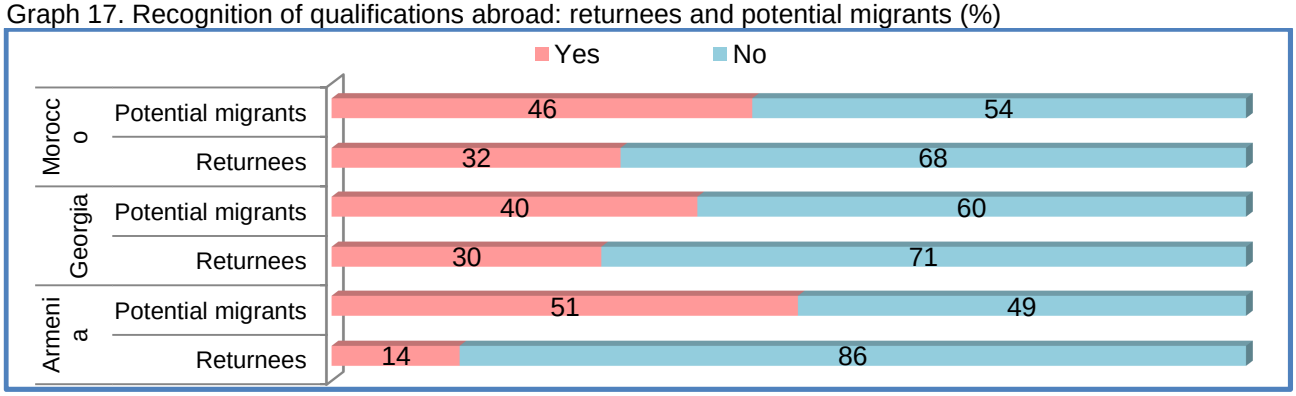
Graph 16. Skills/ experiences acquired abroad by returnees (multiple answers) (%)



Note: Missing data below 1%.

Migrants were also asked about the recognition of their qualifications abroad. As shown in Graph 17, almost one-third of returnees received formal recognition of their qualifications abroad in Georgia and Morocco. This share is much lower in Armenia (14%). There is certainly a higher interest among the potential migrants to have their qualifications recognised abroad: 51% in Armenia, 46% in Morocco and 40% in Georgia. The review of recognition practice by country of destination does not give a clear trend or pattern among different destinations. Depending on the size of migrant flows in a given destination, the share of returnees whose qualifications were officially recognised largely differs in every destination.

Graph 17. Recognition of qualifications abroad: returnees and potential migrants (%)



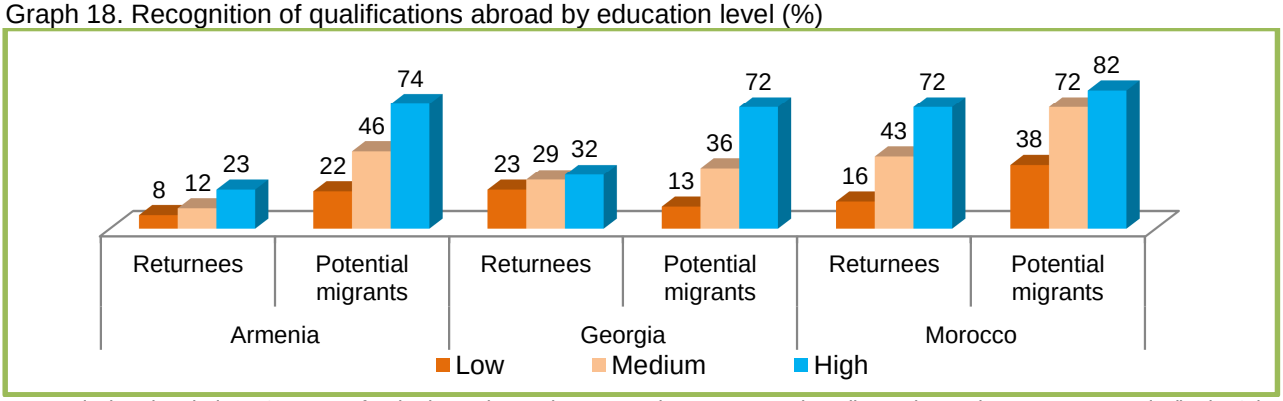
Note: Missing data below 1% except for the returnees in Morocco and Armenia (both 6%) and the group of potential migrants in Morocco (22%; potential migrants data refer only to those who think that they find work corresponding to their educational qualifications, excluding respondents who were counted as both potential and returning migrants and for which the return migrant questionnaire was used (N=419 in Armenia, 397 in Georgia and 576 in Morocco).

The actual number of returnees whose qualifications were recognised abroad by destination country is given below to give some idea to the readers.

- Georgians: Russia (142), Turkey (101), Greece (34), Germany (30), USA (19), Ukraine (18), Azerbaijan (11), UK (6), Israel (6)
- Moroccans: France (175), Spain (35), Italy (35), Belgium (26), Canada (20), USA (19), UAE (15), Netherlands (11), Germany (10), Saudi Arabia (14)
- Armenians: Russia (139), Germany (6), USA (6), Georgia (4), France (3)

Looking at the experience of qualification recognition by education level, it is obvious that they are mainly the high-educated returnees who got recognition and high-educated potential migrants who think to apply (Graph 18). It is more difficult to access to recognition for those with medium (and VET) education levels. What is common in Armenia and Georgia is the low level of recognition received by returnees, even among the high-educated group (one-fourth in Armenia and one-third in Georgia). Moroccan returnees, however, indicated a higher degree of recognition, particularly for the high-educated (72%) and medium-educated (43%). Higher degree of participation in education by the Moroccan migrants may have required better knowledge and higher recognition of academic qualifications. In all countries, potential migrants have higher expectations for the recognition of their qualifications abroad.

Graph 18. Recognition of qualifications abroad by education level (%)



Note: Missing data below 5% except for the low-educated returnees in Morocco and medium-educated returnees Armenia (both 7%) and the group of potential migrants in Morocco (23% - low educated respondents, 22% - medium educated respondents and 15% highly-educated respondents); potential migrants data refer only to those who think that they find work corresponding to their educational qualifications, excluding respondents who were counted as both potential and returning migrants and for which the return migrant questionnaire was used (N=419 in Armenia, 397 in Georgia and 576 in Morocco).

7. Use of remittances and savings for education

The two-thirds of migrants in Georgia and Morocco and three-fourth in Armenia regularly sent remittances to home and brought back savings with them (Table 5). Average amount of remittances per month reaches €360 in Armenia, €354 in Morocco and €261 in Georgia. Average amount of savings, on the other hand, was found highest per returnee in Armenia and lower in Georgia, while this question was avoided in Morocco. It must be emphasized that respondents during the interviews were not always keen to report their income, including remittances and savings. Young people tend to over-estimate and older people tend to under-estimate income, while in Morocco many people refused to answer income-related questions, which may be linked to the low level of trust.

Table 5. Size of remittances and savings coming from returnees

Remittances and Savings	**ARMENIA**	**GEORGIA**	**MOROCCO**
Share of returnees who sent remittances regularly	76%	64%	63%
Average amount of remittances sent per month	360 EUR	261 EUR	354 EUR
Median amount of remittances sent per month	287 EUR	220 EUR	300 EUR
Share of returnees who brought back savings	67%	67%	69%
Average amount of savings per returnee	2009 EUR	1400 EUR	No data
Median amount of savings per returnee	972 EUR	667 EUR	No data

Note: Data on the shares of returnees with saving/remittances – below 2%; data on the average amount of remittances and savings refer only to those having sent/having brought remittances/savings and missing data equal to 23% in case of remittances (N=1048) and 35% in case of savings (N=912) in Armenia; 16% in case of remittances (N=893) and 26% in case of savings (N=922) in Georgia; and 12% in case of remittances (N=875) in Morocco.

Data on the use of remittances and savings reinforces what is often found in the surveys focusing on the use of remittances. Living expenses is the most common use of remittances, by a very considerable margin in all three countries (Table 6). In Armenia and Georgia more than 95% spend remittances on living expenses and

89% in Morocco do so. The second type of expenditure is the purchase of property (more than 15% in Armenia and Morocco), which increases to 33% in Morocco in the use of savings. In Georgia, buying durables (car, computer, home electronics etc) is the second type of expenditure after living expenses, which is also important in Morocco. The most noteworthy item for Morocco is that a significant 32% invested their savings (8% for remittances) in a business activity. This may be linked to the long tradition of small family firms operating informally and a higher preference and necessity of the workforce for starting an entrepreneurial activity, mainly shaped by the lack of opportunities in wage employment.

Table 6. The use of remittances and savings at home (%), multiple answer

Areas spent	**ARMENIA (%)**		**GEORGIA (%)**		**MOROCCO (%)**	
	remittances	savings	remittances	Savings	remittances	savings
Living expenses	96	86	97	85	89	64
Buying property	15	19	4	6	16	33
Buying durables	7	9	15	18	14	19
Education of children or of others	9	6	16	13	21	10
Business activity	0	1	0	3	8	32

Note: Data refer only to those having sent/having brought remittances/savings - N=1048 (remittances) and N=912 (savings) in Armenia; N=893 (remittances) and N=922 (savings) in Georgia; N=875 (remittances) and N=956 (savings) in Morocco; missing data below 4%.

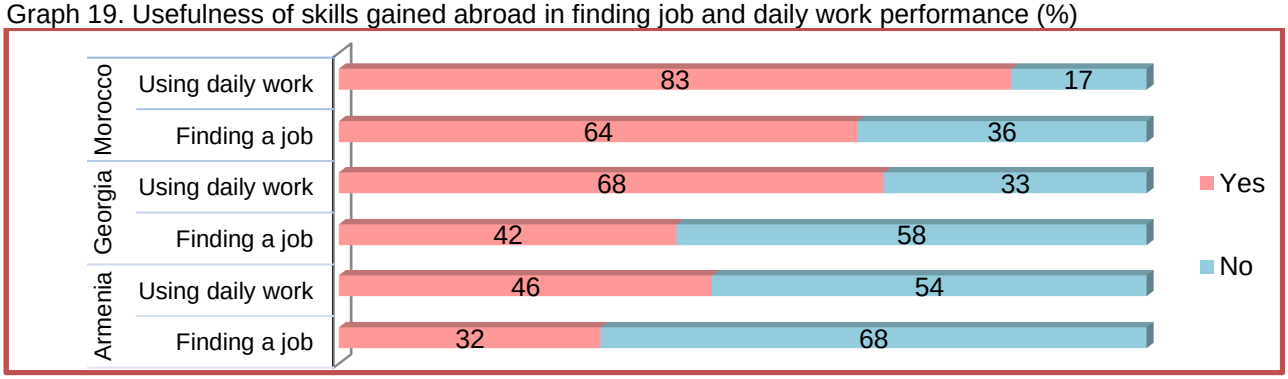
A particularly interesting aspect that is relevant to issues of brain drain is the use of remittances and savings for education. Data from this study suggests rather positive examples regarding the issue of 'brain gain'. Although investment in education is far short of consumption, it is still higher than comparable surveys have found. This can be seen, in particular, in the case of Morocco and Georgia. In Morocco, 21% of the respondents report that part of their remittances was spent on education, and 10% of the returnees spent part of their savings on this purpose. In Georgia, the share of respondents having spent their resources on education account for 16% in case of for the use of remittances and 13% in case of the use of savings. In Armenia only 9% of respondents reported that they used remittances for education of children and of others.

8. Work experience and use of skills after return

The central question of this section is whether the skills and experience gained abroad can be translated into a smooth career progression for migrants when they return home. The fact that a very small proportion of individuals received some kind of certificate for the skills learnt abroad makes this harder, but there are other ways in which skills and experience may be recognised. Working after return may be the sign of appreciation of skills linked to migration experience. As discussed in section 3 (Graph 5), employment level is generally low for all three groups, especially in Georgia and Armenia, but the returnees seem to be the most employed group in all countries. Employment rate of returnees is 73% in Morocco, 43% in Armenia and 31% in Georgia. Therefore, migration experience increases employment, more for women, most significant impact seen in Morocco.

Out of those who have worked since return, only a third or more Armenian and Georgian returnees reported that their experience abroad had helped them find a job on return, compared to a significant majority (64%) of Moroccan returnees (Graph 19). Thus, having worked abroad does not necessarily help upon return in Armenia and Georgia, which may also be linked to the limited use of existing skills on the foreign labour market and their subsequent deterioration as well as poor opportunities on the local labour market at home. In Morocco, on the other hand, the situation differs suggesting that migration can bring new skills and experiences with more benefits to returnees. In general, returnees in Armenia and Georgia get limited gains with respect to the labour market situation upon return, while in Morocco they perform much better on the labour market. Yet, this also may be triggered by the educational profiles of these groups of migrants, as returnees in Morocco were the best educated than the respondents in the potential migrant dataset in contrast with Armenia and Georgia.

Graph 19. Usefulness of skills gained abroad in finding job and daily work performance (%)

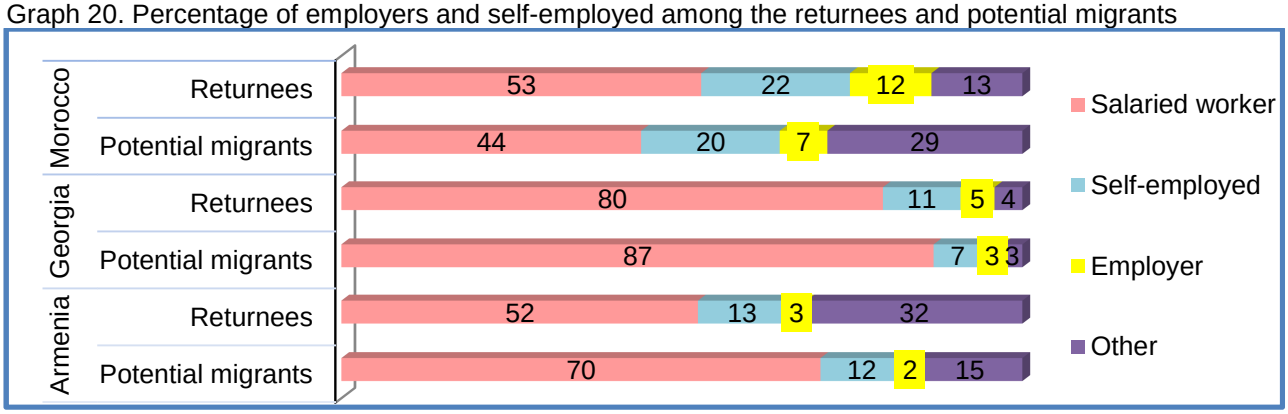


Note: Data refer only to those who found work upon return (N=580 in Armenia, 416 in Georgia and 844 in Morocco); missign data below 4%.

A much larger proportion of migrants in all three countries reported that they used their skills gained abroad in their daily work, though this was still a minority in Armenia. Clear majorities in Georgia (68%) and Morocco (83%) found experiences abroad useful in their daily work. There were no gender differences in this data in Armenia and Morocco, while gender differences in Georgia were slightly more obvious, with women slightly less likely to report usefulness of experiences gained. This is important given the larger proportion of women among the Georgian returnees and the main type of work they performed abroad (domestic services).

When comparing the work types performed by the respondents from the potential migrant dataset (both those who intend to migrate and those who do not) and returnees aged 18-50, the share of salaried workers decreases among returnees in Armenia and Georgia (Graph 20). This is expected given the reduced contacts in home country and decreased knowledge about the local economies. However, the situation is reverse in the case of Morocco. More returnees than population aged 18-50 are employed as salaried workers (53% versus 44%). Moreover, the share of employers almost doubles among the returnees: 12% of returnees became employers compared to 7% of the respondents from the potential migrant dataset. This result indicates a strong positive impact of migration on entrepreneurship and job creation in Morocco. A smaller but similar trend exists in Georgia: 5% of returnees became employers after return. A bigger difference is increased share of self-employed from 7% to 11% after return in Georgia.

Graph 20. Percentage of employers and self-employed among the returnees and potential migrants



Note: Missing data below 5% except for the group of returnees in Morocco (18%); data refer to the current or most recent work performed; in addition, data on potential migrants both those who intend to migrate and non-migrants) refer only to those who have ever worked (N=1737 in Armenia, N=1856 in Georgia and N=1669 in Morocco. The group of returnees is restricted to those aged 18 to 50 (N=1365 in Armenia, N=1128 in Georgia, N=1122 in Morocco).

9. Migration and return outcomes by education levels

For a more systematic analysis of migration and return outcomes, two composite indicators were developed for returnees. Migration outcome indicator brings together nine variables relating to the period of time spent abroad and aggregates different dimensions of a returnee's legal and work status abroad. The variables include career progression abroad, the fit between skill levels and the type of work abroad, work/ residence permit, legal status, fair treatment at work, the recognition of educational qualifications, skill development opportunities, periods of unemployment and remittances sent home.

Return outcome indicator, which focuses only on the migrants' experiences since return, assesses the impact of labour migration on different dimensions of post-return work and current economic status. It combines six variables of the savings brought back home, employment upon return, post-return opportunities for career progression, social benefits linked to migration, usefulness of migration to find a job at home and returnee's subjective assessment of the benefits of migration. Based on the scores received in both indicators, the returnees were classified into three outcomes indicating gain or loss from migration (Table 7).

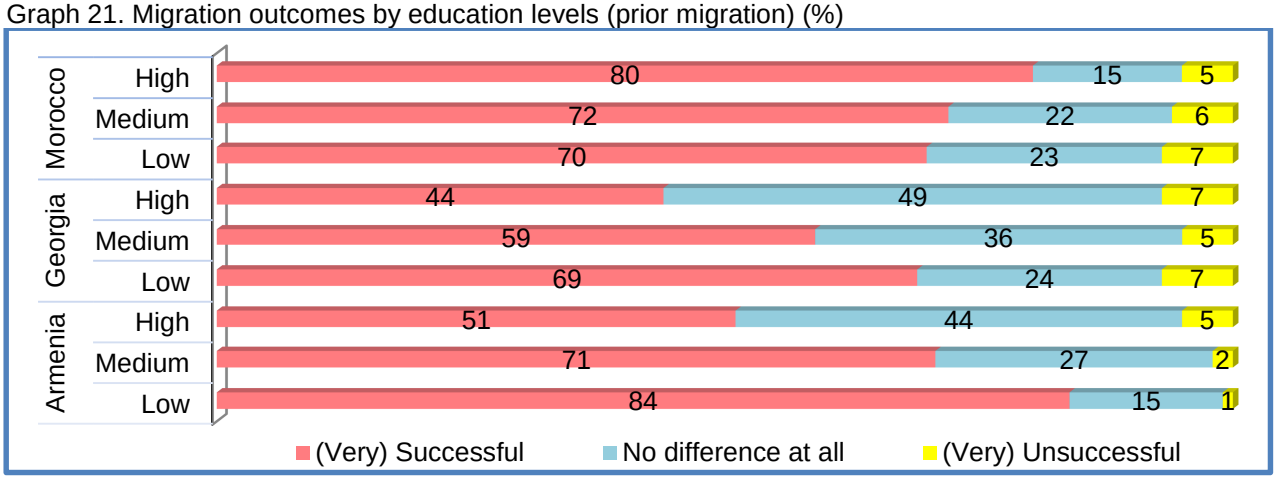
Table 7. Returnee distribution by their migration and return outcomes (%)

MIGRATION OUTCOME	**ARMENIA**	**GEORGIA**	**MOROCCO**
Successful + very successful	68%	55%	72%
No difference at all	30%	40%	23%
Unsuccessful + very unsuccessful	2%	5%	5%
RETURN OUTCOME	**ARMENIA**	**GEORGIA**	**MOROCCO**
Successful + very successful	57%	45%	70%
No difference at all	41%	47%	23%
Unsuccessful + very unsuccessful	2%	8%	8%

Note: Missing data regarding to migration outcome equal to 13%for Armenia, 8% for Georgia and 21% for Morocco; missing data regarding to return outcome equal to 28%for Armenia, 19% for Georgia and 50% for Morocco.

Migration experience abroad was considered more successful than return experience in Armenia and Georgia. Higher success rates were reported in Morocco (72%) and Armenia (68%). Georgia displays less optimistic picture for successful migration, though still more than half of migrants. Concerning return outcomes, more returnees in Georgia and Armenia reported no impact on their lives after return (close to half). The highest successful return was achieved by the Moroccan returnees (70%), while this was above half in Armenia and less than half in Georgia. These results paint a somewhat mixed picture of migration in Georgia and Armenia. It seems that most migrants benefit from the immediate impact of migration, mainly through sending remittances to families, but they are less successful in turning their migration experience into improved living standards upon return, in a sustainable manner. The lower education levels of migrants and longer duration of migration may contribute to better outcomes for Morocco.

Graph 21. Migration outcomes by education levels (prior migration) (%)

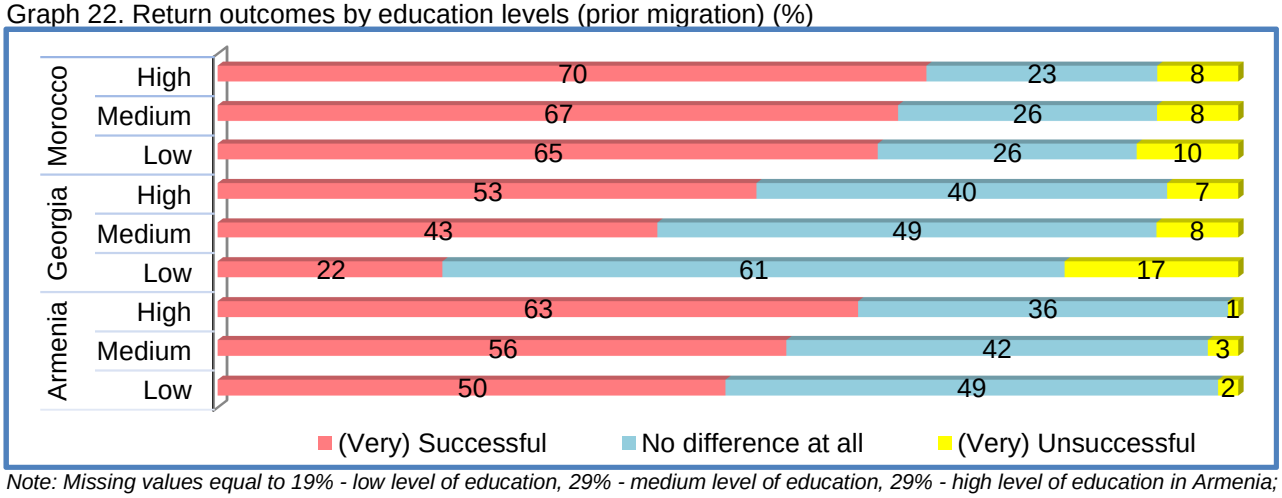


Note: Missing values equal to 11% - low level of education, 16% - medium level of education, 8% - high level of education in Armenia; 3% - low level of education, 9% - medium level of education, 6% - high level of education in Georgia; and 23% - low level of education, 18% - medium level of education, 16% - high level of education in Morocco.

Graph 21 presents the migration outcomes by the education levels of migrants. Although the share of unsuccessful migration is very small in all education groups, the relationship between education level and successful migration outcomes is not always straight forward. In Armenia and Georgia, it is the lowest-educated group who received most benefits from their migration experience abroad (84% in Armenia and 69% in Georgia), while the successful migration outcomes were the lowest among the best-educated group. This is contrary to traditional wisdom where higher-educated is expected to be more successful. This is probably linked to the largely irregular nature of migration from these countries, the variety of destination countries, less of migrant networks due to the relatively new migration history as well as low matching of migrants' skills and the jobs performed abroad.

Contrary to this trend, in Morocco, the best educated group experienced the most successful migration (80%). Furthermore, the success rates of migration outcomes are generally higher across all education groups in Morocco. Again, this may be linked to the relatively longer and more regular (legal) nature of migration, the EU countries as main destination and large migrant networks (diaspora) due to the longer migration history.

Graph 22. Return outcomes by education levels (prior migration) (%)



Note: Missing values equal to 19% - low level of education, 29% - medium level of education, 29% - high level of education in Armenia; 13% - low level of education, 18% - medium level of education, 22% - high level of education in Georgia; and 53% - low level of education, 47% - medium level of education, 38% - high level of education in Morocco.

Graph 22, on the other hand, shows the return outcomes by the education levels of migrants. Here the more educated the migrants, the better their return outcomes in all three countries. Overall, the return experience is found much more successful in Morocco (more than two-third of returnees) and Armenia (between a half and two-third). In Georgia, only half of the higher-educated migrants had successful return, and as high as 61% of the low-educated did not experience any difference in their lives upon return after migration. The share of unsuccessful return is also slightly higher in Georgia. Overall, migration experience was more successful than return experience for many migrants.

10. Discussion of the survey findings and key policy conclusions

The ETF surveys in Armenia, Georgia and Morocco focused on the dynamics between migration and human capital and the data provided new information on the education, skill and employment profiles of both potential migrants and returnees. Linked to the education levels of migrants, questions raised on whether the migrants' qualifications were used while working abroad, whether new skills and qualifications were acquired during the stay abroad and to what extent the new skills and qualifications of returnees are used in the domestic economy and labour market. This information brings new evidence on the interaction of human capital and migration and identifies some general trends in the three countries linked to brain drain, brain gain, brain waste and brain circulation. Below is given a short discussion of survey findings with some policy conclusions.

- **Although main reason for migration is overwhelmingly economic, a sizeable minority migrate for education and training reasons, particularly in Morocco.**

In all countries, main reasons of migration are overwhelmingly economic (no job, low wage and career prospect and improving life standard). However, in Morocco there is a sizeable minority of returnees who migrated primarily for education reasons. Given the use of same definitions and sampling methods in all three countries, the Moroccan case implies a higher share of 'international student flows' than in Georgia and Armenia (least). This can be considered positive for Morocco as migration is used to increase one's human capital and transfer of international knowledge (besides work experience for some time). However, this may also imply both for a higher value of education abroad in the Moroccan society and labour market and/or more limited opportunities for quality education at home. The trajectory of these international students and the possible impact on the national higher education system should be monitored, and the graduates from foreign universities must be actively encouraged to return and take up 'productive' jobs at home. Awareness raising programmes should focus on informing the populations at large that migration does not compensate for low level of education or guarantee a better employment (abroad).

- **By and large, education/ skill levels of migrants reflect the overall education levels of populations, but interest in migration is the highest from primary to secondary education in all three countries.**

Education/ skill levels of migrants reflect the general education of populations and the structure of education systems in their countries of origin. For example, higher shares of migrants from Armenia and Georgia have medium vocational and higher education, while the share of migrants with vocational and higher education is very small in Morocco. The low education level of the Moroccan population and the higher education level in Armenia and Georgia lead to slightly different interaction between education and intention to migrate. There is a strong tendency for the large proportion of completely uneducated individuals in Morocco to prefer to remain in the country. This suggests an 'education hump' (similar to the famous 'migration hump' identified by Phillip Martin) in which at very low levels of education, migration is unlikely. Interest in migration then gradually increases from primary to secondary education until it starts to fall again amongst individuals with higher education. Thus individuals with primary and secondary education are the most likely potential migrants in all three countries, but this group forms 'the lowest educated' in Armenia and Georgia, while they are in 'the medium-educated' category in Morocco due to the sizable illiteracy and no-schooling.

In all countries higher education levels reduce the intention to migrate but, at the same time, increases the opportunity to migrate. This is more complicated in case of Morocco, where overall education level is low and graduate unemployment high, so the pattern is less obvious. Indeed, Moroccan returnees seem to be the best educated group overall, even before migration. This suggests a small degree of self-selectivity towards educated individuals in the past, at least among those who returned back. Another possible explanation is a higher premium of education abroad within the Moroccan labour market context, also indicated by the high success rate of return among the higher educated. A better knowledge of education and training systems of sending countries can help destination countries better understand the expected skill profiles of migrant flows.

- **Unemployment increases the likelihood of migration in all countries, particularly for men; although having a job does not prevent but facilitates migration especially in Morocco.**

Employment level is low in all three countries, albeit with variations. Potential migrants are least likely to be employed in Armenia and Georgia, while in Morocco higher share of potential migrants works compared to non-migrants, so the intention to migrate is higher among those who are currently employed. This may be linked to the specificity of non-migrants who are more likely women with low/no education in Morocco. In all countries potential migrants are more represented among the unemployed, casual workers and self-employed. Moreover, unemployment is an obvious factor inciting migration in all three countries for men, while women's intention to migrate is not sensitive to unemployment except Morocco.

In all countries, migration experience increases the activity and employment rates upon return, particularly significant for women. Morocco shows the biggest change, with two-third of returnees employed compared to less than half of non-migrants.This may indicate that migration provides better opportunities for employment upon return, both signs of skills (personal and technical) acquisition during migration periods, a valuable bonus for the labour market of a country characterised with very high inactivity rates and low education levels of workers. Given the significant employment challenges, labour market management and reforms, job creation and active employment policies to support labour market integration must be essential part of migration policies for both the governments and donors.

- **Despite common destinations in Europe and Russia, the best and brightest from all countries tend to prefer USA and Canada as main destination, while some EU countries are also attractive for the better-educated migrants from Armenia and Georgia.**

In general, diaspora links and visa policies seem to facilitate migration flows to the main destinations. However, in both Armenia and Georgia, the highly-educated migrants prefer to migrate to the USA, Canada and five EU destinations (France, Germany, UK, Spain and Italy). Females who are generally better educated than men have higher preference for these destinations, while male migrants mostly travel to Russia. The migrants in Russia are largely medium-educated, but still considerable numbers of the highly-educated migrants go to Russia than to any other country in terms of absolute numbers.

Despite the general attractiveness of Europe and very small numbers of highly-educated, the most preferred destinations of the Moroccan high-skilled are also the USA and Canada and there is no gender difference for destinations. Contrary to others, the Moroccan migrant flows are dominated by the low-educated in Europe, particularly in Spain and Italy, and the EU countries are relatively less attractive to the high-skilled. France is

also the main or most likely destination for many low/medium-educated migrants, though a relatively high share of higher-educated returned from France, indicating international student flows and certain degree of brain circulation. This may be explained by a higher number of Moroccans who migrated for education purpose, and France (and to a lower extent the UK) seems to be a natural preference for post-graduate studies for the Moroccans.

- **Work experience abroad by the returnees indicates limited types of jobs available only in certain sectors and relatively limited use of education and skills at work, especially by the Georgian and Armenian migrants.**

Construction, domestic/ personal services, commerce, transport, manufacturing, agriculture and hospitality are the most common sectors of work abroad in all countries. Most migrants from Georgia and Armenia worked abroad as skilled or unskilled workers, irrespective of their education level. In the case of Morocco, there is relatively a better match between the education level and job type performed, mainly due to the overall lower levels of education, longer stay abroad and larger migrant networks (diaspora) facilitating better match. The perception of working below education level is particularly high in Georgia, and it dramatically increases among the higher-educated and women, who are generally higher-educated. The Georgian female migrants appear to be the most disadvantaged in performing jobs below their education. This can be explained by higher education levels, higher share of female 'migrant workers', diverse destinations with little migrant networks abroad and relatively recent migration history.

Therefore, there is a need for better managed migration systems that can create more (legal) opportunities for individual potential migrants. A better knowledge of education and skills of migrants and labour market needs of destination countries can help to develop mechanisms of job/skills-matching between the skills of migrants and job requirements abroad, which is necessary for better management of labour migration. Consequently, this can increase the use of migrants' education and skills abroad.

- **Migration leads to a modest 'brain gain' in subtle ways, particularly in Morocco where the education levels are low, but the new skills and experiences acquired abroad by migrants are not always visible and certified in domestic labour market upon return.**

Migration is seen as a way to enhance skills and qualifications by the majority of people. Although the share of migrants who receive formal type of education and training is low in Armenia and Georgia, almost a third of Moroccan returnees reported to receive some kind of education or training abroad. Language training, vocational training, workplace training and (post) graduate courses are the most common types. Moreover, a significant share of returnees acquired informally new skills and experiences abroad, especially high in Morocco and Armenia. Such skills include mainly vocational and technical skills, language skills, work organization and ethics. Large proportion of migrants who work after return use these skills gained abroad in their daily work and found their experiences useful at finding work, which is the highest in Morocco. Most of these new skills are, however, never certified and truly visible in the domestic labour market when the migrants return. Thus, there is a need to develop mechanisms to validate such skills, so that returnees can use their migration experience as an additional advantage while searching for a job.

Recognition of qualifications abroad is not a common practice (a third of returnees in Georgia and Morocco, much lower in Armenia), though a higher interest was expressed for it by potential migrants. However, the practice of recognition is primarily used by the higher-educated migrants – more than two-third of the Moroccan high-educated returnees benefited from it - and it is more difficult to access for those with medium (and VET) education levels. More information should be made available on the mechanisms for the recognition of qualifications abroad and potential migrants must be made aware of the importance. However, for the recognition to be possible, it requires also a better transparency and quality of qualifications provided by the education system of the sending countries and cooperation with the European receiving countries for developing systems of recognition. This could further facilitate better opportunities for the migrants on the foreign labour markets and increase the matching of their skills/education and types/levels of jobs done abroad.

- **More than two-thirds of migrants send remittances and return to home country with savings that quantifies the immediate economic benefits of migration. Some of these financial resources are used for education and for business activity.**

Although the major part of remittances or savings is used to cover living expenses, there is a limited share of respondents who used these resources for the purposes of the education and/or for starting a business activity. The use of remittances for the education seems to be particularly important in Morocco and Georgia, which is found much higher than international average in other countries. This is a positive example of migration contributing to the increase of human capital in sending countries.

Furthermore, one-third of savings in Morocco (and lower but sizeable part of remittances) was invested in a business activity. This indicates a strong positive impact of migration on entrepreneurship in Morocco, which can also be seen in the high share of returnees working as employers or self-employed upon return. This may be linked to the long tradition of micro enterprises in the (mostly informal) economy and both preference and necessity for starting business, also shaped by lack of wage employment. The importance of savings to start a business should be recognised by the governments and more mechanisms and information on the different schemes should be made available to support returnees for more successful business start-ups.

- **Work after return is not common in Armenia and Georgia suggesting little or no improvement of labour market reintegration, but migration experience increases employment levels upon return for all countries, especially in Morocco.**

Only between one-third in Georgia and less than half of the returnees in Armenia are employed upon return, although this is still the highest rate compared to other groups. Low employment is possibly linked to the poor labour market conditions at home, type of migration (shorter and more repetitive) and lower entrepreneurial attitude as a result of Soviet heritage. The gains with respect to the acquisition of new skills and experiences, use of existing skills on the foreign labour market as well as education and recognition of qualification abroad were far lower and limited in the two countries. This suggests that despite the immediate gains related mainly to remittances; migrants are less successful in turning their experience into improved living standards upon return in a sustainable manner. On the contrary, it may affect negatively the chances on the labour market at home due to the deterioration of their qualification once acquired at home, decreased knowledge about local conditions and labour market needs as well as limited social networks.

In Morocco, on the other hand, migration experience itself seems to activate people and increase employment levels for all, most dramatic for women. The returnees have the highest activity and employment rates and non-migrants the lowest rates. This demonstrates a clear premium of migration (and education abroad) in the Moroccan labour market context, which is possibly linked as well to higher levels of entrepreneurial attitude among the returnees in an environment largely dominated by traditional/informal micro enterprises. Indeed, the share of employers almost doubles among the Moroccan returnees, indicating the positive impact of migration on entrepreneurship and job creation. And a large proportion of migrants who work after return use their skills gained abroad in their daily work and found their experiences useful at finding work. Thus, returnees need more systematic support for their labour market reintegration at home, and services should be made available particularly for job intermediation and entrepreneurship.

- **Migration is an individual project which largely ends with successful outcomes, but return outcomes are found less successful in Georgia and Armenia, with the higher-educated migrants receiving more benefits.**

Migration experience abroad is largely considered successful in all three countries (Morocco, Armenia and Georgia in order of significance), which explains the continuous and sustained migration flows from these countries. Return outcomes were found much less successful in Georgia (less than half) and Armenia (a bit more than half). Indeed, many returnees experienced no impact on their lives upon return (close to half), which is linked mainly to the high unemployment upon return. Return was much more successful for the Moroccan migrants, which may be linked to the relatively more regular nature of migration, longer duration, the EU as the main destination and larger migrant networks.

The relationship between education level and migration outcomes is not always straight forward. Contrary to conventional wisdom, the low-educated migrants received most benefits in Armenia and Georgia. This can mainly relate to the limited matching between the educational level of migrants and the low-level jobs done

abroad, which is problematic especially for the highly educated. On the other hand, the high-educated migrants were clearly the most successful in Morocco, both in terms of migration and return outcomes, although they are much fewer in terms of share and number compared to other countries. In all countries, higher education enables migrants to use the migration experience positively upon return and make their return more successful.

An EU agency promoting skills acquisition for all, ETF's interest was on the complex interaction between human capital and migration, which has been widely discussed in the literature in the form of brain drain, brain gain, brain waste, brain circulation. Overall, the discussion above indicates that migration has been more likely a success story in Morocco than the other two countries in terms of skills and employment gains. The longer migration history of Morocco, with relatively more regular nature and longer duration of migration mainly to the EU destinations, and larger migrant networks (diaspora) abroad seem to reduce the costs of migration and increase the benefits. Moreover, there is relatively a better match between the education level and job type performed abroad, mainly due to the overall lower education levels of Moroccan migrants. Thus, the low starting levels of migrants in terms of education and skills and the limited number of high-educated migrants seem to contribute to the higher success rates in Morocco.

On the other hand, Armenia and Georgia has recent migration history, much shorter duration and more irregular nature of migration experience, with more diversified destinations (Russia as the main destination) and little migrant networks in those destinations. Despite or because of the higher education levels of migrants, the match between their education levels and jobs performed abroad was quite low in the two countries, particularly in Georgia. The least success rate of Georgia can be further explained by the higher share of female 'migrant workers' who were generally higher educated but worked mostly in low-paid sectors abroad (i.e. domestic work). Educated women migrants who emigrate for work reasons seem to be the most disadvantaged group.

These findings suggest a need for policy measures to support migrants before departure, in order to secure a more efficient job and skills-matching process, and upon return, in order to facilitate their labour market reintegration and entrepreneurship support. Other policy measures related to education and skills are developing mechanisms to validate the new skills and experiences acquired abroad by migrants that can be used as a premium in the domestic labour market upon return, and giving more attention to the recognition of qualifications abroad, not only for the high-educated but also for those with medium (and VET) education levels. Thus, specific policy actions are needed in the field of employment, skills and labour market integration of migrants to decrease the costs and increase the benefits of migration. These support measures can contribute to more successful migrations and returns, with more developmental benefits at the end for the countries of origin.

Migration has certainly the potential to enhance the overall human capital stock in migrants' country of origin, but in order for migrant's experience to be of positive benefit to their country of origin three things must happen. First, they must develop their human capital during their period of time abroad through education and training opportunities, experiences and empowerment, portability of knowledge and skills – learnt in formal, informal or non-formal settings. Second, the migrants must return, which is assumed in temporary/ circular migration. Third, the experience gained abroad must be perceived as beneficial and enhanced their employability on return, e.g. both symbolic and practical values of experiences and qualifications gained abroad must be recognised in domestic labour market – including tangible and intangible benefits, such as experience/ skills facilitating to find a job on return, use of those skills at work, or broader appreciation of the world, capacity to emphasise with people of other cultures or a general openness to novelty and change.

The results can be used by policy makers in the three countries and the European Union to design supportive policies and instruments in the management of labour migration. The EU already signed Mobility Partnership (MP) agreements with Georgia in November 2009, with Armenia in October 2011 and with Morocco in June 2013. The MP framework acknowledges an employment and skill dimension that is closely linked to the national employment and skill policies of the countries, the need for efficient matching of labour and their skills and the importance of migrants' skills for developmental impact of migration. These partnerships could provide a framework for dialogue and cooperation on migration and development and legal migration and mobility issues – i.e. improving opportunities for legal migration, reducing costs and maximising benefits to all parties that could lead to 'win-win-win' situation.

Finally, the EU mobility tools can be used as an inspiration in the reform of education and training systems and labour markets in sending countries; in particular standards of the Bologna process, Copenhagen process, European Qualifications Framework (EQF), EU 2020 Strategy, mechanisms for the recognition of qualifications, validation of prior learning, transparency and quality assurance tools. Making use of these EU tools can facilitate more transparency and portability of qualifications between the sending and receiving countries. ETF can support sending countries in this field and provide inputs on skills-related support measures for legal circular migration and mobility as a contribution to the migration dialogue and/or the implementation of MP agreements between EU and ETF partner countries.