OECD Development Pathways

Interrelations between Public Policies, Migration and Development in Armenia

OECD DEVELOPMENT CENTRE

CRRC ARMENIA

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Interrelations between Public Policies, Migration and Development in Armenia

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Please cite this publication as:
OECD/CRRC-Armenia (2017), *Interrelations between Public Policies, Migration and Development in Armenia*, OECD Development Pathways, OECD Publishing, Paris.
http://dx.doi.org/ 10.1787/9789264273603-en

ISBN 978-92-64-27358-0 (print)
ISBN 978-92-64-27360-3 (PDF)
ISBN 978-92-64-27361-0 (ePub)

Series: OECD Development Pathways
ISSN 2308-734X (print)
ISSN 2308-7358 (online)

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Foreword

Armenia has a long-standing history of migration. Its independence after the collapse of the USSR in 1991 resulted in a huge downturn of the economy. The earthquake in 1988, the political and military instability in the region, as well as the internal socio-economic evolution have all contributed to the course of migration flows. More recently, the unfavourable labour market conditions have further stimulated labour emigration.

The Armenian government began taking action to leverage the benefits of migration for better development outcomes. The Strategic Program of Prospective Development for 2014-2025 highlights the creation of local jobs and economic growth as key policy priorities for overcoming the country's migration-related challenges. Yet, there still remains much more scope for the inclusion of migration into the policy agenda and designs of various state and state-related agencies. More evidence-based empirical studies are crucial to ensure that policy responses in the field of migration and development are coherent and well informed.

This report seeks to address that gap. In 2013, the OECD Development Centre and the European Commission began a project investigating the interrelations between public policies, migration and development (IPPMD) in ten different countries, with the aim of providing such empirical evidence. This report, which presents the findings for Armenia, is the result of four years of fieldwork, empirical analysis and policy dialogue, conducted in collaboration with the Caucasus Research Resource Center (CRRC)-Armenia, and with strong support from the State Migration Service.

It examines how various migration dimensions affect key policy sectors, namely the labour market, agriculture, education, and investment and financial services. Conversely, it analyses how sectoral policies influence different migration outcomes, such as the decision to migrate, the use of remittances and the success of return migration. The empirical analysis is provided thanks to the fieldwork which collected quantitative data from 2 000 households and 79 communities across the country and conducted 47 qualitative stakeholder interviews in Armenia.

This report is published in parallel with nine other country reports, which present the findings in the other IPPMD partner countries, and one comparative report, which analyses the findings across countries and provides a coherent policy framework, based on the fieldwork and analysis conducted in the ten partner countries. It is intended as a toolkit and the central piece for a better understanding of the role that public policies play in the migration and development nexus in Armenia. It also aims at fostering policy dialogue and providing guidance on how best to integrate migration into national

development strategies. Following discussions with key stakeholders and policy makers in Armenia, the OECD Development Centre and the CRRC-Armenia look forward to continuing their co-operation to enhance the positive contribution of migration to the sustainable development of Armenia.

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Acknowledgements

The *Interrelations between Public Policies, Migration and Development in Armenia* was prepared by the Migration and Skills Unit of the OECD Development Centre in co-operation with the Caucasus Research Resource Center (CRRC)-Armenia and the support of the State Migration Service (SMS) under the Ministry of Territorial Administration and Development of the Republic of Armenia.

The team was led by David Khoudour, Head of the Migration and Skills Unit, under the guidance of Mario Pezzini, Director of the OECD Development Centre. The report was drafted by Armenak Antinyan, Victor Agadjanian, Lisa Andersson, Sona Balasanyan, Anna Dalaryan, Bram Dekker, Jason Gagnon, Heghine Manasyan, Hyeshin Park, Arpine Porsughyan, Lusine Sargsyan, Nataliya Sekretareva, and Armenuhi Vanoyan. Vararat Atisophon provided supports for statistical work. Fiona Hinchcliffe edited the report and the OECD Development Centre's publications team, led by Delphine Grandrieux, turned the draft into a publication. The cover was designed by Aida Buendía. Hyeshin Park managed the overall co-ordination of the report.

This study is based on fieldwork conducted in Armenia. Data collection was made possible through co-operation with the CRRC-Armenia team led by Heghine Manasyan. The authors are grateful to Monika Shahmemendyan and Naira Vardanyan for managing the sampling and data cleaning, Ruben Yeganyan for co-ordinating the household survey field work and other field supervisors and enumerators for their assistance in carrying out challenging fieldwork.

The partnership with the SMS as the project's government focal point is gratefully acknowledged. We would like to especially thank Gagik Yeganyan and Maria Allahverdyan for their instrumental contribution throughout the project. SMS played an important role in convening the launch of the project in Armenia in October 2014 and the conduct of the consultation in September 2015. Participants at these various events provided useful comments and insights for the report.

The authors would like to extend special thanks and appreciation to representatives and experts working on migration for sharing their insights. They include Gevorg Aboyan, Jinishian Memorial Foundation; Izabella Abrahamyan, Ministry of Health of Armenia; Lilit Asatryan, Armenian Young Women's Association NGO; Victoria Avakova, UMCOR; Artak Baghdasaryan, Ministry of Economy; Laura Bailey, World Bank; Nune Balyan, the French Armenian Development Foundation in Armenia; Tatevik Bezhanyan, People in Need NGO; Christoph Bierwirth, UNHCR in Armenia; Naira Bubushyan, Ministry of Labor and Social Affairs of Armenia;

Borislav Dimitrov, EU Delegation to Armenia; Armen Galstyan, the International Centre for Human Development; Martin Galstyan, Dilijan Research Center, Central Bank of Armenia; Anahit Gevorgyan, Martuni Women's Community Council; Karen Gevorgyan, SME Development National Center; Zhirayr Edilyan, World Vision Armenia; Serena Fusco, International Committee for the Development of People; Sevan Kabakian, Birthright Armenia; Lusine Kalantaryan, National Statistical Service; Jacqueline Karaaslanian, Luys Foundation; Lana Karlova, Erasmus Plus Programme's National Office; Rita Khachikyan, National Center for Vocational Education and Training; Lusine Kharatyan, DVV International; Eduard Kirakosyan, Union of Manufacturers and Employers of Armenia; Tatul Hakobyan, World Health Organization; Anahit Harutyunyan, Armenian Relief Society; Hasmik Hovhannisyan, Armenian Development Agency; Gagik Makaryan, Republican Union of Employers of Armenia; Vardan Marashlyan, RepatArmenia Foundation; Mher Margaryan, Ministry of Foreign Affairs; Ani Mnatsakanyan, Umbrella Information Support System for Employment Services project, ICHD; Nora Mnatsakanyan, Hope and Help NGO; Aram Navasardyan, Armenian Marketing Association; Arshak Papoyan, National Center for AIDS prevention; Knarik Petrosyan, Ministry of Diaspora; Garik Sahakyan, State Employment Agency of the Ministry of Labor and Social Affairs; Gagik Sardaryan, Center for Agribusiness and Rural Development Foundation; Karine Saribekyan, Ministry of Health of Armenia; Karine Simonyan, GIZ; Larisa Ryan, Teach for Armenia; Robert Stepanyan, Ministry of Education; Ilona Ter-Minasyan, IOM-Armenia; Sergey Tantushyan, IDeA Foundation; Hrachia Tspnetsyan, Ministry of Agriculture of Armenia; Vardan Urutyan, International Center for Agribusiness Research and Education Foundation; Anoush Yedigaryan, Children of Armenia Fund; Aram Vartikyan, YSU Sociology Department's graduate program in Migration and Conflict Studies.

The OECD Development Centre is particularly grateful to the European Union for its financial support and collaboration in carrying out this project in ten partner countries. We would also like to thank the Delegation of the European Union to Armenia for its instrumental support.

* This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of the OECD Development Centre and the CRRC-Armenia and can in no way be taken to reflect the views of the European Union.

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Acronyms and abbreviations

AMD	Armenian dram
CRRC	Caucasus Research Resource Center
ETF	European Training Foundation
EU	European Union
EUR	euros
GDP	Gross domestic product
IPPMD	Interrelations between Public Policies, Migration and Development
MLSA	Ministry of Labour and Social Affairs
NSS	National Security Service
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary least squares
OSCE	Organization for Security and Co-operation in Europe
PEP	Public employment programme
PSU	Primary sampling unit
RA	Republic of Armenia
SEA	State Employment Agency
SPPD	Strategic Program of Prospective Development
USD	United States dollars

A corrigendum has been issued for this page. See http://www.oecd.org/about/publishing/Corrigendum_IPPMD_Armenia.pdf

Facts and figures of Armenia

(Numbers in parentheses refer to the OECD average)

The land, people and electoral cycle

Population (million)[c]	3.0	Official language	Armenian
Under 15 (%)[c]	18 (18)	Form of government	Constitutional republic
Population density (per km^2)[c]	106 (37)	Last election	April 2nd 2017
Land area (thousand km^2)	28.5		

The economy

GDP, current prices (billion USD)[c]	10.5	Exports of goods and services (% of GDP)[c]	29.8 (28.5)
GDP growth[c]	3.0 (2.1)	Imports of goods and services (% of GDP)[c]	41.9 (28.2)
GDP per capita, PPP (thousand USD)[c]	7.9 (38.0)	GDP shares (%)[c]	
Inflation rate[c]	3.7 (0.2)	Agriculture, forestry and fishing	19.3 (1.6)
General government total expenditure (% of GDP)[c]	26.4	Industry, including construction	28.8 (24.2)
General government revenue (% of GDP)[c]	21.5	Services	51.9 (74.2)

Well-being

Life satisfaction (average on 1-10 scale)[c]	4.3 (6.5)	Proportion of population under national minimum income standard (%)[b]	30.0
Life expectancy[b]	75 (80)	Unemployment rate (%)[b]	17.1 (7.3)
Income inequality (Gini coefficient)[b]	32 (31)	Youth unemployment rate (ages 15 to 24, %)[b]	35.1 (16.4)
Gender inequality (SIGI index)[b]	0.24 (0.02)	Satisfaction with the availability of affordable housing (% satisfied)[c]	34 (46)
Labour force participation (% of 15 to 64 year old)[b]	67.8 (70.7)	Enrolment rates	
Employment-to-population ratio (15 and over, %)[b]	52.9 (55.2)	Primary (Net)[a]	84 (96)
Population with access to improved sanitation facilities (%)[c]	89.5	Secondary (Gross)[a]	97 (104)
Mean years of schooling[c]	11.3	Tertiary (Gross)[b]	44 (70)

Notes: a) Data from 2010 or older; b) Data for 2014; c) Data for 2015.

Sources: World Bank, *World Development Indicators* (database), *http://data.worldbank.org/*, Washington, DC; OECD, SIGI Social Institutions and Gender index, *www.genderindex.org/*; IMF, *World Economic Outlook Database*, International Monetary Fund, October 2016 edition, Washington, DC; UNESCO Institute for Statistics, Data Centre, *http://stats.uis.unesco.org*; Gallup (2015), *Gallup World Poll* (database), Gallup Organisation.

Executive summary

The Republic of Armenia has one of the highest emigration rates in the world, with about 30% of the population living outside the country. Inevitably, international migration has been playing a significant role, both positively and negatively, for the country's development and the government is devoting more attention to this phenomenon. The 2014-2025 Strategic Program of Prospective Development underscores the links between migration and development. The key question now is how to create a favourable policy environment to make migration work for development. The Interrelations between Public Policies, Migration and Development (IPPMD) project – managed by the OECD Development Centre and co-financed by the European Union – was conceived to enable this discussion in Armenia. The IPPMD project explores:

1. how migration's multiple dimensions (emigration, remittances, return migration) affect some key sectors for development, including the labour market, agriculture, education, and investment and financial services
2. how public policies in these sectors enhance, or undermine, the development impact of migration.

This report summarises the findings and main policy recommendations stemming from empirical research conducted between 2013 and 2017 in collaboration with the Caucasus Research Resource Center (CRRC-Armenia) and the State Migration Service under the Ministry of Territorial Administration and Development. Data were gathered from a survey of 2 000 households, interviews with 79 local authorities and community leaders, and 47 in-depth stakeholder interviews across Armenia. Robust analysis, accounting for Armenian political, economic and social contexts, sheds new light on the complex relationship between migration and sectoral policies.

Policy coherence is critical to make migration work for development

The research findings provide evidence of the links between migration and a range of key development indicators in Armenia. Various dimensions of migration – emigration, remittances and return migration – have both positive and negative effects on key sectors of the Armenian economy. Similarly, sectoral

policies have unexpected and sometimes contradictory impacts on migration and its role in development.

Labour market policies tend to curb emigration

While emigration negatively affects households' labour force participation through remittances, the additional income received from emigrants encourages self-employment, notably of women in rural areas. Furthermore, return migration in rural areas also seems to boost self-employment. In turn, how do Armenian labour market policies affect migration? The IPPMD research found that active labour market policies can influence migration decisions of individuals and households. Vocational training programmes, for instance, tend to curb emigration in Armenia unlike the other IPPMD partner countries' general pattern. Only 7% of people who participated in a vocational training programme have plans to emigrate, compared to 12% of non-participants. Most Armenian emigrants come from low-skilled occupations in agriculture and construction. Given that the propensity to emigrate is higher among the lowest skilled occupational groups, such training programmes could be promoting upward labour mobility and reducing incentives to look for jobs abroad. The IPPMD research also finds that government employment agencies can curb emigration by providing people with better information on the Armenian labour market.

Agricultural subsidies influence households' migration decisions

Agricultural households in Armenia are more likely to be receiving remittances than non-agricultural households, and this additional income is often spent on agricultural assets. However, it appears that the amounts invested are not high enough to revitalise the agricultural sector, or the rural sector in general. For instance, there is very little evidence of diversification into various agricultural activities or non-agricultural business by farming households. The IPPMD analysis also finds that agricultural policies may be discouraging emigration by members of farming households and encouraging current emigrants to return. Individuals in households benefiting from agricultural subsidies are less likely to emigrate or be planning to emigrate. In addition, households receiving agricultural subsidies were more likely to have a return migrant. By providing households with the means to relieve the financial constraints which may have driven a member to leave, subsidies may be providing an incentive for emigrants to return home.

Remittances encourage investments in education

The IPPMD analysis confirms that remittances stimulate more investment in education. In addition, a higher share of female-headed households (14%) invests in children's schooling than male-headed households (8%). Migration however, may have disruptive effects on youth school attendance. Both return

migration and emigration seem to be negatively associated with school attendance, by girls in particular. The Government of Armenia has implemented multiple programmes to improve and strengthen the education sector in the past two decades. The IPPMD project found that existing education programmes, however, have little impact on household migration decisions, probably because they mainly involve in-kind support and are of fairly limited coverage.

Investment is not being boosted by migration

Armenia has a healthy and open investment climate and a supportive environment for business start-ups. However, the IPPMD research finds a low level of business ownership by households with and without migration experiences alike. Furthermore, the link between households' business ownership and remittances appears to be negative: remittance-receiving households are less likely to own a business. Potential reasons for this finding are the low level of financial inclusion of the population and the rather underdeveloped financial markets, especially in rural areas. For instance, the IPPMD survey found that 96% of urban communities have a bank compared to only 2% of rural communities. Moreover, participation in financial training programmes is very low among migrant and non-migrant households alike: less than 1% of surveyed households benefited from a financial training programme. Expanding access to the formal financial sector and financial training programmes may help people send and receive more remittances, and to do so through formal channels.

The way forward: Integrate migration into sectoral and national development strategies

Migration can benefit Armenia's economic and social development, but its potential is not yet fully realised. Although Armenia's numerous strategic documents have included migration, the scope of inclusion is still rather low. Furthermore, many sectoral policy makers do not yet sufficiently take migration into account in their respective policy areas. A more coherent policy framework across ministries and at different levels of government would make the most of migration. Migration needs to be considered in the design, implementation, monitoring and evaluation of relevant sectoral development policies. For example:

- Employment agencies could reach out to both current emigrants abroad and migrants who have returned.
- Agricultural subsidies could be conditional on subsequent yields rather than being provided in advance.
- Cash and in-kind distribution programmes could be expanded in areas with high emigration rates to encourage young people to complete secondary education.
- A national financial literacy programme would enable Armenians in general, and migrants and their families in particular, to invest remittances more productively.

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Chapter 1

Overview and policy recommendations in Armenia

Armenia is missing opportunities to harness the development potential of its high rates of emigration. The Interrelations between Public Policies, Migration and Development (IPPMD) project was conducted in Armenia between 2014 and 2017 to explore through both quantitative and qualitative analysis the two-way relationship between migration and public policies in four key sectors – the labour market, agriculture, education, and investment and financial services. This chapter provides an overview of the project's findings, highlighting the potential for migration in many of its dimensions (emigration, remittances and return migration) to boost development, and analysing the sectoral policies in Armenia that will allow this to happen.

International migration has been an important determinant of development in Armenia. The country experienced its largest outflows after independence in 1991, driven by changes in the economic regime and high unemployment. Today Armenia still has one of the highest emigration rates in the world, with about 30% of the population living outside the country. This phenomenon has both positive and negative effects on the country. The key question now is how to create a favourable policy environment, across all relevant sectors, to make the most of migration for development in Armenia.

This report details the Armenia findings of a ten-country study on the interrelations between public policies, migration and development (IPPMD; Box 1.1). It aims to provide policy makers with empirical evidence of the role played by migration in policy areas that matter for development. It also explores the influence on migration of public policies not specifically targeted at migration. This chapter provides an overview of the findings and policy recommendations.

Box 1.1. **What is the IPPMD project?**

In January 2013, the OECD Development Centre launched a project, co-funded by the EU Thematic Programme on Migration and Asylum, on the **Interrelations between public policies, migration and development: case studies and policy recommendations** (IPPMD). This project – carried out in ten low and middle-income countries between 2013 and 2017 – sought to provide policy makers with evidence of the importance of integrating migration into development strategies and fostering coherence across sectoral policies. A balanced mix of developing countries was chosen to participate in the project: Armenia, Burkina Faso, Cambodia, Costa Rica, Côte d'Ivoire, the Dominican Republic, Georgia, Haiti, Morocco and the Philippines.

While evidence abounds of the impacts – both positive and negative – of migration on development, the reasons why policy makers should integrate migration into development planning still lack empirical foundations. The IPPMD project aimed to fill this knowledge gap by providing reliable evidence not only for the contribution of migration to development, but also for how this contribution can be reinforced through policies in a range of sectors. To do so, the OECD designed a conceptual framework that explores the links between four dimensions of migration (emigration, remittances, return migration and immigration) and five key policy sectors: the labour market, agriculture, education, investment and financial services and social protection and health (Figure 1.1). The conceptual framework also linked these five sectoral policies to a variety of migration outcomes (Table 1.1).

Box 1.1. **What is the IPPMD project?** *(cont.)*

Figure 1.1. **Migration and sectoral development policies: a two-way relationship**

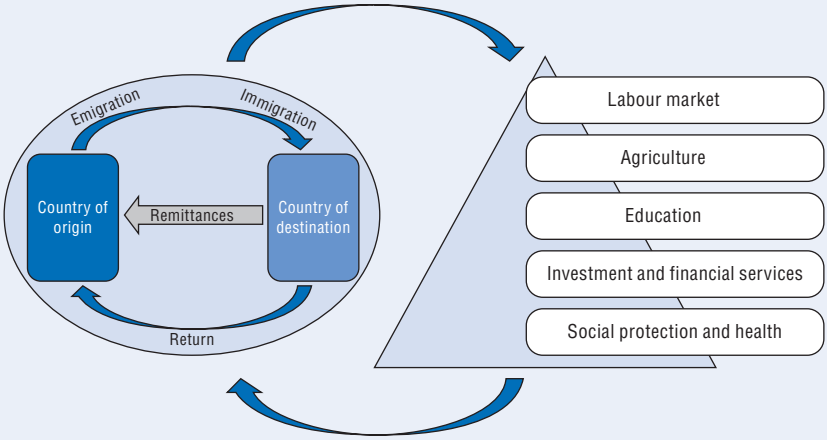


Table 1.1. **Migration dimensions and migration outcomes in the IPPMD study**

	Migration dimensions	Migration outcomes
Emigration	**Emigration** happens when people live outside of their countries of origin for at least three consecutive months.[a]	The **decision to emigrate** is an important outcome for the countries of origin, not only because it may lead to actual outflows of people in the short term, but also because it may increase the number of emigrants living abroad in the long term.
Remittances	**Remittances** are international transfers, mostly financial, that emigrants send to those left behind.[b]	The **sending and receiving of remittances** includes the amount of remittances received and channels used to transfer money, which in turn affect the ability to make long-term investments. The **use of remittances** is often considered as a priority for policy makers, who would like to orientate remittances towards productive investment.
Return migration	**Return migration** occurs when international migrants decide to go back to and settle in, temporarily or permanently, their countries of origin.	The **decision to return** is influenced by various factors including personal preferences towards home countries or circumstances in host countries. Return migration, either temporary or permanent, can be beneficial for countries of origin, especially when it involves highly skilled people. The **sustainability of return** measures the success of return migration, whether voluntary or forced, for the migrants and their families, but also for the home country.
Immigration	**Immigration** occurs when individuals born in another country – regardless of their citizenship – stay in a country for at least three months.	The **integration of immigrants** implies that they have better living conditions and contribute more to the development of their host and, by extension, home countries.

Note: a. Due to the lack of data, the role of diasporas – which often make an active contribution to hometown associations or professional or interest networks – is not analysed in this report.
b. Besides financial transfers, remittances also include *social remittances*, i.e. the ideas, values and social capital transferred by migrants. Even though social remittances represent an important aspect of the migration-development nexus, they go beyond the scope of this project and are therefore not discussed in this report.

Box 1.1. **What is the IPPMD project?** *(cont.)*

The methodological framework developed by the OECD Development Centre and the data collected by its local research partners together offer an opportunity to fill significant knowledge gaps in the migration and development nexus. Several aspects in particular make the IPPMD approach unique and important for shedding light on how the two-way relationship between migration and public policies affects development:

- The same survey tools were used in all countries over the same time period (2014-15), allowing for comparisons across countries.
- The surveys covered a variety of migration dimensions and outcomes (Table 1.1), thus providing a comprehensive overview of the migration cycle.
- The project examined a wide set of policy programmes across countries covering the five key sectors.
- Quantitative and qualitative tools were combined to collect a large new body of primary data on the ten partner countries:
  1. A **household survey** covered on average around 2 000 households in each country, both migrant and non-migrant households. Overall, more than 20 500 households, representing about 100 000 individuals, were interviewed for the project.
  2. A **community survey** reached a total of 590 local authorities and community leaders in the communities where the household questionnaire was administered.
  3. **Qualitative in-depth stakeholder interviews** were held with key stakeholders representing national and local authorities, academia, international organisations, civil society and the private sector. In total, 375 interviews were carried out across the ten countries.
- The data were analysed using both descriptive and regression techniques. The former identifies broad patterns and correlations between key variables concerning migration and public policies, while the latter deepens the empirical understanding of these interrelations by also controlling for other factors.

In October 2016, the OECD Development Centre and European Commission hosted a dialogue in Paris on tapping the benefits of migration for development through more coherent policies. The event served as a platform for policy dialogue between policy makers from partner countries, academic experts, civil society and multilateral organisations. It discussed the findings and concrete policies that can help enhance the contribution of migration to the development of both countries of origin and destination. A cross-country comparative report and the ten country reports will be published in 2017.

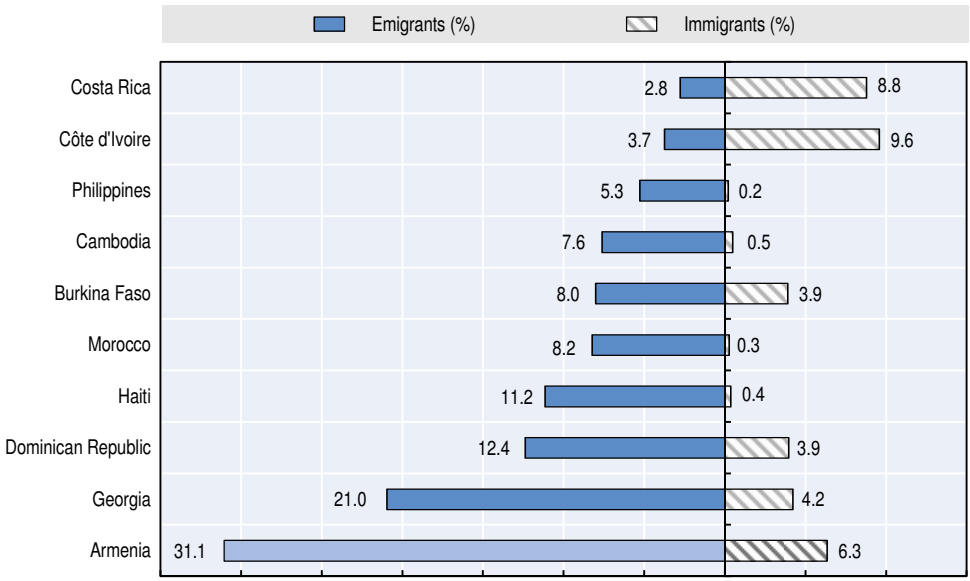
A corrigendum has been issued for this page. See http://www.oecd.org/about/publishing/Corrigendum_IPPMD_Armenia.pdf

Why was Armenia included in the IPPMD project?

Armenia has one of the highest emigration rates in the world. Data from the United Nations indicate that there were an estimated 937 000 Armenian migrants in 2015, equivalent to 31.1% of the country's total population (Figure 1.2). This is the highest share among all the IPPMD partner countries. Russia is the most common destination country, receiving 45% of Armenia's emigrants. Among the IPPMD sample, 87% of men and 68% of women emigrants reside in Russia (Chapter 3).

Figure 1.2. **Armenia has the highest share of emigrants among the IPPMD countries**

Emigrant and immigrant stocks as a percentage of the population (2015)



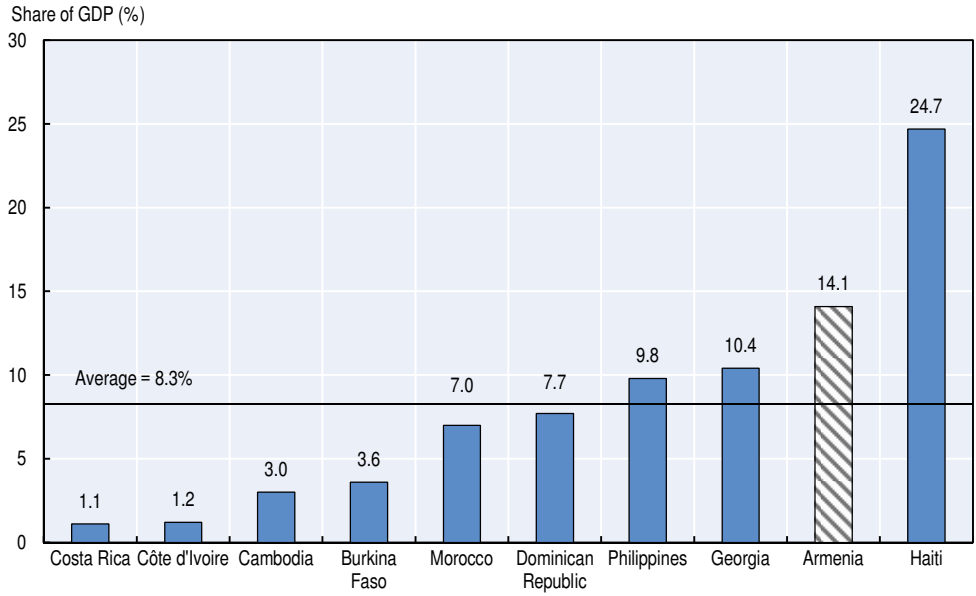
Note: Data come from national censuses, labour force surveys, and population registers.

Source: UN DESA (2015), *International Migration Stock: The 2015 Revision* (database), *www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml*.

Remittances sent home by emigrants constitute an important source of income for many households in Armenia. They have the potential to improve the well-being of migrant households and spur economic and social development. In 2015, the inflow of remittances to Armenia reached USD 1 491 million, constituting 14% of national income (World Bank, 2016). Across the IPPMD countries, the average share was 8.3% (Figure 1.3). The volumes and modes of sending remittances depend on multiple factors, including the characteristics of the migrants and the sending and receiving costs.

Figure 1.3. **The contribution of remittances to Armenia's gross domestic product is significant**

Remittances as a share of GDP (%), 2015



Source: Word Bank, Annual Remittances Data (inflows), World Bank Migration and Remittance data, */www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data*.

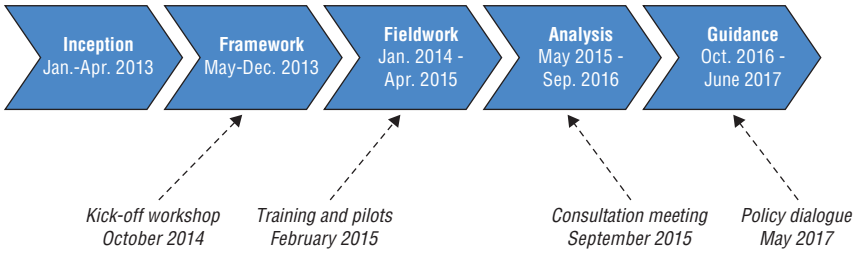
How did the IPPMD project operate in Armenia?

In Armenia, the IPPMD project team worked with the State Migration Service (SMS) under the Ministry of Territorial Administration and Development as the government focal point. The SMS provided information about country priorities, data and policies and assisted in the organisation of country workshops and bilateral meetings. The IPPMD team also worked with the Caucasus Research Resource Center (CRRC-Armenia) to ensure the smooth running of the project. CRRC-Armenia helped organise country-level events, contributed to the design of the research strategy in Armenia, conducted the fieldwork and co-drafted the country report.

The IPPMD project team organised several local workshops and meetings with support from the Delegation of the European Union to Armenia. The various stakeholders who participated in these workshops and meetings, and who were interviewed during the missions to Armenia, also played a role in strengthening the network of project partners and setting the research priorities in the country.

A kick-off workshop, held in October 2014 in Yerevan, launched the project in Armenia (Figure 1.4). The workshop served as a platform to discuss the focus of the project in the country with national and local policy makers, and representatives of international organisations, employer and employee organisations, civil society organisations and academics. Following lively and wide-ranging discussions, the IPPMD project team decided to focus the analysis on four sectors: 1) the labour market; 2) agriculture; 3) education; and 4) investment and financial services.

Figure 1.4. **IPPMD project timeline in Armenia**



Following a training workshop and pilot tests conducted by the IPPMD project team, CRRC-Armenia collected quantitative data from 2 000 households and 79 communities and conducted 47 qualitative stakeholder interviews (Chapter 3). A consultation meeting to present the preliminary findings to relevant stakeholders, including policy makers, academic researchers and civil society organisations, was organised in September 2015. The meeting discussed the various views and interpretations of the preliminary results to feed into further analysis at the country level. The project will conclude with a policy dialogue to share the policy recommendations from the findings and discuss with relevant stakeholders concrete actions to make the most of migration in Armenia.

What does the report tell us about the links between migration and development?

The findings of this report suggest that the development potential embodied in migration is not being fully exploited in Armenia. Taking migration into account in a range of policy areas can allow this potential to be tapped. The report demonstrates the two-way relationship between migration and public policies by analysing how migration affects key sectors – the labour market, agriculture, education, and investment and financial services (Chapter 4) – and how it is influenced by policies in these sectors (Chapter 5). Some of the key findings are highlighted below.

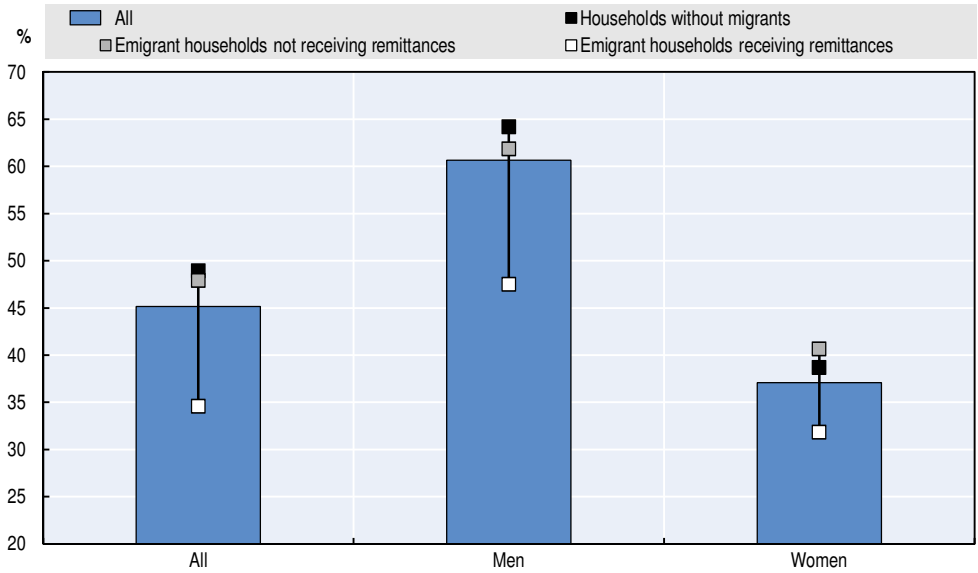
Labour market policies can curb emigration

Many Armenians leave for better employment opportunities and higher wages in destination countries. The IPPMD survey confirms that almost all Armenian emigrants are of working age, and the majority have left the lowest skilled jobs in agriculture and the construction sectors.

Other aspects of migration have an impact on the labour market. The research found that receiving remittances has a negative influence on households' labour force participation. Households receiving remittances tend to have a lower share of working members than households not receiving remittances (Figure 1.5). On the other hand, remittances encourage self-employment by women in rural areas. Similarly, return migration tends to boost self-employment in rural areas for both men and women.

Figure 1.5. **Households receiving remittances have fewer working members**

Share of household members aged 15-64 who are working (%)



Note: The sample excludes households with return migrants only and immigrants only.

Source: Authors' own work based on IPPMD data.

How are Armenia's labour market policies affecting migration? The Armenian government is increasing its attention to vocational education and training (VET) to improve skills. Can VET enable people to find a (better) job in Armenia and reduce the need to emigrate? The IPPMD survey found that

people – and especially men – who had completed vocational training were less likely to plan to emigrate. Given that the propensity to emigrate is higher among the lowest skilled occupational groups, vocational training programmes could be promoting upward labour mobility and reducing incentives to look for jobs abroad. This pattern differs from that found among the other IPPMD partner countries, whereby vocational training programmes appear to be helping would-be migrants to be more employable overseas.

The IPPMD research also finds that government employment agencies can curb emigration by providing people with better information on the Armenian labour market. The share of people with plans to emigrate is much lower among the beneficiaries of government employment agencies than non-beneficiaries. However, the share of people in the sample finding work through these agencies is very low – at 2%. Public employment programmes (PEPs) do not seem to have a link with migration, most probably because of the low take-up ratio (less than 1%).

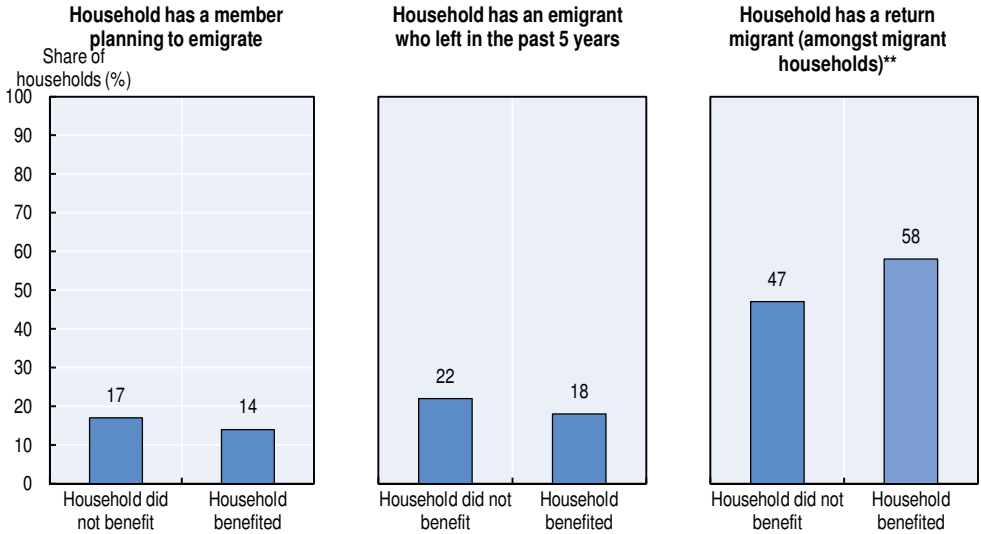
Agricultural subsidies influence households' migration decisions

Agriculture plays an important role in Armenia's economy, contributing 19% of the country's GDP (World Bank, 2017) and employing 36% of the work force (FAO, 2016). According to the IPPMD data and analysis, agricultural households in Armenia are more likely to be receiving remittances than non-agricultural households, and this additional income is often spent on agricultural assets, which is an encouraging finding. However, the amounts invested are seemingly not high enough to revitalise the agricultural sector, or the rural sector in general. For instance, there is very little evidence of diversification into various agricultural activities or non-agricultural business. This may be linked to the fact that it is mainly the poor who emigrate; although their investment capacity may be increased through remittances and return migration, the amounts invested may remain low.

The IPPMD analysis also finds that agricultural policies may in fact be discouraging emigration by members of farming households and encouraging current emigrants to return. People in households benefiting from agricultural subsidies are less likely to emigrate or be planning to emigrate (Figure 1.6). Figure 1.6 also shows that households receiving agricultural subsidies were more likely to have a return migrant. By providing households with the means to relieve the financial constraints which may have driven a member to leave, subsidies may be providing an incentive for emigrants to return home.

Figure 1.6. **Agricultural subsidies decrease emigration and increase return migration**

Share of households by migration dimension and whether it benefited from an agricultural subsidy (%)



Note: Statistical significance calculated using a chi-squared test is indicated as follows: ***: 99%, **: 95%, *: 90%.
Source: Authors' own work based on IPPMD data.

Remittances encourage investments in education

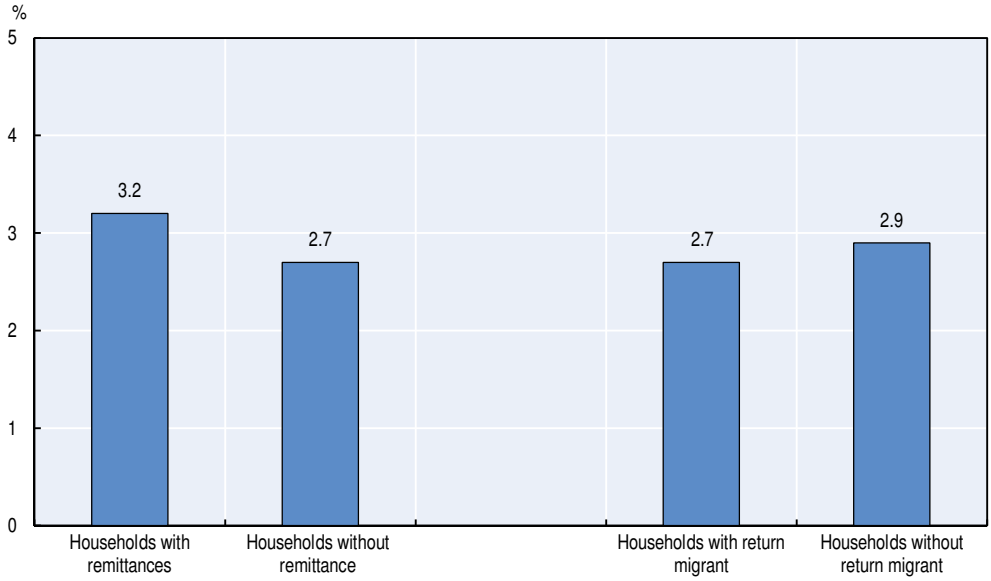
Existing research shows that an important reason for emigrating from Armenia is to earn enough to pay for children's education (Makaryan and Galstyan, 2013). The IPPMD data confirm that households receiving remittances are spending a larger share of their budget on education than households without remittances (Figure 1.7). These expenses may include extra tutoring or education fees. The pattern is reverse for return migration, however. Households with return migrants spend less on education. Moreover, return migration and emigration seem to be negatively associated with school attendance, by girls in particular. In emigrant households, girls' rates of school attendance (in the age group 15 to 22) are lower than in non-emigrant households. This suggests that even though remittances can stimulate more investments in education, migration may have disruptive effects on youth schooling, especially for girls.

Education policies and programmes that help with school expenses can therefore discourage emigration. The Government of Armenia has implemented multiple programmes to improve and strengthen the education sector in the past two decades. Most of the education programmes from which IPPMD surveyed households benefit are in-kind distribution programmes, such as free textbooks and school meals, which may have little impact on households' budgets. Financial support programmes, such as scholarships, may have a

greater influence on migration decisions, but these programmes are of fairly limited coverage in Armenia and the analysis finds they have little influence on people's decisions to emigrate.

Figure 1.7. **Households receiving remittances spend a larger share of their budget on education**

Share of total budget spent on education (%), by migration status



Note: The sample only includes households with children in school age (aged 6-20 years).
Source: Authors' own work based on IPPMD data.

Investment is not being boosted by migration

Despite a healthy and open investment climate and a supportive environment for business start-ups, the level of entrepreneurship in Armenia is low. This is confirmed by the IPPMD survey, which found that only 4% of households own a business. Migration and remittances also do not seem to promote productive investment (other than in education). For instance, the link between receiving remittances and business ownership is negative, indicating that remittance-receiving households are less likely to run a business.

What could explain this pattern? Potential reasons could be the low level of financial inclusion by the population and the rather underdeveloped financial markets, especially in rural areas. Financial institutions – including microcredit organisations, money transfer operators and banks – are much more common in urban areas than in rural areas. For instance, 96% of urban communities have a bank compared to only 2% of rural communities. Furthermore, participation

in financial training programmes is very low among migrant and non-migrant households alike: less than 1% of surveyed households benefited from a financial training programme. There is scope to expand the coverage of financial training programmes and household participation in such courses in order to encourage and enable households to make long-term remittance investments.

A more coherent policy agenda can unlock the development potential of migration

The report suggests that migration, through the dimensions analysed in the IPPMD study – emigration, remittances and return migration – can contribute to Armenia's economic and social development. However, this development potential does not seem to be being fully realised.

To harness the development impact of migration, the country requires a more coherent policy framework. Armenia has recently begun to move in this direction. For instance, the *Strategic Program of Perspective Development for 2014-2025* highlights the creation of local jobs and economic growth as key policy priorities for overcoming migration-related challenges. Despite recent progress in incorporating migration into certain policy areas, there still remains much scope for relevant line ministries to include migration in their policy designs.

The following sections provide policy recommendations for each sector studied in the IPPMD project in Armenia. Policy recommendations across different sectors and different dimensions of migration stemming from the ten-country study are also specified in the IPPMD comparative report (OECD, 2017).

Integrate migration and development into labour market policies

The Armenian labour market is tightly linked with migration. While to some extent the impact of migration is positive (as remittances can take the pressure off the labour market and boost self-employment), better employment opportunities and higher wages are still attracting many people abroad, especially the lowest skilled. Vocational training programmes seem to be curbing this flow to a certain extent, but more needs to be done:

- Vocational training programmes need to better target and match demand with supply. Mapping labour shortages and strengthening co-ordination mechanisms with the private sector would be important steps. Training programmes can also be targeted at return migrants, to help them reintegrate into the labour market.
- Employment agencies need to widen their activities to reach out both to current emigrants abroad and migrants who have returned to ensure they have information on and access to formal waged jobs. Building closer connections between the employment agencies and the private sector will be important for achieving this.

Leverage migration for agricultural development

Agriculture remains a sector of high importance in Armenia. Given its substantial role, it is paramount that the country ensures that migration helps, rather than harms, the sector. Yet the IPPMD data show that migration has little positive effect on the sector in Armenia. Remittances seem to be channelled into agricultural asset expenditures but at low levels, and they are not being used to diversify into different farming activities or non-agricultural businesses. On the other hand, government policies, particularly those related to agricultural subsidies, seem to be discouraging emigration and encouraging return migration. Recommendations for policy include the following:

- Make it easier for remittances to be channelled towards productive investment, by ensuring money transfer operators are present and affordable in rural areas, providing households with sufficient training in investment and financial skills and putting in place adequate infrastructure that make it attractive to invest in rural areas. Bottlenecks that limit investments in the agricultural sector are a lost opportunity to harness the potential of remittances and return migration for development in the sector.
- Ensure that agricultural subsidies are channelled into investment and diversification of activities and conditional on subsequent yields, so that they can continue to help households remain productive. This should avoid stimulating emigration due to lack of opportunities in the home country.

Enhance the links between migration and investment in education

Education plays a crucial role in individual and national development. Although households use their remittances to finance the education of their children, emigration still seems to have a negative effect on school attendance, especially among young women. The type of education programmes analysed in this study do not seem to have much effect on household migration decisions, possibly because they are largely based on in-kind support and of fairly limited coverage. This raises two policy implications:

- Increase investments in education infrastructure to ensure quality and access to meet the growing demand for education driven by remittances.
- Expand cash and in-kind distribution programmes in areas with high emigration rates to make sure that young people, and especially girls, have the means to complete secondary education.

Strengthen the links between migration, investment, financial services and development

The IPPMD research finds an insignificant or sometimes even negative relationship between remittances, return migration and investments. The results indicate that there are barriers to investments in Armenia, particularly pronounced in rural areas. Key actions are needed to remove these barriers,

which include the low coverage of financial service institutions and financial training programmes in rural areas:

- Expand financial service provision, especially in rural areas, by increasing competition among service providers and adapting the regulatory framework.
- Invest in financial training programmes, especially targeted at return migrants and households with emigrants.
- Facilitate business start-up, for example by providing business management courses and access to credit to encourage remittance investments in new businesses.

Roadmap of the report

The next chapter discusses how migration has evolved in Armenia and reviews the existing research on the links between migration and development. It also briefly describes the current policy context and institutional frameworks related to migration. Chapter 3 explains the implementation of fieldwork and the analytical approaches used for the empirical research. It also summarises the broad findings of the IPPMD survey in terms of general emigration, remittances and return migration patterns. Chapter 4 discusses how the three dimensions of migration affect four key sectors in Armenia: the labour market, agriculture, education, and investment and financial services, while Chapter 5 explores how the policies in these sectors can influence migration outcomes.

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Chapter 2

Armenia's migration landscape

Armenia has one of the highest emigration rates in the world, with about 30% of the population living outside the country. As well as witnessing a marked increase in the number of emigrants, Armenia benefits from significant and increasing remittances. This chapter describes the migration landscape in Armenia, highlights the current trends, key issues and major knowledge gaps linked to migration, drawing on existing research. The chapter also reviews the role of migration in national development strategies, the status of migration-related policies and the institutional framework for managing migration.

Since gaining independence in 1991, Armenia has undergone a profound transformation – from centrally planned to market-oriented economy. However, this period has not been easy: the devastating earthquake in December 1988, the collapse of the common market of the former USSR, and the political and military instability in the region have all seriously affected the country's economy. Between 1989 and 1993 gross domestic product (GDP) declined by 60%, and in 1993 alone consumer prices increased by 110 times (Manasyan and Jrbashyan, 2004). In addition, Armenia adopted a "shock therapy" strategy in 1992 aimed at sustained growth and introducing ambitious first generation transition reforms, including comprehensive price liberalisation; transfer to the private sector of state-owned land, housing and productive enterprises; introduction of some tax reforms; and the introduction of tight monetary policies to control inflation, currency convertibility, and a floating exchange rate.

However, the Nagorno-Karabakh armed conflict in 1992-94 meant that the effective implementation of macroeconomic adjustment programmes only became possible in the mid-1990s. The steady pursuit of the first generation transition reforms, as well as inflows of capital and remittances, have created a market-oriented environment and assured recovery and steady growth. Economic growth in the initial years of the recovery was vigorous, averaging 5% over 1994-2000 and reaching double digits (12%) annually on average in 2003-08. However, the economy was characterised as narrowly based, with a low level of sectoral and regional diversification. This is still considered to be one of the most serious obstacles to the country's social and economic development, and a source of economic vulnerability during shocks. The double-digit growth rates of the pre-crisis period were replaced by a 14% decline in 2009, before re-establishing a moderate annual growth rate of around 3% over 2013-15 (ArmStat, 2016).

Due to these economic changes and accompanying transformations in social welfare, Armenia has a long history of migration. The motives for migration have varied over time. Currently, unemployment is the dominant push factor for emigration, but other reasons such as geopolitical threats, social injustice, negative perceptions of economic governance and development uncertainty also play a significant role (ILO, 2008).

Remittances from abroad – a direct consequence of labour migration – play an important social and economic role in Armenia, particularly in combating poverty. The country is considered to be among the 15 largest remittances recipients in the world.

This chapter describes the migration landscape in Armenia, highlights the current trends in migration and key issues linked to migration, drawing on existing research. The chapter also reviews the role of migration on national development strategies, the status of migration-related policies and the institutional framework for managing migration.

A brief overview of migration and remittance trends in Armenia

Both regular and irregular emigration have been and continue to be important phenomena for Armenia. The phenomenon of seasonal labour migration began to emerge in the 1960s, driven by differences in socio-economic development among administrative-territorial units. Since the late 1980s, the country has seen several waves of migration, driven by persistent unemployment, the large informal sector, under-employment and subsistence employment, the destructive Spitak earthquake in 1988, the armed conflict over Nagorno Karabakh, and harsh socio-economic conditions (due to the general economic crisis and the economic blockade imposed on Armenia):

- 1989-1990: Evacuation and re-evacuation of population in the earthquake zone: this was a direct consequence of the disastrous earthquake and led to a decline in the population. Armenia irreversibly lost to emigration about 50 000 citizens (1.5% of the total population) (UNDP, 2009).
- Early 1988-late 1991: arrival of approximately 420 000 refugees and displaced persons, mainly from Azerbaijan, but also from other regions of the former Soviet Union, such as Tajikistan, Uzbekistan, Kyrgyzstan, Abkhazia (IOM, 2006). However, due to the socio-economic hardships of the 1990s, a large number of these refugees (the estimates suggest between one-quarter to about one-third) left the country. Because the process started in the early 1990s and formed the part of the overall emigration process of those years, this outflow was contested within the general flows of migration. During the same period approximately 160 000 ethnic Azeris left Armenia (IOM, 2006).
- 1992-1994: Armenia's biggest exodus – a consequence of the sudden paralysis of the national economy and the emergence of explicit and disguised unemployment and the ensuing mass impoverishment of the population. This was caused partly by the infamous "shock therapy", which contributed to an abrupt deterioration in living standards and quality of life, and considerable worsening of housing and utility conditions, primarily due to the energy blockade. Although this lasted only three years, the period was marked by huge volumes of external migration. The estimates of the real size of migration vary between 800 000 and 1 million people.[1] A demographic study of Central Asian and Caucasus countries indicated that Armenia had one of the highest differences between de facto and de jure population (ArmStat and UNFPA, 2008). Official projections suggested a population of 3.8 million during the 1990s, though the census results indicated a population of 3 million (ArmStat, 2001).

- 1995-2001: a phase of migration decline as the socio-economic situation in Armenia stabilised, and housing and utility conditions improved, partly helped by remittances of those who had left previously. In addition, the very high emigration of the previous periods had significantly reduced the emigration potential of the population and relieved tension in the domestic labour market. The key feature of this phase was that the shares of long-term labour migrants in the number of departing migrants and returnees grew further.

Emigration remains high

Although emigration trends began to stabilise in the early 2000s, Armenia is still one of the world's top economies for emigration rates. In 2015, there were an estimated 937 000 Armenian emigrants, around 31% of Armenia's total population (Table 2.1). Russia remains the most common destination country, receiving 56% of Armenia's emigrants. The second most common destination country is Azerbaijan, despite a decrease in its share over the last 15 years.

Table 2.1. **Migration remains high in Armenia**

	2000	2015
Total population (in thousands)	3 076	3 018
Stock of emigrants	865 553	937 299
% of emigrants to total population	28.1%	31.1%
Destination countries (%)		
Russia	55%	56%
Azerbaijan	22%	16%
United States of America	8%	9%
Ukraine	6%	5%
France	1%	2%
Greece	1%	2%
Germany	1%	1%

Source: UN DESA (2015), *Trends in International Migrant Stock: The 2015 Revision*, database, *www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml*.

The current emigration patterns are characterised by two key features: i) a relatively stable group of temporary labour migrants; and ii) smaller-scale permanent emigration flows (on average 10 000 people annually according to the NSS; although another estimate puts the number at least 33% higher [UNDP, 2009]).

Data acquired through a survey commissioned by the Organisation for Security and Co-operation in Europe (OSCE) Office in Yerevan (Minansyan et al., 2007), confirmed that between 2002 and 2007, temporary labour migrants dominated the external migration flows from Armenia (94% of all migrants), while only 3% left Armenia with the intention of permanently residing abroad and 2% left to study abroad. Another study suggests that every year about

60 000 labour migrants leave for jobs in Russia, mainly in the construction industry (ILO, 2009a).

Although slowing, the trends in 2014 were quite similar: the Integrated Living Conditions Survey (ILCS) suggests that nearly 65% of household members (aged 15 and above) involved in migration processes over 2011-14 had not returned home by 2014; their main reason to emigrate was either to take up or search for a job. The same survey findings suggest that 90% of those migrating for employment opportunities headed to the Russian Federation in 2011-14. Thus, the Russian Federation was and still is the most popular destination for all migrants.

Other surveys suggest that the intention to migrate remains very strong among Armenians. According to findings of a joint 2013 survey by the European Training Foundation (ETF) and the Caucasus Research Resource Center (CRRC)-Armenia, one-third of respondents intended to move abroad to live or work (ETF, 2015). Moreover, the results of the annual Caucasus Barometer Survey found that the share of respondents willing to leave Armenia for good grew from 21% in 2008 to 31% in 2013 (CRRC, 2008 and 2013).

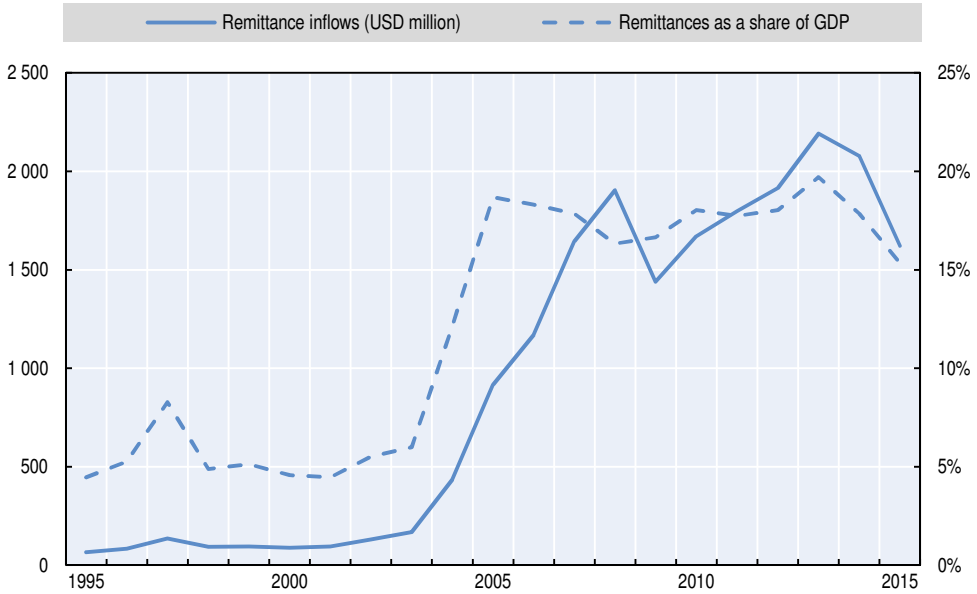
The overwhelming majority of Armenian labour migrants are married men aged 21-50 (ILO, 2009a). The share of women migrants dropped from 14.1% in 2002-04 to 6.5% in 2005-06. Another survey in 2013 found that 82% of emigrants were male and 18% female (IOM and NSS, 2014). Although different surveys and studies provide quite different statistics on the gender composition of migrants, the male dominance of Armenia's emigration is evident, and needs to be further addressed by migration research and migration policies of the Republic of Armenia.

Remittances are high but fluctuating

Historically, migration (especially labour migration) and migrants' remittances to their families have had a positive influence on human development in the recipient countries. Taking into consideration the fact that the inflow of migrant remittances to Armenia is rather large (15% of GDP in 2015), it is likely that remittances play a key role in Armenia (Figure 2.1). More than half of households with migrant members abroad reported receiving remittances. Unsurprisingly, most of the remittances (about 70%) sent to Armenia come from the Russian Federation. Remittances from the diaspora keep many families above the poverty line, according to the Armenian Economist (2006). They increase consumption and short-term investment, and greatly contribute to Armenia's current GDP (ILO, 2009b). Remittances not only influence the economy in general, but also greatly affect human development, driving up education and healthcare spending, as well as aiding with the expense of purchasing land and other real estate. According to the Central Bank of Armenia, remittances sent to Armenia are mostly in US dollars and are sent mostly through the banking system.

Figure 2.1. **Remittances to Armenia tend to fluctuate**

Remittances in volume and as a share of GDP (%), 1995-2015



Source: World Bank Annual Remittances Data (October 2016 update).

However, research has also identified some potential negative effects of remittances on development in Armenia. These include an adverse impact on GDP in the long run; reduced competitiveness within the Armenian economy; depression of the labour market; inflation; and discouragement of government's social expenditures and implementation of macro-economic policies (Karapetyan and Harutyunyan, 2013).

The use of remittances on investment is rarely addressed, although some studies have looked at the use of remittances in housing, business activity (machinery and shops) and education (Karapetyan and Harutyunyan, 2013). It has been argued that remittances contribute to the involvement of remittance-receiving households in trade because these households both tend to consume more and tend to get involved in trade business in Armenia.

The literature has examined the link between remittances and the financial sector. However, while it is often mentioned that the growth in remittances contributes to the availability of loans and expands the use of different financial instruments, the financial opportunities that are created by the remittance inflow are typically underutilised in Armenia. Reasons for such underutilisation include the mistrust of banks and the corresponding tendency for not keeping savings in banks, financial illiteracy, and low levels of income (Makaryan and Galstyan, 2013). The influence of remittances on the labour market is also

contradictory: on the one hand, there is a positive effect on employment through investment. On the other hand, the income from remittances may encourage migrants' families to reduce their work efforts (Grigorian and Melkonyan, 2011). With respect to education, some studies indicate that there is a negative influence of remittances on education in Armenia: households that depend on remittances tend to invest less in the education of their children in comparison to the households that do not receive money from abroad (Grigorian and Melkonyan, 2011). However, other researchers have come to the opposite conclusion, noting that remittance money plays a central role in satisfying the educational needs of the Armenian population (Yeganyan and Davtyan, 2001). In all, while the literature addresses several aspects and consequences of migration remittances, the effect of remittances on development policies is almost never directly explored (Grigorian and Melkonyan, 2011). It should be noted, however, that remittances, in general, may have a negative effect on governance in Armenia as they may reduce the political will to enact policy reforms (Karapetyan and Harutyunyan, 2013).

What are the key issues and knowledge gaps?

It has been acknowledged that Armenia's past and present external migration processes have not only supported stabilisation, but also acted as an important driving force for development, especially human development. Yet, active intervention is needed in order to avoid the imminent threat of further escalation of the migration situation in the country, as emigration along with unemployment and poverty are the most critical social challenges for Armenia today.

According to ArmStat and United Nations Population Fund assessments, Armenia is an ageing nation. Migration, along with a decreasing net birth rate and increasing life expectancy, is considered one of the key contributing factors to this ageing (ArmStat and UNFPA, 2008). Indeed, the rapid ageing of Armenia's population is mainly driven by the migration of its middle-aged representatives (EV Consulting, 2014). This means that the labour market will be affected by an ageing population even if the labour force participation remains steady.

This section provides a brief overview of some key studies, focusing particularly on the interconnections between migration and labour market, agricultural development, health, education, social protection, and gender relations. In addition, this section reviews the research evidence regarding the impact of migration and remittances on various facets of the Armenian society.

The impact of migration on the local labour market is not clear

The literature on the connections between emigration and the labour market in Armenia tends to focus on the country's limited employment opportunities and the lower wages in Armenia compared to the main destination

countries for Armenian migrants (Injeyan, 2012). While admitting that a lack of employment opportunities is a major driver of migration and skills losses, some studies argue that unemployment-driven labour migration is beneficial because it reduces the pressure on the local labour market (Makaryan and Galstyan, 2013; Yeganyan, 2006). In addition, given the gendered nature of Armenia's migration, the literature has examined the impact of male labour migration on the employment of women left behind. One study found a negative relationship between male migration from rural areas and engagement in paid employment by their wives who remained at home (Agadjanian and Sevoyan, 2014a). However, the cross-sectional nature of their data prevented them from drawing any causal inferences. Researchers have also looked at the labour market reintegration of return migrants, finding that returnees tend to seek employment more actively and engage in entrepreneurial activities more than individuals who had never migrated (ETF, 2013a).

The impact of migration on agriculture needs further research

The relationship between migration and agricultural development in Armenia has not been the topic of any specialised study; the literature has addressed only some aspects of this relationship. For example, one study found a negative association between male migration and the size of a household's agricultural land holdings, although the direction of causality in this association is difficult to establish (Agadjanian and Sevoyan, 2014a). It has also been argued that the more a person is involved in agricultural activity in terms of the amount of land and livestock, the less he or she intends to emigrate (Davis, Bezemer and Wandschneider, 2003). With respect to agricultural production, it has been argued that labour migration is one of the reasons why livestock productivity has considerably declined in Armenia (FAO and UNESCO, 2003). The literature has called for investment in the agricultural sector in order to discourage emigration and mitigate the negative economic effects of migration in rural areas (Haykazyan and Pretty, 2006).

The links between migration and education are inconclusive

Whether education is associated with the decision to emigrate is the subject of some debate. Some studies have argued that there is a positive link: individuals with tertiary education are more likely to emigrate (ETF, 2013a; Dermendzhieva, 2011). In fact, the proclivity to emigrate seems to be higher among individuals who received higher education abroad; these emigrants are also less likely to return than other emigrants (Makaryan and Galstyan, 2013). Conversely, other researchers have not found a significant impact of educational levels on intentions to emigrate from Armenia (Grigoryan, 2013). With respect to return migrants, it has been noted that although emigrants who return to

Armenia bring with them valuable knowledge and new skills, these new skills are rarely certified or otherwise documented, thus hindering their value for obtaining better-paid work back home (ETF, 2013a).

Emigrants lack social protection

Researchers point to the lack of necessary social protection of persons emigrating from Armenia in order to engage in work abroad and call for the urgent adoption of legislative measures (Aghababyan, 2012; Kabeleova, Mazmanyan and Yeremyan, 2007). Research examining the impact of emigration on social protection within Armenia finds that because emigrants to do not pay taxes in Armenia, the fiscal burden on the Armenia's pension system is increased (Asatryan, 2014). Such fiscal problems may be one of the reasons why the government recently raised the personal income tax rate from 10% to 24% (Republic of Armenia, 1997).

Migration may strengthen gender inequality

Some research looked at the influence of migration on gender relations in Armenia (Shahnazarian, 2013). It has been argued that even though migrants' wives tend to take on more responsibilities and social roles due to their spouses' absence, these additional responsibilities and roles do not necessarily improve their status within the family and community. In fact, gender inequality may worsen still further for a number of migration-related factors, including financial dependence on migrant husbands' income and social pressures from family members to abide by traditional gender norms in their husbands' absence (Menjıvar and Agadjianyan, 2007).

This review of literature on migration in Armenia suggests that most research has focused on the causes, issues and impacts of migration. A number of surveys and studies have been conducted on the size, socio-demographic profile of migration, and migration consequences, but very little research has been done into the effectiveness of the governance of migration in general and labour migration in particular. Along with this, it has not yet been revealed what measures are needed to make migration "work" better for development, including enhancing benefits such as financial flows, technology transfers and entrepreneurship, and mitigating the negative consequences such as the loss of skilled human resources. Similarly, while considerable research effort has gone into the impact of large-scale international migration on Armenia, hardly any research has reflected the relationship between migration and the policies or mechanisms created in Armenia across various sectors including the labour market, agriculture, education and investment. These are key research gaps which this report aims to fill.

What role does migration play in national development strategies?

The attitude of the Armenian Government towards regulating migration processes, and addressing their causes and consequences, has become more proactive under the 2008-12 Programme. To date, the government has produced a number of strategic documents which refer to the area of migration regulation, including the Strategy of National Security, the Sustainable Development Programme, the 2014-2025 Strategic Program of Prospective Development, the Concept for the Development of Co-operation between Armenia and the Diaspora, and the Strategy on Demographic Policy of Armenia.

Migration is integrated into national development strategies

As emigration, along with unemployment and poverty, are acknowledged to be social challenges for Armenia, the country's development strategies highlight the importance of proportional territorial development and an active demographic policy. They aim to direct all public policy instruments towards preventing out-migration from mountainous and border regions, suspending emigration from the country, and encouraging immigration into Armenia. The development strategies also envisage specific steps for civilised integration into the international labour market, improving the international protection of persons on humanitarian grounds, etc.

Ensuring sustainable and perspective growth through national security and an active economic policy is a key priority for the government. The achievement and maintenance of macroeconomic stability and high rates of economic growth, combined with continuous improvement in the economy to enable job creation and adequate pay, and a reduction in income differentials between the population of Armenia and more developed countries, will all largely contribute to preventing any further increase in emigration.

The strategic development programmes also highlight the importance of direct social policy measures coupled with economic policy tools and levers such as direct support for the development of small and medium-sized enterprises, as well as the promotion of employment in industries with relatively higher wage levels. The creation of decent and productive employment opportunities, enhancing skills and human resources, and strengthening labour market governance are also key policy priorities for Armenia and are expected to help to overcome migration-related challenges.

Although all the key challenges and measures required are reflected in the country's strategic documents, the targets are not necessarily being met, which suggests that policies governing migration and public administration should be essentially improved.

Policies governing migration are being improved

Armenia has experienced substantial change in its migration dynamics, causes and consequences, the groups directly or indirectly engaged in migration, as well as perceptions of the role of state regulation in solving these problems.

In the early 1990s, migration was not a priority for Armenian policy: it was regulated by the state mainly through legislation, i.e. the Law on Citizenship, Law on Foreigners, Law on State Border, etc. The late 1990s and early 2000s saw this situation change. For the first time, state policy on migration in Armenia was formalised in the *Concept of State Regulation of Migration in Armenia*, adopted by the government in December 2000. The document lists the principles, major tasks, and mechanisms required, as well as the changes necessary to the legal and legislative sphere on migration. It also lists the state entities dealing with migration, as well as state migration policy implementation and productive administrative structures. The Armenian Government revised this concept paper in June 2004 to reflect the changes in the migration situation and new issues, including the demographic situation, national security, and Armenia's sustainable human development principles. It aimed to reinforce human rights and the principles laid down in international documents. Two new priorities were added:

1. Preventing irregular migration from the Republic of Armenia and supporting the return and reintegration of Armenian citizens irregularly staying abroad.
2. Preventing smuggling and trafficking of humans from the Republic of Armenia and developing victim protection arrangements.

However, both concept papers contained gaps, most notably the lack of Action Plans which would have increased the practical implementation of the policy approaches set out. The concepts were also not evaluated from financial point of view, the mechanisms for monitoring and evaluating the migration policy process were not defined.

This led to the development of a new concept paper: the *Concept of State Regulation of Migration in the Republic of Armenia*, approved by the government in December 2010. This aimed at regulating both emigration and immigration and was more focused on the harmonisation of the Armenian legislation and policy with international, and especially European, standards. It introduced new approaches to solving the main migration-related problems and listed 14 priority issues alongside the goals and main approaches and mechanisms for achieving the objectives of each priority:

1. Aligning the Armenian legislative framework and administrative system for migration regulation with the corresponding EU legislation and the best institutional structures of the EU member states, taking into consideration national and state interests.
2. Developing an information system for registering migration flows.

3. Monitoring and evaluating migration policy, introducing a system for day-to-day review and adjustment on the basis of analysis and evaluation of the migration situation in Armenia.
4. Assisting Armenian nationals to return from foreign countries and reintegrate.
5. Preventing irregular migration originating in Armenia and improving the legislative framework for irregular migration.
6. Regulating the employment conditions of foreign nationals in Armenia, ensuring the priority right of Armenian nationals to employment vis-a-vis foreign nationals.
7. Protecting the rights and interests of Armenian citizens leaving for work abroad.
8. Implementing the integration of refugees forcibly deported from Azerbaijan in 1988-1992 into Armenian society.
9. Introducing a system of biometric passports and identity cards.
10. Improving the RA border management system.
11. Improving the asylum system.
12. Organising the fight against trafficking and protecting the victims of trafficking.
13. Regulating mass movements of the population in times of emergencies.
14. Mainstreaming the internal migration processes.

Immigration was not specifically addressed as a separate issue in the 2010 Policy Concept, probably due to the low levels of immigration into Armenia in the 2000s (Chobanyan, 2012).[2] Nonetheless, two immigration issues were addressed in the 2010 Policy Concept: (1) improving the asylum system; and (2) ensuring effective integration of foreign nationals within Armenian society once they are granted a refugee status, as well as regulating the employment conditions of foreign nationals in Armenia.

An *Action Plan for Implementation of the Policy Concept for the State Regulation of Migration in the Republic of Armenia in 2012-2016* was adopted in November 2011 to ensure the concept was implemented. The main plan points were aimed at ensuring conformity of Armenian legislation with EU legislation, as well as with key UN documents.[3] However, this policy framework was significantly influenced by the recent shift of the RA government's policy towards integration with the Russian-led Customs Union, and Armenia's entry into the Eurasian Economic Union in early 2015. To accommodate these different political aims, the Armenian Government adopted the *Action Plan for 2014-2016 on the Alignment of the Legislation of the Republic of Armenia Regulating the Area of Migration in the Republic of Armenia to International Standards, Including the Approaches and Principles Established in the European Union and the Common Economic Space* in 2014. This new action plan incorporated provisions from the previous action plan aimed at harmonising Armenian legislation with EU standards, while at the same time

incorporating recommendations and suggested changes related to Armenia's entry into the Eurasian Economic Union.

What is the institutional framework governing migration?

The current migration management model in Armenia is decentralised, in the sense that various functions and operations – such as control over entry, stay, residence and exit of foreigners, emigration of nationals, labour migration, asylum, etc. – are performed by different governmental entities. The *2012-2016 Action Plan for Implementation of the Concept for the Policy of State Regulation of Migration in the Republic of Armenia* identified the following agencies as primarily responsible for implementation:

- The State Migration Service (SMS) created in 2010 within the Ministry of Territorial Administration is the central authority responsible for developing and implementing the state policy on managing migration processes, as well as for co-ordinating activities of the governmental institutions dealing with migration issues in the area of policy development and drafting legal acts.
- The Ministry of Diaspora, established in 2008, is responsible for the development, implementation and continuous improvement of the state policy on developing the Armenia-diaspora partnership and co-ordinating the activities of the state bodies in this field. The ministry has developed and is carrying out potential pan-Armenian projects aimed at developing the Armenia-diaspora partnership.
- The National Security Service (NSS) also has competence in the sphere of migration and border management and control. In particular, the NSS provides its opinion to the SMS and to the Passport and Visas Department of the Police on individual cases on request.
- The Border Guards Troops, which come under the NSS, are in charge of border management and control. They work with the Border Management Information System (BMIS) database.
- The Passport and Visas Department of the RA Police (OVIR) is in charge of issuing visas at borders, visa extensions, granting residence status/residence permits, registering citizens, issuing travel documents for stateless persons and operating the Passport and Residence database of the citizens of the Republic of Armenia (RA).
- The Division of Combating Illegal Migration and for International Collaboration of the RA Police was established in 2003 and is responsible for investigating cases of irregular state border crossing, swindling, and forgery, sale or use of forged documents, stamps, seals, letterheads, and vehicle license plates.
- The National Statistical Service of the Republic of Armenia (ArmStat) collects, processes, summarises, analyses and publishes statistical data (including migration related data), co-ordinates the information and data collection according to a unified classification and coding system based on international standards, organises statistical surveys, and carries out population censuses.

ArmStat also collects data on immigrants, emigrants and remittances received by households in Armenia.

- The Office of the President of the RA is responsible for granting Armenian citizenship.
- The Ministry of Foreign Affairs is responsible for issuing passports and return certificates, for issuing special residency status, and the communication with Armenians abroad, and for issuing visas.
- The Ministry of Labour and Social Affairs (MLSA) is responsible for implementing labour migration policy and other labour migration-related issues.

Moreover, according to the Code of the State Employment Service Agency, the agency can also make contracts with other countries and organisations in order to regulate the supply of migrant workers. However, there is no implementation mechanism for this sphere and this provision has not yet been used. Three Migration Resource Centres were established within the State Employment Service Agency in 2010, providing reintegration services to potential and returning migrants, and individual advice concerning job placements and involvement in state employment programmes. They also provide expert support to relevant government and non-governmental organisations.

Finally, as far as the anti-discrimination regulations are concerned, the Constitution of Armenia contains an anti-discrimination clause, but there are no specific sub-laws or regulations to protect a person against discrimination on the grounds of race, ethnicity, language, religion, or other circumstances of a personal or social nature. This absence implies that a person is not guaranteed adequate protection against discrimination within the national legislative framework of Armenia.

Despite the variety of activities directed to migration, migration policy in Armenia is characterised by a lack of coherence. Although emigration is a widely discussed phenomenon and its potential negative consequences for Armenian society are acknowledged, no effective measures have been taken by the government to minimise it. There is neither the political will nor the policy mechanisms to effectively regulate labour outmigration. At the same time, no effective steps are being taken to facilitate immigration and resettlement of refugees from the Middle East. Yet, the need for effective interventions in the area of migration regulation is constantly stressed, with the arguments ranging from demography, to economics, to national security.

Specific inconsistencies in the implementation of various aspects of migration policy include lack of concrete legislative mechanisms to regulate labour migration from Armenia to the EU, the Commonwealth of Independent States (CIS) or other countries; improper implementation of readmission agreements with foreign countries; lack of an integrated and complete database on citizenship or residence status; lack of co-ordination among different

government agencies; and lack of effective mechanisms for the sustainable reintegration of migrants returning to Armenia.

Conclusions

Armenia is a country with a long history of migration; today the intention to migrate remains very strong among Armenians. Both regular and irregular emigration continue to be important phenomena affecting the country, even if the motives for migration have changed over time. Unemployment is currently the dominant push factor for emigration, with other factors such as geopolitical threats, social injustice, negative perceptions of economic governance and development uncertainty also playing a significant role. Armenia has experienced substantial changes in its migration dynamics, the groups directly or indirectly involved, as well as perceptions on how to solve these issues through state regulation. These changes have affected the system of public administration and migration policies, with policies governing migration substantially improving over the last two decades.

Emigration, along with unemployment and poverty, are acknowledged to be basic social challenges for Armenia. All the recent strategic documents adopted by the Government of Armenia refer to migration regulation either directly or indirectly, including preventing emigration from mountainous and border regions. The country's development strategies highlight the importance of even territorial development and active demographic policy, as well as specific steps for integration into the international labour market, and improving international protection for migrants on humanitarian grounds. The creation of decent and productive employment opportunities, enhancing skills and human resources development, and strengthening labour market governance are also key policy priorities to help Armenia overcome its migration-related challenges. Despite the recent progress in mainstreaming migration within certain policy areas, bringing migration into national and sectoral development plans and setting up a more integrated mechanism to systematically deal with the issue remain real challenges for the country.

Notes

1. The magnitude of this migration has been difficult to assess due to a lack of reliable statistics. The issue has been a subject of in-depth discussion because the procedures for administrative registration of migration do not allow for assessing the real size of emigration (ArmStat, 2008).
2. Unlike the 1990s, when some 360 000 ethnic Armenian refugees arrived from Azerbaijan after the outbreak of the conflict over Nagorno-Karabakh.
3. One of the main objectives of the 2010 concept paper and the national action plan was to expand co-operation with the European Union in relation to migration and, particularly in joining the Mobility Partnership, establishing co-operation with

FRONTEX and other institutions, and benefiting from the Armenia-EU Justice, Liberty and Security subcommittee.

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Chapter 3

Understanding the methodological framework used in Armenia

In order to provide an empirical foundation to the analysis of the links between migration and policy, the Interrelations between Public Policies, Migration and Development (IPPMD) project used three evidence-gathering tools: a household survey, a community survey, and interviews with representatives of public, international and local organisations to provide additional qualitative information about the migration context in Armenia. This chapter explains how the sampling for the survey was designed, as well as the statistical approaches used in the chapters that follow to analyse the impact of emigration, return and remittances on key policy sectors. The chapter includes a brief overview of the survey findings, including differences across regions and between migrant and non-migrant households. It outlines some of the gender differences that emerged among migrants, and their reasons for leaving and returning.

The Interrelations between Public Policies, Migration and Development (IPPMD) project is empirically based. In order to provide evidence-based analysis on the interrelationship between migration and the various sectors under study (Chapter 1), data collection was carried out in Armenia from March to April 2015. The OECD Development Centre developed three analytical tools for the fieldwork, each tailored to the Armenian context in collaboration with the Caucasus Research Resource Center (CRRC) - Armenia. They consisted of the following:

1. **Household survey**, which were carried out in 2 000 households (see Box 3.1 for definitions). The household questionnaire gathered information about individual and household characteristics related to four key development sectors, including the labour market, agriculture, education, and investment and financial services, as well as household members' experience with emigration, remittances and return migration. It also introduced questions on whether households and individuals benefited from specific public policies which may affect their migration and remittance patterns.
2. **Community survey**, which were carried out in each of the 79 communities in which the household survey was conducted. Respondents were district and local leaders. The questionnaire documented information on the community's demographic, social and economic background as well as policies and development programmes that have taken place in the community.
3. **Stakeholder interviews**, which were carried out with 47 representatives from government ministries, public institutions, non-governmental organisations, religious organisations, trade unions, private sector institutions and international organisations based in Armenia. They were used to collect qualitative information on trends, policies, opinions and predictions related to the various aspects of migration in the country. The information they provide helped enrich and interpret the quantitative surveys by including additional details on the context specific to Armenia.

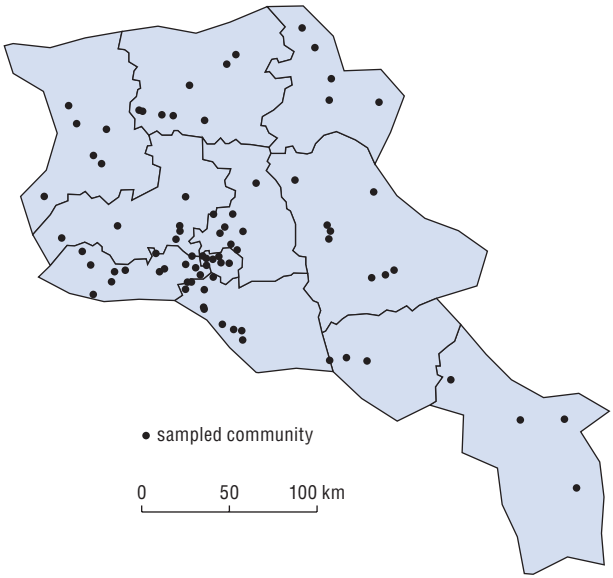
This chapter describes how these tools were implemented, and provides a descriptive overview of the data collected. It presents the sampling design for the household and community surveys and stakeholder interviews, and outlines the analytical approach adopted in this report. It ends with an overview of the general migration patterns emerging from the data gathered for this project, to set the scene for the more in-depth sector-by-sector analysis of the chapters which follow.

How were the households and communities sampled?

Households and communities were sampled using multistage cluster sampling with initial stratification by urban/rural areas and by administrative provinces (*marzes*). The sampling frame was built from the database of electricity users provided by the Electricity Networks of Armenia Company. Because nearly 100% of Armenian households have electric power, and electricity is provided by a single company, the electricity user database is among the most comprehensive and up-to-date lists of households available for the country. This electricity network database includes about 770 000 households, divided into 5 052 clusters, ranging in size from 100 to 200 households (see Table 3.A1.1 in Annex 3.A1 for a summary of the sampling design).

The sampling frame was divided into eleven strata; 10 *marzes* and Yerevan, the capital. Each *marz* was divided into urban and rural, as defined by the law of the Republic of Armenia on Local Self-Government. Yerevan was stratified by city administrative subdivisions. This sample frame stratification helped ensure that the range of social, economic and cultural backgrounds found in the country was represented. Within each stratum, primary sampling units (PSUs) were randomly selected from the list of clusters provided by the Electricity Networks of Armenia Company. The target sample of PSUs was set at 100: 50 urban and 50 rural. The distribution of PSUs over the provinces is proportionate to the size of the population in each province. Figure 3.1 shows the geographic location of the communities where the sampled PSUs are located.

Figure 3.1. **The geographic location of sampled communities**



Household survey

Since data were not available on which to base a sample of households with either an emigrated household member or a returned one, all households in each of the 100 PSUs were block listed prior to data collection according to whether the household had a migrant or not. After block listing, three PSUs were replaced (one in Gyumri *marz*, one in Syunik *marz*, and one in Yerevan) because the number of migrant households was not sufficient or because most of the households were not accessible. These new PSUs, sampled from the same provinces, were also block listed. Overall, 20 main and 20 reserve households were selected in each PSU to meet the target of 2 000 households. During the fieldwork, if a chosen household could not participate, the reserve list was used to randomly select a replacement household. Replacement was allowed if the household refused to participate, or enumerators were unable to reach the household after three attempts.

The survey was conducted in 100 PSUs in 79 communities. In total, 2 000 households were interviewed, 1 004 with migrants and 996 without. The sample was evenly split between urban and rural areas. Within the urban segment, 541 households were surveyed in the capital city of Yerevan and 460 households in other urban areas (Table 3.1). The overall response rate was 58%, though response rates varied by area type, ranging from 47% in the capital to 65% in rural areas. In order to reach the targeted number of 2 000 households, 3 464 households were visited. The most common reason for non-response was that the main respondent (Box 3.1) was not available at the time of the interview and neither was another household member. The second most common reason was refusal to be interviewed. Some households with an international migrant refused to participate out of concern that the interview might harm the emigrant household member.

Table 3.1. **Distribution of rural/urban and migrant/non-migrant households in the sample**

	Sample distribution			
	Urban		Rural	Total
	Capital city	Other urban		
Migrant households	272	230	502	1 004
Non-migrant households	269	230	497	996
Total	541	460	999	2 000

The survey was conducted by 38 interviewers and 9 supervisors. It took place between 14 March and 2 April 2015, following a week-long training seminar and pilot by the OECD and CRRC-Armenia. All interviews were conducted in Armenian, face to face, using paper questionnaires. A short description of the modules included in the household survey is given in Table 3.A1.2 in Annex 3.A1.

Box 3.1. **Key definitions of the Armenian household survey**

A **household** consists of one or several people, irrespective of whether they are related or not, who normally live together in the same housing unit or group of housing units and have common cooking and eating arrangements.

A **household head** is the most respected/responsible member of the household, who provides most of the needs of the household, makes key decisions and whose authority is recognised by all members of the household.

The **main respondent** is the person who is most knowledgeable about the household and its members. He or she may be the head, or any other member (aged 18 or over). The main respondent answers the majority of the modules in the questionnaire, with the exception of the immigrant and return migrant modules which were administered directly to the immigrants and returnees themselves. As it was not possible to interview migrants who were abroad at the time of the survey, questions in the emigrant module were asked of the main respondent.

A **migrant household** is a household with at least one current international emigrant, return migrant or immigrant.[a]

A **non-migrant household** is a household without any current international emigrant, return migrant or immigrant.

An **international emigrant** is an ex-member of the household who left to live in another country, and has been away for at least three consecutive months without returning.

An **international return migrant** is a current member of the household, who was born in Armenia, had previously been living in another country for at least three consecutive months and returned to the country.

An **international immigrant** is a current member of the household who was born in another country, and has lived at least 3 months in Armenia. Those who are born before 1991 in the former USSR and moved to Armenia before 1991 are not considered international immigrants.

International **remittances** are cash or in-kind transfers from international emigrants. In the case of in-kind remittances, the respondent is asked to estimate the value of the goods the household received.

A **remittance-receiving household** is a household that received international remittances in the past 12 months prior to the survey. Remittances can be sent by former members of the household as well as by migrants that have never been part of the household.

a. The number of immigrants in the final sample was too low to allow for separate analysis of immigration, therefore this report focuses only on emigration, remittances, and return migration.

A quality check was conducted by CRRC-Armenia staff members during the fieldwork, involving examining a random selection of field teams. Teams were not informed in advance about the quality check. In addition, selected quality control was done via telephone after the completion of the interviews. No major problems were observed during the fieldwork.

Community survey

The community survey was conducted in each community where the household survey was carried out. Some of the sampled PSUs were in the same community, and therefore there are fewer communities (79) than PSUs (100). The community questionnaires were completed by fieldwork supervisors mostly on the same day as the household survey, with assistance from municipal officials.

The questionnaire included around 75 questions to gather demographic, social and economic information on the communities, as well as specific questions on policies and programmes implemented in the localities. It also included questions about the share of households that currently have a family member living in another country and their most common country of residence, as well as the most common occupational activities of those living in the community.

In the capital city and other urban areas, because of lack of official data, responses were sometimes based on respondents' estimations. In two urban communities, Vagharshapat (Armavir *marz*) and Hrazdan (Kotayk *marz*), municipal officials refused to participate in the survey. All the data for these two communities were collected using online and other publicly available sources.

Stakeholder interviews

In order to capture a wide range of information and opinion on the topic of migration and sectoral policies, semi-structured interviews were conducted using a guide developed by the OECD.

The guide was divided into five topics:

1. general awareness of migration
2. actions, programmes and policies directly related to migration
3. main actions, programmes and policies likely to have a link with migration
4. perceptions of migration-related issues
5. co-ordination with other stakeholders on migration.

Three versions of the discussion guide were developed, targeting three types of respondents: representatives of 1) public institutions; 2) international organisations; and 3) local non-government organisations (NGOs) and other types of organisations (Table 3.2). Questions for each topic were modified according to whether the institution was working on migration issues directly or indirectly, and its role vis-à-vis migration policy.

In total, interviews were carried out with 47 stakeholders. The interviews were conducted in a semi-structured format. While the main topics of the interviews were determined by the thematic foci listed above, most of the questions were formulated by the interviewer depending on the context and flow of the interview, including follow-up and probing questions.

Table 3.2. **Summary of interviewees for qualitative interviews, by type of organisation**

Type of organisation	Number of interviews
Public institutions	15
International organisations	12
Local NGOs and other organisations	20
Total	47

The participants were selected based on their position, activities and responsibilities, and their knowledge and understanding of the issues to be discussed in the interview, specifically the connections between migration and the labour market, agriculture, education, health, social protection and investment (i.e. the primary areas of interest for the project). Each interview lasted about 1 to 1.5 hours. The interviews were conducted in Armenian by trained interviewers and all but one interview were audio recorded. The recordings were transcribed in Armenian, and then translated into English. The OECD prepared a joint codebook based on preliminary analysis of the data which was then used as a conceptual framework. The codebook includes general themes (main themes and subthemes) which are common to all countries taking part in the project, but left room for adding new themes specific to a country. All transcripts were then coded according to the codebook and analysed. The results were used in the analysis to make sense of and complement the findings.

How were the data analysed?

Having described the tools used to collect data for the project, this section provides an overview of how the data were analysed. The analyses in this report incorporate both statistical tests and regression analysis. Statistical tests determine the likelihood that the relationship between two variables is not caused by chance:

- A t-test compares the means of a dependent variable for two independent groups. For example, it is used to test if there is a difference between the average number of workers hired by agricultural households with emigrants and those without.
- A chi-squared test is used to investigate the relationship between two categorical variables, such as private school attendance (which only has two categories, yes or no) by children from two types of households: those receiving remittances and those not.

These types of statistical tests do not control for other factors. Regression analysis, on the other hand, is useful to ascertain the quantitative effect of one variable upon another while controlling for other factors that may also influence the outcome. The household and community surveys included rich information about households, their members, and the communities in which they live. This information was used to create control variables that were included in the regression models in order to single out the effect of a variable of interest from other characteristics of the individuals, households and communities that may affect the outcome, such as the household's business investments or an individual's plans to emigrate.

Two basic regression models are used in the report: ordinary least square (OLS) and probit models. The choice of which one to use depends on the nature of the outcome variable. OLS regressions are used when the outcome variable is continuous (i.e. can take on an infinite number of values). Probit models are used when the outcome variable can only take two values, such as owning a business or not.

The analysis of the interrelations between public policies and migration was performed at both household and individual level, though this depended on the topic and hypothesis investigated. The analysis for each sector looks at two relationships:

- The impact of a **migration dimension** on a **sector-specific outcome**

$$Y_{sector\ specific\ outcome(C)} = \alpha + \beta E_{migration\ dimension(A1)} + \gamma \mathbf{X}_{characteristics(D)} + \varepsilon;$$

- The impact of a **sectoral development policy** on a **migration outcome**

$$Y_{migration\ outcome(A2)} = \alpha + \beta E_{sector\ dev.\ policy(B)} + \gamma X_{characteristics(D)} + \varepsilon.$$

The regression analysis rests on four sets of variables:

A) **Migration**, comprising: (1) **migration dimensions** including emigration (sometimes using the proxy of an intention to emigrate in the future), remittances and return migration; and (2) **migration outcomes**, which cover the decision to emigrate, the sending and use of remittances and the decision and sustainability of return migration.

B) **Sectoral development policies:** a set of variables representing whether an individual or household took part or benefited from a specific public policy or programme in four key sectors: the labour market, agriculture, education, and investment and financial services.

C) **Sector-specific outcomes:** a set of variables measuring outcomes in the project's sectors of interest, such as labour force participation, investment in livestock rearing, school attendance and business ownership.

D) **Household and individual-level characteristics:** a set of socio-economic and geographical explanatory variables that tend to influence migration and sector-specific outcomes.

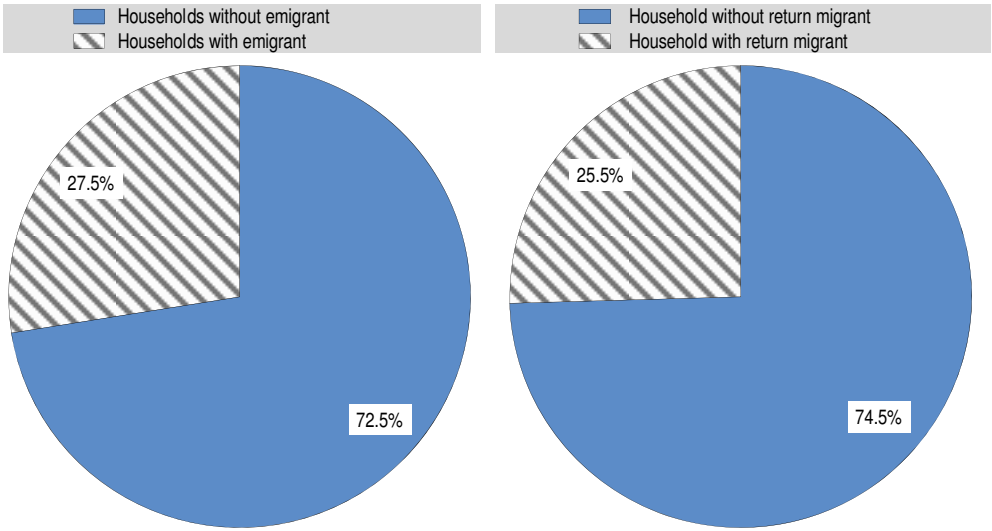
A corrigendum has been issued for this page. See http://www.oecd.org/about/publishing/Corrigendum_IPPMD_Armenia.pdf

What do the surveys tell us about migration in Armenia?

In total, the 2 000 households interviewed included 8 902 individuals. Of these, only 131 were immigrants, which meant there were not sufficient data to analyse immigration. A total of 550 households had emigrants – 28% of all households in the sample (Figure 3.2, left-hand pie chart), from which 819 former household members had emigrated. Among current members of the sampled households, 707 were return migrants: specific data about their migration experience were collected. The 509 households with return migrants formed 25% of all households in the sample (Figure 3.2, right-hand pie chart), while 106 households (5% of the sample) had both emigrants (one or more) and return migrants (one or more). Overall, 48% of households had an emigrant, a return migrant or both, while the other 52% did not.

Figure 3.2. **The share of households with emigrants and return migrants is similar**

Share of households, by migration experience (%)



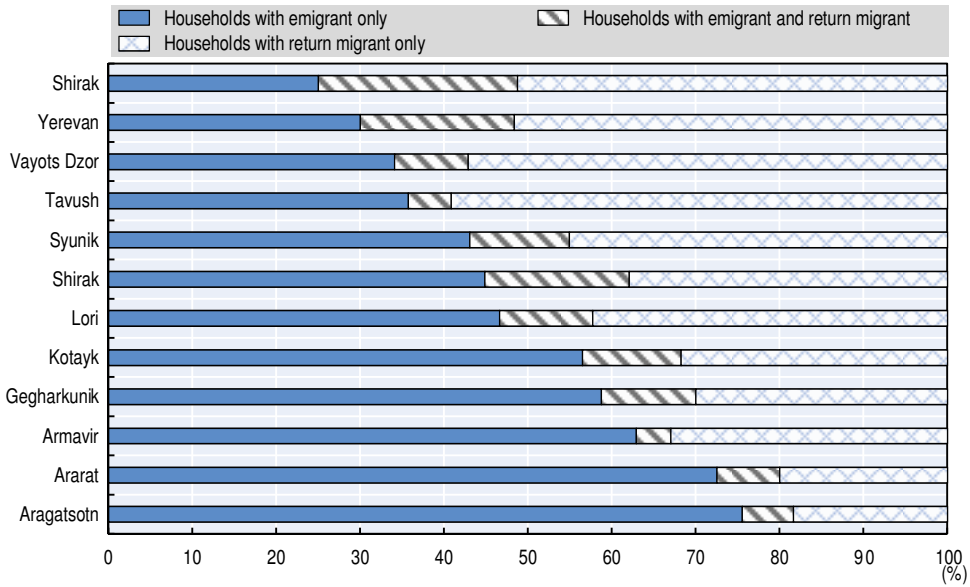
Source: Authors' own work based on IPPMD data.

The migration dimensions of emigration and return were left to chance in the sampling of migrant households, therefore their numbers reflect their relative importance in each *marz*. Figure 3.3 shows the prevalence of emigrants and return migrants in each *marz*, based on the household data. It ranges from a relative share of 25% of households with at least one return migrant in Aragatsotn to 75% of households in Shirak.

A corrigendum has been issued for this page. See http://www.oecd.org/about/publishing/Corrigendum_IPPMD_Armenia.pdf

Figure 3.3. **Emigration and return migration rates vary by province**

Relative share of emigrants and return migrants among migrant households (%), by province



Source: Authors' own work based on IPPMD data.

Table 3.3 shows how household characteristics differ depending on their migration experience. Households with emigrants are more likely to be located in rural areas, while households with return migrants are more often found in urban areas. Households with emigrants are only marginally smaller than those without, which, given that at least one of their members has left the household, suggests that these households were slightly larger than average before migration. Similarly, the dependency ratio is higher for households with emigrants, even though they are less likely to include children. Overall, 36% of households are headed by women, but there are large differences between the groups. About half of the households with emigrants have a female head, whereas this is the case for only one third of the households without migrants, and a bit less for the households with return migrants. This comes as no surprise given that the large majority of emigrants (77%) and return migrants (72%) are men, who often re-assume the position of household head on their return (44% of return migrants are head of the household). Households with an emigrant had a lower likelihood of having at least one member having completed post-secondary education than households without migration experience, while households with return migrants seem to be the most educated.

For the purposes of this project, a household-level wealth indicator was constructed based on questions in the household survey on the number of assets owned by the household. Assets include a range of items, from cell phones

to real estate. The wealth indicator was created using principal component analysis. It suggests that households with migration experience tend to be wealthier.

Table 3.3. **On average, households with migration experience are wealthier than households without**

Characteristics of sampled households

	Total sample	Households with no migration experience	Households with at least one emigrant	Households receiving remittances	Households with at least one return migrant
Number of households	2 000 (100%)	996 (51%)	550 (28.2%)	501 (26%)	509 (26%)
Households in rural areas (%)	50	50	56	57	47
Household size, individuals	4.0	4.1	3.5	3.6	4.5
Dependency ratio[a]	0.55	0.53	0.64	0.63	0.48
Households with children (0-14 years, %)	45	45	39	44	52
Households with female household head (%)	36	33	50	51	30
Share of households with a member having completed post-secondary education (%)	49	50	46	48	52
Wealth indicator[b]	33.3	32.5	34.2	35.1	34.6
Households with members planning to emigrate (%)[c]	18	10	22	25	34

Note: The categories are not mutually exclusive, e.g. a household with both an emigrant and a return migrant is included both as a household with an emigrant, and a household with a return migrant.
a) The dependency ratio is the number of children and elderly persons divided by the number of people of working age (15-65). b) The wealth indicator is standardised ranging from 0 to 100, with higher scores indicating wealthier households. c) The share of households with a member planning to emigrate is based on a direct question asked to all adults (15 years or older) whether or not they have plans to live and or work in another country in the future.
Source: Authors' own work based on IPPMD data.

The household survey also included a question on whether individual household members aged 15 or over had plans to emigrate. The data show that plans to emigrate are more prevalent for migrant households, especially those with return migrants. A large share of this can be attributed to return migrants themselves, as 28% of them plan to emigrate again, compared to 7% of their household members.

Table 3.4 summarises the characteristics of adults from the sampled households, broken down by whether they are non-migrants, returned migrants or current emigrants. Emigrants are the youngest group, with an average age of 38, compared to non-migrants (44) and return migrants (43). Overall, women account for 52% of the adults in the sample. The share of women among emigrants and return migrants is much lower, at 23% and 28% respectively.

Among individuals without migration experience, 44% have completed post-secondary education. This share is slightly lower for return migrants, and significantly lower for emigrants. Among those planning to emigrate in the future (not shown), 56% has completed post-secondary education.

Table 3.4. **Emigrants on average are younger, less educated and more likely to be men**

Characteristics of individuals from sampled households

	Non-migrants	Emigrants	Return migrants
Number of individuals	5 593	819	707
Average age	44	38	43
Share of women (%)	60	23	28
Share (25+) having completed post-secondary education (%)	44	39	42

Note: Only adults (15+) are included. Immigrants are excluded. The group of non-migrants includes individuals in households with and without migrants. To calculate education status, the analysis included individuals aged 25 or over – the age by which they would have completed post-secondary education.

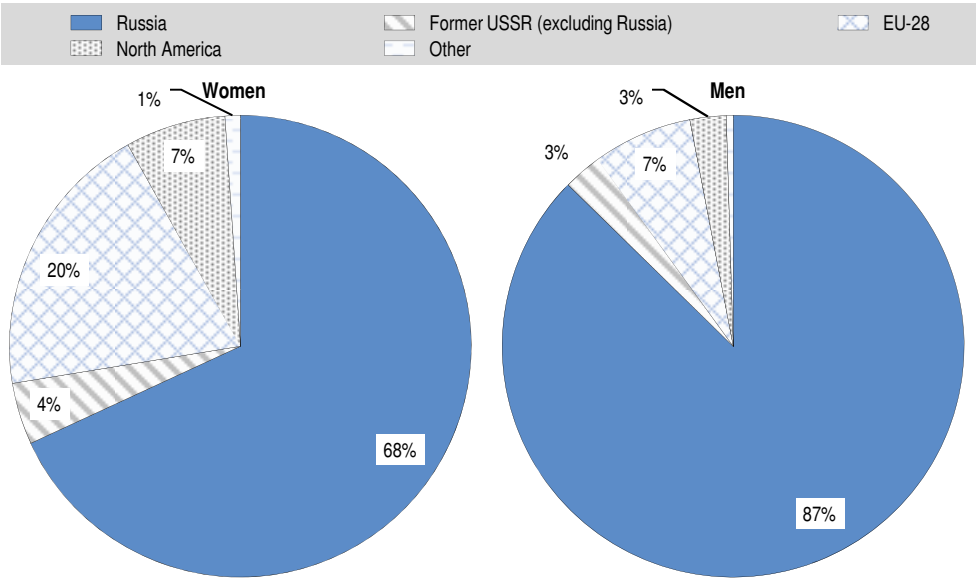
Source: Authors' own work based on IPPMD data.

Emigration patterns differ for men and women

Data collected on emigrants included their current country of residence, the time since they emigrated and the reason they left. Emigrants' destination countries vary by gender (Figure 3.4). Whilst Russia is the most common destination for both women and men (68% and 87% respectively), women are relatively more likely than men to migrate to the European Union (EU) and North America.

Figure 3.4. **Russia is the main destination for both women and men**

Share of emigrants' current country of residence (%), by gender



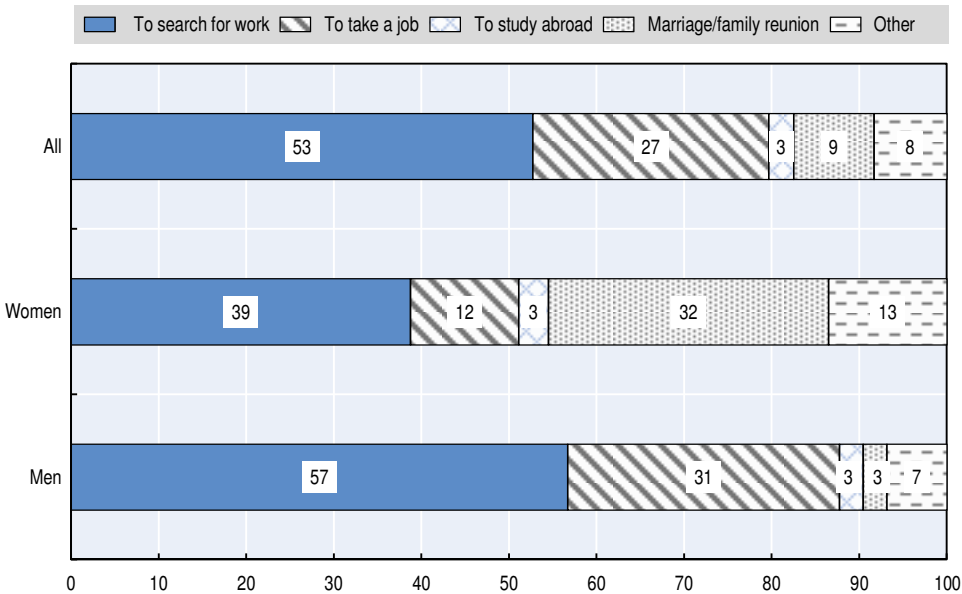
Note: One individual migrated to Latvia, which is included in the category "EU-28", rather than "Former USSR".

Source: Authors' own work based on IPPMD data.

The main reasons given for emigrating were to search for work or to take up a job, overall accounting for 80% of the responses (Figure 3.5). About one-third of women migrated for family reasons (marriage or to reunite the family), while this share is marginal (3%) among men. For both men and women, the share migrating to study abroad is around 3%, but this differs depending on the country of destination. Among emigrants who migrated to the European Union and the United States, around 10% gave studying abroad as their reason for migrating.

Figure 3.5. **Most emigrants emigrate to search for work or take up a job**

Relative share of reasons emigrants left (%), by gender



Source: Authors' own work based on IPPMD data.

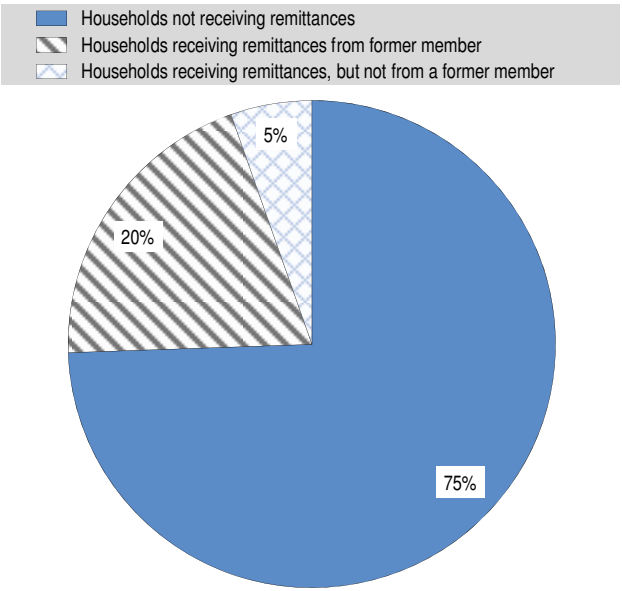
About half of the emigrants in the sample had left Armenia in the year leading up to the survey, around 20% had left between one and five years previously, another 11% between 5 and 10 years previously, and the remaining 21% more than ten years previously. The time since migration also varies by country of destination and gender. More than one-third of the emigrants who migrated to the EU or North America had left Armenia more than ten years ago, compared to 18% of the emigrants who migrated to Russia. About 67% of emigrant women have been abroad for more than two years, compared to only 41% of men. The higher share of seasonal migrants among men (45% compared to 7% among women) partly explains this difference.

Gender plays a role in remittance use and sending

Although migration and remittances are closely linked, one does not necessarily imply the other. Seventy-one percent of households with an emigrant received remittances, compared to 2% of households without an emigrant. Overall, about one in four households had received international remittances in the year prior to the survey. Of these, most (79%) – but not all – received remittances from an emigrant member; 95 (21% of remittance-receiving households) received them from another source (Figure 3.6).

Figure 3.6. **About one in four households in the sample received remittances**

Share of households receiving remittances (%)

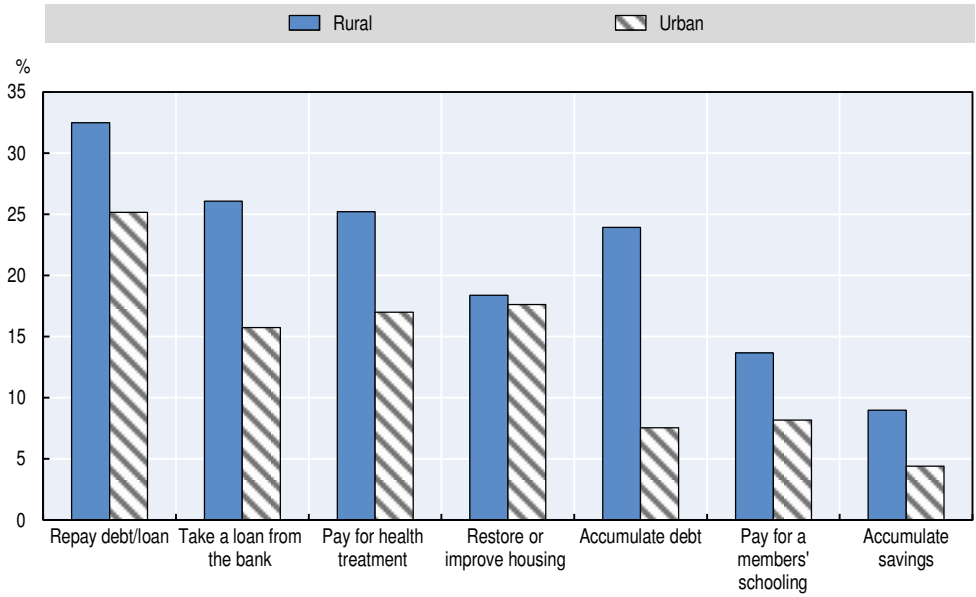


Note: The category "households receiving remittances from former member" does not imply that they solely receive remittances from a former member. It includes households that receive remittances also from other emigrants.
Source: Authors' own work based on IPPMD data.

What financial decisions are made by households receiving remittances from a former household member? The most common activity was to repay a loan (Figure 3.7). Households in rural areas were particularly likely to do so, with 28% of them repaying loans, compared to 22% of households in urban areas. Households undertook similar activities regardless of whether they were headed by men and women (not shown), except that households headed by a woman are more likely to invest in schooling than those headed by men (14% versus 8%).

Figure 3.7. **Repaying debt was the most common activity for remittance receiving households**

Activities taken by households receiving remittances from a former member



Note: The sample only includes households that receive remittances from a former household member. The figure displays the top seven most common activities reported by households. Households could specify whether they had undertaken each activity from the following list: taking a loan from a bank, paying for health treatment or schooling of a household member, accumulating savings, repaying a debt/loan, building or buying a home, investing in agricultural activities, taking out a loan from informal sources, accumulating debt, setting up a business, building a dwelling to sell to others, buying land, and restoring or improving housing.

Source: Authors' own work based on IPPMD data.

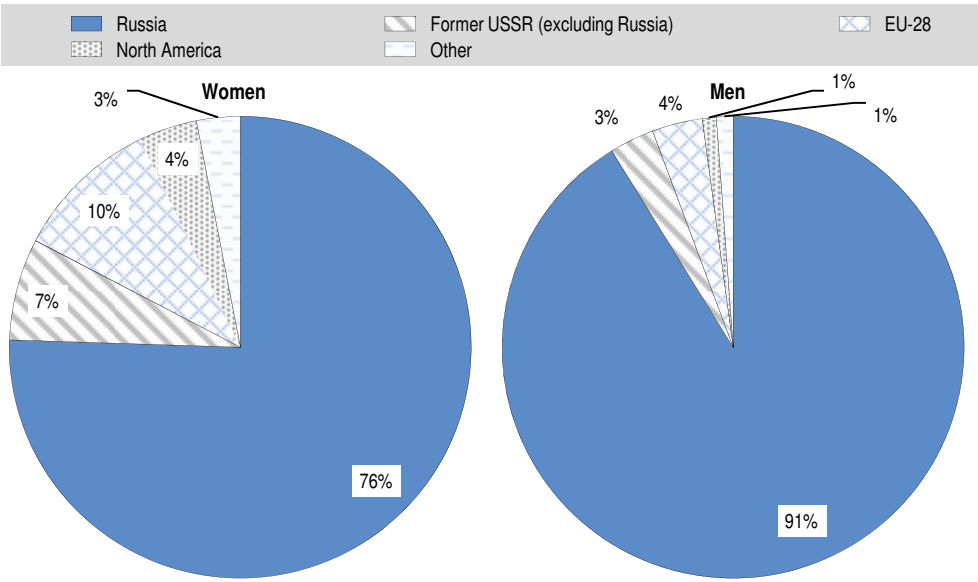
The survey also collected detailed information on the amount of remittances received from former members, the frequency of sending, and the channels used. The average amount sent home by emigrants in the 12 months leading up to the survey was AMD 756 120 (Armenian Dram), equivalent to USD 1 854. This includes both monetary remittances and the cash equivalent value of in-kind remittances. Only about 3% of emigrants had sent in-kind remittances over the year leading up to the survey, with an average estimated value of AMD 214 000 (USD 525). About 39% of remitting emigrants sent remittances at least once a month, another 42% did so on a quarterly or yearly basis, while the rest did not send funds regularly. More than 90% of monetary remittances were sent using the formal bank system.

Women were less likely to send remittances than men, as only 20% of emigrated women sent remittances compared to 66% of men. This difference holds across different destination countries and levels of education. However, the average amount sent by women was higher, as women remitted AMD 837 607 (USD 2 053) on average, while men remitted AMD 729 160 (USD 1 788).

About half of the return migrants are satisfied to be back

Most of the 707 returnees had come back from Russia, though the share for women is lower than for men (Figure 3.8). Among female return migrants, the share returning from Russia is higher than the share of female emigrants currently live there. Men returnees have mainly come home from Russia, and again the share is slightly higher than the share of current emigrants in Russia. The reverse is true for North America and the European Union, indicating that emigrants who moved there are more likely to stay than return.

Figure 3.8. **The majority of return migrants have returned from Russia**
Share of return migrants' former country of residence (%), by gender



Note: One individual returned from Latvia, which is included in the category "EU-28", not in "Former USSR".
Source: Authors' own work based on IPPMD data.

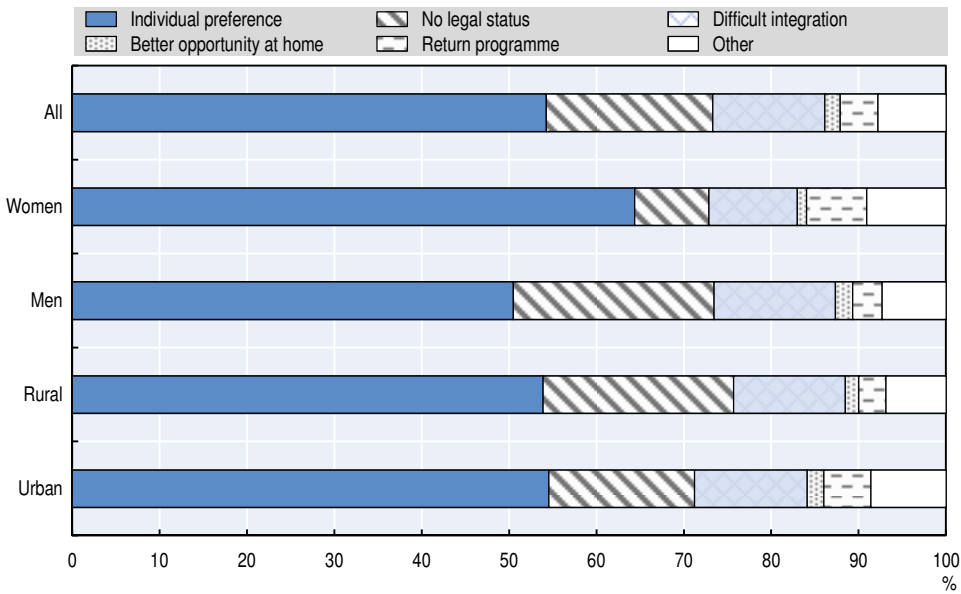
The reasons why return migrants initially emigrated are similar to those mentioned by current emigrants, especially for men. Most male return migrants reported labour related or financial reasons as their motivation for emigrating. Among female returnees, the share that initially migrated for family reasons (44%) is higher than the share of female current emigrants who reported migrating for this reason (32%).

About 72% of the return migrants had spent less than one year abroad. The three most common reasons returnees gave for coming back to Armenia were that they preferred their own country (54%), a lack of legal status (19%) or difficulties integrating (13%; Figure 3.9). Men are more likely than women to

return because of a lack of legal status (23% versus 9%), and women because of their preference for Armenia (64% versus 51%).

Figure 3.9. **Most return migrants came back because they prefer to be in Armenia**

Relative share of reasons return migrants left destination country (%)



Note: The category "individual preference" includes returning for family, retirement, marriage, and health reasons.
Source: Authors' own work based on IPPMD data.

Return migrants were also asked whether they were satisfied to be back in Armenia. More than half were satisfied or very satisfied to be back in the country, with the share higher for migrants who have returned to rural areas (56%) than to urban ones (49%). Among those satisfied to be back, 17% plan to re-migrate in the next 12 months, compared to 34% of those who are unsatisfied. More than 60% of the returnees faced challenges on their return, mostly difficulties finding a job in the first five years upon return.

This chapter has presented the three tools used to collect data – household and community surveys and the qualitative stakeholder interviews – and the analysis techniques for exploring the links between migration, public policies and development. The following chapter takes a sector-by-sector approach to presenting the results of the data analysis: the labour market, agriculture, education, and finance and investment.

ANNEX 3.A1

Table 3.A1.1. **Summary of the sampling design**

Strata	1) 10 *Marzes* (provinces) and Yerevan (capital) 2) rural/urban/capital
Base data used for sampling PSUs	Clusters from the electricity users database, Electricity Networks of Armenia Company
National coverage (yes/no)	Yes
Population covered	100%
Total number of PSUs in the sampling framework	5 052 (clusters)
Average number of households per PSU	152
Number of PSUs sampled	100 (clusters)
Number of households sampled	2 000
Number of households sampled per PSU	20
Number of households sampled per *marz*	Aragatsotn (119), Ararat (200), Armavir (200), Gegharkunik (160), Kotayk (200), Lori (180), Shirak (160), Syunik (80), Vayots Dzor (60), Tavush (100), Yerevan (541)

Table 3.A1.2. **Overview of the household questionnaire**

Module 1 *Household roster*	Questions on household characteristics including the number of household members and their relationship to the household head, sex, age, marital status etc. It is worth mentioning that the module asks all household members aged 15 and over about their intentions to migrate internationally.
Module 2 *Education and skills*	Records information on school attendance of children, child labour, language skills and the educational attainment of all members. It also contains a series of policy questions to gather information on whether a household benefited from certain types of education policies, for example scholarships, conditional cash transfer related to education and distribution of school supplies.
Module 3 *Labour market*	Collects information about the labour characteristics of household members. This includes employment status, occupation and main sector of activity; and the means of finding jobs which include government employment agencies. It also asks if members of the household participated in public employment programmes and vocational training.
Module 4 *Expenditures, assets, income*	Questions on household expenditure patterns, asset ownership and various types of income.
Module 5 *Investment and financial services*	Questions related to household financial inclusion, financial training and information on businesses activities. It also collects information about the main obstacles households face in running any businesses.

Table 3.A1.2. **Overview of the household questionnaire** *(cont.)*

Module 6 *Agricultural activities*	Administered to households involved in agricultural activities including fishery, livestock husbandry and aquaculture. Records information about the plot, such as number, size, crops grown, how the plot was acquired and the market potential, as well as information about the number and type of livestock raised. This module also collects information on whether households benefited from agricultural policies such as subsidies, agricultural related training or crop price insurance.
Module 7 *Emigration*	Captures information on all ex-members of the household aged 15 or over who currently live abroad. It covers characteristics of the migrants such as sex, age, marital status, relationship to the household head, language skills and educational attainment. It also collects information on destination countries, the reasons they left the country and their employment status both when they were in the home country and in the destination country.
Module 8 *International remittances*	Collects information on remittances sent by current emigrants. It records the frequency of receiving remittances and the amount received, the channels they were sent through, and how they were used.
Module 9 *Return migration*	Collects information on all members of the household aged 15 and over who have previously lived abroad for at least three consecutive months and returned to the country. It records information about the destination and the duration of migration as well as the reasons for emigration and for return.
Module 10 *Immigration*	The immigration module is administered to immigrants of the household 15-years and above, and captures information related to citizenship, reasons for immigration, employment status and occupation prior to immigration, and investments in the host country. The module also includes questions on discrimination in the host country.

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Chapter 4

What impacts does migration have on development in Armenia?

Armenia has one of the highest, and increasing, emigration rates in the world, with about 30% of the population living outside the country. In parallel, Armenia also benefits from significant and increasing levels of remittances. This chapter asks to what extent these trends are contributing to the country's development in four sectors: the labour market, agriculture, education, and investment and financial services. Drawing on the IPPMD surveys and data analysis, the chapter finds both positive and negative effects on development.

Armenia's rather turbulent recent history has meant the country has one of the highest emigration rates in the world, with about 30% of the population living outside the country. As well as witnessing a marked increase in the number of emigrants, Armenia benefits from significant and increasing remittances from migration. As discussed in Chapter 2, migration – historically and today – is a significant driving force for development in Armenia.

This chapter asks how these migration trends are affecting Armenia's development in four policy sectors: the labour market, agriculture, education, and investment and financial services. For each sector the chapter presents the findings of the IPPMD surveys and data analysis to explore the impact of three dimensions of migration: emigration, remittances and return migration. The next chapter explores key policies in each of the focus sectors and their links to migration outcomes.

Migration and the labour market

The limited employment opportunities and the lower wages in Armenia compared to emigrants' main destination countries are major push factors for Armenians to migrate. How does this migration affect the labour market? There are several possible avenues: the remittances sent home to migrants' families might be spent on setting up a business, which can generate employment. On the other hand, receiving remittances can increase households' income, reducing the need for household members to be in work. This highlights a moral hazard effect of remittances – household members can become remittance-dependant, causing them to leave their jobs or stop looking for work. This section explores these effects for Armenia.

According to data from the National Statistical Service of the Republic of Armenia, Armenia's labour force participation rate[1] was 63% in 2015: 73% for men and 54% for women (ArmStat, 2015). The rate is notably higher in rural (69%) than in urban areas (58%). Similarly, the employment rate is significantly higher in rural than urban areas (65% versus 43%) and among men than women (60% versus 44%).

The overall unemployment rate in the country is 19% (ArmStat, 2015). There are significant differences in unemployment rates by geographical location, with 7% of unemployment in rural areas, compared to 27% in urban areas. Unemployment is highest among young people. From a rate of 26% and

35% respectively for 15-19 year-olds and 20-24 year-olds, it falls to 24% and 22% respectively for 25-29 year-olds and 30-34 year-olds and then further still to 18% for 35-39 year-olds. It is 4% among 65-69 year-olds.

Services are the largest sector in terms of employment, accounting for more than 40% of all Armenian who are working. Agriculture is the second largest accounting for about 37% in total employment, but unlike services, its share is declining. Industry's (excluding construction) share in employment increases by 0.6 percentage points between 2008 and 2016, accounting for about 11% of the employed workforce while construction's share decreased by 5% and the sector plays a small and declining role, employing fewer than 9% of workers in 2008 to just over 4% in 2015 (ArmStat, 2016).

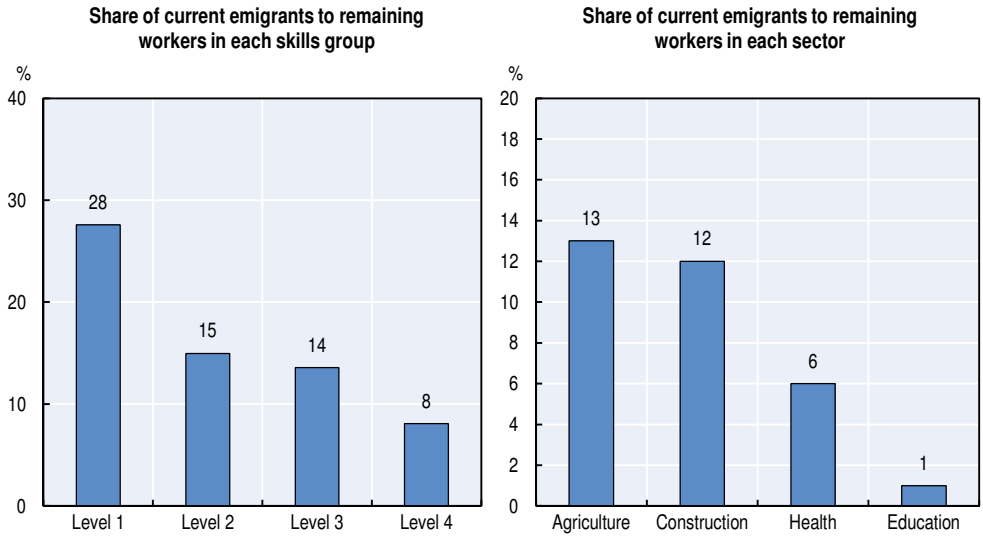
This national pattern is reflected in the IPPMD survey data, where the labour force participation rate among the sampled working age population (15-64 age range) is 57%: 72% for men and 45% for women. Unlike the national figures however, the rate is higher in urban (59%) than in rural areas (55%). The employment rate is 45%: 57% among men and 35% among women, and is higher in rural areas (47%) than in urban areas (43%). Around 43% of the working age population report not being engaged in paid employment and not looking for work. The difference between men and women is notable, with a significantly higher share of women (55%) being economically inactive than men (28%). The rate is higher among all individuals aged 15 and over (60%), taking the retired into account.

Remittances reduce the supply of labour

It is important to look at emigrants' characteristics to understand the impact of emigration on the labour market. Almost all current emigrants in the survey are of working age (15 to 64). Only about 44% of the emigrants were employed in Armenia before leaving the country and 27% were unemployed which is a higher share than the average among the IPPMD partner countries. Their unemployment rate has significantly decreased since they emigrated (to 4%), implying that unemployment is one of the main reasons people leave the country.

Which sectors and occupational groups are losing most labour to emigration? The left-hand chart in Figure 4.1 displays the share of emigrants in each skills group. This shows that emigrants from Armenia are more likely to come from the lowest skilled occupational group (Level 1). The right-hand chart in Figure 4.1 compares the share of emigrants lost to the agriculture, construction, health and education sectors, revealing that agriculture and construction seem to be the most affected by emigration.

Figure 4.1. **Agriculture and construction and low-skilled occupations lose most workers to emigration**



Note: The skills level of occupations has been categorised using the International Standard Classification of Occupations (ISCO) provided by the International Labour Organization (ILO, 2012). Skills level 1: occupations which involve simple and routine physical or manual tasks (includes elementary occupations and some armed forces occupations). Skills level 2: clerical support workers; services and sales workers; skilled agricultural, forestry and fishery workers; craft and related trade workers; plan and machine operators and assemblers. Skills level 3: technicians and associate professionals and hospitality, retail and other services managers. Skills level 4: Other types of managers and professionals.

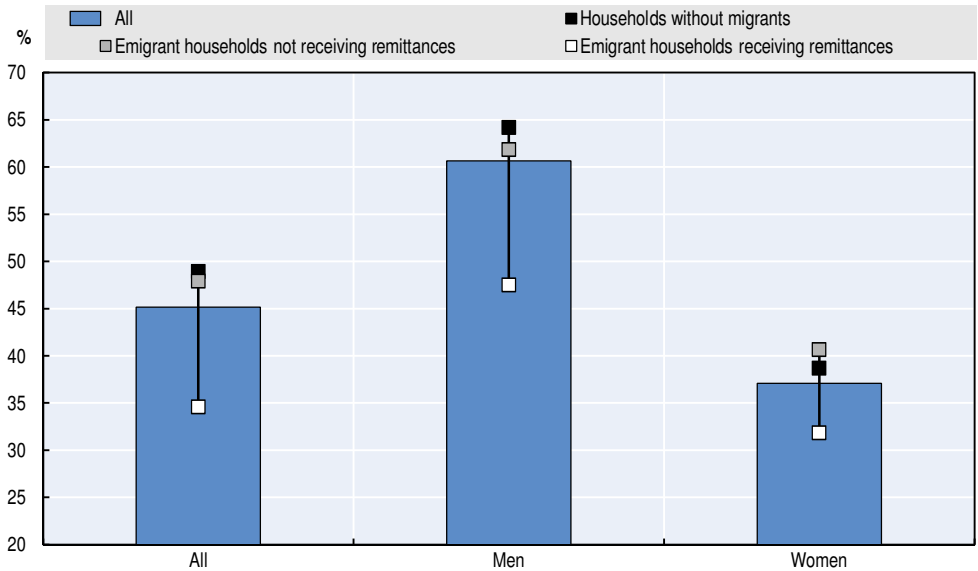
Source: Authors' own work based on IPPMD data.

What does this mean for households that are losing their productive labour to emigration? The effects are complicated and depend on whether the emigrant had been employed before leaving and whether he or she then sends home remittances. The literature from various contexts and parts of the world shows that receiving remittances can reduce household members' need to work (Acosta, 2007; Amuedo-Dorantes and Pozo, 2006; Funkhouser, 2006; Kim, 2007; Osaki, 2003).

Although this complex picture makes it challenging to isolate individual effects, the IPPMD data do shed some light on this matter. Figure 4.2 compares the average share of working household members in non-migrant households, emigrant households *not* receiving remittances and those that *are* receiving remittances. The graph shows that remittance-receiving households have the lowest share of working adults, suggesting a link between receiving international remittances and the need to seek work. It also appears that women in households with emigrants but not receiving remittances are more likely to work than those in households without emigrants. Given that 77% of current emigrants in the sample are men, this implies that the women left behind may have to compensate with their labour especially if they do not receive remittances.

Figure 4.2. **Households receiving remittances have fewer working members**

Share of household members aged 15-64 who are working (%)



Note: The sample excludes households with return migrants only and immigrants only.
Source: Authors' own work based on IPPMD data.

What does regression analysis tell us about this relationship?[2] The analysis in Box 4.1 confirms that households reduce labour supply when they receive remittances (Table 4.1). This effect seems to hold for both men and woman in rural areas. Having an absent member in the household does not seem to affect the labour decision of households.

Remittances and return migration encourage self-employment, but only in rural areas

The literature suggests that as remittances raise household income they can provide those left behind with the capital they need to start up a business and boost self-employment (Mesnard, 2004; Dustmann and Kirchkamp 2002; Woodruff and Zenteno, 2007; Yang, 2008). The IPPMD survey data also suggest that remittances play a role in boosting self-employment, as the share of self-employed is higher among people from households receiving remittances (43%) than among those not receiving them (34%).

Similarly, 44% of return migrants are self-employed, compared to 34% of non-migrants. Return migrants' savings accumulated abroad can be used as a resource for working for themselves. Growing evidence from the literature

suggests that return migrants and their household members tend to be self-employed or establish their own businesses (Ammassari, 2004; De Vreyer et al., 2010; Giulietti et al., 2013).

Box 4.1. **The links between migration and employment**

To investigate the link between migration and households' labour decisions, the following regression models were used:

$$share_working_{hh} = \beta_0 + \beta_1 emig_{hh} + \beta_2 remit_{hh} + \gamma_1 controls_{hh} + \delta_r + \varepsilon_{hh} \quad (1)$$

$$m_share_working_{hh} = \beta_0 + \beta_1 emig_{hh} + \beta_2 remit_{hh} + \gamma_1 controls_{hh} + \delta_r + \varepsilon_{hh} \quad (2)$$

$$f_share_working_{hh} = \beta_0 + \beta_1 emig_{hh} + \beta_2 remit_{hh} + \gamma_1 controls_{hh} + \delta_r + \varepsilon_{hh} \quad (3)$$

where $share_working_{hh}$ signifies households' labour supply, measured as the share of household members aged 15-64 who are working. $m_share_working_{hh}$ is the share of male household members that are working among men and $f_share_working_{hh}$ for female household members. $emig_{hh}$ represents a variable with the value of 1 where a household has at least one emigrant, and $remit_{hh}$ denotes a household that receives remittances. $controls_{hh}$ stands for a set of control variables at the household level.[a] δ_r implies regional fixed effects and ε_i is the randomly distributed error term. The models were run for two different groups of households depending on their location (rural or urban). The coefficients of variables of interest are shown in Table 4.1.

Table 4.1. **Remittances and migration seem to reduce labour market participation**

Dependent variable: Share of the employed among household members aged 15-64
Main variables of interest: Having an emigrant/receiving remittances
Type of model: OLS
Sample: All households with at least one member working

Variables of interest	Share of the employed household members among:					
	(1) All		(2) Men		(3) Women	
	rural	urban	rural	urban	rural	Urban
Household has at least one emigrant	-0.024 (0.045)	-0.021 (0.041)	-0.045 (0.060)	-0.046 (0.061)	-0.004 (0.052)	-0.030 (0.051)
Household receives remittances	-0.159*** (0.047)	-0.114*** (0.044)	-0.120* (0.066)	-0.102 (0.068)	-0.138** (0.054)	-0.049 (0.054)
Number of observations	730	657	599	495	718	638

Note: Results that are statistically significant are indicated as follows: ***: 99%, **: 95%, *: 90%. Standard errors in parentheses. The sample excludes households with return migrants only and those with immigrants only.

a. Control variables include the household's size and its squared value, the dependency ratio (number of children 0-15 and elderly 65+ divided by the total of other members), the male-to-female adult ratio, family members' mean education level, its wealth estimated by an indicator (Chapter 3) and its squared value.

These patterns are seen in Armenia, too and confirmed by regression analysis (Box 4.2). Table 4.2 shows the results of the analysis and suggests that both receiving remittances and having a return migrant are positively associated with self-employment. Women in rural areas seem to engage more in self-employment when they receive remittances. Having a return migrant in rural households also tends to increase the probability of being self-employed. These effects, however, were not found in urban areas.

Box 4.2. **Migration boosts self-employment in rural areas**

To further analyse how receiving remittances is associated with the employment choices of household members, two probit models were used in the following form:

$$\text{Prob}(\text{self_employed}_i) = \beta_0 + \beta_1 remit_{hh} + \gamma_1 controls_i + \gamma_2 controls_{hh} + \delta_r + \varepsilon_i \quad (4)$$

$$\text{Prob}(\text{self_employed}_i) = \beta_0 + \beta_1 rt_mig_{hh} + \gamma_1 controls_i + \gamma_2 controls_{hh} + \delta_r + \varepsilon_i \quad (5)$$

where $\text{self_employed}_{ii}$ represents whether an employed individual i is self-employed, remit_{hh} signifies that a household receives remittances and rt_mig_{hh} denotes that a household has at least one return migrant. controls_i stands for a set of control variables at the individual level and controls_{hh} for household level controls.[a] δ_r implies regional fixed effects and ε_i is the randomly distributed error term. Table 4.2 shows the computed marginal effects of the main variable of interest on each employment type for the two models.

Table 4.2. **Migration boosts self-employment in rural areas**

Dependent variable: An individual is self-employed (binary variable).
Main variables of interest: The individual belongs to a household receiving remittances / The individual belongs to a household with at least one return migrant
Type of model: Probit
Sample: Employed people of working age (15-64).

Variables of interest	All		Men		Women	
	rural	Urban	rural	urban	rural	urban
Household receives remittances	0.076**	0.013	0.066	-0.003	0.094**	0.025
	(0.034)	(0.030)	(0.049)	(0.049)	(0.044)	(0.035)
Number of observations	1 407	1 095	827	611	580	448
Household has a return migrant	0.125***	0.023	0.141***	0.021	0.120***	0.019
	(0.027)	(0.021)	(0.036)	(0.033)	(0.040)	(0.026)
Number of observations	1 404	1 050	826	582	578	435

Note: Results that are statistically significant are indicated as follows: ***: 99%, **: 95%, *: 90. Standard errors in parentheses. The second model (return migration) excludes households with immigrants only.

a. Control variables include age, sex and education level of individuals and their households' size and its squared value, the dependency ratio, its wealth estimated by an indicator and whether it is in a rural or urban location.

Migration and agriculture

Agriculture plays an important role in Armenia's economy. Apart from a sudden increase in its share in the sector's value-added in GDP in the early 1990s due to a contraction of the non-agricultural sector (Makaryan and Galstyan, 2013), it has remained rather stable since around 2000. In 2015, its value-added as a percentage of GDP was 19% (World Bank, 2017a). Agriculture also employs an important share of the country's labour force. In 2013, 36% of the employed population worked in the agricultural sector (FAO, 2016b). However, this was the fourth lowest share amongst IPPMD partner countries, and reflects the share of the population living in rural areas (37%; UN, 2014).

The sector is highly characterised by small and subsistence farmers with low productivity, few resources and difficult access to markets (Oxfam, 2016); nearly half of all farms in Armenia are considered to be subsistence level (Mnatsakanyan et al., 2015). Only a very small group of larger farmers and commercial entities account for about 98% of agricultural output in the country (FAO, n.d.). Prospects are, however, looking up; a production per capita index measured at 100 over 2004-06 had increased to 130 by 2013 (FAO, 2016a), the second highest amongst the IPPMD partner countries.

Following the dissolution of the Soviet Union and the privatisation of land in Armenia, most of the rural population began looking to the capital, Yerevan, or outside the country for employment, mainly in Russia. As most of the emigrants were young people, rural areas were left with elderly people unable to carry out many of the heavy activities associated with agricultural work (Mnatsakanyan et al., 2015).

Of the 2 000 households interviewed, 1 001 (50%) had agricultural activities at the time of the interview. These include arable farming (384 households, 38%), animal husbandry (32 households, 3%) or both (585 households, 58%). This section, focusing on these households, asks whether remittances and return migration are helping to modernise and increase productivity in the agricultural sector.

Agricultural households do not channel remittances into productive agricultural investment

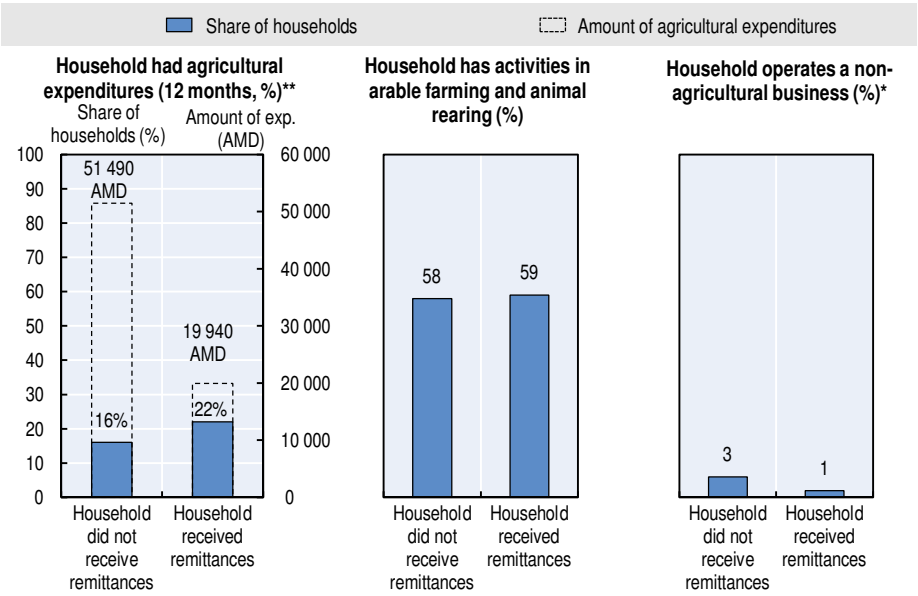
According to the IPPMD data, agricultural households in Armenia are more likely to be receiving remittances than non-agricultural households; the difference is statistically significant for remittances originating from any source (29% vs. 21%). Looking specifically at households with current emigrants, the gap remains in favour of agricultural households, with 23% of agricultural households receiving remittances compared to only 16% for non-agricultural ones. Amongst agricultural households with emigrants, 77% receive remittances, compared to only 64% of non-agricultural households.

In theory, remittances can be invested in productive assets such as machinery, barns, fencing, feeding mechanisms, irrigation systems and tractors (Mendola, 2008; Tsegai, 2004). The productive investment of remittances can also help households move from labour-intensive to capital-intensive activities (Lucas, 1987; Taylor and Wouterse, 2008; Gonzalez-Velosa, 2011), or to specialise in a certain type of farming (Böhme, 2015; Gonzalez-Velosa, 2011).

The IPPMD survey included a question on how much households spend on agricultural assets on average over a typical year[3] in the previous 12 months. Only 163 agricultural households (18% of those that provided an answer to the question) claimed to have done so. Looking more closely at these 163 households, those receiving remittances were more likely to have made such expenditures (22% vs. 16%, a statistically significant difference). However, they spent less on average than those not receiving remittances (AMD 51 490 vs. 19 940[4], not statistically significant) (Figure 4.3). Households that receive remittances may also choose to spend their additional income on either specialising in one activity, such as farming or animal rearing, or diversifying by doing both. The data suggest little difference between households receiving or not remittances here (59% vs. 58%) (Figure 4.3). In addition, both types of household showed little difference in their degree of agricultural specialisation (not shown).

Figure 4.3. **Households receiving remittances spend more on agricultural assets**

Household expenditures and business ownership, by whether household receives remittances



Note: Statistical significance calculated using a chi-squared test for differences in shares and a t-test for differences in the amounts spent, is indicated as follows: ***: 99%, **: 95%, *: 90%. Statistical significance in first figure to the left is related to the share of households with agricultural asset expenditures, and not the amount spent.

Source: Authors' own work based on IPPMD data.

Remittances might also be used to finance entrepreneurial non-farm activities that require capital, such as a retail business or transport services (FAO and IFAD, 2008). This would be consistent with the gradual move away from agricultural dependence occurring in Armenia. This has been the case in Albania, for instance, where remittances have been negatively associated with both labour and non-labour inputs in agriculture (Carletto et al., 2010). However, and contrary to the theory, the data suggest that few households financed non-farm activities and those receiving remittances are slightly less likely than households not receiving remittances to own such a business (1% vs. 3%) (Figure 4.3).

Regression analysis was used to probe further whether households receiving remittances invest in or out of agriculture (Box 4.3). The results largely confirm the patterns suggested above: there is a strong link between a household receiving remittances and investment in agricultural assets – the coefficient is positive and statistically significant (Table 4.3, row 1). However, based on the 163 households that did spend money on agricultural investments, the amount of remittances received seems to be negatively correlated with investments in agricultural assets (Table 4.3, row 1). There also does not seem to be any statistically significant link between the amount of remittances received by a household and having both agrarian farming and animal rearing activities. The regression results also suggest that there is a strong negative link between receiving remittances and ownership of a non-agricultural business (Table 4.3, row 1), as suggested in the descriptive statistics of Figure 4.3, but no link with the amount of remittances sent (Table 4.3, row 2). Overall, remittances seem to have a positive effect on the probability of investing in agriculture, but little effect on any other outcome.

Box 4.3. **The links between remittances and investing in farming**

To estimate the probability that an agricultural household has invested in an asset or activity, the following regression model was estimated:

$$\text{Prob}(\text{agri_outcome}_{hh}) = \beta_0 + \beta_1 remit_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (6)$$

where the unit of observation is the household *hh* and the dependent binary variable *agri_exp* in equation (3) represents the probability that the household had agricultural expenditures in the previous 12 months and takes on a value of 1 if the household spent money and 0 otherwise, $remit_{hh}$ represents the fact that the household receiving remittances, $control_{hh}$ stands for a set of household-level regressors while δ_r represents regional-level fixed effects. Standard errors, ε_{hh}, are robust to heteroskedasticity.

A second OLS model was also estimated:

$$\text{Ln}(\text{agri_exp}_{hh}) = \beta_0 + \beta_1 remit_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (7)$$

where *agri_exp* represents the logged amount of the agricultural expenditures. All other variables are as defined in equation (6).

Box 4.3. **The links between remittances and investing in farming** *(cont.)*

Table 4.3 presents the regression results. Column (1) presents results on whether the household has made agricultural asset expenditures, column (2) on the amount spent on agricultural assets in the past 12 months, column (3) on whether the household has activities in both farming and animal rearing, and column (4) on whether the household operates a non-agricultural business. The table also presents results for three variables of interest, estimated in separate models. The top rows present results related to the fact that the household received remittances in the past 12 months, while the middle rows present results related to the logged amount of remittances received by former members of the household in the past 12 months, limiting the sample to those that received remittances.

Table 4.3. **Remittances increase the probability of spending on agricultural assets**

Dependent variable: Investment outcomes
Main variables of interest: Household received remittances/amount of remittances received by household
Type of model: Probit/OLS
Sample: Agricultural households

Variables of interest	Dependent variables			
	(1) Household typically makes agricultural asset expenditures (equation 6)	(2) Logged amount typically spent on agricultural assets in a 12 month period (equation 7)	(3) Household has activities in both farming and animal rearing (equation 6)	(4) Household operates a non-agricultural business (equation 7)
Household received remittances in the past 12 months	0.068** (0.032)	-0.366** (0.182)	0.007 (0.039)	-0.024*** (0.008)
Number of observations	893	163	988	891
Logged amount of remittances sent from former household members	0.008 (0.029)	-0.033 (0.156)	0.001 (0.035)	0.004 (0.004)
Number of observations	165	42	182	174

Note: Statistical significance is indicated as follows: ***: 99%, **: 95%, *: 90%. Coefficients resulting from probit models reflect marginal effects. Standard errors are in parentheses and robust to heteroskedasticity.

Return migration can also affect the agricultural sector in many of the same ways as remittances, since the migrants may return with financial, human and social capital, i.e. savings, their own labour, new skills and contacts. However, fewer farming households have return migrants compared to non-farming households, according to the IPPMD data. Of the 509 households with return migrants, 252 (25%) were returning to farming households, while 257 (26%) were from non-farming households, rates that are rather similar. However, and more strikingly, when looking specifically at migrant households (those with current emigrants or return migrants), fewer farming households had return migrants than non-farming households (50% vs. 57%), a statistically significant difference.

In fact, looking at whether having a return migrant in the household is linked with the same outcomes as listed in the analysis on remittances above, the results suggests that return migration does not lead to better investment outcomes for agricultural households (not shown, more details in OECD, 2017). Moreover, the difference between return migrant and non-return migrant households was only slightly more in favour of return migration in terms of operating both arable farming and animal husbandry (59% vs. 58%), nor is return linked with one specific activity or the other (not shown). Finally, households with return migrants were also only slightly more likely to be operating a non-agricultural business than those without a return migrant (3% vs. 2%).

The fact that remittances are being channelled into agricultural asset expenditures is promising, but perhaps not enough. While the literature finds that remittances and return migration are typical vectors for investment and to revitalise the sector, this seems to not be the case in Armenia in general apart from the link between remittances and the probability of spending on agricultural assets. For instance, the amounts spent are negatively correlated with remittances and there is very little evidence of diversification into various agricultural activities or non-agricultural ones. This may be a more general issue, as the rate of non-agricultural business ownership by agricultural households is also remarkably low in the IPPMD dataset.

Some of these results may be linked to the fact that it is mainly the poor who are migrating; although their investment capacity may be increased through remittances and return migration, the amounts may be too low to invest, compared to other, perhaps richer, households. The results suggest that as Armenia transitions away from agricultural dependence, perhaps in tandem with emigration, the sector may suffer. However, migration in Armenia is highly seasonal, particularly to Russia. There is therefore a possibility that some remittances are being brought back by hand and that the links with seasonal migration to Russia are actually reinforcing the agricultural sector, as households exploit differences in seasonal demand between the two countries. This may explain why Armenia seems to be firmly set on an agricultural value-added in GDP of around 20%, as mentioned above.

Migration and education

In 1992, the Armenian higher education system went from a "free of charge" to a partly fee-paying system as professional institutions introduced fee-based education alongside the free-of-charge state-financed education. Reforms were also introduced to meet the European standards related to the Bologna process. These changes concerned pre-professional education, vocational education, higher and post-graduate education, and meant that the number of private

educational institutions increased (Makaryan and Galstyan, 2013). Another important change was the transition from the Soviet-era 10-year schooling system to the current 12-year education system (UNICEF, 2010).

Today Armenia's National Curriculum for General Education is based on a 12-year programme, which consists of compulsory primary (grades 1 to 4), compulsory lower secondary (grades 5 to 9) and upper secondary (high school, grades 10-12). There are also alternatives to high schools in the form of vocational and technical-professional schools.

Close to half the Armenian adult population (47%) have completed post-secondary education – the second highest share in the IPPMD sample after Georgia (at 49%). The pupil-teacher ratio is also relatively low compared to the other IPPMD countries, at 19 students per teacher in 2007 (OECD, 2017). Armenia has made efforts to achieve universal primary school enrolment in the past decade, and primary net education enrolment rates increased from 84% in 2007 to 96% in 2015 (UNESCO, 2016). Although many reform efforts are still underway, the quality of education needs significant improvement, and the curriculum for higher education needs to be better adjusted to the demands of the labour market (Makaryan and Galstyan, 2013). Unemployment is high, especially among the young (as discussed in the labour market section above), and many youth see labour migration as an alternative when they face difficulties finding a job matching their education and skills levels (Makaryan and Galstyan, 2013).

Remittances encourage investments in education

Education is fundamental to individual and national development in both developed and developing economies. Migration and education are closely interlinked in several ways. On the one hand, remittances can alleviate households' credit constraints and enable households to invest in educating children. Return migrants may also bring back funds to finance education of household members. However, emigration, and in particular parental migration, may have negative consequences for the family left behind. The majority of emigrants from Armenia are men, leaving their wives and children behind to work in the fields in order to keep the households intact. This could lead children to drop out of school, while the absence of parents may also cause emotional deprivation (Manasyan and Poghosyan, 2012).

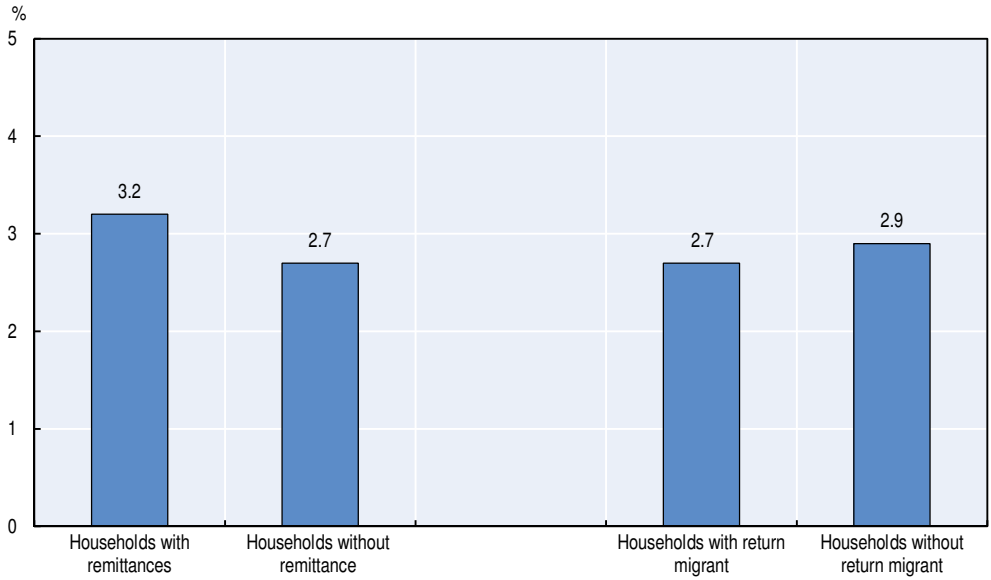
Existing research shows that an important reason for emigrating from Armenia is to earn enough to cover children's educational expenses, including hiring tutors, university fees or supporting young people who have moved to another town in order to pursue further education (Makaryan and Galstyan, 2013). Another study – by the *International Labour* Organization (ILO) – found that one in five Armenian emigrants in the sample aimed to use the income

gained abroad to pay for the education of children (ILO, 2009). Better educational prospects abroad are another pull factor for Armenian young people to emigrate (Makaryan and Galstyan, 2013).

The IPPMD data show that overall, about one in ten remittance-receiving household use remittances to pay for a member's schooling. As shown in Chapter 3, female-headed households are more likely to invest in a member's schooling (14%) than male-headed households (8%). Households receiving remittances are also more likely to spend a larger share of their budget on education (Figure 4.4). Remittance-receiving households with children of school age (6-20 years old) spend on average 3.2% of their yearly budget on education, compared to 2.7% of households not receiving remittances. The difference is however not statistically significant. The pattern is reverse for return migration: households with a return migrant spend a lower share of their budget on education (2.7%) than those without a return migrant (2.9%).

Figure 4.4. **Households receiving remittances spend a larger share of their budget on education**

Share of total budget spent on education (%), by migration status



Note: The sample only includes households with children in school age (aged 6-20 years).
Source: Authors' own work based on IPPMD data.

The association between migration, educational expenditures and school attendance was investigated further using regression analysis, controlling for relevant household characteristics (Box 4.4). The results show that remittances

are positively associated with educational expenditures, both in absolute amounts and as a share of household total budget (columns 1 and 2). This may reflect an increase in educational expenses such as extra tutoring or education fees. On the other hand remittances are not associated with higher educational enrolment rates of youth in the age group 15 to 22. No link was found between the probability of attending school and having an emigrant or receiving remittances for men in this age group (column 3). Having an emigrant in the household is negatively associated with school attendance by women in the same age category (column 4, second row). Similarly, return migration is negatively associated with youth school attendance (though the sample was too limited to perform separate analysis for women and men) (lower part of the Table 4.4). This indicates that even though remittances can stimulate more investments in education, migration may have disruptive effects on youth schooling, especially for girls.

Box 4.4. **The links between migration educational expenditures and school attendance**

A regression framework was developed to estimate the effect of migration and remittances on education expenditures using the following equation:

$$Ln(edu_exp_{hh}) = \beta_0 + \beta_1 remit_{hh} + \beta_2 emig_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (8)$$

$$\frac{edu\ exp_{hh}}{total\ exp_{hh}} = \beta_0 + \beta_1 remit_{hh} + \beta_2 emig_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (9)$$

$$Prob(education_i) = \beta_0 + \beta_1 remit_{hh} + \beta_2 emig_{hh} + \gamma controls_{hh} + \gamma controls_i + \delta_r + \varepsilon_i \quad (10)$$

where the dependent variables $Ln(edu_exp_{hh})$ in equation (8) and $\frac{edu\ exp_{hh}}{total\ exp_{hh}}$ in equation (9) represent household educational expenditures measured in absolute (logged) values or as share of total household yearly budget respectively. $Prob(education_i)$ represents a binary variable for whether an individual is attending education; $remit_{hh}$ represents a binary variable for households receiving remittances, where "1" denotes a household receiving remittances and "0" if not; while $emig_{hh}$ takes on value "1" if the household has at least one emigrant and "0" if not; $controls_{hh}$ and $controls_i$ are two sets of observed household characteristics influencing the outcome;[a] δ_r represents regional-level fixed effects, standard errors, ε_{hh}, are robust to heteroskedasticity. As a robustness check, the analysis was also performed excluding immigrants from the sample, which did not alter the results.

In the lower part of the table, the binary variable for remittances is replaced by a binary variable for households having a return migrant.

Box 4.4. **The links between migration educational expenditures and school attendance** *(cont.)*

Table 4.4. **Remittances stimulate investments in education, while emigration and return may have the opposite effect**

Dependent variable: Educational expenditures (values and share of household budget)
Main variables of interest: Receiving remittances/ having an emigrant/having a return migrant
Type of model: OLS, probit
Sample: All households/only households with children in school age (aged 6-20)

Variables of interest	Educational expenditures		School attendance	
	Yearly amounts	Share of household budget	Men aged 15-22	Women aged 15-22
Household receives remittances	0.394**	0.011**	-0.043	0.097
	(0.172)	(0.004)	(0.091)	(0.075)
Household has at least one emigrant	-0.304*	-0.006	-0.008	-0.127*
	(0.179)	(0.006)	(0.092)	(0.069)
Number of observations	406	1 733	422	444
Household has at least one return migrant	-0.049	-0.001	-0.089***	
	(0.131)	(0.003)	(0.029)	
Number of observations	406	1 773	866	

Notes: Results that are statistically significant are indicated as follows: ***: 99%, **: 95%, *: 90%. Standard errors are in parentheses. The sample includes immigrants/immigrant households. Excluding immigrants and households with immigrants does not change the results.

Source: Authors' own work based on IPPMD data.

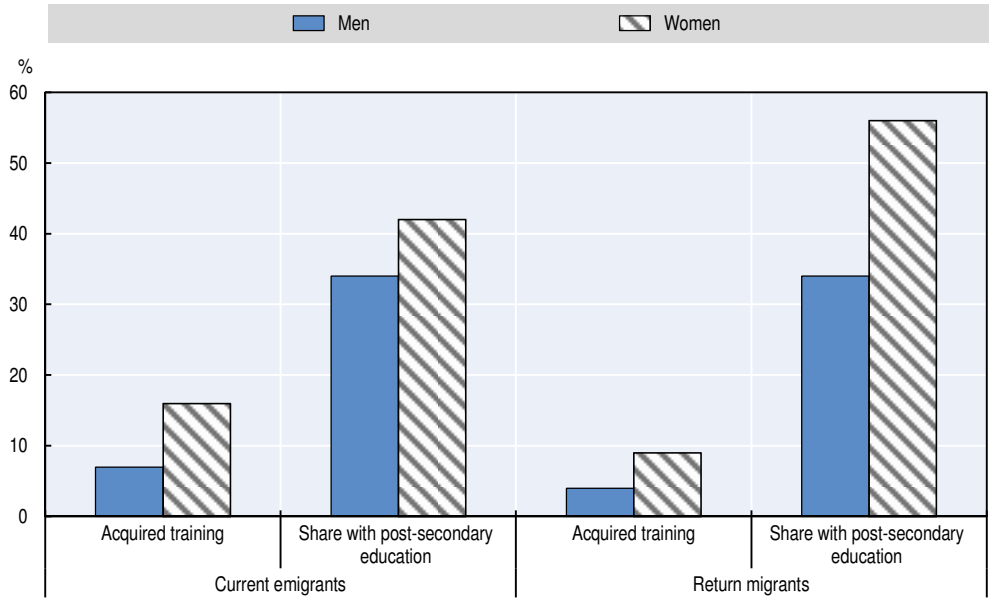
a. The set of household and individual explanatory variables included in the model are the following: household size and household size squared, household dependency ratio (defined as the number of children and elderly in the household as a share of the total adult population), mean education level of the members of the household, number of children in the household, binary variables for urban location and household head being female, and finally an asset index (based on principal component analysis) that aims to capture the wealth of the household (for all three equations). In addition, the model for school attendance also includes a control for age of the youth.

Return migration has limited impact on human capital accumulation

Whether or not migrants acquire education and skills in the destination country affects the economic payoff of migration (Dustmann and Glitz, 2011). Migrants who acquire education abroad and return with new skills can help increase human capital back home. The extent to which this will happen depends on the degree to which emigrants improve their skills during their migration period, and whether migrants return to their origin countries or not. To enable the use of education and training acquired abroad, the skills need to be validated in such a way that they can be recognised in the domestic labour market. This has previously shown to be a barrier for Armenian return migrants. One study showed that only 7% of Armenians who acquired training abroad received a certificate (ETF, 2013).

Armenian migrants are fairly well educated on their departure. However, few of them acquire education in the country of destination, and even fewer return with new skills. Only 6% of all return migrants in the sample had obtained additional education in the country of destination: 4% of men and 9% of women (Figure 4.5). Compared to other IPPMD countries, this is a low rate (OECD, 2017), but is confirmed by another study which also found that only 6% of return Armenian migrants had acquired additional education abroad (ETF, 2013). This was also a considerably lower rate than the other two countries in the study: Georgia and Morocco. Thus human capital transfers from migration appear to be limited in Armenia.

Figure 4.5. **Few Armenian emigrants acquire additional qualifications overseas**
Share of current emigrants and return migrants who acquired education abroad (%)



Source: Authors' own work based on IPPMD data.

Migration, investments and financial services

Armenia has one of the most open investment regimes among the emerging market countries, and is ranked 33 worldwide on the 2017 Economic Freedom index (The Heritage Foundation, 2017). The World Bank also placed it among the top 40 countries worldwide in their latest ease of doing business ranking, and at number 9 in the world for starting a business (World Bank, 2017b). In 2015, the Eurasian Economic Union trading block came into being, grouping Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia into a single

economic market of 176 million people. Despite these achievements, Armenia still faces challenges in its investment climate. These include its small market size (with a population of less than three million) and its closed borders with Turkey and Azerbaijan.

Armenia has a relatively small but growing financial system, dominated by its banking sector. In 2015, close to 90% of financial assets were held by 21 commercial banks (Central Bank of Armenia, n.d.). The non-bank sector in the country is underdeveloped, with a small but growing insurance sector and a very limited capital market. Developing this sector is a priority for the authorities. A pension reform and other policy measures are currently underway to attract institutional investors and promote financial innovation.

Migration and remittances do not seem to stimulate investments in productive capital

Migration can affect long-term investments in the country of origin in various ways:

- Migrants can accumulate savings and for example start and run businesses in the country of origin while abroad and on their return
- Remittances can fund investments in productive assets such as real estate assets
- Return migrants can bring funds, entrepreneurial skills and valuable networks back to their country of origin

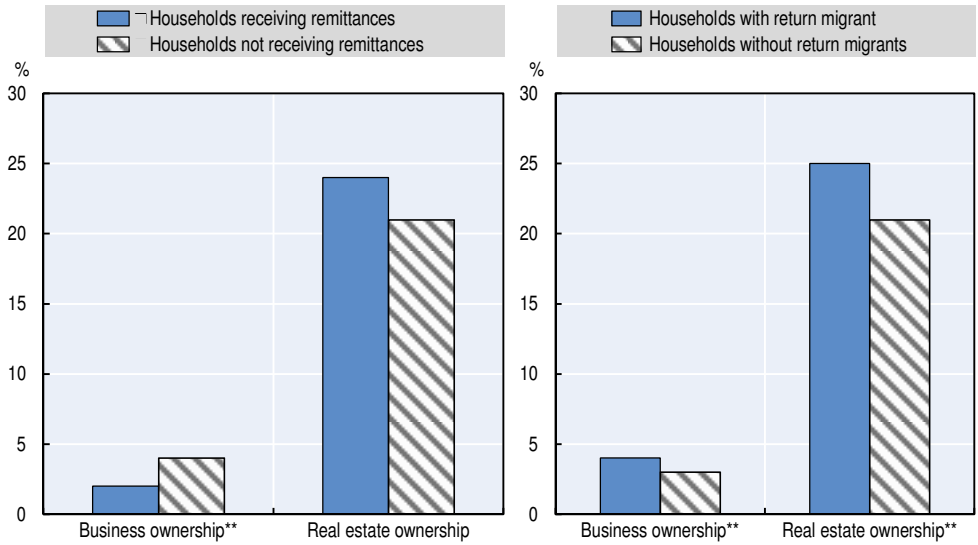
Surprisingly, given the country's healthy business climate assessment by the World Bank and Hertiage foundation, the level of entrepreneurship in Armenia is relatively low. Following the global crisis in 2008-09, new business registration in Armenia declined and job creation became more challenging. According to the 2010 *Life in Transition Survey*, only a small share of Armenia's labour force (12%) has ever attempted to start a business, and among those who do, only a very small share succeeds (6%) (EBRD, 2010).

The share of households owning a business in the IPPMD sample is also very limited, at less than 4%. The difference between households with migration experience (receiving remittances or having a return migrant) and those without is also small, though statistically significant (Figure 4.6).

On the other hand, real-estate ownership among households in the sample is higher. This includes non-agricultural land and housing other than the household's own dwelling. Twenty-five percent of households with a return migrant own real estate, compared to 21% of households without a return migrant (a statistically significant difference). The difference between households with and without remittances is similar (24% vs. 21%), but not statistically significant.

Figure 4.6. **Real-estate ownership is higher among remittance-receiving households and return migrants**

Share of households owning a business or real estate, by migration status



Note: Results that are statistically significant (calculated using a chi-squared test) are indicated as follows: ***: 99%, **: 95%, *: 90%. Real estate includes non-agriculture land and housing other than the house or apartment in which the household currently lives.

Source: Authors' own work based on IPPMD data.

Despite the patterns shown above, the results from the regression analysis, controlling for household characteristics, show no statistically significant links between emigration, return migration, remittances and ownership of a business or real estate. The link between remittances and business ownership is negative, in line with the descriptive statistics in Figure 4.6, indicating that remittance-receiving households are less likely to run a business, although the relationship is not statistically significant. The same holds for real estate, despite the reverse pattern shown in the descriptive statistics in Figure 4.6. Separate analysis for rural and urban households for real estate ownership was also performed (not shown), but did not show any statistically significant relationships.

Hence, despite being ranked highly on global indices for investment climate and business start-ups (as reported above), entrepreneurship is low in Armenia. Migration and remittances do not seem to be promoting productive investments. Potential reasons could be the low financial inclusion (Chapter 5) and underdeveloped financial markets, which make access to loans limited. For example, small and medium-sized companies often lack the necessary skills to be considered credit worthy (IMF-WB, 2012). These limitations are discussed further in Chapter 5.

Box 4.5. **The links between migration, remittances and productive investments**

To analyse the link between migration and business and real-estate ownership, two probit model regression were run taking the following forms:

$$Prob(investment)_{hh} = \beta_0 + \beta_1 remit_{hh} + \beta_2 emig_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (11)$$

$$Prob(investment)_{hh} = \beta_0 + \beta_1 return_{hh} + \beta_2 emig_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (12)$$

where $investment_{hh}$ is either household business ownership or real estate ownership (depending on the specification); $investment_{hh}$ takes on value "1" if a household owns at least one business/owns real estate and "0" otherwise; $remit_{hh}$ in equation (11) represents a binary remittance variable with value "1" for households that receive remittances and "0" otherwise; $emig_{hh}$ represents a binary variable for whether the household has a migrant or not, and $controls_{hh}$ are a set of observed household and individual characteristics that are believed to influence the outcome.[a] ε_{hh} is a randomly distributed error term. In equation (12) $return_{hh}$ is binary variable taking on value "1" if the household has at least one return migrant, and "0" for households without return migrants. As a robustness check, the analysis was also performed having excluded immigrant households from the sample; this did not alter the results.

Table 4.5. **Migration and remittances are not linked to higher business or real estate ownership**

Dependent variable: Household runs a business/ owns real estate
Main variables of interest: Amount of remittances, having an emigrant/return migrant
Type of model: Probit
Sample: All households

Variables of interest	Dependent variable	
	Business ownership	Real estate ownership
Household receives remittances	-0.023	-0.002
	(0.018)	(0.030)
Household has at least one emigrant	-0.028	0.033
	(0.019)	(0.030)
Number of observations	1 803	1803
Household has a return migrant	0.000	0.029
	(0.010)	(0.021)
Number of observations	1 803	1 803

Note: Statistical significance is indicated as follows: ***: 99%, **: 95%, *: 90%. The sample includes immigrant households. Excluding households with immigrants does not change the results.

a. The set of household and individual explanatory variables included in the model are the following: household size and household size squared, household dependency ratio (defined as the number of children and elderly in the household as a share of the total adult population), mean education level of the members in the household, number of children in the household, binary variables for urban location and household head being female, and finally an asset index (based on principal component analysis) that aims to capture the wealth of the household.

Conclusions

This chapter has explored how migration affects the four sectors in Armenia: the labour market, agriculture, education, and investment and financial services. The results indicate that migration can have both positive and negative impacts on household well-being and Armenia's national development and there remains plenty of untapped potential.

On the negative side, remittance receipts appear to reduce the incentives for household members to seek work. Having an emigrant in the household is negatively associated with school attendance by women in the same category. Similarly, return migration is negatively associated with youth school attendance. On the positive side, the financial capital brought home via remittances and return migrants seems to stimulate more self-employment, especially in rural areas. Remittances also seem to be invested in education, with remittance-receiving households spending a larger share of their budget on education than households not receiving remittances.

However, the limited link between migration and productive investment – notably in business and agriculture – is a major missed opportunity for a country that receives significant volumes of remittances. Policies to support and enable households to channel remittances towards productive use, and measures that stimulate investment by return migrants would not only benefit the household, but also the country's development as a whole. The next chapter explores how sectoral policies influence migration.

Notes

1. Defined as the ratio of labour force to the working age population (15-64).
2. See Chapter 3 for methodological background on the regression analyses used in this project.
3. The question in the survey asked households how much they spend on average on agricultural productive assets (such as farming equipment) over the course of one year.
4. Using the exchange rate with the USD at 1 July 2014, the equivalent totals are USD 49 vs. 126.

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Chapter 5

How do sectoral policies affect migration in Armenia

Although not specifically targeted at migration, sectoral policies in key areas for development – such as the labour market, agriculture, education, and financial services and investment – can also affect migration decisions. The IPPMD household and community surveys explored a wide set of policy programmes in these four sectors to identify the links between sectoral policies and migration. This chapter reports on analysis of the ways in which policy programmes in these sectors in Armenia influence people's decisions to emigrate, to send remittances and to return home.

Migration is inevitably influenced by policies in the country of origin. Most countries have a set of policies which directly target migration, such as those controlling who can enter the territory and under which conditions, and those aiming to facilitate the sending and receiving of remittances. However, policies not specifically targeted at migration can also have an influence on migration dimensions in the sectors that are key to development and explored in Chapter 4: the labour market, agriculture, education, and investment and financial services.

Chapter 4 showed that the migration characteristics of these four sectors vary. The policy context for each of these sectors in turn influences migration outcomes, such as the decision to emigrate, to return and how remittances are used. To date, the impact of sectoral policies on migration remains largely unresearched. This chapter attempts to disentangle the links between sectoral policies and migration in Armenia by examining a wide set of policy programmes in the four sectors (Table 5.1).

Table 5.1. **Sectoral policies and programmes covered in the IPPMD project**

Sectors	Policies / programme
Labour market	• Government employment agencies • Vocational training programmes • Public employment programmes
Agriculture	• Subsidy-type programmes • Agricultural training programmes • Insurance-based programmes
Education	• In-kind distribution programmes • Cash-based programmes • Other types of education programmes
Investment and financial services	• Policies related to businesses investments • Policies related to financial inclusion and education

This chapter is organised according to the four sectors under study. It first discusses how migration outcomes are affected by labour market policies, followed by policies governing agriculture, education, and investment and financial services.

Labour market policies and migration

IPPMD data confirm that the search for jobs is the main driver of emigration from Armenia. About 80% of current emigrants reported that they left the country to take or search for jobs abroad (Chapter 3). Policy instruments that improve the domestic labour market may therefore reduce the incentive to migrate.

The IPPMD study focuses on policies that aim to enhance labour market efficiency through government employment agencies, improve the skills set of labour through vocational training programmes, and expand labour demand by increasing public employment programmes. It asks to what extent are these policies present in Armenia, and are they having an influence on migration?

Vocational training programmes tend to curb emigration in Armenia

The Armenian government is increasing its attention to vocational education and training (VET). The National Center for VET Development under the Ministry of Education and Science is responsible for increasing the efficiency of preliminary (handicraft) and vocational education and training. This includes adult education system reforms to foster its development, international integration, and the international recognition of certificates and qualifications awarded in the Republic of Armenia. It is involved in developing VET strategy and policy, and medium and long-term development programmes and action plans for the development of the VET system; organising and implementing analyses of VET system; and participating in the rationalisation of the VET system, including developing proposals concerning the creation, reorganisation, liquidation, allocation and revision of activities.

The IPPMD survey found that 9% of the labour force surveyed had participated in a vocational training programme in the five years prior to the survey. A higher share of women took part in vocational training than men: 13% versus 6%. There was no discernible difference between participation rates in rural and urban areas. Survey findings indicate that the type of training programmes women and men take differ. While the most common programmes for women are education or health-related (27% and 17%, respectively), men were more likely to seek training in computing/information technology (13%), followed by electricity/plumbing (8%) and mechanics (7%).

Vocational training programmes can affect migration in two different ways. While they might help people secure better jobs in the domestic labour market, thereby reducing the need to migrate, they might also make would-be migrants more employable overseas. A comparative study of the ten IPPMD partner countries shows that in most countries the share of people planning to migrate is higher among those who had participated in a vocational training programme than among those who did not (OECD, 2017). This suggests that in general, people participate in vocational training programmes in order to find a job abroad. Armenia, however, is an exception to this pattern. A lower share of people who took part in trainings plan to emigrate compared to non-participants: 7% versus 12%. The difference is statistically significant.

This pattern is explored in a regression analysis (Box 5.1).[1] It examines the links between participating in vocational training programmes and plans to emigrate while controlling for other factors, such as unemployment. The

results (shown in Table 5.2) indicate a negative link between vocational training programmes and plans to emigrate, particularly for men. As seen in Chapter 4, in Armenia the propensity to emigrate is higher among the lower-skilled occupational groups than higher-skilled groups. Thus, vocational training programmes could be promoting upward labour mobility and reducing incentives to look for jobs abroad. The results also suggest that being unemployed appears to push people to emigrate. Having an emigrant member in the household also raises the propensity to move abroad.

Box 5.1. **Participation in a vocational training programme reduces men's plan to emigrate**

To investigate the link between participation in vocational training programmes and having plans to emigrate, the following probit model was used:

$$Prob(plan_mig_i) = \beta_0 + \beta_1 voc_training_i + \gamma_1 controls_i + \gamma_2 controls_{hh} + \delta_r + \varepsilon_i \quad (1)$$

where $plan_mig_i$ represents whether individual i has a plan to emigrate in the future. It is a binary variable and takes a value of 1 if the person is planning to leave the country; $voc_training_i$ is the variable of interest and represents a binary variable indicating if the individual participated in a vocational training programmes in the five years prior to the survey; $controls_i$ stand for a set of control variables at the individual level and $controls_{hh}$ for household level controls;[a] δ_r implies regional fixed effects and ε_i is the randomly distributed error term. The model has been tested for two different groups: men and women. The coefficients of the variables of interest are shown in Table 5.2.

Table 5.2. **Participation in a vocational training programme reduces men's plan to emigrate**

Dependent variable: Individual plans to emigrate
Main variables of interest: Individual has participated in a vocational training programme
Type of model: Probit
Sample: Labour force in working age (15-64)

Variables of interest	Sample		
	All	Men	Women
Individual participated in a vocational training programme	-0.039 (0.024)	-0.096** (0.041)	-0.012 (0.025)
Household has at least one emigrant	0.078*** (0.016)	0.106*** (0.025)	0.056*** (0.019)
Individual is unemployed	0.068*** (0.014)	0.098*** (0.020)	0.031* (0.017)
Number of observations	2 856	1 632	1 224

Note: Results that are statistically significant are indicated as follows: ***: 99%, **: 95%, *: 90%. Standard errors in parentheses.

a. Control variables include age, sex, education level of individuals and whether the individual is unemployed or not. At the household level, the household's size and its squared value, the dependency ratio, its wealth indicator and its squared value are controlled for. Whether the household has an emigrant or not is also controlled for.

Government employment agencies and public employment programmes are doing little to influence migration

The Ministry of Labor and Social Affairs (MLSA) is responsible for the design and regulation of labour market policies. The law regulating this field is the Law on Employment (adopted 11 December 2013), which provides the legal framework for the promotion of employment and the regulation of social protection of unemployed people. Each year the Armenian Government, through its Protocol Decree, approves the list of labour market policies to be implemented.

The State Employment Agency (SEA) is an agency within the MLSA to which regulatory functions in the sphere of employment are delegated. The SEA covers the entire country through its extensive network of 51 regional or territorial employment centres (10 *marz* and 41 regional centres) and the central office in Yerevan. Its main functions are:

- implementing active labour market programmes (in 2014 Armenia abandoned unemployment benefit provision and focuses only on activation policies)
- the regular collection and analysis of data on the labour market.

Government employment agencies can have an indirect impact on households' migration decisions. If people can find jobs in the local labour market through such agencies, they may choose to stay rather than emigrate to seek work. However, in the IPPMD sample only about 2% of Armenians employed in either the public or private sector had found jobs through government employment agencies (6% for men and 2% for women). Most people had found their job through friends and family or by approaching potential employers directly (Figure 5.1). Together these two methods account for 87% of all surveyed adults with paid jobs in both the public and private sector.

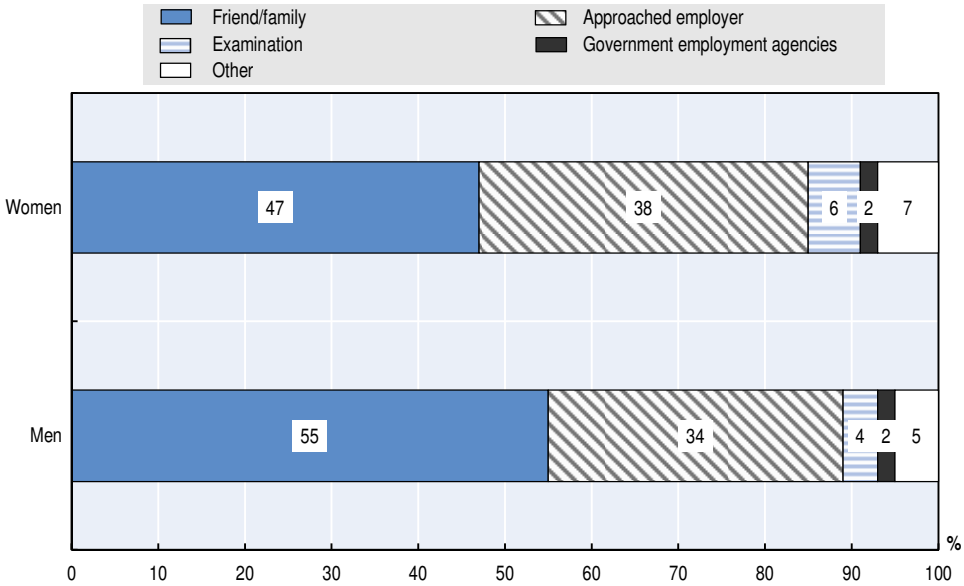
While the share of people who benefited from government employment agencies is low, there are certain patterns related to migration. Of those who found their jobs through a government employment agency, only 3% have plans to emigrate, while a much bigger share of those who did not use these agencies plan to emigrate (10%). Individual characteristics of government employment agency beneficiaries explain this pattern. Beneficiaries are in general more highly educated than non-beneficiaries and are more likely to hold jobs in the public sector, which are seen as secure occupations.

Public employment programmes (PEPs) in Armenia support the renovation of social infrastructure (e.g. schools, kindergartens, medical institutions, social security institutions and cultural institutions), and the improvement of roads, parks, playgrounds, historical monuments, museums, churches and the like. The programme is implemented across RA *marzes*, with mountainous and border areas having high priority. Unemployed job seekers may participate in

this programme more than once. The maximum duration of the programme is three months. Each participant is paid AMD 5 000 (USD 12) per day, including income tax and targeted social fees.

Figure 5.1. **Government agencies play a minor role in job seeking among Armenian IPPMD respondents**

Methods for finding a current job in both public and private sectors



Source: Authors' own work based on IPPMD data.

PEPs can either increase or decrease the incentives to migrate. Programmes which improve local employment opportunities may encourage people to stay. In rural areas in particular, public works programmes for agricultural workers during the farming off-season can provide an alternative to seasonal migration. On the other hand, the increased income received from cash-for-work programmes can help people afford to migrate. Overall, the impact of PEPs on migration is likely to depend on their duration, coverage and income level. Results of the IPPMD household survey in Armenia indicate low participation in these programmes among employed and unemployed people (less than 1%). This small sample size prevented further analysis from being done.

Agricultural policies and migration

Migration decisions are also influenced by policies in the agricultural sector. This section investigates these links for Armenia, where agriculture is a sector of high importance. In fact, it is one of five priority sectors for which direct

policies are discussed in Armenia's *Strategic Program of Prospective Development for 2014-2025* (SPPD), due to it being a key link in the value-chain for the food industry, and its large export potential (RA, 2014). The strategic programme also underlines development and growth in productivity of the agricultural sector as main factors in the creation of non-agricultural jobs in rural areas, vital for the country's economic diversification. Despite its vital role in Armenia's economy, however, insufficient investment has meant that productivity is limited and many smallholder farmers live in poverty, unable to realise the potential of their land (Oxfam, 2016; FAO, n.d.). Nearly half of Armenia's 200 000 farms operate on a subsistence basis (Mnatsakanyan et al., 2015). Policy concerns in the sector are therefore primarily aimed at food sufficiency and living standards (FAO, n.d.).

Partly as a response to the lack of investment, and to support the Armenian government, the European Union has earmarked the agricultural sector as being of strategic importance for the development of the country. It is providing EUR 25 million over three years starting in 2014, within its larger European Neighbourhood Programme for Agriculture and Rural Development (ENPARD). The programme is particularly aimed at subsistence farming, improving institutions, strengthening capacity and increasing access to affordable food.

A major concern of the government has been access to financial means for farmers, and has historically set measures to promote their access to credit. A key programme was initiated by the government in 2010-11, subsidising the interest rates on financial credit, for instance (RA, 2014).[2] The government has enlarged the programme since 2011, making loans increasingly available over time (Mnatsakanyan et al., 2015).

In fact, agricultural subsidies are of particular importance in Armenia. The SPPD lists tariff and subsidy programmes as a key policy direction for the future of the sector (RA, 2014). In 2012, the Ministry of Agriculture launched a seed subsidy programme, through which farmers obtain a kilogramme of seeds in exchange for 2 kilogrammes of grain after harvest. The government also provides subsidies for other inputs, such as nitrogen fertilisers and diesel fuel (Mnatsakanyan et al., 2015). In addition, the government ran a programme in Armenia's 915 communities offering veterinary and sanitary services to farmers, including research on more weather-efficient crops.

Access to water and proper irrigation is also an issue for farmers in Armenia. As the cost of accessing irrigation water is high in Armenia, the government subsidises a share of farmers' irrigation expenses, and specifically when the costs surpasses USD 0.026 per cubic metre of water (Mnatsakanyan et al, 2015).[3]

The government has also spearheaded other policies. Agricultural insurance programmes have, for the most part, been limited to financial and in-kind compensation to farmers affected by weather and climate-related disasters.

However, as climate change has been identified as a strategic concern for the sector, the government plans to launch an agricultural insurance programme in 2017, aimed at both agrarian farming and cattle breeding (Agroinsurance, 2016; Tatin-Jaleran, 2014). The insurance programme will help farmers cope with expected changes in rainfall and temperature. In addition to subsidies and insurance programmes, the government also provides training and consultancy services to farmers, enabling them to adopt new farming techniques and increase production. However, these programmes are rather limited in coverage.

The IPPMD project collected data on several types of these policies, including agricultural subsidies, training programmes and insurance-related programmes, such as crop insurance, contract farming and cash-for-work programmes. Households were asked to list each year in which they benefited from each programme between 2010 and 2014. Overall, 236 of the 1 001 (24%) agricultural households surveyed benefited from at least one agricultural programme from 2010 to 2014, with the vast majority benefitting from agricultural subsidies (23% of agricultural households). These covered a large range of agricultural subsidies, including for seeds (96 households, 10%), veterinarian services (83 households, 8%) and fuel (71 households, 7%). However, the most common agricultural subsidy was for inputs other inputs (i.e. other than for seeds or fuel (136 households, or 14%).

Apart from agricultural subsidies, only five households benefited from agricultural training,[4] and 31 households benefited from an insurance-related programme (3%). Amongst these households, most claimed to have benefited from compensation following a weather shock to their crops (29 households, 3%).

Because of their pertinence in Armenia, the analysis focuses on agricultural subsidies. It is not always clear whether agricultural subsidies have a net positive or negative effect on migration and remittance flows. By increasing the household's income, they reduce financial constraints. In doing so, they may reduce the household's need to seek income elsewhere, and thus reduce emigration pressure. On the other hand, they may provide enough additional income to cover the costs of emigration. Or they may provide the incentive for households to invest and channel funds towards agricultural activities, thus increasing the need for remittances, or they may make them less necessary, thereby reducing their flow. What does the IPPMD data analysis tell us about these effects of subsidies on migration?

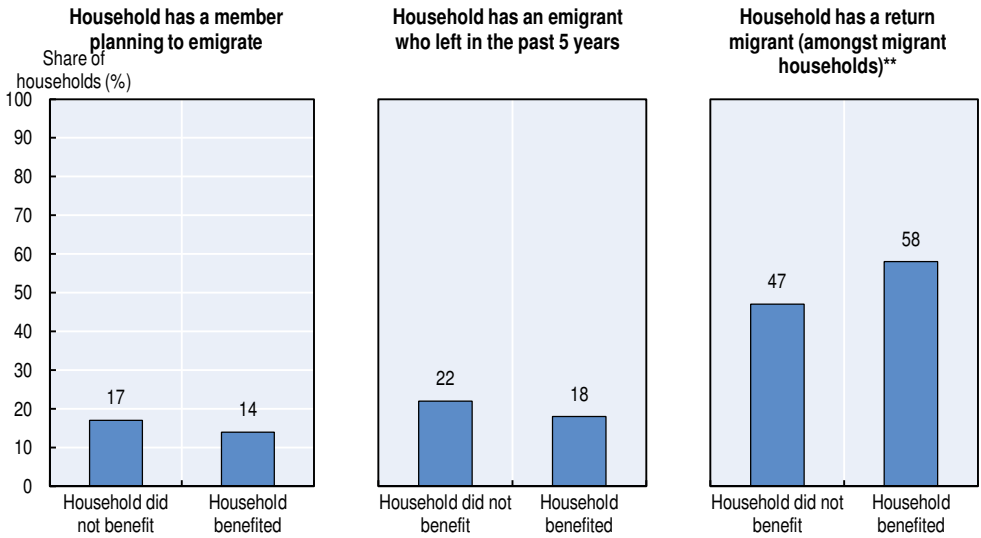
Agricultural subsidies tend to decrease plans to emigrate

The descriptive statistics show that agricultural subsidies in general have only a slight influence on reducing emigration. Households benefiting from agricultural subsidies were less likely to have a member planning to emigrate (14% vs. 17%) and less likely to have had an emigrant in the past 5 years (18% vs. 22%) compared to households that did not benefit from agricultural subsidies

(Figure 5.2). Both of these differences were not statistically significant. In addition, agricultural subsidies tend to be positively correlated with migrant households that have a return migrant member. Overall, 58% of migrant households benefiting from subsidies have a return migrant, compared to 47% for non-subsidised migrant households. This lends support to the notion that agricultural subsidies help households attenuate the financial issues that may have driven a member to leave, encouraging them to return home. Thus, agricultural subsidies appear to create incentives to return.

Figure 5.2. **Agricultural subsidies are linked to lower emigration and increased return migration**

Share of households by migration dimension and whether it benefited from an agricultural subsidy (%)



Note: Statistical significance calculated using a chi-squared test is indicated as follows: ***: 99%, **: 95%, *: 90%.
Source: Authors' own work based on IPPMD data.

Regression analysis probed the links between agricultural subsidies and migration outcomes further (Box 5.2). The results confirm that agricultural subsidies in general tend to decrease the probability that a household has a member that plans to emigrate (Table 5.3, row 1). However, they are not significantly statistically linked to any other outcome, despite the descriptive statistics in Figure 5.2 suggesting a positive influence on return migration. The regression results show that the household's administrative region is an important determinant of the migration outcomes, and likely of whether the policies were accessible as well. This is the main reason why a positive result is not found for return migration. In regression results where the administrative region is not controlled for, agricultural subsidies are positively linked to return migration.[5]

How are these migration outcomes related to each individual subsidy programme in Armenia? The same regressions were individually run again for each of the top four subsidy programmes (subsidies for seeds, fuel, other inputs and veterinarian services) to investigate whether the findings are related to one specific programme. Breaking down the findings in this way suggests that no specific subsidy programme is driving the results on the negative link shown earlier between agricultural subsidies and plans to emigrate. The results also confirm that agricultural subsidies have no influence on actual emigration. In terms of remittances, no specific programme seems to be substituting for remittances. However, because no link is found between emigration and agricultural subsidies, it is not surprising that remittances, which are sent by emigrants, are also not linked with such programmes. Running regression on remittances, while controlling for the fact that a household has an emigrant, reveals that, agricultural subsidies for fuel, specifically, are negatively linked with remittances (not shown). This lends support for the fact that they are substituting remittances. Households that receive financial aid for fuel from the state are in less need of remittances.

On the other hand, subsidies for veterinary services are negatively linked to return migration (Table 5.3). This is unexpected because it suggests that receiving subsidies for such services does not incentivise emigrants to return and rather it is correlated with them staying abroad. A plausible reason for this is that the regions in the highest proportion of household benefit from such services (the provinces of Shirak and Vayots Dzor) are poor, with few opportunities for return migrants to come back to. The low level of jobs available in these regions also means that the need for households to receive remittances from emigrants remains high. The free veterinary services offered by the state are not enough to make a big enough difference to these households' livelihoods.

Box 5.2. **The links between agricultural subsidies and migration**

To estimate the probability that an agricultural subsidy (or its absence) affected a migration-related outcome, the following probit regression model was estimated:

$$\Pr(migration_outcome)_{hh} = \beta_0 + \beta_1 agri_subsidy_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \qquad (2)$$

where the unit of observation is the household *hh* and the dependent binary variable $migration_outcome_{hh}$ takes on a value of 1 if the household has a migration event take place and 0 otherwise. $agri_subsidy_{hh}$ represents a dummy variable taking the value of 1 if the household benefited from an agricultural subsidy. $controls_{hh}$ stands for a set of household-level regressors while δ_r represents regional-level fixed effects.[a] Standard errors, ε_{hh}, are robust to heteroskedasticity.

Box 5.2. **The links between agricultural subsidies and migration** *(cont.)*

Results for four outcomes are presented in Table 5.3. Column (1) shows results reflecting the probability that the household had a member planning to emigrate; column (2) a binary variable equal to 1 if the household has had at least one member emigrate in the past 5 years (excluding households that had a member emigrate prior to that); column (3) a binary variable equal to 1 if the household has received remittances from any source in the past 12 months; and column (4) a binary variable equal to 1 if the household has had a member return from emigration within the past 5 years (including households with either returned or current emigrants).

Table 5.3. **Agricultural subsidies decrease plans to emigrate**

Dependent variable: Migration outcomes
Main variables of interest: Household benefited from an agricultural subsidy
Type of model: Probit
Sample: Agricultural households

Variables of interest	Dependent variables			
	(1) Household has a member planning to emigrate	(2) Household has a member leave within 5 years	(3) Household received remittances in the past 12 months	(4) Household has had a member return in the past 5 years (amongst migrant households)
Benefited generally from an agricultural subsidy in the past 5 years	-0.052* (0.027)	-0.009 (0.036)	-0.000 (0.041)	0.007 (0.067)
specifically for seeds	-0.041 (0.049)	0.015 (0.053)	0.044 (0.059)	-0.020 (0.092)
specifically for fuel	-0.057 (0.041)	0.017 (0.056)	-0.059 (0.057)	-0.060 (0.102)
specifically for other inputs	-0.042 (0.031)	0.006 (0.041)	0.003 (0.047)	0.067 (0.075)
specifically for veterinary services	0.021 (0.050)	0.014 (0.055)	0.035 (0.061)	-0.142* (0.083)
Number of observations	1 001	876	1 001	508

Note: Statistical significance is indicated as follows: ***: 99%, **: 95%, *: 90%. Coefficients reflect marginal effects. Standard errors are in parentheses and robust to heteroskedasticity.

a. Control variables for the model include the household's size, its dependency ratio (number of children aged 0-15 and elderly aged 65+, divided by the total of other members), the male-to-female adult ratio, its wealth estimated by an indicator (see Chapter 3), whether it is in a rural or urban region and a fixed effect for its administrative region.

The administrative fixed effect in the regression model suggests that households' regions are a major determinant of the link between the subsidies and migration outcomes. In fact, rerunning the regressions without the fixed effect suggests that the negative link between agricultural subsidies and plans to emigrate is primarily driven by agricultural subsidies for fuel, suggesting that fuel costs may be an important determinant of emigration. Reducing those costs may be key to reducing emigration. The results also suggest that subsidies for

inputs other than seeds and fuel drive the positive link between agricultural subsidies and return migration (not shown).

Education policies and migration

The Government of Armenia has implemented multiple programmes to improve and strengthen the education sector over the past two decades. The Center for Education Projects (PIU), under the Ministry of Education, was established in 1996 to carry out projects aimed at improving the quality, relevance, access and effectiveness of the Armenian education sector. Since its establishment, three main reform projects have been implemented in order to create an educational system that effectively can meet the demands and expectations of the country's social and economic development, in line with the Government's economic development strategy:

1. The Education Financing and Management Project (1998-2002) aimed to ensure financing of the general education system and increase efficiency in the use of resources in the education sector.
2. The Education Quality and Relevance reform was carried out in two phases: Phase I in 2003-2009 and Phase II 2009-2014. Its overall aim was to direct and adjust the development of the education sector to the demands of a knowledge-based economy.
3. The Education Improvement project (2014-2019) is currently in place and focuses on the improvement of education quality at all levels (PIU, n.d.).

Other public and international institutions have also implemented specific projects related to migration and education. At least 19 projects were implemented by both local and international institutions in 2000-2014 related to migrant support from a skills and employment perspective. The programmes addressed different phases of the migration cycle, although most of them focused on the post-migration phase, targeting the return and reintegration of returning migrants (ETF, 2015). The IPPMD stakeholder interviews (see Chapter 3) also revealed that specific programmes to support return migrants have been implemented by international organisations, local NGOs and government. Examples include requalification courses and training to improve skills to meet the demands of the local labour market. In addition, local NGOs and civil society organisations (CSOs) have worked on developing skills of returnees, as well as provided short-term grants for students wishing to study abroad.

Apart from education programmes especially targeting migrants and return migrants, general education policies and programmes can affect migration patterns in various ways. Young individuals or parents may decide to emigrate if educational conditions are not up to standard for themselves or for their children. Government investments in education through education policies and programmes may decrease the incentives to emigrate if the motivation for emigration was to finance the education of children in the household or

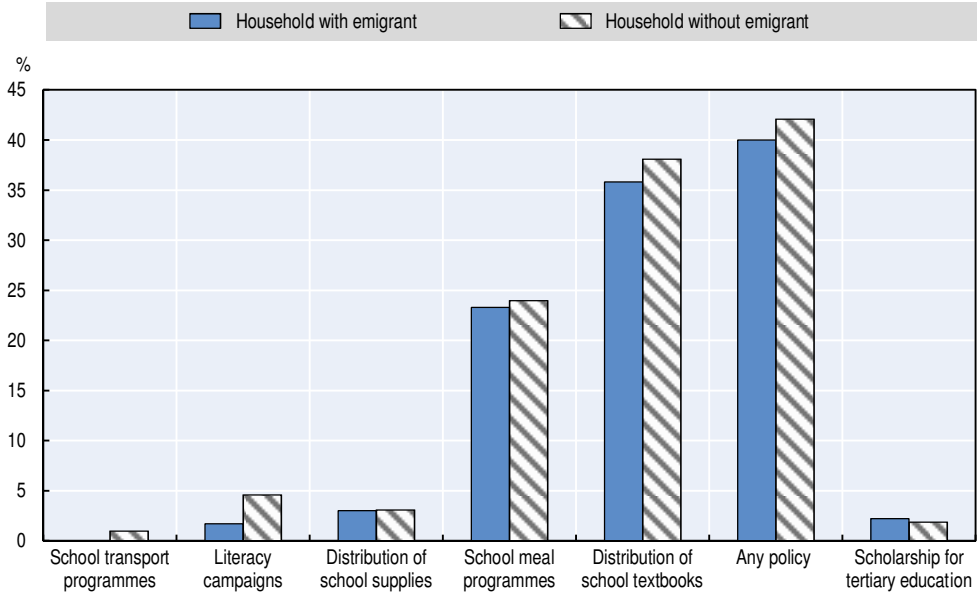
to seek better quality education. On the other hand, educational cash-based programmes may also give households the means to emigrate. This section investigates these types of education policies and programmes, and also discusses the link between migration and skills mismatches.

Education programmes do not seem to influence migration patterns

The IPPMD household surveys conducted in the ten partner countries included questions on a variety of education programmes. These can roughly be divided into three categories: cash-based, in-kind and other types of programmes. Of these, in-kind distribution programmes are the most common according to the Armenia survey.[6] Households with children mostly benefit from two such programmes: the provision of textbooks (36% of households with an emigrant and 38% of households without an emigrant) and school meal programmes (23% of households with an emigrant and 24% of households without an emigrant). The other educational programmes had a beneficiary rate of less than 5% in the Armenian survey (Figure 5.3).[7] This shows that households with emigrants are slightly less likely to benefit from education programmes. Overall, 40% of households with emigrants and 42% of households without emigrants benefited from an education programme.

Figure 5.3. **Households with and without emigrants are equally likely to benefit from educational programmes**

Share of households with children that have benefited from educational programmes in the past five years



Note: Sample only includes households with children in school age (6-20 years old). Only programmes benefitting more than 1% of households in the sample are displayed.

Source: Authors' own work based on IPPMD data.

The comparative report of the IPPMD project showed that cash-based programmes tend to have the greatest influence on migration decisions, particularly remittances (OECD, 2017). The only Armenian cash-based programme included in the household survey was scholarships for tertiary education at Armenian universities (interstate programmes also provide a very limited number of scholarships to students who want to study at international universities). The scholarship programme is the only programme where households with an emigrant are more likely to benefit than households without an emigrant in the Armenian sample (Figure 5.3), although the difference is marginal (2.2% vs. 1.9%). The sample size of households in the IPPMD data benefiting from scholarships is too small (24 households) to allow separate analysis of these programmes.

The relationship between education policy programmes and migration is further analysed in Box 5.3, using regression analysis. The results show no significant link between beneficiary households and having an emigrant, having a member planning to emigrate or receiving remittances. Although the relationships are all positive, no statistically significant associations were found when controlling for household characteristics. One potential explanation is the nature of the policy programmes identified in the Armenian survey, which are mainly in-kind distribution programmes. Cash-based programmes are potentially more likely to influence household migration decisions and behaviour (OECD, 2017), however there are few such programmes in Armenia.

Addressing skills mismatches could enhance migration's development potential

On the one hand Armenia has been thought to be disadvantaged by the fact that many of its highly educated citizens are emigrating (Makaryan and Galstyan, 2012). On the other hand, emigration has the potential to contribute to sustainable development through the knowledge and experience brought home by returning migrants (UNDP, 2009; Gevorkyan, Gevorkyan and Mashuryan, 2006). However, as shown in Chapter 4, few of the migrants who return to Armenia have obtained education abroad. One reason may be the barriers that particularly skilled return migrants face in joining the labour market on their return. Armenians who return from abroad, particularly the young, are struggling to find jobs that match their knowledge and skills (Manasyan and Poghosyan, 2012).

The Armenian professional educational system face challenges in adjusting to labour market needs. Many Armenians acquire skills that cannot be properly used at home or abroad (Makaryan and Galstyan, 2012; ILO, 2009). These mismatches between the labour market needs and the knowledge and skills of the workforce are also prevalent among return migrants.

Box 5.3. **The links between education policies and migration**

To estimate the association between a household benefiting from any education programme and migration outcomes (plans to emigrate, having an emigrate, receiving remittances), the following probit equation is applied:

$$Prob(mig_{hh}) = \beta_0 + \beta_1 edu_policy_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (3)$$

where mig_{hh} represents household migration status, being a binary variable for the household either having at least one member planning to emigrate in the future (specification 1) having at least one emigrant who left in the five years prior to the survey (specification 2) or household receiving remittances (specification 3). edu_policy_{hh} is the variable of interest and represents a binary variable indicating if the household has benefited from an education policy in the five years prior to the study. It takes on value "1" if the household has benefited from an education policy programme and "0" otherwise. $controls_{hh}$ are set of observed individual and household characteristics influencing the outcome.[a] δ_r represents regional-level fixed effects. Standard errors, ε_{hh}, are robust to heteroskedasticity.

Table 5.4. **Education policies do not affect migration patterns**

Dependent variable: Household with emigrant/member planning to emigrate/remittances
Main variables of interest: Household benefited from education programme
Type of model: Probit
Sample: All households

Variables of interest	Dependent variable		
	(1) Plan to emigrate	(2) Household has an emigrant	(3) Household receives remittances
Household benefited from any education policy in the past 5 years	0.033	0.010	0.014
	(0.029)	(0.028)	(0.023)
Number of observations	931	1 662	1 841

Note: Statistical significance is indicated as follows: ***: 99%, **: 95%, *: 90%. Standard errors are in parentheses and robust to heteroskedasticity. The emigrant household sample is restricted to emigrant households with a member who emigrated abroad in the five years prior to the survey in order to capture the timing of the migration decision and the policy intervention. Households with emigrants who left more than five years previously are excluded. Analysis was also performed on a sub-sample of households with children of school age (6-20 years), but this did not change the results.

a. The control variables include household size, household dependency ratio (defined as the number of children and elderly in the household as a share of members in working age), the mean education level of adults in the household, the number of young children (aged 6-14) and the number of youth (aged 15-17) in the household, a dummy for urban location, an asset index aiming to capture household wealth, and regional fixed-effects.

These challenges are also reflected in the IPPMD data on return migrants. More than half of the return migrants in the IPPMD sample (54%), found it hard to find a job on their return. In addition, 4% stated that it was hard to find a job that corresponded to their education level. This share was higher among

return migrants with post-secondary education (6%) than those with lower levels of education (3%). Other studies found that 28% of returnees reported having jobs below their education level (Collyer et al., 2013). In order to turn emigration and return migration into an opportunity, policy measures are needed to better align the education curricula with the local labour market in Armenia. Policies are also needed to make sure that knowledge and skills brought back by return migrants are recognised and used optimally. This will help to attract more highly skilled migrants back and improve how their skills are used for development.

Investment and financial services policies and migration

Financial inclusion has been broadly recognised as critical for reducing poverty and achieving inclusive economic growth. The use of formal bank accounts and savings and payment mechanisms increases savings, empowers women, and boosts productive investment and consumption (Demirguc-Kunt et al., 2015).As reported in Chapter 4, the small but growing Armenian financial system is dominated by its banking sector. The share of individuals with a bank account and savings in a financial institution is however quite low among the Armenian population. In 2014 only 18% of individuals aged 15 and above had an account in a financial institution, compared with 40% of adults in neighbouring Georgia (OECD, 2017). Moreover, among account holders less than 10% actually use their account for savings (Demirguc-Kunt et al., 2015). Overall, only 2% of the adult population is saving money in a financial institution, while 20% indicated having borrowed from a financial institutions and 27% borrowed money from their family or friends in 2014 (World Bank financial inclusion database, n.d.). The low savings rate is partly due to the underdeveloped financial sector, but also to a declining trust in the banking system. Opinion survey data show that only 34% of surveyed individuals claimed that they had trust in the banking system in 2015, down from 53% in 2008 (The Caucasus Barometer, n.d.).

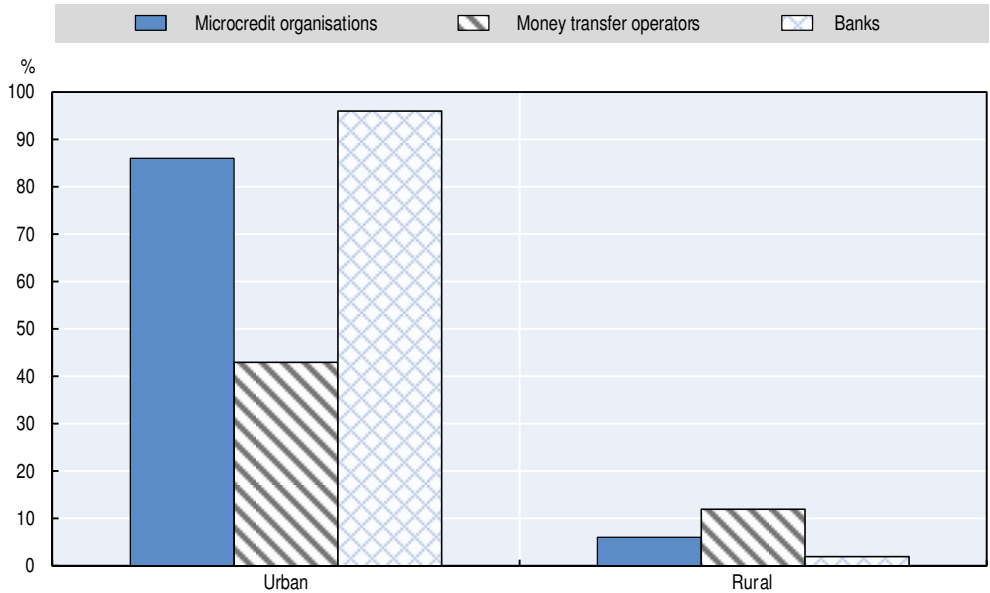
Financial services provision and access are limited

The IPPMD community survey (see Chapter 3) collected information on financial institution coverage in the surveyed communities. The data show a clear difference between rural and urban areas. All three types of financial institution – microcredit organisations, money transfer operators and banks – are much more common in urban areas than in rural areas. Almost all urban areas have a bank (96%) and a microcredit organisation (86%), while only 2% of the rural communities have a bank office or 6% a microcredit organisation (Figure 5.4). The IPPMD household data show that 37% of households in the

sample have a bank account. The share is higher in urban areas, where 40% of household are account holders, compared to 33% in rural areas.

Figure 5.4. **Urban communities are significantly better served by financial service institutions**

Share of communities with financial institutions (%), by geographic region



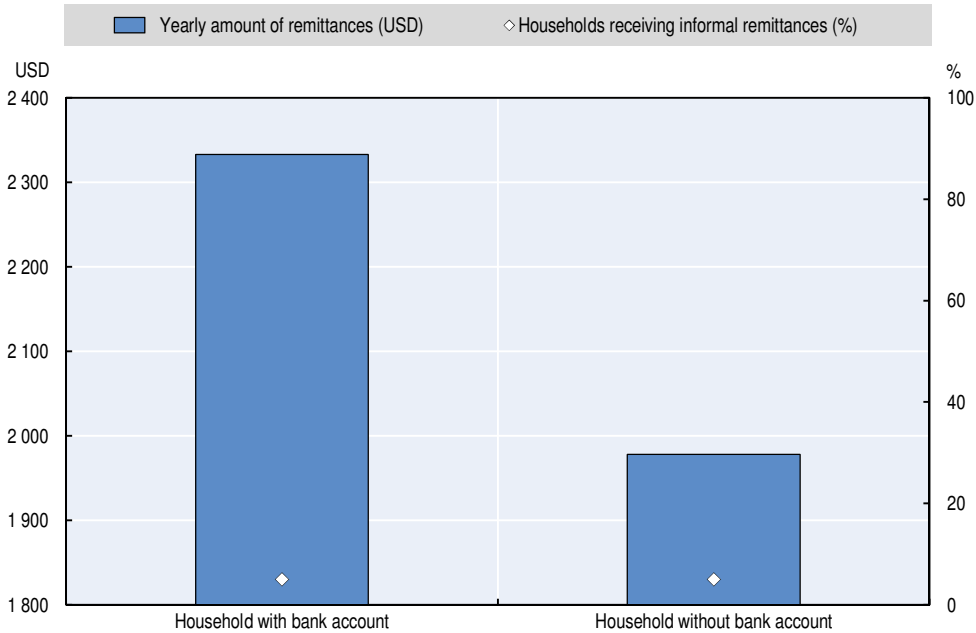
Source: Authors' own work based on IPPMD data

Having access to the formal financial sector can strengthen the development impact of remittances by encouraging more savings and better matching of savings with investment opportunities (UNDP, 2011). Channelling remittances through formal financial institutions is often more secure and can also contribute to the development of the financial system and make resources available to finance large-scale economic activities beyond the investments made by the recipient households. Previous research shows that remittance-receiving households in Armenia tend to save more, but are not more likely to take out a formal bank loan (Grigorian and Melkonyan, 2012).

The IPPMD descriptive statistics show that remittance-receiving households with a bank account received on average higher amounts of remittances in the past 12 months (USD 2 333) than remittance-receiving households without a bank account (USD 1 978). However, households with and without bank accounts are as likely to receive remittances through informal channels: on average 5% for both groups (Figure 5.5).

Figure 5.5. **Households with a bank account receive on average more remittances**

Yearly average amount of remittances received (USD), and share of households receiving remittances through informal channel, by bank account status



Source: Authors' own work based on IPPMD data.

The relationship between having a bank account and remittance patterns is further investigated in Box 5.4. This regression analysis tells a different story: the association between having a bank account and the amount of remittances a household receives is negative (although the association is not statistically significant). It seems that other household characteristics play a role. One driving variable is household wealth, which to be positively associated with a household having a bank account, as well as the amount of remittances the household receives. This partly explains the positive association between having a bank account and amounts of remittances depicted in Figure 5.5. Performing the analysis in rural and urban areas (results not shown) shows that the association is positive in urban areas but negative in rural areas (although still not statistically significant), indicating that different dynamics are at play. This may in turn be linked to the large difference in financial service coverage in rural and urban areas. In addition, the regression analysis found no link between having a bank account and receiving remittances through informal channels.

Box 5.4. **The links between bank accounts and remittance-sending behaviour**

Regression analyses were applied to estimate the link between bank accounts on remittance patterns, using the following two models:

$$Prob(informal_remitt)_{hh} = \beta_0 + \beta_1 bank_account_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (4)$$

$$amount_remitt_{hh} = \beta_0 + \beta_1 bank_account_{hh} + \gamma controls_{hh} + \delta_r + \varepsilon_{hh} \quad (5)$$

where the dependent variable in model (1) represents the probability of receiving informal remittances, and in model (2) the amount of remittances the household receives. $bank_account_{hh}$ represents a binary variable indicating if the household haves a bank account, where "1" denotes a household with a bank account and "0" if not. $controls$ are a set of observed household and individual characteristics influencing the outcome.[a] δ_r represents regional-level fixed effects. Standard errors, ε_{hh}, are robust to heteroskedasticity.

Table 5.5. **Access to a bank account does not seem to influence remittance patterns**

Dependent variable: Amount of remittances received/household receives formal remittances
Main variables of interest: Household has a bank account
Type of model: Probit/OLS
Sample: All households receiving remittances

Variables of interest	Dependent variables	
	(1) Amount of remittances received	(2) Household receives informal remittances
Household has a bank account	-328.3	-0.004
	(407.7)	(0.031)
Number of observations	262	478

Note: Statistical significance is indicated as follows: ***: 99%, **: 95%, *: 90%. Standard errors are in parenthesis and robust to heteroskedasticity.

a. The control variables include household size, household dependency ratio (defined as the number of children and elderly in the household as a share of members in working age), the mean education level of adults in the household, the number of young children (aged 6-14) and the number of youth (aged 15-17) in the household, a binary variable for female head and for urban location, an asset index aiming to capture household wealth, and regional fixed-effects.

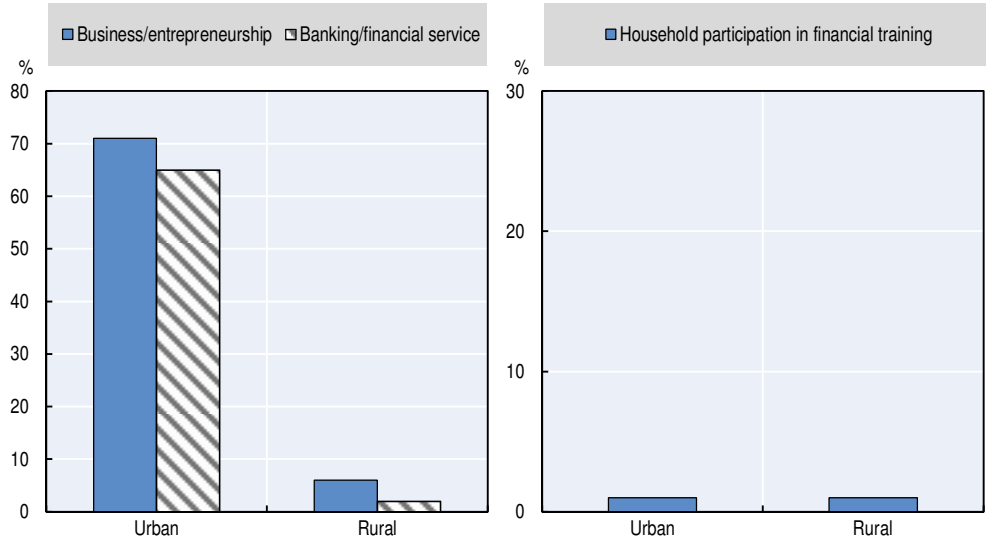
Very few households have participated in financial training

Financial training programmes and business management courses help to build financial literacy, which can encourage investment in productive assets. In order to enable households to maximise the returns to their remittance investments, they need to have information about the investment products available, as well as saving and investment opportunities. Knowledge about business management is also important for households that might want to invest in setting up a business. This applies to both households receiving remittances and households in communities where remittances inflows are high and trickling down to the local economy.

The IPPMD household survey asked households whether they had participated in a financial training programme in the previous five years. This revealed that fewer than 1% of households in Armenia have benefited from a financial training programme (Figure 5.6). This can be compared to the overall participation rate in the IPPMD household survey sample for all ten countries, which is about 5% (OECD, 2017). On the other hand, more than 30% of the communities in the Armenian IPPMD sample offer courses in banking, financial tools and entrepreneurship (Figure 5.6), which is better than in most other IPPMD countries (OECD, 2017). However, these courses are much more widespread in urban than in rural areas, so there is scope to increase the coverage of financial training programmes in rural areas, as well as to increase household participation in these courses in both urban and rural areas, in order to encourage and enable more long-term remittance investments.

Figure 5.6. **Household participation in financial training programmes is very low**

Share of communities which offer financial training (left graph); share of households participating in financial training programmes (right graph)



Source: Authors' own work based on IPPMD data

Conclusions

This chapter has identified some clear links between sectoral policies and migration in Armenia. For instance, vocational training programmes appear to curb emigration, perhaps because they promote upward labour mobility in the local labour market and reduce the incentives to seek jobs abroad. Agricultural subsidies appear to provide current emigrants with incentives to return, possibly because they have removed the financial constraints which drove them to leave.

Other labour market programmes, such as government employment agencies and public employment programmes, are found to have little influence on migration, most probably due to their low coverage. Likewise, education policies do not seem to have any significant influence on households' migration decisions. This result is likely partly explained by the nature of the policy programmes identified in the Armenian survey, which were mainly in-kind distribution programmes rather than cash-based programmes. For education polices to affect emigration decisions they would need to be more significant in their effect on correcting skills mismatches, as well as more widespread.

Participation in financial training programmes is very low among both migrant and non-migrant households in Armenia. There is scope to expand households' access to bank accounts and financial training programmes to encourage the sending of remittances through formal channels and to enable households to invest them productively.

Notes

1. See Chapter 3 for methodological background on the regression analyses used in this project.
2. Specifically, loans are provided to farmers at low annual interest rates of 14%, with the government covering 4% to 6% of these rates, with maturity coming at a maximum of two years and a maximum amount loaned of AMD 3 million (about USD 6 000).
3. The cost of irrigation water in Armenia ranges from AMD 17 (USD 0.04) to about AMD 30 (USD 0.073) for a cubic metre of water.
4. The sample size on training programmes is too small to analyse more deeply therefore.
5. Rerunning the regressions but excluding administrative region fixed effects suggests that the negative link between agricultural subsidies and plans to emigrate remains negative but is no longer statistically significant. On the other hand, the new set of regressions results also suggest that agricultural subsidies are positively linked with return migration (not shown), as first suggested by the descriptive statistics.
6. Apart from the education policies mentioned here, questions on vocational training programmes were also included in the survey, but are analysed in the labour market section.
7. Additional programmes not displayed in the figure due to low rate of beneficiaries in the sample (less than 1%) include: distribution of school uniforms, boarding school, inclusive and home-based education, distribution of computers to first graders, language or other catch-up classes.

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OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
(41 2017 071 P1) ISBN 978-92-64-27358-0 – 2017

OECD Development Pathways

Interrelations between Public Policies, Migration and Development in Armenia

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The report addresses three dimensions of the migration cycle that have become an important part of the country's social and economic contexts: emigration, remittances and return. The results of the empirical work confirm that even though migration contributes to the development of Armenia, the potential of migration is not fully exploited. One explanation is that many policy makers in Armenia do not sufficiently take migration into account in their respective policy areas. Armenia therefore needs to adopt a more coherent policy agenda to do more to integrate migration into development strategies, improve co-ordination mechanisms and strengthen international co-operation. This would enhance the contribution of migration to development in the country.

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This project is co-funded by the European Union

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ISBN 978-92-64-27358-0
41 2017 07 1 P1

9 789264 273580