Essays on International Migration

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Ph.D. Dissertation

CERGE-EI

Prague, March 2010

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Acknowledgements

I am grateful to my supervisor, Professor Štěpán Jurajda, without whose invaluable advice, commitment, and patience this work would not have been completed. I have greatly benefited from his comments and suggestions and through his guidance I was always able to find the inspiration and energy to continue with my research.

My very special thanks also go to Professor Randall K. Filer for his continuous encouragement and support through all stages of my research, from choosing the topics to carefully reading and commenting on my papers.

I also appreciate the contribution of the other members of my dissertation committee, Profesor Alena Bičáková and Professor Daniel Münich, for their comments, guidance and support at various stages of my research.

Last but not least, I acknowledge the various institutions which provided support and funding for my research. My work on the second chapter of this dissertation was supported by Grant No. RRC VIII-60 by the Global Development Network. I was able to partially complete the second and the third chapters during my visit as a graduate Ph.D. research intern at UNU-WIDER in Helsinki, Finland.

Contents

List of Figures

List of Tables

Preface

In this dissertation I address issues related to international migration and its economic impact on the migrants' sending regions. For the empirical analysis I use data from household surveys conducted in countries and regions where the transition to a market economy, after the disintegration of the Soviet Union and the end of the communist era in Central and Eastern Europe, is associated with exceptionally large emigration.

The first chapter is based on household survey data from Armenia, Azerbaijan, and Georgia and provides the first preliminary evidence on the scale of recent emigration from the South Caucasus and its impact on the economic development of the region. The large emigration flows from the South Caucasus consist primarily of older male labor migrants to Russia. The findings suggest that current migration from the South Caucasus does not involve mass emigration of the skilled and the income gains from migration are large, but despite the higher incomes earned abroad, the migrants' households do not exhibit higher propensity to spend on education. The significant correlation between having a migrant household member and the presence of a family business in Armenia, however, suggests that the migrants' earnings and remittances have the potential to relieve liquidity and risk constraints and contribute to the development of the private sector in the South Caucasian economies.

In my second chapter I focus specifically on the effect of international migration and remittances on the labor supply of the non-migrant household members. For the empirical analysis I use the Albania 2005 Living Standards Measurement Survey. The rich dataset allows me to control separately for the effects of migration and remittances and to deal with the potential endogeneity problems inherent in this type of analysis by instrumenting for the household migration decision and remittance receipts. The expected negative impact on unemployment, due to an income effect of remittances, among the female population in Albania is not confirmed by the data. When an instrumental variable approach is used, the predicted effects of migration and remittances on labor supply appear significant only for males between the ages of 46 and 60. Af-

ter instrumenting, for females and for older males I obtain large and positive coefficients for having a migrant within the family and large and negative coefficients for receiving remittances. Although the estimated effects for the females are insignificant at conventional levels, the magnitudes and signs of all coefficients suggest that the OLS estimates of the effect of migration are likely biased downwards, while the OLS estimates of the effect of remittances are biased upwards, compared to the true effects of these variables.

The third chapter (with Professor Randall K. Filer) draws upon previous studies on migration from Albania. A large number of studies, based initially on sporadic surveys of migrants and non-migrants and later based on large, well-designed household surveys available to the research community, deal with questions about Albanian migration and its consequences. Those questions are particularly relevant as Albania's potential EU membership is considered. The chapter adds to the literature on migration from former communist economies by being the first survey that compares the findings from the existing studies on Albanian migration to derive conclusions on the consequences of accession of Albania and other similarly affected countries to the EU. The study is also a chapter in a larger publication on the effect of post-enlargement migration on the EU labor markets by the Institute for the Study of Labor (IZA).

Chapter 1

Emigration from the South Caucasus: Who Goes Abroad and What Are the Economic Implications?

Abstract

Based on household survey data from Armenia, Azerbaijan, and Georgia, this study provides preliminary evidence on the scale of recent emigration from the South Caucasus and its impact on the economic development of the region. The analysis suggests that current migration from the South Caucasus does not involve mass emigration of the skilled. The large emigration flows consist primarily of older male labor migrants to Russia. Household income gains from migration are large, but despite the higher incomes earned abroad, emigration is not associated with higher propensity to spend on education among the migrants' households. However, a significant correlation between having a migrant household member and presence of a family business in Armenia suggests that the migrants' earnings and remittances have the potential to relieve liquidity and risk constraints and contribute to the development of the private sector in the South Caucasian economies.

JEL Codes: P2, J61, R23
Keywords: South Caucasus, Migration, Economic development

Introduction

The economic literature has frequently emphasized the significance of migration research that focuses on the links between labor migration and the economic development of migrant-sending regions (Borjas, 1999; Lucas, 2005, for instance), and a growing number of researchers and policy makers are joining the debate on the economic consequences of migration. The existing economic literature has established that the uses of remittances by migrant-sending households and the human capital lost to migration are likely to have important economic implications for the migrant-sending areas.

Central to the debate on the economic impact of migration is the perception that migrants' households can channel remittances into productive investments. Indeed, the most common sources of capital for investment in the developing economies are owners' personal savings or informal loans from other family members (Woodruff and Zenteno, 2007). The New Economics of Labor Migration literature (Stark and Bloom, 1985; Taylor, 1999) argues that remittances can relieve the capital constraints faced by households in lower-income regions. In this way migration can have a positive impact on the development of the private sector in developing and transition economies. Furthermore, a number of recent studies find evidence that remittances increase investment in education in the sending economies through relaxing liquidity constraints for households with migrants (see, for instance Edwards and Ureta (2003) and Yang (2008)).

While remittances can provide capital resources and boost the economic activity in the migrant-sending regions, the potential loss of human capital due to emigration is stressed as a detrimental consequence of emigration. The literature on brain drain often emphasizes that emigration of the highly educated individuals is costly for the sending country due to lost investments in education, productivity and tax revenue.[1]

The sharp increase in emigration from the CIS countries during the first years of their independence has been explained mostly by ethnic sorting (Locher, 2002) and, in the case of the three South Caucasian countries, a number of local political conflicts and wars that followed the disintegration of the Soviet Union. It is also likely that the recent emigration experience of Armenia and Georgia partially follows historical and cultural trends. These two countries are believed to have had the highest emigration rates in the past, as well as relatively high migrant skill levels among the Former Soviet Union states (Cole-

[1] A recent strand of this literature, however, argues that emigration of the skilled may also stimulate further investment in human capital in the sending countries through increasing the returns to education and thus the incentives to invest in schooling. Commander et al. (2003) provide an extensive survey of the empirical and theoretical literature on brain drain.

man, 1992). In contrast, emigration from Azerbaijan has been much less intense in the past.

Unlike earlier migration, in recent years all three South Caucasian countries have faced similar economic conditions which served as a push factor for large-scale migration, mainly to neighbouring Russia. Recent evidence suggests that, unlike past migration trends, migration in and out of the CIS has been increasingly motivated by economic reasons, rather than ethnic sorting (Rutkowski and Scarpetta, 2005).

Significant research effort has been devoted to examining the implications of labor migration for a number of labor-exporting countries.[2] Nevertheless, the substantial migration flows which have occurred since the 1990s among and out of the Commonwealth of Independent States (CIS), and in particular out of the South Caucasus—Armenia, Azerbaijan, and Georgia—have remained outside the focus of the existing literature on migration.[3] Migration-related empirical research in the South Caucasus context has been limited primarily by a lack of reliable and systematic data and, although abundant, only anecdotal evidence has accrued on the intensity of emigration and its economic implications.

The present study provides the first empirical evidence, based on microeconomic data from a well-designed household survey, on recent migration from the South Caucasus and its economic implications for the region. The study uses data from the Social-Economic Assessment of Households in the South Caucasus, available from the Caucasus Research Resource Centers (CRRC). Although not designed exclusively for research on migration, the dataset provides a sufficient basis to explore major questions posed by the existing theoretical and empirical literature on migration as well as to make cross-country comparisons. Besides quantifying and describing the migration flows from the three economies, this study contributes to the migration research by providing preliminary evidence on the possible economic consequences of migration in the South Caucasus, such as the impact on brain drain, entrepreneurship, and household investment in education.

The results of the empirical analysis suggest that South Caucasian migrants

[2]See Edwards and Ureta (2003), McKenzie (2005), McKenzie and Rapoport (2006), and Yang (2008) for the impact on educational attainment and Dustmann and Kirchkamp (2002), Konica and Filer (2009), Lucas (1987), Woodruff and Zenteno (2007), and Yang (2008) for the impact of migration on private sector development.

[3]According to various sources, close to one fourth of the Armenian and Georgian populations have emigrated either legally or illegally during the first decade of economic transition, and the annual remittance inflows to Georgia added up to about one fifth of the country's GDP in 2003 according to the United Nations Association of Georgia (UNAG). Indeed, both Armenia and Georgia are estimated to be among the developing countries with the highest remittances received as a percentage of GDP (IMF, World Bank, OECD). See Table 1.1 in the Appendix for a comparison with other major labor-exporting countries.

are primarily males, relatively older than the non-migrants, and their purpose of migration is to work in neighboring Russia. While migration from the region does not involve mass emigration of highly educated individuals, higher incomes from abroad are not associated with higher propensity to spend on education among migrants' households. However, a significant correlation between having a migrant household member and presence of a family business in Armenia suggests that migrants' earnings and remittances have the potential to relieve liquidity and risk constraints and to contribute to the development of the private sector in the region.

Literature Review

The traditional economic research (Borjas, 1987, 1999; Harris and Todaro, 1970, among others) models migration as a result of income-maximizing individuals moving to regions where their expected earnings less the costs of migration are higher than in their home region. An important strand of this literature studies how migrants compare to non-migrants in terms of skill and earnings distributions. Borjas (1987) uses the Roy (1951) model to argue that the selection of migrants depends on the wage distribution of the home country compared to the host country and predicts that in countries where the returns to education and the dispersion of wages are relatively high, the migrants are negatively selected—those who migrate have below-average skill levels. Alternatively, in countries where returns to education and wage dispersion are relatively low, the migrants are positively selected.

More recently, the negative selection hypothesis of Borjas (1987) has been re-examined by Chiquiar and Hanson (2005). Chiquiar and Hanson (2005) follow Borjas (1987, 1999) but argue that migration costs have an important role in migrant selection and that migration costs decline with skill level. In their model lower returns to education in the host country discourage high-skilled individuals from migrating, while high cost of migration discourage the low-skilled. As a result, the migrants are likely to be drawn from the middle of the skill distribution in the home country. Chiquiar and Hanson (2005) also analyse Mexican and U.S. data and find evidence of intermediate to positive self-selection on observable skills among Mexican migrants, which supports their hypothesis.

The selection of migrants affects the skill and productivity distribution of those who remain behind and thus the economic development of the migrants' home countries. In view of the predictions of the theoretical literature and the empirical findings from other labor-exporting countries, in the subsequent

analysis I test for a relationship between educational attainment and migration decisions in the South Caucasus.

The present study is also related to a rapidly expanding strand of migration literature which examines the economic impact of remittances on migrants' home region through their effect on productive investment. Taylor (1999) distinguishes between two major theoretical approaches to migration, which lead to different hypotheses about the impact of remittances on migrant-sending economies. Most of the empirical research on labor migration, which focuses on the sending economies, searches for evidence supporting either of the two theoretical approaches.

The first approach is related to the New Economics of Labor Migration and views migration as a "development tool" for the sending areas (Stark and Bloom, 1985; Taylor, 1999). Its proponents argue that migration is the result of a joint decision of household members[4] aimed at overcoming local capital and risk market failures, and remittances are motivated by informal insurance contracts between migrants and non-migrants within the same household.[5] Migrants' remittances can thus relieve capital and risk constraints and thereby stimulate productive investments and entrepreneurship in migrant-sending economies (Stark and Bloom, 1985). This implies that migration and remittances should be associated with human and physical capital accumulation. A significant number of studies indeed find a positive correlation between migration and investment in education (Edwards and Ureta, 2003; Yang, 2008) and entrepreneurship among migrant-sending households (Dustmann and Kirchkamp, 2002; Konica and Filer, 2009; Woodruff and Zenteno, 2007; Yang, 2008).

According to the model of fertility by Becker and Tomes (1976), poor parents may be making smaller than the optimal investments in their children's education due to borrowing constraints. The model predicts that, as their incomes rise, parents will be willing to invest more in their children's education until the marginal return to investment equals the interest rate. Based on this, Edwards and Ureta (2003) study the effect of remittance income on school attendance in El Salvador. Consistent with the theory, Edwards and Ureta (2003) find evidence that by relaxing the budget constraints of remittance-receiving households, remittances allow parents in El Salvador to keep their children in

[4]The assumption is closely linked to an important strand of literature starting with Becker's theory of social interactions (Becker, 1974), which suggests that in migration and remittances research the unit of analysis should be the family, rather than the individual.

[5]A number of studies (Lucas and Stark, 1985, for instance) provide empirical support for the hypothesis that migrants act as insurance against risks associated with family businesses and family income. Lucas and Stark (1985) study the remittance behavior of migrants in Botswana. Controlling for migrant earnings, they find that migrants send significantly more remittances to those families that are at risk of income loss due to drought.

school longer.[6]

Despite strong theoretical arguments suggesting that migration increases investment in human capital in migrants' households, recent empirical evidence has been contradictory. McKenzie (2005) provides preliminary evidence from Mexico that sixteen- to eighteen-year-old children in migrant households have lower levels of schooling than their contemporaries who live in non-migrant households. Several explanations for the negative impact of migration on child education are suggested. One possibility is that children of migrating parents are likely to migrate themselves; therefore, they are more likely to quit school earlier than their contemporaries. The migrants' children may also obtain less adult supervision or substitute housework for schooling. Alternatively, based on the earlier theoretical and empirical work of Borjas (1987) and, more recently, on the work of Chiquiar and Hanson (2005), if the income distribution is more unequal in the migrants' home country than in the host country, the returns to education for the migrants would be higher in their home country than in the host country. Thus, children of migrants who also expect to emigrate have less incentive to invest in their education in the country where they were born.

The contradictory evidence of the impact of migration on educational attainment demonstrates that the mechanism through which migration affects household schooling decisions is complex. In a further study that builds on McKenzie (2005), McKenzie and Rapoport (2006) separate the remittance from the migration effect on educational attainment and show that, although remittances tend to relax credit constraints on investment in education for the very poor, for the majority of rural Mexican children, family migration has a negative effect on educational attainment. In this paper I adopt a different approach and examine the relationship between migration and investment in human capital by testing the hypothesis that households with migrants are more likely to have education-related expenditures, compared to households without migrants.

Migrants' earnings are also an important source of capital for credit constrained entrepreneurial households. Recent theoretical and empirical research supports this argument. Dustmann and Kirchkamp (2002) consider remittances as either a strategy to overcome capital constraints related to starting up a business or as savings to finance leisure activities. They develop a model in which migration durations are chosen jointly with the planned post-migration activities. The conjecture implies that the optimal duration of migration should

[6]Edwards and Ureta (2003) find that household budgets have a small but significant effect on the hazard of leaving school in both urban and rural areas of El Salvador and the effect of remittances on the hazard of leaving school is larger than the effect of any other type of income. For the rural areas of El Salvador, the presence of remittances lowers the hazard of leaving school.

differ across post-migration activity choices. The study also uses survey data on the post-migration activities of returned Turkish migrants and finds evidence in support of that hypothesis, i.e., higher wages abroad, together with post-migration self-employment, are associated with shorter migration durations.

In another study Woodruff and Zenteno (2007) argue that migrant networks help alleviate capital constraints and reduce the cost of capital. Woodruff and Zenteno (2007) use survey data from self-employed workers and small firm owners to estimate the impact of attachment to migration networks on the levels of capital investment, capital-output ratios, sales, and profits of small businesses in Mexico. The impact of the proximity to migration networks is identified by the historical geographic pattern of migration from Mexico to the United States as defined by rail lines. The study provides support for the theoretical argument that access to remittance flows lowers the cost of capital, and thus is associated with larger investments and higher profits among small businesses. In capital-intensive sectors, migration networks are also associated with higher output levels as well, which suggests that remittances also help overcome capital constraints in these sectors.

While proponents of the New Economics of Labor Migration view migration as a "development tool," there are researchers who share a more sceptical view on the role of migration and remittances and argue that migration deprives migrant-sending economies of labor and capital, and remittances lead to dependency and lack of development (Taylor, 1999). Chami et al. (2003), for instance, model remittances as compensatory transfers made by altruistic migrants to their families in the home economy. The remittances are intended to aid the migrant's family in cases of adverse economic outcomes. However, a moral hazard problem between the migrant and the non-migrant family members may result in non-migrants reducing their job search efforts and labor supply, and relying on remittances. This may lead to a decrease in economic activity in the migrant-sending economy. Such predictions would imply that migration and remittances have no effect on the entrepreneurial activities of the migrant households.

In this work I attempt to establish a relationship between migration and remittances and running one's own household business in the South Caucasian economies. Similar evidence has been found for Albania and the Philippines (Konica and Filer, 2009; Yang, 2008). Konica and Filer (2009) find that remittances in Albania are associated with working in one's own household business. Yang (2008) uses the 1997 Asian crisis and the corresponding depreciation of the Philippine peso as an exogenous source of variation in the value of the remittances received by Philippine families from migrants working in different

countries. The study finds that overall, more favorable exchange rate shocks allow the Philippine migrant households to increase self-employment hours, to invest more in child schooling, and to invest in relatively capital-intensive start-up household businesses.[7]

This paper focuses on recent emigration from a region that has remained out of the scope of the existing research on migration. Theoretical research and empirical evidence from other countries cannot provide a clear answer to whether the South Caucasian economies win or lose from international migration. The preliminary evidence on the consequences of migration in the South Caucasus discussed in this paper thus fills a gap in the empirical literature on migration by shedding light on the region's development potential and the likely drawbacks related to cross-border migration.

Data

Data Source

This study uses data from the first two waves of a household survey, the Social-Economic Assessment of Households in South Caucasus, undertaken simultaneously in Armenia, Azerbaijan, and Georgia, in May-June 2004 and in April-June 2005, by the Caucasus Research Resource Centers (CRRC).[8] The primary purpose of the survey was to collect comparable data to prepare various projects and programs for the general development of the region, while harmonizing the data-collecting methods, polling, and interviewing among the three countries. The number of households which were selected randomly and interviewed in 2004 in Yerevan, Baku, and Tbilisi was 1,500, 1,489, and 1,472, respectively. In 2005 the survey was extended beyond the capital cities to cover one additional administrative region in each country. The number of interviewed households in each capital city or administrative region in 2005 was 750.[9] The data totaled approximately 9,000 households and 37,000 household

[7] Yang (2008) notes, however, that the study does not separate possible wealth effects due to the exchange rate shocks from pure migration and remittance effects.

[8] The data and related documentation are downloadable free of charge from `http://www.crrccenters.org/`.

[9] In Armenia the 2005 survey was conducted in Yerevan and the Kotayk region; in Azerbaijan, in Baku and the the Aran region – Mugan zone; and in Georgia, in Tbilisi and the Shida Kartli region. The Kotayk region is located in the immediate vicinity of the capital, Yerevan. It occupies 7 percent of the territory of Armenia and its population is approximately 9 percent of the total population of the country. The Aran economic region occupies the Caspian Sea area to the Southwest of Baku. Its territory is 25 percent of the territory of Azerbaijan and its population is approximately 21 percent of the total population of the country. Shida Kartli is located in the central part of Georgia, to the Northwest of Tbilisi. The region occupies 23 percent of the territory of the country and its population is 7 percent of the total population of Georgia. The northern part of Shida Kartli, which is part of the self-proclaimed republic of South Ossetia and which has not been under the control of the Georgian government since 1994, is not covered by the survey.

members of all ages, 27,000 of whom are capital city residents. The data collected in 2004 is representative at the capital city level in each country and the data collected in 2005 is representative at the level of the capital cities and the three administrative regions.

The sampling technique is multistage cluster sampling through stratification. The sampling frame in Armenia is the Armenian Electricity Grid Company's household list, while the sampling frames in Georgia and Azerbaijan are the district lists of the most recent population censuses prior to the survey date—the Georgian General Population Census (2002) and the Azeri Population Census (1999). The Primary Sampling Unit (PSU) in Armenia is the electricity branch, and in Azerbaijan and in Georgia the census districts. The strata in Armenia are defined in line with the division of the electricity branches set by the Electricity Grid Company. In Azerbaijan and Georgia the strata are defined according to the district divisions. The number of sampled PSUs is defined proportionately to the number of households within each assigned stratum. One respondent was selected from each household through the Kish Table methodology and interviewed in person. The respondents from each household represent the final sampling units.

The survey contains data on the households' general characteristics, demography, education, emigration, health, political activities and views, social institutions, crime, and household economic behavior. A household is defined as a group of people "who usually live together, comprise one economic unit, and have a common budget." The respondents are asked to provide information on all members of the household, including those members who are absent or residing abroad during the interview.

This paper uses data derived from the household general characteristics, emigration, and economic behavior sections of the survey. The general characteristics section provides information on the sex, age, education, and relationship to the head of household for all household members. The migration section of the survey supplies information on those members of the household who have spent three or more months abroad during the three years preceding the interview, as well as the purpose of their stay abroad. This makes it possible to compare the major reasons for migration in the South Caucasus and to identify those households that have or have previously had members residing abroad. Data on individual contributions to household income is drawn from the section on economic behavior. This section also contains data on the households' monthly expenditures on education. All incomes and expenditures are reported in U.S. dollars.

The survey covers the demographic and socio-economic characteristics of the non-migrants in Armenia, Azerbaijan, and Georgia, as well as of those

members of the households who have stayed abroad for a minimum of three months during the period 2001-2005. No information on those household members who have migrated prior to that period is available. Therefore, the focus of the present study is current temporary migration from the South Caucasian households, conditional on the households not having migrated due to socio-political or economic reasons during the first decade of economic transition.

A limitation of the study is the regional coverage of the survey. The household survey data cover only the capital cities and one additional non-capital region in each country. Thus, any possible differences in the economic behavior across administrative, territorial, and economic regions within each country are not controlled for. In addition, information on the labor market participation of the non-migrants is limited, i.e., data are available only on the non-migrants' monthly contributions to household income, but not on their particular occupation. The data also do not clearly differentiate labor market non-participation from non-reporting of household income contribution. Nevertheless, this survey is the only available comparable source of data for a set of important migration-related questions in the South Caucasus.

Variable Definitions

For each member of the interviewed households, the dataset contains information on whether the person has emigrated at least once with a minimum duration of three months during the three-year period prior to the interview date. Although partial, this information allows for the identification of migrant household members (previous and current) and the households with such members. In addition, the survey contains information on the purpose of each migrant's stay abroad and the country of destination. The major reasons for a prolonged stay abroad among South Caucasian migrants are education, work, and reunification with another migrant family member. Table 1.2 presents the number of household members whose migration is associated with "education," "family reunification," and "work" as a percentage of all household members of working age (16-65), as well as the percentage of households with such migrants in each capital city and administrative region where the survey was conducted.

According to Salt (1992), the term "labor migrant" constitutes a slightly broader definition than does the term "work migrant" used in the dataset for this study. In Salt's (1992) broader definition, labor migrants are also household members who emigrate for family reunification reasons and subsequently become labor migrants on their own. Based on this argument, I create a dichotomous variable indicating the migrant status of a household member. The

variable equals one for those household members who either worked or stayed abroad for "family reunification" reasons for more than three months, and zero for the rest of the household members. The household members whose migration purpose was education are not considered migrants for the purpose of the subsequent analysis.[10]

The actual purpose of migration is undoubtedly important for defining migration status in an analysis of the economic implications of migration. A major consideration for the analysis, by treating as migrants household members who declare both work and joining a migrant family member already abroad, is that the migration questions refer only to migration episodes that exceed three months. This implies that any individual in the dataset who joins and supports a migrant family member abroad with paid or unpaid work does not actively participate in the labor market or the economic life of the home country for an extensive period of time. In addition, both types of migrants imply the presence of a migrant family member, and by excluding the "family reunification" migrants when identifying households with migrants, there is an increased risk of measurement error. Another important consideration behind pooling the "work" and "family reunification" migrants together is that at the time of the survey, the legal opportunities for Georgian nationals to work in a foreign country, including Russia, were practically non-existent. Georgian respondents may thus misreport work migration by disguising it as "family reunification" migration. Indeed, the number of "family reunification" migrants from Tbilisi is significantly higher than the other capitals and regions where the survey was conducted and where the number of "family reunification" migrants is negligible. I treat both "work" and "family reunification" types of migration as indicative of migrant status so as to include those Georgian migrants who might have not been reported by the respondent household member as working during their stay abroad for security reasons.[11]

The age of each household member is computed based on the reported birth date and the date of the interview. The binary variables for educational attainment are based on completed educational level. Individuals who completed primary school but not secondary school are considered to have a primary education; those with completed secondary, secondary technical and partial higher education are considered as having a secondary education; individuals with completed higher education and doctoral/scientific degrees are considered to have a higher education. The survey does not indicate the marital status of each household member; this information is determined indirectly through in-

[10]Other reported reasons for migration are business trips, holiday, therapy, and permanent residency. I exclude this type of migration from indicating migrant status as well.

[11]For a comparison, Table 1.3 gives the number of migrants per household both with "family reunification" migrants and without "family reunification" migrants.

formation on the relationship to the head of household and the gender of each household member.

In defining the household characteristics variables, household size refers to the total number of household members, and the number of adult household members indicates the number of individuals older than 16. "Second language at home" is a dichotomous variable where one indicates households, or individuals from households, where the primary language of communication is different from the official language of the country or where there is a second language which is commonly used among household members. "Other migrants" is a binary variable which aims to capture the effect of possible household migration networks or migration channel formed by previous migrants from the same household. The variable equals one if the household has reported more than one migrant member.

Data on the monthly contribution to the household income for each household member as well as the expenditures on education and the total household income from all sources is derived from the economic behavior section of the survey. A household with income in the lowest quartile for the region is considered a lower-income household. Data on whether a household runs its own family business is not available. However, it is possible to determine this information from the economic behavior section which contains data on the sources of household income. A dichotomous variable for the presence of a "household business" thus equals one if a household has declared that one of the first three primary sources of their income is income from a family business.

Characteristics of Migration Flows from the South Caucasus

Following the collapse of communism, the South Caucasus experienced considerable migration outflows. Above ten percent of Armenian, seven percent of Georgian, and four percent of Azeri households in the sample I work with report having at least one member who spent more than three months abroad between 2001 and 2005. Table 1.2 lists the percentage of migrants by country, region, and the reason for their migration. The highest emigration rates among the male population in the South Caucasus are from Armenia; the primary reason for nearly all their migration is to work abroad. Although the migration rate among Armenian females is also relatively high compared to female migration from Azerbaijan and non-capital Georgia, Armenian females migrate much less than do males.

By contrast, the female residents of Tbilisi tend to migrate almost as much

as the males, not only for family reunification reasons, but also for work and education. This, however, does not apply to the non-capital region of Georgia where the migration rates among both males and females are the lowest among the three countries (Table 1.2). The share of reported work migration in Georgia is also very low compared to Armenia and Azerbaijan. As explained in the previous section, this, in addition to the relatively large share of reported migration for family reunification reasons, may reflect misreporting of the reason for migration due to the lack of legal opportunities for Georgians to work abroad and visa restrictions with possible destination countries, including Russia.

Similar to Georgia, there is a significant difference between the emigration patterns of the capital and the non-capital residents of Azerbaijan. While the estimated migration rate among the non-capital residents is rather high, the number of migrants from Baku remains negligible (Table 1.2). One possible explanation for this difference is the better economic opportunities available to Baku residents owing to Azerbaijan's large oil resources and oil industry. The relatively high migration rate among the non-capital residents of Azerbaijan may signify that these opportunities are not equally distributed across the country. Thus, working abroad is a lucrative opportunity for those Azeri citizens who live outside the capital city.

Since it is primarily male household members who migrate, I focus on male migrants whose migration purpose is family reunification and work, and present in Table 1.4 the estimated work and family reunification migrant shares by home and host country. Despite the large earnings differentials, the Western economies attract few male migrants from the region. According to the estimates based on the survey data, Russia is the most common destination for male working-age migrants from the region, 78% of the Armenian, 90% of the Azeri, and 34% of the Georgian male migrants having spent at least one migration episode in Russia. This is likely due to the relatively lower cost of migration to Russia than elsewhere, given the geographic proximity and lack of a language barrier.

Compared to Armenia and Azerbaijan, migration from Georgia to high-income OECD countries is almost as common as migration to Russia among the male population. During the period for which the respondents were asked to report migrations within the household—up to three years before the interview—the visa restrictions imposed by the Russian Federation likely posed a significant additional emigration cost to Russia for Georgian citizens, thus making Russia a less attractive destination for Georgians than for their South Caucasian neighbors.

The existing literature on migration has established that migrants are gen-

erally young, male, and relatively less-skilled than non-migrants. A cursory examination of the individual characteristics of migrants from the South Caucasus, however, reveals a slightly different profile of a "typical" migrant from the region. Table 1.5 gives a summary of the socio-economic characteristics of migrants relative to non-migrants. South Caucasian migrants are predominantly male but appear to be somewhat older than the non-migrants in all three countries. Heads of households or sons of the head of the household are more likely to migrate. In Georgia, higher education is more common among migrants than non-migrants. Unlike migrants from Georgia, male migrants from Armenia and Azerbaijan are more likely to be married than single, while the opposite holds for female migrants. Finally, the migrants' average monthly contribution to the income of their household is significantly higher than that of the non-migrants in all three countries in the region.

Results

Socio-demographic Determinants of Migration in the South Caucasus

The logistic regression results reported in Table 1.6 in terms of odds ratios confirm that gender and age matter for the decision to migrate in the South Caucasus. In all three countries, older working-age individuals are more likely to be migrants and each additional year of age increases that probability. This result differs from the findings of many previous empirical studies on migration that have established that international migrants tend to be relatively younger males. Yet another result that contradicts previous findings is that in Georgia, at least, gender does not appear to be a significant determinant of migration. Similar to other findings, however, single individuals from the South Caucasus are more likely to become migrants than married ones. Controlling for other characteristics in the logistic regression, I estimate that being married becomes associated with a significantly lower probability of emigrating for males from the capital of Armenia, females from the non-capital region of Azerbaijan, and both males and females living in the capital of Georgia.

Education appears to be an important determinant for migration only in the capital city of Azerbaijan, Baku, where having higher education increases the probability of becoming a migrant more than two times for males and more than six times for females. The small number of migrants from Baku, however, together with the statistically insignificant effects of higher education found for all other regions implies that emigration from the South Caucasus does not involve emigration of the more educated and highly-skilled individuals. Thus,

the dangers of brain drain discussed in the literature on migration are not likely to materialize in the case of the South Caucasus.

In the capital city of Armenia and Azerbaijan, using more than one language at home is associated with a higher probability of a household member becoming a migrant. As the most commonly reported second language is Russian, those Armenian and Azeri households which report using a second language at home are likely ethnically mixed. It might be easier for such households to send migrants to Russia, as relations with extended families across the border can significantly reduce the cost of migration.

Although the direction of causality cannot be determined, having other migrating family members from the household is correlated with several times higher probability of being a migrant in all South Caucasian countries. Since it is possible that this result is explained by considering as migrants some female household members who migrate for the sole purpose of joining their spouses abroad, I estimate the logistic regression for all six regions only for the male household members. As the females are more likely to reunify with migrant members abroad, rather than be the first migrants from the household, a comparison of the results after excluding the females from the sample serves as a robustness check for the results presented in Table 1.6.[12] After excluding the females, the estimated effects of the presence of other migrant household members remain of the same magnitude and are significant at the 1% level for all regions except for the non-capital regions of Azerbaijan and Georgia, where the coefficients become insignificant. However, it should be noted that no migrants from the non-capital region of Georgia are reported as "family reunification" migrants, and this type of migrant from the non-capital region of Azerbaijan is extremely rare. Therefore it seems likely that, in the South Caucasus, members from the same household do not migrate alone but rather form household "migration channels" (see Table 1.3 for the distribution of households with different numbers of migrants in each region).

An attempt to control explicitly for household size, the presence of young children in the household, and for the number of children, results in statistically insignificant estimates of the effect of these variables. I therefore use other means to capture the effect of household composition on the probability of becoming a migrant. A higher ratio of the number of household members who are likely to work (aged 21-65) to the total number of household members implies a higher propensity to migrate in the capital of Armenia and the non-capital region in Georgia. With respect to income, with the exception of

[12]Initially, I attempted to perform the analysis considering as migrants only those members who are reported as migrants for work reasons. However, insufficient data prevents me from performing such an analysis for all regions.

the non-capital region of Georgia, migrants are more likely to originate from households that are relatively less wealthy. In Baku, for instance, living in a household with total income in the lowest quartile for the region is associated with a nearly eight times higher probability of migration.

Due to the very low number of migrants to high-income OECD countries from Azerbaijan and the non-capital regions of Armenia and Georgia in the sample, the analysis of the determinants of migration to a high-income OECD country as opposed to a low-income OECD or non-OECD country is limited to the capital cities of Armenia and Georgia only (Table 1.7). Nevertheless, it becomes apparent that there are important differences in the composition of migrants across the regions in terms of gender, age, marital status and educational attainment. In Yerevan, for instance, the odds of becoming a migrant to a low-income OECD or non-OECD country, compared to not migrating at all, are more than fifteen times higher if the household member is male. The gender effect on migrating to a high-income OECD country is much smaller—the probability to migrate to a high-income OECD country, as opposed to not migrating at all, is only about three times higher if the individual is male. In contrast, gender has a much smaller effect on migration to a low-income OECD or non-OECD country in the capital of Georgia, and the variable is statistically insignificant for migration to a high-income OECD country. The increase in the probability to migrate with each additional year of age is highest for migration to a low-income OECD or non-OECD country from the Armenian capital. While both male and female individuals from the Georgian capital have a more than 50% lower probability of migration to a high-income OECD country if they are married, in Armenia I find a similar statistically significant effect of being married only in the case of males migrating to low-income OECD or non-OECD countries. Interestingly, while individuals with higher education are not more likely to become migrants in general, having higher education is nevertheless associated with nearly two to four times higher probability of migration to a high-income OECD country for both females and males from the Armenian and Georgian capitals. This result is important in view of the underlying theoretical arguments that skill distribution and returns to education in the host country in comparison to the home country affect the selection of migrants. The results are more in line with the predictions of the modified Chiquiar and Hanson (2005) model rather than the model of Borjas (1987), which suggests that the cost of migration plays a very important role in the decision to migrate in the South Caucasus. One possible explanation for the results is that the better educated individuals are likely to speak foreign languages other than Russian and may find it easier to obtain information about the labor market conditions in high-income OECD countries, which reduces

the cost of migration to such destinations. The estimated effect of the variable indicating usage of a second language at home further supports this argument. Using another language at home (primarily Russian) increases the probability of migration only to low-income OECD or non-OECD countries in Armenia and in Georgia. While brain drain does not appear to be a widespread phenomenon in the South Caucasus, these findings also suggest that the likely reason for this are the higher costs of migration, including costs due to a language barrier, to geographically more distant high-income countries.[13]

It should be noted that a disadvantage of the survey is that only household members who emigrated during the 2001-2005 period are identified as migrants. This implies that there might be household members who have emigrated earlier or have emigrated permanently and are no longer considered to be members of the household by the respondents and thus are missed by the survey. In addition, the survey may also miss many households with migrants because the entire household has left the country before the survey was conducted. These features of the data can introduce bias due to sample selection as those who emigrated earlier, permanently, or left no household member behind might have different characteristics than the migrants identified by the survey.

Intense permanent migration during the first years of the transition might have affected the skill distribution of the remaining work force in the South Caucasus. For instance, if highly educated migrants were able to permanently settle abroad earlier by being more likely to secure better employment abroad, the coefficient on educational attainment on the decision to migrate could be biased downwards. One cannot entirely exclude the possibility that the little difference in educational attainment between migrants and non-migrants, at least in Armenia and Azerbaijan, or the finding that the South Caucasian migrants tend to be relatively older than the non-migrants, contrary to existing results from other countries, are due to some sample selection bias inherent in the data I use.

Although the literature on migration and sample selection is extensive, this kind of problem is inherent in most studies that use survey data. Without extensive longitudinal data on the intensity of earlier migration and on the migrants' skill level, which could suggest the direction of the possible sample-selection bias, one can only speculate on the impact on the results. Indeed, very few studies acknowledge this type of problem and attempt to deal with it. Hanson and Woodruff (2003), for example, study the relationship between ed-

[13] I also define as migrants the household members whose purpose of migration is education and replicate the analysis presented in this paper, as it might be that the "students" abroad are in fact workers. There is no significant change in the results that would suggest that this is the case. The results of all robustness checks are available upon request.

ucational attainment and migration only in rural areas of Mexico, where entire households are less likely to emigrate in comparison to urban areas. With respect to permanent and temporary migration, Constant and Massey (2003) use data covering fourteen years to examine return migration from Germany and find no selectivity with respect to human capital or gender among the migrants who choose to stay and those who choose to return to their home country.

Migrant – Non-migrant Income Gaps

Higher earnings of family members who work abroad and remittances increase domestic demand and consumption and indirectly contribute to the economic development of migrant-sending economies. This motivates an analysis of the differences in earnings between migrants and non-migrants. Data on the exact earnings of migrants abroad is not available; however, the reported monthly contribution to household income is of interest since it represents the migrants' monthly income spent exclusively in the migrants' home economy.

Table 1.8 contains the migrant – non-migrant raw income gaps from Oaxaca-Blinder decompositions of the contribution to household income conditioning on different sets of individual and household characteristics. The results presented in Table 1.8 also indicate that even after controlling for various observable characteristics, the gaps between the contributions of migrants and non-migrants remain large in all regions. The largest income gains from migration are in the non-capital region of Armenia and the lowest gains are in the capitals of Armenia and Georgia.

The purpose of the decomposition is to compare the contributions of migrants and non-migrants with similar household and individual characteristics. The Oaxaca-Blinder decomposition approach, however, relies on restrictive parametric assumptions about the functional form of the income contribution conditional expectation function, which could bias the results if there are significant differences in the supports of the empirical distributions of the characteristics of migrant and non-migrant household members. For example, the lower representation of individuals with certain characteristics, i.e. females, among the migrants implies that a large number of migrants and non-migrants from the data cannot be compared, i.e., there is a lack of "common support" problem.

Thus, in addition to the results of the linear regression model used in the Oaxaca-Blinder decompositions presented in Table 1.8, I use a non-parametric matching approach to account for the differences in the "support" of individual and household characteristics without imposing a linear functional form.[14] The

[14]Caliendo and Kopeinig (2008) provide a useful review of the procedure. The Stata module

alternative decomposition technique relies on comparing only contributions to household income of "matched" migrants and non-migrants with similar set of observable characteristics.

The propensity score matching results, which are presented in Table 1.9, confirm those of the Oaxaca-Blinder decompositions and imply that the income gains from migration for the South Caucasian countries are significant. Even after only "matched" migrants and non-migrants with similar characteristics are compared, migrant's contribution to household income remain substantial.

Running a Family Business and Spending on Education in the South Caucasus

The recent economic literature on migration places strong emphasis on the usage of migrants' earnings and remittances by the migrants' households and on distinguishing between consumption goods and investment in human and physical capital. The results of an analysis on the relationship between migration and running a household business are presented in Table 1.10. Although the direction of the causal relationship between migration and entrepreneurship cannot be clearly determined, migration of a household member is associated with a higher probability of running a business in the capital cities of Armenia and Azerbaijan.

It is not possible to distinguish between the separate effects of remittances and migrant household members. Nevertheless, whenever the data allows I attempt to distinguish between the effect of having household members solely in non-OECD or lower-income OECD countries and having migrants in high-income OECD countries. This is possible in the case of Armenia and for the pooled Georgian sample. The results reveal significant differences between the two countries.

While in Armenia migrations to low-income OECD or non-OECD countries are associated with a higher probability of running a household business, in Georgia migrations to high-income OECD countries are associated with a lower probability of running a family business. It is likely that these effects are the result of local demand conditions. Lack of business opportunities might be a push factor for migration in Georgia, especially to high-income countries, while in Armenia, the relatively less costly migration to Russia may be considered an opportunity for accumulating start-up capital for a family business. It is thus possible that the cost of migration plays an important role in the development of the private sector in these South Caucasian economies.

Most likely due to the fact that higher education is available tuition free in

PSMATCH2 by Leuven and Sianesi (2003) was used to perform the propensity score matching.

all three South Caucasian countries, I detect a significant relationship between migration and spending on education only for the sample from the non-capital region of Azerbaijan (see Table 1.11). The results do not exclude the possibility that higher incomes from abroad allow the children in migrant households to spend more time in school relative to the children in non-migrant households. Without detailed data on schooling decisions or remittances, however, it is not possible to explore further the relationship between migration, remittances, and investment in human capital in the South Caucasus.

Conclusion

Based on a well-designed household survey from Armenia, Azerbaijan, and Georgia, this study quantifies the migration flows from the South Caucasus and provides the first preliminary evidence on the economic impact of emigration on the economic development of the region. Results show that the most common destination for recent migrants from the South Caucasus is Russia and that the most common purpose of migration is to work abroad. An analysis of the demographic and socio-economic determinants of migration suggests that current migration from the South Caucasus does not involve mass migration of the skilled. However, this is likely due to the relatively high cost of emigration to high-income countries.

While individuals with higher education are not more likely to become migrants in general, having higher education is nevertheless associated with nearly a two to four times higher probability of migration to a high-income OECD country for both females and males from the Armenian and Georgian capitals. This evidence from the South Caucasus is also important in view of the underlying theoretical arguments that skill distribution and returns to education in the host country in comparison to the home country affect the selection of migrants. The results are in line with the conjectures of Chiquiar and Hanson (2005) that the cost of migration play an important role in the decision to migrate.

Further analysis also reveals that emigration can indirectly enhance economic development of the South Caucasian region by raising local incomes and demand. Although migration is not associated with higher probability of spending on education among the migrants' households, a significant correlation between migration and the presence of family business in Armenia suggests that the earnings of the migrants can provide scarce capital for business investment and contribute to the development of the private sector in the region.

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Table 1.1: Net Migration and Remittances in the South Caucasus and Other Migrant Sending Countries

	Remittances				Net Migration
	2001	2002	2003	2004	2004
Armenia	4.44	5.51	5.98	9.39	-4.94
Azerbaijan	1.82	2.90	2.35	2.62	-1.78
Georgia	5.62	6.80	5.96	5.91	-8.30
Guatemala	3.02	6.88	8.63	9.46	-4.54
Mexico	1.63	1.70	2.33	2.65	-3.05
Philippines	8.08	9.67	13.38	12.91	-1.78

Notes: (i) Remittances include the current transfers by migrant workers and wages and salaries earned by nonresident workers, presented as a percentage of the country's GDP; (ii) Net migration is the annual number of immigrants less the annual number of emigrants, including both citizens and noncitizens, as a percentage of the working age population (five-year estimates).

Source : World Development Indicators database

Table 1.2: Migrants and Households with Migrants in the South Caucasus (%)

	Households		Individuals			
	Capital	Region	Capital		Region	
			Male	Female	Male	Female
			Armenia			
Households with Migrants	8.54	14.13				
"Work" Migrants			6.21	1.28	9.24	0.92
"Reunification" Migrants			0.26	0.14	0.07	1.06
"Education" Migrants			0.73	0.32	0.07	0.06
Sample Size	2,242	747	2,786	3,396	1,145	1,246
			Azerbaijan			
Households with Migrants	1.59	9.87				
"Work" Migrants			0.88	0.15	4.97	0.77
"Reunification" Migrants			0.02	0.02	0.09	0.13
"Education" Migrants			0.01	0.01	0.39	0.00
Sample Size	2,233	749	3,191	3,425	1,210	1,277
			Georgia			
Households with Migrants	8.41	3.29				
"Work" Migrants			1.77	1.03	1.53	0.62
"Reunification" Migrants			1.51	1.07	0.00	0.00
"Education" Migrants			0.44	0.99	0.51	0.13
Sample Size	2,212	750	3,050	3,550	947	956

Note: Migrants are individuals (aged 16-65) who have resided abroad for at least three months during the three-year period prior to the survey date.

Table 1.3: Number of Households with Migrants and Number of Migrants per Household

Capital				Region			
"Work" and "Family Reunification" Migrants		"Work" Migrants		"Work" and "Family Reunification" Migrants		"Work" Migrants	
Mig-rants	Hous-holds	Mig-rants	Hous-holds	Mig-rants	Hous-holds	Mig-rants	Hous-holds
			Armenia				
1	75	1	75	1	48	1	51
2	14	2	13	2	11	2	8
3	2	3	2	3	6	3	4
4	1			4	1		
Total	92	Total	90	Total	66	Total	63
			Azerbaijan				
1	20	1	21	1	33	1	34
2	1	2	1	2	7	2	6
3	1						
Total	22	Total	22	Total	40	Total	40
			Georgia				
1	32	1	9	1	3	1	3
2	7	2	4	2	1	2	1
3	1						
Total	40	Total	13	Total	4	Total	4

Table 1.4: "Work"/"Reunification" Migration from the South Caucasus by Host Country Type: Percentage of All Working Age Migrating Males

	High-Income OECD	Russia	Other	All Countries
		Armenia		
"Work"/"Reunification"	9.94	77.88	5.45	93.27
Total Migration	13.78	80.77	5.45	100.00
		Azerbaijan		
"Work"/"Reunification"	0.86	89.66	5.17	95.69
Total Migration	0.86	90.52	8.62	100.00
		Georgia		
"Work"/"Reunification"	30.40	34.40	18.40	83.20
Total Migration	41.60	36.00	22.40	100.00

Note: Migrants are individuals (aged 16-65) who have resided abroad for at least three months during the three-year period prior to the survey date.

Table 1.5: Individual and Household Characteristics of Migrants and Non-Migrants in the South Caucasus (Aged 16-65): Descriptive Statistics

	Armenia			Azerbaijan			Georgia		
	Non-Migrants	Migrants	Diff.[a]	Non-Migrants	Migrants	Diff.	Non-Migrants	Migrants	Diff.
Age	36.64	39.88***		35.64	38.38***		37.13	39.66***	
	(0.19)	(0.63)		(0.20)	(1.07)		(0.18)	(0.94)	
Male	0.44	0.80***	***	0.47	0.83***	**	0.47	0.58***	***
	(0.01)	(0.03)		(0.01)	(0.05)		(0.01)	(0.04)	
HH Head	0.21	0.34***	*	0.25	0.43***	***	0.21	0.19	***
	(0.01)	(0.03)		(0.01)	(0.06)		(0.01)	(0.03)	
Son of HH Head	0.22	0.37***		0.24	0.37***		0.22	0.30**	
	(0.01)	(0.03)		(0.01)	(0.05)		(0.01)	0.04	
Secondary Education	0.65	0.63	***	0.66	0.61		0.50	0.42*	***
	(0.01)	(0.03)		(0.01)	(0.06)		(0.01)	(0.04)	
Higher Education	0.30	0.33	***	0.23	0.31	*	0.44	0.56***	***
	(0.01)	(0.03)		(0.01)	(0.06)		(0.01)	(0.04)	
Married Male	0.30	0.56***	**	0.27	0.62***	**	0.29	0.37	***
	(0.01)	(0.03)		(0.01)	(0.06)		(0.01)	(0.04)	
Married Female	0.36	0.15***		0.31	0.06***	***	0.34	0.27	***
	(0.01)	(0.03)		(0.01)	(0.03)		(0.01)	(0.04)	
Contribution to HH Income ($US>0)	80.61	144.42***		83.19	130.84***		104.95	138.87**	
	(1.78)	(17.99)		(1.49)	(11.27)		(3.26)	(16.16)	
Household Size	5.49	5.58		5.37	5.63		5.46	5.55	
	(0.03)	(0.15)		(0.04)	(0.26)		(0.03)	(0.18)	
Number of Observations	8,212	361		8,974	129		8,311	192	

Notes: (i) Standard errors in parentheses; (ii) ***,**,* Denote statistically significant difference between the average characteristics of migrants and non-migrants at the 0.01, 0.05, and 0.10 level, respectively; (iii) [a] Statistically significant difference between the migrants' average characteristics across the three countries.

Table 1.6: Logit Estimates for a Migrant Status: Odds Ratios

	Armenia		Azerbaijan		Georgia	
	Capital	Region	Capital	Region	Capital	Region
Age	1.534***	1.285***	1.400***	1.466***	1.264***	1.784***
	(0.08)	(0.09)	(0.18)	(0.15)	(0.06)	(0.37)
Age Squared	0.995	0.997	0.996	0.995	0.997	0.993
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Male	12.963***	9.712***	13.127***	3.650***	1.669	2.048
	(5.85)	(5.15)	(8.91)	(1.66)	(0.52)	(1.91)
Married*Male	0.471***	0.757	0.881	1.280	0.493**	0.964
	(0.11)	(0.26)	(0.35)	(0.50)	(0.15)	(0.88)
Married*Female	0.803	0.760	0.484	0.172**	0.542**	0.756
	(0.34)	(0.40)	(0.45)	(0.12)	(0.14)	(0.66)
Higher Education*Male	1.138	1.155	2.366***	0.657	1.461	1.088
	(0.20)	(0.39)	(0.79)	(0.29)	(0.35)	(0.80)
Higher Education*Female	1.027	2.192	6.402**	1.168	1.410	0.582
	(0.39)	(1.11)	(5.11)	(1.14)	(0.37)	(0.58)
Second Language at Home	1.567***	1.294	1.758*	3.386	1.003	1.032
	(0.25)	(0.32)	(0.55)	(2.89)	(0.23)	(1.13)
Other Migrants	4.138***	3.666***	5.762***	2.319**	3.911***	5.559**
	(0.55)	(0.47)	(1.92)	(0.83)	(0.81)	(3.75)
HH Members (21-65)/HH Size	2.476**	1.491	1.171	1.475	1.217	8.259*
	(0.93)	(0.76)	(0.71)	(0.78)	(0.48)	(10.59)
Lower Income HH	3.955***	2.839***	7.759***	5.986***	2.145***	1.974
	(0.60)	(0.52)	(2.51)	(1.58)	(0.36)	(1.02)
Number of Observations	5,426	2,020	6,238	2,290	6,015	1,723

Notes: (i) Individuals aged 16-65; (ii) Robust standard errors in parentheses;(iii) ***, **, * Denote statistical significance at the 0.01, 0.05, and the 0.10 level, respectively.

Table 1.7: Multinomial Logit Estimates for Migrant Status of Household Members (Aged 16-65) in Low Income OECD/Non-OECD vs. High-Income OECD Destinations: Relative Risk Ratios

	Armenia Capital		Georgia Capital	
	Low Income OECD/ Non-OECD	High-Income OECD	Low Income OECD/ Non-OECD	High-Income OECD
Age	1.559***	1.211**	1.223***	1.121*
	(0.09)	(0.11)	(0.08)	(0.07)
Age Squared	0.995	0.997	0.998	0.998
	(0.00)	(0.00)	(0.00)	(0.00)
Male	15.465***	3.152**	2.770**	0.637
	(7.42)	(1.64)	(1.17)	(0.23)
Married*Male	0.517***	0.440	0.583	0.458**
	(0.12)	(0.22)	(0.21)	(0.18)
Married*Female	0.803	0.821	0.618	0.304***
	(0.38)	(0.39)	(0.21)	(0.08)
Higher Education*Male	0.982	3.980***	1.435	2.126**
	(0.19)	(1.44)	(0.41)	(0.80)
Higher Education*Female	0.780	3.060**	2.041*	1.864**
	(0.38)	(1.35)	(0.75)	(0.58)
Second Language at Home	1.488**	1.647	1.874**	0.440**
	(0.29)	(0.54)	(0.48)	(0.16)
Other Migrants	4.104***	3.202***	3.505***	3.846***
	(0.57)	(0.86)	(0.78)	(0.76)
HH Members (21-65)/	3.142***	1.940	1.318	1.529
HH Size	(1.35)	(1.33)	(0.75)	(0.69)
Lower Income HH	3.907***	2.637***	2.045***	1.799***
	(0.69)	(0.82)	(0.48)	(0.41)
Number of Observations	5,434		6,019	

Notes: (i) Robust standard errors in parentheses; (ii) ***, **, * Denote statistical significance at the 0.01, 0.05, and the 0.10 level, respectively; (iii) The base group is non-migrants; (iv) Azerbaijan and the non-capital regions of Armenia and Georgia are omitted from the analysis due to insufficient number of migrants to high-income OECD countries.

Table 1.8: OLS Conditional ("Unexplained") Migrant – Non-Migrant Income Gaps

	Armenia			Azerbaijan			Georgia	
	Pooled	Capital	Region	Pooled	Capital	Region	Pooled	Capital
Raw Gap	0.79	0.72	1.21	0.40	0.68	0.41	0.49	0.40
	(0.11)	(0.12)	(0.16)	(0.10)	(0.21)	(0.11)	(0.19)	(0.19)
Unexplained Gaps								
Individual Characteristics								
Age and Gender	0.31	0.23	0.78	0.20	0.48	0.22	0.27	0.19
	(0.10)	(0.12)	(0.17)	(0.08)	(0.13)	(0.11)	(0.17)	(0.17)
Age, Gender, and Education	0.28	0.20	0.71	0.24	0.41	0.25	0.25	0.19
	(0.10)	(0.12)	(0.17)	(0.08)	(0.14)	(0.11)	(0.18)	(0.18)
Household Characteristics								
Household Business, Second Language, etc.	0.26	0.19	0.69	0.24	0.36	0.23	0.25	0.18
	(0.10)	(0.12)	(0.18)	(0.08)	(0.13)	(0.11)	(0.19)	(0.19)

Notes: (i) Income is a natural logarithm of the contribution to the household income variable; (ii) The presented results are the raw gaps and and the "unexplained" income gaps from Oaxaca-Blinder decompositions conditional on different sets of observable individual characteristics; (iii) Insufficient observations do not allow separate decompositions on the Georgian non-capital city sample.

Table 1.9: Migrant – Non-Migrant Income Gaps: Propensity Score (Kernel) Matching Results

	Armenia			Azerbaijan			Georgia	
	Pooled	Capital	Region	Pooled	Capital	Region	Pooled	Capital
Unexplained Gap[a]	0.26	0.19	0.69	0.24	0.36	0.23	0.25	0.18
	(0.10)	(0.12)	(0.18)	(0.08)	(0.13)	(0.11)	(0.19)	(0.19)
ATT[o]	0.55	0.46	0.71	0.50	0.80	0.28	0.73	0.47
	(0.09)	(0.12)	(0.17)	(0.09)	(0.13)	(0.11)	(0.16)	(0.17)
N Treated	112	72	39	57	15	43	38	37
N Control	3,897	2,922	975	4,814	3,664	1,150	3,595	2,699

Notes: (I) [a]Oaxaca-Blinder decomposition from Table 8; (ii) [o]Average treatment on the treated (ATT) over the common support; (iii) Insufficient observations do not allow separate decompositions on the Georgian non-capital city sample.

Table 1.10: Logit Estimates for Running a Family Business: Odds Ratios

	Armenia			Azerbaijan		Georgia	
	Capital		Region	Capital	Region	Pooled	
	Model 1	Model 2				Model 1	Model 2
Migrant	1.653**		0.659	3.777***	0.522	0.760	
	(0.34)		(0.24)	(1.16)	(0.25)	(0.19)	
Migrant High-Income		0.811					0.308**
OECD		(0.44)					(0.16)
Migrant Low-Income		1.842***					1.133
OECD/Non-OECD		(0.40)					(0.33)
Age Head	0.969	0.969	0.975	0.978	1.011	0.971	0.97
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)
Higher Education	1.121	1.138	0.569	1.141	0.402**		
of HH Head	(0.15)	(0.15)	(0.22)	(0.14)	(0.16)		
Higher Education						0.699***	0.696***
of HH Head*Capital						(0.08)	(0.08)
Higher Education						1.471	1.453
of HH Head*Region						(0.48)	(0.48)
Number of Adults	1.445***	1.446***	1.161*	1.180***	0.945	1.243***	1.247***
	(0.07)	(0.07)	(0.10)	(0.05)	(0.08)	(0.05)	(0.05)
Working Age/HH Size	0.975	0.971	0.824	0.851	0.988		
	(0.29)	(0.28)	(0.42)	(0.22)	(0.49)		
Working Age/HH						0.907	0.905
Size*Capital						(0.24)	(0.24)
Working Age/HH						4.672***	4.643***
Size*Region						(2.65)	(2.63)
Capital						7.584***	7.594***
						(3.83)	(3.84)
Number of Observatior	2,228	2,228	727	2,182	733	2,865	2,865

Notes: (i) Standard errors in parentheses; (ii) ***,**,* Denote significance at the 0.01, 0.05, and 0.10 level, respectively; (iii) "Migrant" is equal to one if the household has at least one member who has been abroad for more than three months for either work or family reunification reasons and zero otherwise; (iv) Model 2 distinguishes between migrants in high-income OECD countries and migrants in other countries. Since very few migrants from Azerbaijan and non-capital Armenia head to high-income OECD countries, Model 2 is estimated only for the Yerevan sample and for the pooled Georgian sample. The sample division into capital and region for Armenia and Azerbaijan is based on the following Chow test results: F(5, 8730)=3.51, F(5, 8730)=5.91, F(5, 8730)=1.66 for Armenia, Azerbaijan, and Georgia, respectively.

Table 1.11: Logit Estimates for Spending on Education (5 $US or more) of Households with Members Aged 16-20: Odds Ratios

	Armenia		Azerbaijan		Georgia
	Capital	Region	Capital	Region	Capital
Migrants	0.476	1.850	0.558	3.416**	1.089
	(0.24)	(0.84)	(0.52)	(1.76)	(0.53)
Total HH Income	1.005	1.002	1.003	0.995	1.003
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Higher Education Head	1.087				1.542*
	(0.32)				(0.34)
HH Members with Higher		6.796***	1.506	1.663	
Education/Adults		(4.94)	(0.52)	(1.52)	
Household Business	0.501*	1.395	1.093	0.789	1.222
	(0.18)	(0.72)	(0.27)	(0.40)	(0.33)
Second Language at Home	2.601***	0.404	1.114	2.466	0.852
	(0.96)	(0.23)	(0.26)	(1.95)	(0.23)
Number of Children (0-6)	0.661	0.988	0.436**	0.698	0.616*
	(0.26)	(0.31)	(0.15)	(0.26)	(0.18)
Number of Children (7-15)	1.956***	1.870***	1.606***	0.916	1.053
	(0.46)	(0.35)	(0.20)	(0.15)	(0.20)
Number of Children (16-20)	2.289***	1.128	1.655***	1.039	1.018
	(0.70)	(0.28)	(0.25)	(0.24)	(0.23)
Number of Children (21-24)	1.480	0.665	1.103	1.173	0.917
	(0.41)	(0.20)	(0.16)	(0.25)	(0.16)
Number of HH Members	1.165	0.854	0.815**	1.331*	1.016
Age>24	(0.17)	(0.13)	(0.07)	(0.20)	(0.10)
Number of Observations	359	231	580	267	462

Notes: (i) Standard errors in parentheses; (ii) ***,**,* Denote significance at the 0.01, 0.05, and 0.10 level, respectively; (iii) "Migrant" is equal to one if the household has at least one member who has been abroad for more than three months for either work or family reunification reasons and zero otherwise; (iv) Due to the small number of migrants, analysis only on the capital city of Georgia is possible.

Chapter 2

Migration, Remittances, and Labor Supply in Albania

Abstract

This paper investigates the effect of international migration and remittances on labor supply in Albania. It attempts to deal with the potential endogeneity problems inherent in this type of analysis by instrumenting for the household migration decision and remittance receipts. When an instrumental variable approach is used, the predicted effects of migration and remittances on labor supply appear significant only for males between the age of 46 and 60. The expected negative impact on unemployment, due to an income effect of remittances, among the female population in Albania is not confirmed by the data. After instrumenting, for females and for older males I obtain large and positive coefficients for having a migrant within the family and large and negative coefficients for receiving remittances. Although the estimated effects for the females are insignificant at conventional levels, the magnitudes and signs of all coefficients suggest that the OLS estimates of the effect of migration are likely biased downwards, while the OLS estimates of the effect of remittances are biased upwards, compared to the true effects of these variables.

JEL Codes: P2, J61, R23
Keywords: Migration, Remittances, Labor Supply, Albania

Introduction

The total number of migrants worldwide has doubled over the past several decades and migrant remittances have become the second largest source of external funding for developing countries after foreign direct investment (FDI) (United Nations, 2004). Currently, international migration is primarily driven by economic factors with refugees accounting for only seven percent of all migrants (World Bank, 2008). Unsurprisingly, after the disintegration of the Soviet Union, the number of emigrants from post-Soviet countries increased immensely. By 2005 the number of natives living abroad as a percentage of the population of Armenia, Azerbaijan, Georgia and Moldova, for example, reached 27, 16, 23, and 17 percent, respectively (World Bank, 2008).

The emigration trends observed among the post-Soviet transitional countries vary substantially, but the Albanian economy is unique among them due to its exceptionally large and persistent emigration and remittance flows. According to recent World Bank estimates, in 2005 Albania was ranked fourth in the world in terms of its share of emigrants per population: 27.5 percent of the Albanian population lived abroad, mostly in Greece and in Italy. By way of comparison, the estimated shares of emigrants of other traditionally studied labor exporting countries, such as El Salvador, Mexico, Nicaragua, and the Philippines, are all much lower: 16.4, 10.7, 12.5, and 4.4 percent, respectively. In 2006, remittances were 13 percent of Albania's GDP, exceeding more than three-fold the FDI as well as the total amount of development aid received by the country. Figure 2.1 provides a summary of the migrant stock and remittance estimates for Albania and other countries in the region that have experienced large emigration during recent years.[1] Figure 2.2 presents workers' remittances in Albania as share of the country's GDP, FDI, and the official development aid for the period 1992-2006.

The extraordinary volume of migration and remittances is likely to have important consequences for the Albanian economy. As stressed in Rapoport and Docquier (2006), besides the possible short-run economic consequences through the effect on domestic prices and exchange rates, remittances may also have long-run implications for households' labor supply decisions, occupational choice, and investment in household businesses. Figure 2.3 is based on employment and remittances data from 2001 for Albania and other comparable countries in the region. It shows linear fits between the female employment rate, the male employment rate, and the difference in percentage points

[1] Bosnia and Herzegovina is excluded due to the 1992-1995 period marked by the political conflict with Serbia and Montenegro and the resulting refugee out-flows. A large number of the displaced citizens of Bosnia and Herzegovina have decided to permanently settle in foreign countries not only for economic, but also for security and psychological reasons (Ibreljic et al., 2006).

between the male and female employment rates and the shares of remittances on GDP. The figure suggests that there might be a relationship between remittances and labor force participation. However, these aggregate relationships are based largely on the comparison of two outliers, Albania and Serbia and Montenegro, with other migrant-sending countries, and they may be obscured by, e.g., the selection of more employable workers into migrant status. It is therefore important to provide a joint understanding of migration decisions and the effect of remittances on migrant-sending households using individual level data.

Although a large body of empirical literature studies the impact of migration on the migrant-sending economies (Borjas, 1999; Lucas, 2005), the effects of remittances remain relatively poorly understood (Yang, 2008). Particularly little is known to-date about the extreme case of Albania, where remittances are an important source of income for an unusually large number of households. The restructuring of the public sector during the economic transition in Albania was not accompanied by fast enough growth in the private sector to provide jobs for the relatively young Albanian population, which led to soaring unemployment.[2] Although the current official unemployment rates in Albania do not appear strikingly high, actual unemployment may be several times higher than the official data shows, exceeding 30 percent, the difference largely attributable to the wide-spread near-subsistence farming (Central Intelligence Agency, 2009). The only study on Albania (Konica and Filer, 2009), which explores the effects of migration and remittances on the labor supply of household members left behind, uses data from 1996. Based on the finding that higher remittance incomes are associated with a lower probability of working among Albanian females, Konica and Filer (2009) conclude that a potential easing of visa restrictions for Albanians (for example, by European Union countries) may bring considerable benefits to the Albanian economy by reducing unemployment pressures. As Albania is approaching EU candidate status, revisiting the relationship between migration and the Albanian labor market has become particularly relevant.

The current paper uses recent household survey data to study the effects of migration and remittances on labor supply decisions of household members who remain in Albania. I estimate the effects of having a household member abroad and of receiving remittances, controlling for a number of individual and household characteristics, on the probability of being involved in either a paid or non-paid occupation. Similar to the findings by Konica and Filer (2009) for the mid-1990s, when treating all regressors as exogenous, I find no

[2] According to Barjaba (2000), in 1989 19.5 percent of the Albanian population was between the ages of 15 and 24.

significant effect of having a household member abroad on the probability that a household member who still lives in Albania works. However, unlike in earlier findings, I find no significant effect of remittances on the probability that females work, and a negative and significant (although small) effect for males. It should be noted, however, that the total number of males in households with migrants is relatively small.[3] When an instrumental variable approach is used to correct for the possible endogeneity of the decision to send a household member abroad and of receiving remittances, the predicted effects of migration and remittances on labor supply appear significant only for males between the age of 46 and 60. The expected negative impact on unemployment among the female population in Albania, due to an income effect of remittances, is thus not confirmed by recent data.

After instrumenting for migration and remittances, the estimated effects of having a migrant within the family become consistently large and positive while the estimated effects of remittances are consistently large and negative for the females and for the older males. Despite the insignificant results for the females, the magnitudes and signs of the estimated coefficients imply that the OLS estimates of the effect of migration are likely biased downwards while the OLS estimates for the effect of remittances are biased upwards compared to the true effects of these variables. This suggests negative endogeneity bias between migration and labor supply and positive endogeneity bias between remittances and labor supply.

Since the gaps in earnings and employment rates between Albania and its EU neighbours continue to be large, the migration trends of recent years are unlikely to reverse in the near future (Barjaba, 2000). The findings presented in this paper are thus helpful for understanding some of the long-run implications of emigration for the Albanian economy.

Literature Review

Unlike other capital flows, such as foreign aid and FDI, remittances accrue directly to the household budgets and are an important source of income in migrant-sending regions (Rapoport and Docquier, 2006). An increasing number of studies explore the economic consequences of migration through the impact of migration and remittances on households' decisions regarding labor supply and productive investments. In order to provide a convincing estimate of the impact of migration and remittances, however, one must be able

[3]In the sample of male non-migrant household members that I use, the number of working age males who live in households with migrants is less than one third the number of working age males who live in households without migrants.

to control for the selection of workers with different employment rates into the migrant status as well as use exogenous variation in the remittance receipts.

In a study on Mexico, Amuedo-Dorantes and Pozo (2006) use the number of Western Union (WU) offices per capita in the region to instrument for the amount of remittances households receive. The number of Western Union offices for the year preceding the survey is used to focus on the effects of the predetermined, and thus exogenous, variation in remittances. The authors examine the effect of remittances on male and female employment patterns and find that Mexican males do not decrease their labor supply in response to received remittances but only reallocate their labor supply across types of employment, taking up more jobs in the informal sector. The results suggest that Mexican males are likely compensating for the loss of a domestic earner in the household, who has emigrated. In rural areas of Mexico, however, the number of hours females work in the informal sector and in non-paid occupations is found to decrease with the amount of remittances received.

A study on the Philippines by Yang (2008) also suggests that migration and remittances affect the type of employment of the non-migrant household members. Yang (2008) uses the appreciation of the currency of the migrant's host country against the Philippine peso during the 1997 Asian crisis as a source of exogenous variation in the value of the remittance transfers. The results imply that the total number of hours of child labor supplied by the households decrease with more favorable exchange rate shocks while the total number of hours worked in self-employment increase.

The uses and the impact of remittances are closely related to the incentives for sending them. Lucas and Stark (1985) provide the first empirical study that distinguishes and tests for the relevance of different motives behind migrants' remitting behavior. The authors find that migrants remit more to those households that are in danger of income loss due to adverse weather conditions, i.e., remittances are motivated at least partially by altruism on the side of the migrants. Wealthier households also receive more remittances, which is consistent with the hypothesis that egoistic motives are also present, as migrants are attempting to defend their rights of inheritance and their position within the household and the community upon return.[4] Recently Rapoport and Docquier (2006) provide a comprehensive survey of the existing literature on the motivations to remit, which has established that migration is an implicit contract among household members who ensure each other against income loss by sending migrants abroad.

The literature on the motivation behind migrants' remittances has led to

[4]This result could also stem from the effect of correlated unobservable "ability" characteristics of migrant and non-migrant members within the same household.

some recent hypotheses regarding the effect of migration and remittances on the labor supply of those who stay behind. The large distance between migrants and non-migrants implies that migration as an intra-familial insurance mechanism is associated with high information and enforcement costs and both migrants and non-migrants have an incentive to reduce their work effort. As Chen (2006) points out, the difficulty to monitor the allocation of remittances is largely neglected in the literature on the impact of migration. Chen (2006) develops a model based on the assumption that in the presence of asymmetric information, as is the case with the migration of a household member, household decision making may not be fully cooperative. He suggests that since it is difficult for the migrant to monitor the work effort of the spouse who stays behind, a non-cooperative spouse, whose utility increases in the amount of leisure she obtains, would reduce the time she works. Chen (2006) supports his theoretical argument with an analysis of the China Health and Nutrition Survey data. Among the empirical findings is that mothers work fewer hours in both income-generating and household activities when the father migrates. Although the reduction in the number of income-generating work hours may be a result of the income effect of remittances, Chen (2006) attributes the total increase in mothers' leisure to non-cooperative behavior on the part of the spouse who stays behind and remains in charge of household expenditures and resource allocation. A stance similar to that of Chen (2006) is taken by Chami et al. (2003) whose findings from the analysis of macroeconomic data are consistent with the hypothesis that remittances are transfers sent by altruistic migrants to compensate the non-migrant household members for adverse economic outcomes. Chami et al. (2003) argue, however, that these transfers might be used by the recipients to reduce job search effort, labor supply, and might discourage labor market participation overall.

Azam and Gubert (2006) examine the possible disincentive effect of remittances on work effort among agricultural households from the Kayes area in western Mali. The authors observe that, on average, households with migrants receive higher incomes per capita but their incomes from agricultural and non-agricultural activities are lower compared to households without migrants. Wealthier households also earn lower incomes while receiving more remittances. This outcome might be due to positive selection on migrant status. Nevertheless, Azam and Gubert (2006) conclude that migration in this region of Africa resembles an implicit insurance system with opportunistic behavior on the part of the non-migrant household members whose work effort cannot be perfectly monitored by the migrants. The conclusion is based on the finding that households, for which the probability of receiving remittances is higher, use their productive resources less efficiently compared to households

without migrants and households that are less likely to receive remittances.

Unlike Yang (2008), the present analysis focuses on labor supply outcomes on the individual rather than household level since male and female household members are likely to respond differently to migration and remittances. This paper also builds on the previous study on Albania by Konica and Filer (2009) who use survey data from 1996 and point to two offsetting effects of remittances on labor force participation. On one hand, the opportunity costs associated with the loss of domestic income earnings when a member of the household emigrates may force those who remain at home to increase their labor supply in order to compensate for that loss. On the other hand, if leisure is a normal good, the household members may respond to the income effect of higher household income from remittances by reducing their labor supply. Konica and Filer (2009) find that neither the existence of emigrants in the household nor the amount of remittances received has an effect on the labor force participation of Albanian males. Among Albanian females, however, higher remittance incomes are associated with lower probability of labor force participation. The findings of Konica and Filer (2009) also suggest that migrants' higher earnings abroad contribute to the development of household-owned businesses in Albania. In particular, members of households with returned migrants in Albania are more likely to be employed in a household business.

While the findings of Konica and Filer (2009) are representative of several studies suggesting that the negative effect of remittances on female labor force participation is a response to higher incomes from abroad, the direction of causality between migration, remittances and labor supply remains to be established. It is unclear whether the migration decision as well as the decision to send remittances is not, in fact, influenced by lack of employment opportunities at home.

There are to-date only two empirical studies on the impact of migration in Albania, which recognize the importance of the exogeneity of the migration regressor and use instrumental variable techniques. In the first study McCarthy et al. (2006) analyze the impact of international migration on the agricultural sector. The authors find that the greater the number of household members abroad, the less agricultural labor those who stay behind supply. Nevertheless, the additional source of capital from remittances relieves financial constraints and allows the migrants' households to invest and receive higher agricultural and total incomes. The proportion of the male population aged 20 to 39 in the region is one of the variables used by McCarthy et al. (2006) to instrument for the number of household members abroad. The variable is computed from the 2001 Population Census and its variation is likely a result of the intensity

of prior migration from the region. Since the majority of Albanian emigrants are males in that age group, a lower proportion would imply higher migration intensity until 2001 and thus, better access to migrant networks and lower information costs for potential migrants from the particular region. While the variable is likely correlated with the household migration decision, its correlation with household decisions regarding agricultural production is unlikely. As additional instruments McCarthy et al. (2006) use the density of cars within the region as a proxy of the costs of accessing migration networks and the regional unemployment rate as a proxy for the local non-agricultural income-generating opportunities and opportunity costs of emigrating. At the household level the authors use the household's relative wealth position with respect to the neighboring reference population and the length of time at the current residence, both variables being potential push factors for migration.[5]

The second study on Albania that uses instrumental variable strategies to estimate the impact of migration is by Kilic et al. (2007). The rich survey dataset used in their study, as well as in this study—the Albania 2005 Living Standards Measurement Survey—provides most of the variables used to instrument for the total length of migration. The instruments used include whether a household member in 1990 spoke either Greek or Italian, whether the head of the household or the head's spouse had any relative or friend living abroad in 1990, the distance in kilometers between the household's place of residence and the closest major point of exit from Albania, the annual average number of economic and labor market shocks experienced by the household, and whether the household owned a satellite dish in 1990. The authors find a positive effect of the length of the period spent abroad on the probability of the household investing in its own non-farm business upon the migrant's return.

In this paper I revisit the labor supply question of those left behind, considering the theoretical arguments and the empirical findings of other studies on the impact of migration and remittances. Given the long-term nature of migration and remittances, I look for recent evidence of their impact in Albania and compare the results with the previous findings by Konica and Filer (2009). In addition, I use an instrumental variable approach, similar to Amuedo-Dorantes and Pozo (2006), Kilic et al. (2007), and McCarthy et al. (2006), in order to deal with the potential endogeneity of migration and remittance receipts.

[5] According to Stark and Taylor (1989), the relatively poor households have stronger incentives to send members abroad as that would improve their relative wealth position within the neighbourhood; Longer-time residents are likely to have stronger relationships with the households from the surrounding area and thus lower information costs with regards to existing migration opportunities.

Data and Variable Definitions

The primary dataset used in this study is the Albania 2005 Living Standards Measurement Survey (Albania 2005 LSMS). The survey was conducted during the period May-July 2005 by the Living Standards unit of the Albania Institute of Statistics (INSTAT) with the technical assistance of the World Bank.[6] The total sample consists of 3,640 households. The survey collects information on each member of the selected households. After excluding the household members who have not been able to perform employment-related activities due to disability or chronic illness, I attain a final sample of 4,367 male and 4,717 female non-migrant household members of working age (15-55 for females and 15-60 for males).[7]

The survey results appear consistent with the aggregate data from other sources presented in Figures 2.1 and 2.3. The respondents report a total of 5,346 male and 1,556 female household members of all ages who live abroad. The male migrants are primarily between the age of 20 and 42, and the female migrants are mostly between the age of 25 and 40. This implies that a considerable part of the Albanian labor force finds employment outside Albania. More than one third of the interviewed households have at least one migrant. Sixty-four percent of the households with migrants receive remittances from abroad. A small percentage of the households without migrants (10%) also receive remittances from relatives who are not members of the household.[8] For those households with migrants (and which do receive remittances), the average amount received per month per adult household member (15 years old and above) is 114 Euros (147 US dollars) and for those households which do not have migrants but do receive remittances, the average monthly remittance receipts per adult are 22 Euros (28 US dollars).[9] According to the survey results most of the remitting individuals are males between 22 and 30 years old who are either heads of households or sons of the household head and his spouse. Four to five times more males than females are reported to have sent remit-

[6]The data and all related documentation is available for download from the World Bank LSMS website: `http://go.worldbank.org/IPLXWMCNJ0`.

[7]According to the survey classification, all persons alive who have lived in Albania and in the respective household for at least one month during the preceding year and all guests whose stay with the household exceeds six months are considered present household members. Among those there are 180 individuals who report employment abroad during the week prior to the survey. I consider these household members to be migrants and exclude them from the sample on which I perform my analysis.

[8]Migrant family members who lived less than one month in Albania and in their respective household are not considered members of that household.

[9]Since the majority of the Albanian migrants work in Greece and in Italy, for the most part the respondents report the amount of remittances they have received in Euros, therefore I measure incomes in Euros and not in US dollars. In order to convert the incomes which are not reported in Euros, I use the historical exchange rates from May 1, 2005 obtained from `http://www.oanda.com/convert/fxhistory`.

tances from abroad during the year preceding the date of the survey. Table 2.2 is a summary of the characteristics of the two types of households—those which have members abroad and those which do not.

In my subsequent analysis I focus on estimating the effect of the following two dichotomous variables—whether the household has at least one household member (previous or current) who lives abroad and whether the household has received remittances from abroad during the year preceding the survey date. Although the variation in the actual amount of remittances appears sufficient to account for variation in the dependent variable, a major concern with using the actual amount of remittance income is the very high probability of measurement error. Exact income from remittances for one year prior to the survey date can easily be mismeasured, leading to biased estimates of the coefficients and their standard errors. With a dichotomous variable for remittances, however, the measurement error is likely zero.[10] In Table 2.1 the households are split into four groups depending on whether they have a household member living abroad and/or received remittances. The table also shows the average number of adult household members (as a percentage of all adult household members) who have reported work of any kind for each household group. It is evident that the households that do not have members abroad and do not receive remittances also have the highest percentage of working adult members.

In order to draw a comparison with the observations made in earlier studies, I compare the incomes of the households with and without migrants. The Albanian households that do not have migrants abroad appear relatively poorer despite earning higher incomes domestically, compared to the households with migrants. I estimate the kernel densities of the total monthly income per adult household member both including remittances and excluding remittances for the two types of households (Figure 2.4). I also perform Kolmogorov-Smirnov (K-S) tests and reject the hypotheses that the monthly income per adult member excluding remittances and the monthly income per adult member including remittances have equal distributions for the two types of households.[11] In addition, I perform t-tests for equality of the average incomes. When remittances from abroad are included, the average monthly incomes per adult household member in the two types of households are not significantly different. However, when remittances are excluded, the t-test confirms the result

[10]The more recent literature on migration acknowledges the tendency of underreporting remittances in household survey data. Grigorian et al. (2008) provide a detailed discussion of the issue as well as evidence of systematic underreporting of remittances in survey data from Armenia. Korovilas (1999) attempts to correct for underreporting of remittances in Albania and finds that the total remittance inflows to Albania in the early 1990s exceed the official statistics by approximately 75 percent.

[11]The respective combined K-S D statistics are 0.200 and 0.073. Both hypotheses are rejected at $p > 0.99$.

that the average monthly income per adult is lower in the households without migrants (see Table 2.2). To some extent the results of the Albania 2005 LSMS are in line with the observations for western Mali reported by Azam and Gubert (2006).

The dependent variable of interest is whether the household member has worked or not during the seven-day period preceding the survey interview. All individuals employed by a non-household member, paid workers in a household business, employers, self-employed, and unpaid workers on household farms are all considered working. This definition avoids the problem of unregistered employment, a wide-spread phenomenon in Albania, especially in the rural areas. In fact, 31.6 percent of the household members in the sample report unpaid work in household farms, 22.6 percent are employers or self-employed and only 45.8 percent are employed by a non-household member or are employed by and receive payment from a member of the household.[12]

Finally, I include the following variables as exogenous regressors: age, age squared, the highest level of education completed (secondary or university), place of residence (Tirana or other urban area), presence in the household of one or more children who are younger than six years, the amount of other non-labor income, and the regional (prefecture) unemployment rate in 2005 reported by INSTAT. The non-labor income explanatory variable is the sum of all non-labor income, excluding remittances from abroad, received by the household in the preceding twelve months. It includes gifts from relatives and other persons and institutions in Albania, rental income, revenue from the sale of assets, inheritance, and lottery or gambling winnings. A person with a secondary education has completed either a general or a vocational secondary school. Individuals with university education are those who have completed a university or a post-graduate degree in Albania or abroad. In order to control for regional factors affecting the probability of a person being employed, I include the unemployment rate in 2005 for the respective administrative region (prefecture) as an explanatory variable. Albania is divided into twelve prefectures with an average number of economically active population of 90,447 according to data from INSTAT. Each prefecture has experienced different levels of unemployment and emigration and remittance flows over time. Finally, Table 2.2 contains the splits by place of residence for the migrant and non-migrant households. Households with and households without migrants appear almost equally likely to reside in both the rural and the urban areas of the country. However, fewer of the households with migrants (15%) live in the capital

[12]This is a strong indication that the official unemployment rates in Albania are likely misleading, confirming claims by sources other than the Albanian Institute of Statistics.

Tirana, compared to the households without migrants (19%).[13]

Estimation and Results

I investigate the effect of migration and remittances on labor supply in Albania, i.e., I attempt to determine whether having a migrant abroad and/or receiving remittances affects the decision to work of those household members who remain in Albania. This formal analysis that extends beyond a mere comparison of descriptive statistics aims to detect whether migration and/or remittances received imply different labor supply decisions for the migrant families, controlling for a number of household and individual characteristics.

A Linear Probability Model (LPM) is estimated for the probability of a household member to be working on the subsamples of male and female household members separately. Eighty-four percent of the male household members who live abroad are between the age of 20 and 45. This implies that the male migrants fall into the same age group as the male household members who are the most likely to be employed in Albania as well. To avoid the implied sample selection problem, in addition to the pooled subsamples of all working age males and all working age females, the analysis is also performed separately only for the males within the 46-60 age group. I also analyze separately only the married female household members, as their labor supply behavior is likely to differ from the labor supply behavior of the single females.[14]

For each subsample I estimate the following equation:

$$Y_i = a_0 + a_1 M_i + a_2 R_i + a_3 X_i + \varepsilon_i \tag{2.1}$$

$$Y_i = 1[Y^* > 0] \tag{2.2}$$

$$\varepsilon_i \sim Normal(0, \sigma^2) \tag{2.3}$$

where Y is a binary dependent variable denoting employment, M is a binary variable for the presence of at least one migrant household member, R is a binary variable for remittance income and X is a vector of exogenous individual and household characteristics, which likely affect individual labor supply, such as age, education, place of residence, presence of young children, other

[13]This may be explained by the fact that since the fall of communism Tirana has also been a substantial recipient of internal migrants from Albania. Among the working age Tirana residents in the sample, 56.6% had previously lived in another municipality. The majority of these individuals (91.6%) have moved to Tirana between 1989 and 2005. Such peak in internal migration towards other urban areas in Albania is not observed in the data. With relatively better employment opportunities compared to the rest of the country, Tirana may be considered an "affordable" alternative to international migration by some Albanian households.

[14]I add the few instances of individuals who cohabit with their partner to the subsample of the married individuals.

non-labor income, and the regional unemployment rate.

The results of the OLS estimation for all four groups of individuals are presented in Table 2.3.[15] The OLS coefficients for having a migrant are small and statistically insignificant for all subsamples. The coefficient for remittance receipts is significant at the 5% level and negative only for the pooled subsample of all working age male household members.[16] Thus, the findings on the effect of remittances differ considerably from the findings of Konica and Filer (2009).[17] The difference in the results I obtain and the results in Konica and Filer (2009) may be attributed to either an overall change in the labor supply behavior among the Albanian population since 1996 or to different preferences of those individuals who remained in Albania until 2005.

The LPM results presented in Table 2.3 also suggest that a university degree is associated with a large increase in the probability that a household member is working, particularly for Albanian females, for whom the OLS coefficients for university education are significant at the 1% level and more than twice greater than those for males. The coefficients for age have the expected signs as well as the coefficients for the presence of young children, which are statistically significant only for the subsamples of the female household members. Higher non-labor incomes, other than remittances, through an income effect, imply lower probability of working for male household members, while the relatively more abundant opportunities for informal work in the agricultural sector in rural areas can explain the negative signs of the coefficients for urban and Tirana residence. The variable for the regional unemployment rate is based on official INSTAT data. As stressed above, the official data might not be correctly representing the actual employment conditions in each region and the signs and the statistical significance for the predicted effects of the regional unemployment rate should be interpreted in that light.

One of the assumptions for unbiased and consistent OLS coefficients in the estimation of (2.1) is that all regressors on the right hand-side of (2.1) are exogenous. Identifying the causal effects of migration and remittances, however, is problematic due to the possible correlation of these variables with the error

[15] Due to distributional concerns, besides LPM, I also estimate a Probit model on the data. The predicted marginal effects I obtain from the non-linear estimation are equivalent to the reported results from the LPM estimation. I also initially divided the subsample of single females into age groups but this did not lead to results substantially different from the ones presented in Table 2.3.

[16] Instead of regressing separately on migration and remittances, I also performed the analysis with only one interaction term for both variables. This did not alter the results reported in Table 2.3. I obtained small and statistically insignificant OLS coefficients for all subsamples except for the subsample of all males, for which the estimated OLS coefficient was *-0.044* with a standard error of *0.02* (significant at the 1% level).

[17] As Konica and Filer (2009) do, instead of treating R as a binary variable, I also perform the analysis using the actual value of the remittances received, including the value of in-kind remittances and excluding the value of in-kind remittances. All estimated coefficients for remittances are close to zero.

term ε. Since migrant status and remittances cannot be expected to be randomly allocated across households and decisions on migration, remittances, and labor supply are likely made simultaneously, endogeneity between migration and remittances and the outcome of interest is a major methodological concern that plagues migration research.

For each household in the data, the factors which "explain" whether some household members work abroad and whether remittances are received may also be related to the household members' decision to participate in the labor force. Moreover, many of the factors and characteristics which influence these decisions are unobservable (e.g., ability, motivation, or risk aversion). In other words, if ability and motivation influence both the decision to send a migrant abroad and subsequently whether remittances are received, and the labor supply outcomes for the non-migrant household members, ability and motivation (which are both unobservable) will end up as a part of the error term which will become correlated with both migration and remittance receipts. More able and more motivated households could be more willing to send migrants (and also receive higher incomes in Albania that would in turn allow them to do so). The migrants from those households could also be earning higher incomes abroad and thus would be more likely to send remittances back home. The more able and highly motivated could also be more likely to be employed or receive higher incomes at home and therefore, not need to send migrants abroad. Alternatively, households with members who experience long unemployment spells might be more likely to send members abroad in order to compensate for lower domestic incomes. The potential reversed causality, in addition to the unobserved heterogeneity and omitted variable bias, would imply that the OLS estimates in (2.1) are inconsistent. Dealing with this problem calls for an estimation approach that involves instrumental variables.

By finding an instrumental variable that is correlated with migration or remittances but is not correlated with ability and motivation, one can use only the variation in the size of remittances, which is uncorrelated with the error term, i.e., the instruments should not affect the labor supply decision of the household members other than through their effect on the migration decision and remittance incomes. For instance, Amuedo-Dorantes and Pozo (2006) analyze the impact of remittances on employment patterns in Mexico by instrumenting for the amount of remittances with the number of WU agents per capita in each state in Mexico. The number of WU offices during the year preceding their survey data is used in order to avoid possible endogeneity through simultaneous determination of the amount of remittances households receive and their labor supply decisions. The instrument is also interacted with the percentages of household members with secondary and higher education to allow for house-

hold level variation. F-tests are performed to ensure that the instrument and its interactions are jointly significant in explaining monthly remittance incomes per household member. At the same time, the joint exogeneity of the instrument and its interactions with respect to labor supply is tested by including the error term from an equation predicting the amount of remittances into the labor supply equation and testing its significance (with and F-test).

The instrument which Amuedo-Dorantes and Pozo (2006) use in their study on Mexico is likely to be appropriate in the case of Albania as well. Forty percent of the transfers to Albania take place through money transfer companies and only a limited share through banks (World Bank, 2006). According to the World Bank report (2006), the role of commercial banks in remittance payments from Italy to Albania, for instance, is limited not only by the higher costs per transaction, but also by the small number of ATMs. In 2005, thanks to relatively lower transaction costs and the large number of agents across the country, WU dominated the formal market for money transfers to Albania. In fact, WU conducted almost eighty percent of all money transfer transactions through financial institutions from Italy to Albania (World Bank, 2006).[18] It can be argued that regions with higher density of WU agents also enjoy larger remittance flows and the households in those regions are more likely to receive remittances from abroad.

Similar to Amuedo-Dorantes and Pozo (2006), I consider the number of WU agents per capita within a prefecture in Albania as one of the instrumental variables that can be used to predict remittance receipts. I construct an instrument based on the contact information of each WU agent in Albania in 2003-2004. As already emphasized above, the years 2003-2004 year are important (as opposed to 2005 when the survey was conducted) as it is likely that the number of WU offices in 2005 affects the labor supply decision of the household members in the sample, while the number of WU offices from the previous year is likely to be correlated only with whether the household receives remittances but not with the labor supply decisions of its members. Brief phone interviews were held with some of the WU agents where it could not be determined from the information in the telephone directory from 2003-2004 whether a particular WU agent had been in existence in 2004. For the purpose of comparing the results, I also attempted to instrument for the amount of remittances per adult household member, rather than for whether remittances are received. However, finding an instrument that would predict the amount of remittances proved to be an unattainable task.[19]

[18]MoneyGram started to provide money transfer services to Albania only in 2004 and the first ATM in Albania was established in 2004 (World Bank, 2006).

[19]Mapping the standard deviations of the remittance incomes and the incomes from other sources, conditional on the exogenous variables included in X, reveals a relatively high variation

In addition to the number of WU agents which Amuedo-Dorantes and Pozo (2006) use to instrument for remittances, I consider the instruments for migration used in the previous studies on Albanian migration by Kilic et al. (2007) and McCarthy et al. (2006), discussed in Section 2, as potential candidates for instruments for my analysis. I end up with a set of five instrumental variables which I use to identify and estimate the effects of migration and remittances in (2.1): the number of WU agents per capita in 2003-2004, ownership of a satellite dish in 1990, knowledge of Greek or Italian by a previous or a current household member in 1990 (including the migrant members), a proxy for the proximity to a migration network (a friend or a relative residing abroad) in 1990, and the male-to-female ratio for the population aged between 20 to 39 within a district. All these are likely to fulfil the criteria for a valid instrument, i.e., while they are likely to have influenced the migration strategy and remittance incomes of a household, they are not likely to be correlated with the labor supply outcomes of the household's members in 2005. Greece and Italy are the major destinations for Albanian migrants and the ownership of a satellite dish is believed to have facilitated the mastering of Greek and Italian by the Albanians during the communist period and the early years of economic transition (Barjaba, 2000; Kilic et al., 2007). Knowledge of the language of the destination country can reduce the costs of migration as well as improve the migrant's ability to send remittances back home. Having families and friends who have been or are still abroad, as well as residing in a region where a larger part of the population has emigrated implies proximity to migrant networks and lower cost of emigration as well. Table 2.2 provides the means and standard deviations for the five instruments for households with migrants and households without migrants. I also report the results of the tests I perform to confirm the relevance of the instruments for the four sub-samples analyzed in Table 2.4. The F-tests confirm that the instruments are jointly significant in explaining the two potentially endogenous variables. I test for the validity of over-identification with a Hansen-Sargan test and also by testing for the significance of the predicted residual from the remittances and migration regressions in the labor supply equation. The results of both tests for the subsamples of all non-migrant females, the non-migrant married females only, as well as the older non-migrant males, confirm that the instruments I use are correctly excluded from the labor supply equation; therefore, I focus on the results for these three subsamples.

Despite its limitations, due to predictions ranging outside the (0,1) interval, the LPM is used in the literature when it is necessary to estimate effects of bi-

in remittances. However, as mentioned in the previous section, by using a dichotomous variable for remittance receipts, instead of the self-reported amount of remittances received, one can avoid the biases associated with a measurement error that is highly probable in this setting.

nary endogenous regressors on a binary outcome. The issue of using LPM in such cases has been addressed in Heckman and MaCurdy (1985) and in Angrist (2001). Heckman and MaCurdy (1985) show that in the case of simultaneous LPMs, the instrumental variable technique results in consistent coefficient estimates and therefore is a valid procedure. According to Angrist (2001), a linear causal model estimated by 2SLS gives similar average effects to a probit or a logit model and is generally safer as the estimates obtained are consistent, whether or not the first stage conditional expectation function is linear. Angrist (2001) argues that for dichotomous dependent variables, if one aims to estimate the causal effects on the outcome of interest—rather than structural parameters of latent variables model—a linear model is as appropriate as a non-linear one. In those cases the LPM has the advantage over non-linear models of allowing direct comparisons of the estimates of the two-stage and the single-stage procedures. Furthermore, in the case of discrete covariates, OLS estimates with robust standard errors are appropriate (Wooldridge, 2001).

The results of the 2SLS estimations for the four subsamples are presented in Table 2.3.[20] When an instrumental variable approach is used to correct for the possible endogeneity of migration and remittances, the predicted effects of both remittances and migration on the labor supply outcomes of the Albanian working age male and female household members, as well as for the subsample of married females only, appear to be statistically insignificant. However, the coefficients for migration and remittances for the subsample of working age males above 45 become statistically significant at the 5% level compared to the respective OLS estimates.[21]

It is noteworthy that among all males of working age, males above 45 are the most likely to remain in Albania. This implies that for this subsample "all" individuals are observed and not just the ones who decide not to migrate and it is less likely that the household members who are left behind have different characteristics from those who migrate simply because very few choose to do so. The positive and significant coefficient for having a migrant within the family and the negative and significant coefficient for receiving remittances are in line with the predictions of the standard neoclassical theory of individual labor supply—the results imply that older male household members respond to the loss of domestic workers by engaging in labor activities, including non-

[20] For the estimations with robust standard errors, I use the ivreg2 procedure in Stata (Baum et al., 2002). The procedure also computes the Hansen's J-statistic reported in Table 2.4. As a robustness check I also estimate saturated models for the LPMs estimated and presented in this paper. The results from the saturated models are sufficiently close to the ones presented in this paper, which further justifies the choice of a LPM as an estimation technique.

[21] The 2SLS coefficient (*-0.276* with a standard error of *0.10*) for one interaction term in place of the two endogenous variables in the sample of all females is also statistically significant at the 5% level.

paid work, while remittance incomes increase their reservation wages and consumption of leisure.

In addition, after instrumenting, for females and for older males I obtain large and positive coefficients for having a migrant and large and negative coefficients for receiving remittances. Despite the insignificant coefficients for the subsamples of all females and only the married females, the magnitudes and the signs of all estimated coefficients for migration and remittances suggest that the OLS estimates of the effect of migration are likely biased downwards, while the OLS estimates for the effect of remittances are biased upwards, compared to the true effects of these variables, i.e., there is a negative endogeneity bias between migration and labor supply and a positive endogeneity bias between remittances and labor supply when assumed that migration and remittances are exogenous.

The predicted combined effects of migration and remittances for all four samples are presented in Table 2.5. For 46-60 year old males, in particular, the estimated effects imply a combined positive endogeneity bias of migration and remittances and the combined effect of a 26 percent reduction in the probability of working if a household has migrants and receives remittances. In addition to using all five instruments, I perform the above estimations with different combinations of instruments. For the subsample of males aged 46-60, for instance, estimations involving different combinations of instruments lead to changes in the magnitude of the coefficients that imply a predicted combined effect of 20 to 50 percent reduction in the probability of working if a household has migrants and receives remittances. Although the effects cannot be estimated more precisely, when the two relatively weaker instruments for remittances are dropped—the number of WU agents and the proxy for migration network in 1990—the F-statistics from the F-tests for joint significance in explaining migration and remittances exceed the critical values provided by Stock and Yogo (2002) for two endogenous regressors and three instruments, confirming that the results are relatively insensitive to the particular combination of instruments employed.[22]

As a robustness check, in addition to performing the analysis with different sets of instrumental variables, I use migration and remittances separately as sole endogenous regressors. The estimated effects for both migration and remittances are large, negative, and insignificant for the two female subsamples, small, positive, and insignificant for the subsample of working age males.

[22] I also estimate just identified models using only the two strongest instruments—a dummy variable for whether a household member spoke Greek or Italian in 1990 and the ratio of males aged 20-39. The coefficients for migration and remittances are insignificant for all subsamples except for the subsample of older males. For the older males I obtain coefficients for migration and remittances which are slightly larger in magnitude than the ones presented in Table 2.3.

For the 46-60 year old males I obtain a positive coefficient for migration and a negative coefficient for remittances (although of much smaller magnitudes compared to the estimates obtained when both regressors are included).[23]

Conclusion

In this paper I use recent household survey data from Albania to estimate the effects of migration and remittances on the labor supply outcomes of the Albanian non-migrants. Given the long-term nature of the migration phenomenon in Albania, I compare my results with the previous findings on Albania by Konica and Filer (2009). In addition, I use an instrumental variable approach to deal with the potential endogeneity of migration and remittance receipts. Assuming that migration and remittances are exogenous, I find no significant effect of having a household member abroad on the probability that a household member who still lives in Albania works. With respect to remittance receipts, however, unlike in earlier findings, I find no significant effect on the probability of working for females, and a small, negative, and significant effect for males. When an instrumental variable approach is used, the predicted effects of migration and remittances on labor supply appear significant only for males between the ages of 46 and 60, with a combined effect of 20 to 50 percent reduction in the probability of working if a household has migrants and receives remittances. The expected negative impact on unemployment due to an income effect of remittances among the female population in Albania is thus not confirmed by the recent data. However, after instrumenting, I obtain large and positive coefficients for having a migrant and large and negative coefficients for receiving remittances for the subsamples of females and older males. Despite the insignificant coefficients for migration and remittances for the female subsamples, the magnitudes and the signs of all estimated coefficients suggest that the OLS estimates of the effect of migration are likely biased downwards, while the OLS estimates for the effect of remittances are biased upwards, compared to the true effects of these variables. Since the emigration trends from Albania are unlikely to reverse in the near future, the findings presented in this paper are helpful for understanding some of the long-run implications of emigration for the Albanian economy.

[23] Results are available upon request.

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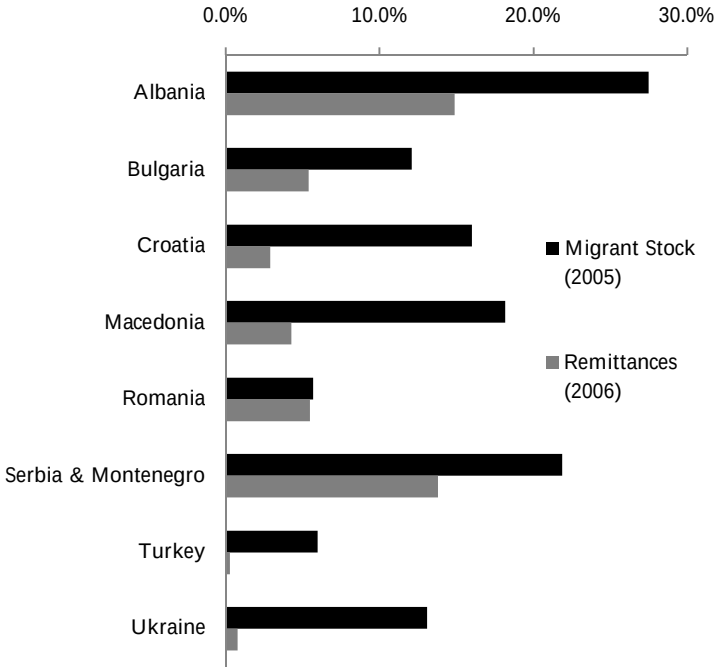
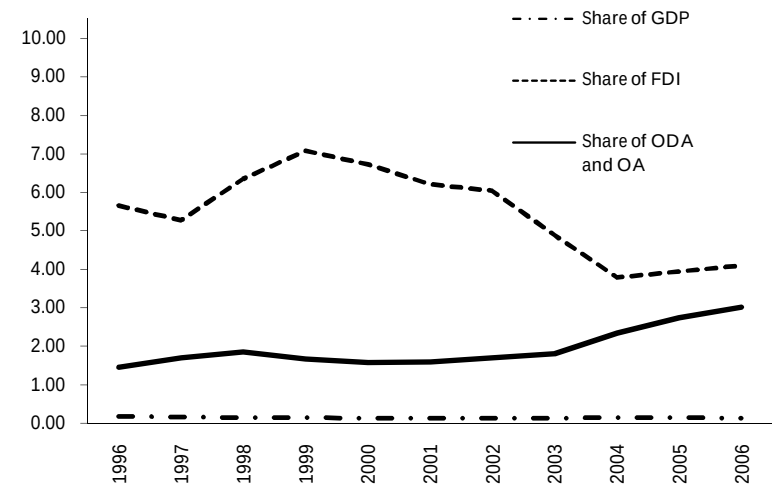
Figure 2.1: Migrant Stock as Percentage of the Population and Remittances as Percentage of GDP



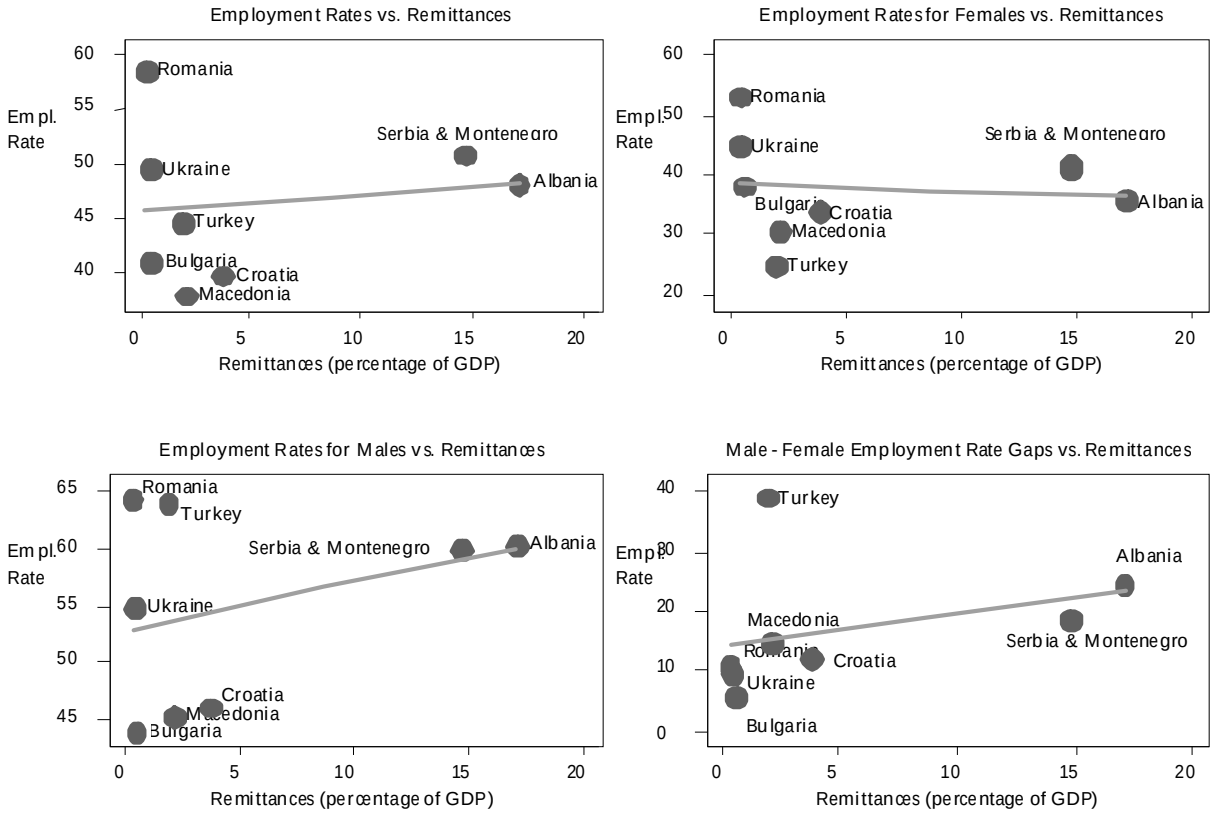
Source: World Bank Migration and Remittances Factbook 2008

Figure 2.2: Workers' Remittances as Share of GDP, Foreign Direct Investment (FDI), and Official Development Assistance (ODA) and Official Aid (OA): Five-year Moving Averages



Source : The World Bank World Development Indicators 2008

Figure 2.3: Employment and Remittances



Data Source: ILO, WDI (2001)

Table 2.1: Number of Households and Percentage of Adult Household Members Working by Migration and Remittance Income Status

		Household Receives Remittances	
		0	1
Household with Migrants	0	2,175 51.19%	243 49.62%
	1	438 44.46%	784 32.40%

Figure 2.4: Kernel Density Estimates of Logarithm of Income per Adult Household Member

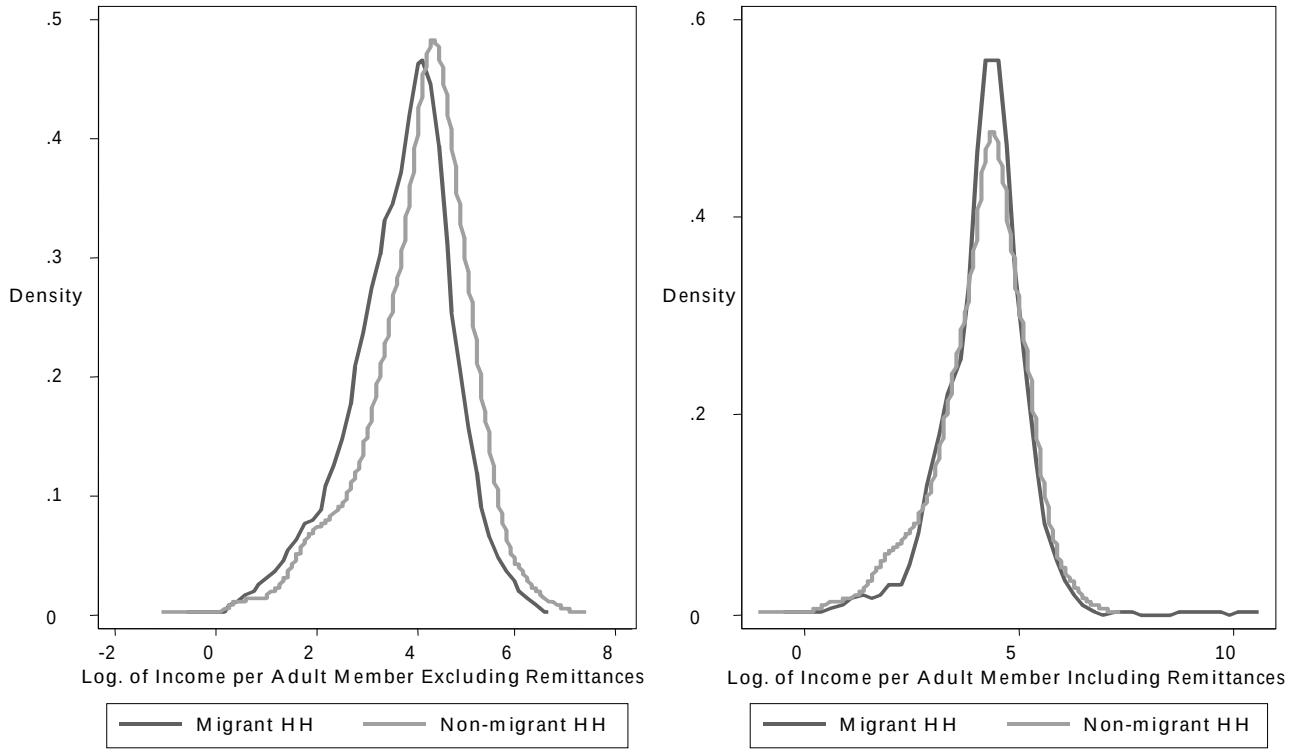


Table 2.2: Summary Statistics by Household Migration Status

	Household without migrants	Household with migrants	t-statistic (t-test for equality of means)
Percentage of total	66.43	33.57	-
Received remittances	0.10	0.64	-41.532
	(0.01)	(0.01)	**
Monthly remittance income	2.17	73.08	-3.346
per adult HH member (Euro)	(0.44)	(29.83)	**
Monthly income per adult HH	90.53	58.46	9.796
member excluding remittances (Euro)	(2.13)	(1.86)	**
Monthly income per adult HH	92.70	131.57	-1.809
member including remittances (Euro)	(2.20)	(29.94)	
Urban residence	0.37	0.37	-0.104
	(0.01)	(0.01)	
Rural residence	0.44	0.47	-1.794
	(0.01)	(0.01)	
Tirana residence	0.19	0.15	2.478
	(0.01)	(0.01)	*
Satellite dish ownership in 1990	0.01	0.03	-3.947
	(0.00)	(0.01)	**
Migrant network in 1990	0.07	0.08	-0.223
	(0.01)	(0.01)	
Ratio of males to females (20-39)	49.11	48.71	5.67
	(0.04)	(0.06)	**
HH member spoke Greek or Italian	0.09	0.21	-10.695
in 1990	(0.01)	(0.01)	**
Number of WU agents	0.53	0.53	-0.695
	(0.00)	(0.00)	
Number of Households	2,418	1,222	

Note: (i) Standard errors in parentheses; (ii) **,* Denote significance at the 1% and 5% level, respectively; (iii) Households with migrants are those households which have at least one member living/working abroad; (iv) The income variables are per present household member above the age of 14; remittances refer only to remittances from abroad received by the household members throughout the year preceding the survey.

Table 2.3: Labor Supply of Albanian Females (Aged 15-55) and Albanian Males (Aged 15-60)

	All Females		Married		All Males		Males (46-60)	
	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
Migrant(s)	-0.009	0.226	-0.020	0.638	-0.009	0.000	0.006	0.552**
	(0.02)	(0.32)	(0.02)	(0.40)	(0.02)	(0.16)	(0.03)	(0.23)
Remittances	0.029	-0.644	0.034	-1.026*	-0.041**	0.101	-0.051*	-0.813**
	(0.02)	(0.47)	(0.02)	(0.60)	(0.02)	(0.29)	(0.03)	(0.36)
Age	0.053***	0.049***	0.050***	0.061***	0.081***	0.084***	0.037	-0.011
	(0.00)	(0.01)	(0.01)	(0.02)	(0.00)	(0.00)	(0.07)	(0.09)
Age squared/100	-0.064***	-0.057***	-0.060***	-0.077**	-0.092***	-0.097***	-0.048	-0.009
	(0.01)	(0.01)	(0.01)	(0.02)	(0.00)	(0.01)	(0.07)	(0.09)
Secondary education	0.065***	0.062***	0.112***	0.119***	0.041**	0.041**	0.058**	0.049
	(0.02)	(0.02)	(0.02)	(0.03)	(0.01)	(0.01)	(0.02)	(0.03)
University education	0.459***	0.441***	0.471***	0.488***	0.181***	0.192***	0.170***	0.092
	(0.02)	(0.03)	(0.03)	(0.04)	(0.02)	(0.03)	(0.03)	(0.06)
Urban residence	-0.290***	-0.307***	-0.292***	-0.308***	-0.175***	-0.170***	-0.145***	-0.159***
	(0.02)	(0.02)	(0.02)	(0.03)	(0.01)	(0.01)	(0.03)	(0.03)
Tirana residence	-0.317***	-0.264***	-0.330***	-0.252***	-0.125***	-0.133***	-0.147***	-0.085
	(0.02)	(0.05)	(0.03)	(0.06)	(0.02)	(0.03)	(0.03)	(0.05)
Child (0-6)	-0.074***	-0.099***	-0.097***	-0.118***	0.024	0.031*	-0.076*	-0.085
	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)	(0.05)
Non-labor income (Euro)/100	-0.003	0.001	-0.014	-0.005	-0.071***	-0.070***	-0.090***	-0.076**
	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)
Regional unemployment rate/100	-0.397***	0.091	-0.341**	0.366	-0.161**	-0.263	-0.169	0.261
	(0.09)	(0.33)	(0.11)	(0.42)	(0.08)	(0.20)	(0.15)	(0.27)
Constant	-0.327***	-0.231**	-0.278*	-0.457	-0.793***	-0.848***	0.301	1.668
	(0.06)	(0.11)	(0.14)	(0.31)	(0.05)	(0.07)	(1.85)	(2.39)
N	4,717		3,032		4,367		1,264	

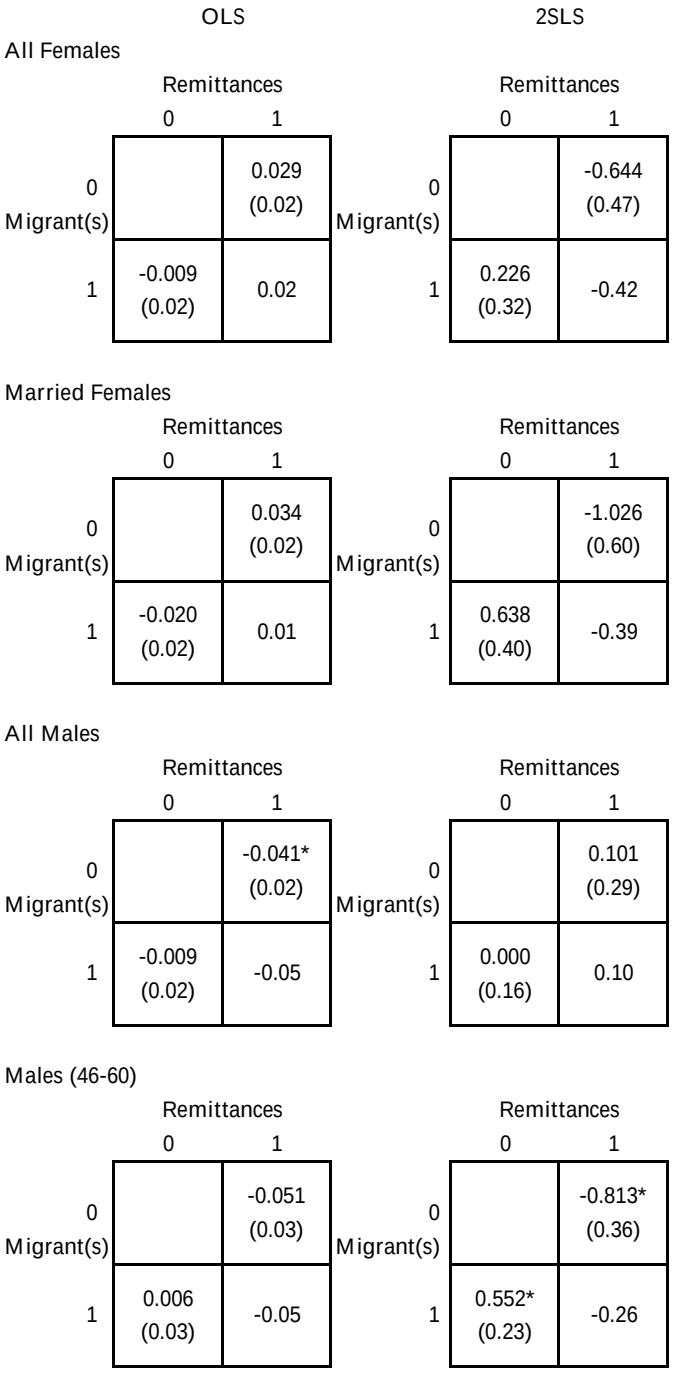
Notes: (i) Robust standard errors are in parentheses; (ii) ***, **, *, Denote significance at the 1%, 5%, and 10% level, respectively; (iii) The key variables, Migration and Remittances, are dichotomous, where one indicates that the household has at least one current or previous household member residing abroad and that the household has received remittances from abroad during the year prior to the survey date; (iv) The identifying instruments used are whether any of the members of the household, including the current migrants, spoke either Greek or Italian in 1990, whether the household owned a satellite dish in 1990, a proxy for the existence of a migrant network in 1990, the ratio of males to females in the 20-39 age group per prefecture, and the number of WU offices per capita per prefecture; (v) The first stage contains all exogenous variables included in the main equation.

Table 2.4: First Stage Results for 2SLS and Tests for Validity of the Instruments

	All Females	Married	All Males	Males (46-60)
		Migrant(s)		
Satellite dish ownership	0.119*	0.143**	0.110*	0.147*
in 1990	(0.07)	(0.07)	(0.06)	(0.08)
HH member spoke Greek	0.257***	0.285***	0.288***	0.297***
or Italian in 1990	(0.03)	(0.03)	(0.03)	(0.40)
Migrant network in 1990	-0.047	-0.042	-0.056*	-0.075
	(0.03)	(0.03)	(0.03)	(0.05)
Ratio of males aged 20-39	-0.025***	-0.019***	-0.016***	-0.028***
	(0.01)	(0.00)	(0.01)	(0.01)
Number of WU agents	-0.078	-0.043	-0.103	-0.067
	(0.12)	(0.11)	(0.11)	(0.16)
		Remittances		
Satellite dish ownership	0.051	0.011	-0.024	0.044
in 1990	(0.07)	(0.07)	(0.05)	(0.09)
HH member spoke Greek	0.190***	0.212***	0.158***	0.218***
or Italian in 1990	(0.03)	(0.03)	(0.03)	(0.04)
Migrant network in 1990	0.031	0.013	0.043	0.058
	(0.03)	(0.32)	(0.03)	(0.05)
Ratio of males aged 20-39	-0.012**	-0.008*	-0.008*	-0.010
	(0.00)	(0.00)	(0.01)	(0.01)
Number of WU agents	-0.029	-0.008	-0.027	-0.088
	(0.12)	(0.11)	(0.12)	(0.17)
F-test for joint significance	F(5,3116)	F(5,2856)	F(5,2931)	F(5,1262)
(Migrant(s))	=28.56	=26.64	=26.89	=19.11
Prob>F	0.000	0.000	0.000	0.000
F-test for joint significance	F(5,3116)	F(5,2856)	F(5,2931)	F(5,1262)
(Remittances)	=12.74	=10.28	=9.00	=6.92
Prob>F	0.000	0.000	0.000	0.000
F-test for correct exclusion	F(1,3117)	F(1,2857)=	F(1,2932)	F(1,1263)
(Migrant(s))	=1.06	0.00	=4.69	=1.55
Prob>F	0.303	0.964	0.031	0.213
F-test for correct exclusion	F(1,3116)	F(1,2856)	F(1,2931)	F(1,1262)
(Remittances)	=3.82	=1.61	=9.67	=3.32
Prob>F	0.051	0.205	0.002	0.069
Hansen-Sargan test	4.421	2.050	16.601	3.370
Chi-sq(3) P-value	0.220	0.562	0.001	0.338
N	4,717	3,032	4,367	1,264

Notes: (i) Robust standard errors are in parentheses; (ii) ***, **, *, Denote significance at the 1%, 5%, and 10% level, respectively; (iii) The first stage contains all exogenous variables included in the main equation, only the estimated coefficients of the identifying instruments are reported.

Table 2.5: Summary of the Effects of Migration and Remittances on whether a Household Member in Albania Works



Chapter 3

The Labor Market Effects of Out-Migration in EU Accession Countries: The Case of Albania

Abstract

The unique opening up of the previously closed post-communist society in Albania is utilized to investigate the motivations for and impacts of emigration across geographically close but economically diverse borders. As would be anticipated, labor flows were very large across all segments of society. There is, however, extensive evidence that these flows may have significantly improved the lives of those who remained behind. The consequences of Albania's accession and those of similarly affected countries in the European Union are discussed.

JEL Codes: P2, J61, R23
Keywords: International Migration, Remittances, Albania, EU Enlargement, Labor Markets

Documenting the Importance

The Albanian economy has some of the highest migration and remittance flows among the major post-communist economies of Central and Eastern Europe. According to recent estimates, in 2005, Albania ranked fourth in the world in emigrants as a percentage of the population, with almost one third of Albanians (27.5 percent) living abroad (World Bank, 2008). At the same time, remittance flows have consistently amounted to a large share of the country's GDP, exceeding by several fold both net foreign investment and the amount of development aid received by Albania. In 2006, for example, recorded remittances (generally admitted to be only a fraction of the total) amounted to 13 percent of GDP and almost 4 times either FDI or Development Assistance (World Bank, 2008).

Push and Pull Factors

Mass emigration and poverty go hand in hand in Albania. Heavy reliance on agriculture[1] combined with a high level of land fragmentation, especially in rural areas, has induced many Albanians to search for employment abroad since the end of communism. The beginning of the economic transition in Albania was also marred by high inflation rates reaching 350 percent at the end of 1990, and high unemployment due to the restructuring of the public sector and the inability of the Albanian economy, and especially its private sector, to grow fast enough to provide jobs for the relatively young Albanian population (19.5 percent of the Albanian population in 1989 was between the ages of 15 and 24) (Barjaba, 2000). In addition to poverty and high unemployment rates, the lack of basic services and infrastructure, such as running water and electricity, is a strong push factor creating mass emigration from post-communist Albania (Carletto et al., 2005; Stampini et al., 2008).

Short-term migration of a household member, mostly to neighboring Greece and lasting between days and months, has become a common strategy for many Albanian households to make ends meet (Carletto et al., 2006). Apart from being a means of simple survival, emigration of a household member is often perceived to make the difference between being poor and being relatively prosperous (De Soto et al., 2002).

Albania's unemployment rate is significantly higher than that of neighboring European Union members Greece and Italy, while the per capita income is approximately ninety percent lower than in those countries (De Soto et al.,

[1] More than half of the Albanian population still works in the agricultural sector (King and Vullnetari, 2003).

2002). In addition to considerable gaps in earnings and unemployment between Albania and its two EU neighbors, exposure during the communist period is an important pull factor for the migrants from Albania (Barjaba, 2000; Carletto et al., 2006). Many Albanians in the south of the country have historic ties to Greece and speak Greek at home. Exposure to Italian television enabled Albanians, especially the younger portion of the population, to become familiar with both the Italian language and mass culture, eradicating language barriers and portraying an attractive life style abroad. As a result, almost one half of the children who have left the home of their parents since 1990 had lived abroad by 2002, primarily in Greece and in Italy (Carletto et al., 2006).

Patterns and Outliers

Current migration trends are likely to continue in the future because recent Albanian migration has been driven by economic reasons (King, 2003) combined with the fact that many Albanian households continue to live in poverty. According to a poverty assessment study from 2002, an estimated 40 percent of Albanians have become worse off in terms of food intake and general socioeconomic conditions when compared to the beginning of the transition period (De Soto et al., 2002).

Two peaks in both temporary and permanent emigration from Albania can be distinguished. Emigration from Albania increased sharply between 1990 and 1993. During this period the Albanian government liberalized the issuing of passports, giving Albanians the right to leave the country and return freely. The mass emigration during this period was preceded by smaller-scale emigration starting in the summer of 1990 when around 5,000 Albanians sought refuge at Western embassies in Tirana and were allowed to leave the country, most finding refuge in Italy (King and Vullnetari, 2003). The first democratic elections in Albania in 1991, however, brought political turmoil that led to the mass emigration of Albanians either by boats to Italy or through illegal crossings of the Albanian-Greek border. Estimates are that between 1991 and 1993 approximately 300,000 Albanians, or ten percent of the Albanian population, left the country, with most going to Greece and Italy.

The second peak in emigration corresponds to the aftermath of the collapse of the pyramid investment schemes in 1996-1997. An underdeveloped banking sector led many Albanians to put their savings, which were mostly from remittances and retained earnings from abroad, in pyramid investment schemes that offered monthly interest rates in excess of ten percent. Contributions to these schemes are believed to have reached half of the country's GDP in 1995-1996

(King and Vullnetari, 2003; King, 2003). Most Albanians lost their savings after the investment schemes collapsed in early 1997. The political and economic chaos that followed created a new wave of emigration.

Emigration, Return Migration and Migrants Abroad

From a level of virtually zero emigration during the communist period Albania rapidly became one of the top migration source countries in the world. According to estimates provided in Barjaba (2000), fifteen percent of the Albanian population lived abroad in 1998. By 2005, the World Bank (2008) estimated that 27.5 percent of the Albanian population, or 860,485 Albanians resided abroad. In comparison, the Bank estimated that the stock of emigrants as a percentage of the population of all developing countries in 2005 was 2.7 percent.

Since most emigration from Albania has been illegal and unrecorded, these and other estimates of the emigration flows taking place over time are speculative (King, 2003). Due to the irregular character of Albanian emigration, there are also no accurate estimates of the location of Albanian emigrants (Government of Albania, 2005). Nevertheless, approximate figures on the stock and the distribution of Albanian emigrants among host countries at different points in time are provided by several different sources and summarized in Table 3.1.

Estimates from the Albanian Ministry of Labor and Social Affairs and Eurostat suggest that the number of Albanian emigrants abroad in 1999 was approximately 800,000 (Barjaba, 2000). Estimates for 2001 from the Albanian Institute for Statistics (INSTAT) are based on the 2001 Housing and Population Census. These official figures, however, are likely to be underestimated since they do not take into consideration temporary migrants and the Albanians who have spent less than one year abroad[2] (King, 2003). The figures, however, are close to those provided by the OECD for the same period based on country censuses, labor force surveys and socio-economic surveys from different countries. The most recent estimates from the Ministry of Labor and Social Affairs from 2004 report that the number of Albanians living abroad exceeded one million (King, 2003; Government of Albania, 2005). Recent World Bank (2008) figures on migration combining various data sources, however, suggest that the number of Albanians living abroad in 2005 was much lower at 860,485.

Figure 3.1 contains estimates of the temporary and permanent emigration flows for the period 1990-2002 (Carletto et al., 2005). These estimates are based on the 2002 and 2003 Albanian LSMS and are lower than the true figures because they do not take into account migrants who have left no household mem-

[2]These migrants are still considered as household members by the census.

bers behind. Finally, the research by Konica and Filer (2009) is the only study which provides estimates on return migration flows (see Figure 3.2). Unfortunately, since the survey used for this study was conducted in early 1996, their estimates only cover the early stages of the transition period before the collapse of the pyramid schemes. One can observe, however, that during 1993-1994 there was a distinct slowing of the upward net emigration trend and some increase in return migration. One can only speculate, however, whether this trend has continued or has been reversed by events such as the collapse of the pyramid investment schemes. Clearly the extent and behavior of return migrants is an important area for future research.

Estimates of Remittances

According to recent data, Albania is among the countries that receive the largest amount of remittances relative to its GDP (World Bank, 2008). Recorded remittances were approximately 1.5 billion US dollars or 15 percent of the country's GDP in 2006 and 2007. According to the official statistics of the Bank of Albania, remittances increased substantially between 1992 and 2006, although they fell as a share of GDP and other measures of economic activity (Figure 3.3 and Table 3.2).

Official statistics, however, are likely to substantially understate the actual level of remittance inflows since remittances are frequently transferred to households in Albania through informal channels. Respondents interviewed in 1996 by Konica and Filer (2009) reported receipts of remittances that were 70 percent greater than the official figures in Figure 3.3. Korovilas (1999) reports a similar figure and estimates actual remittances to Albania are 75% higher than officially recorded flows. The underestimation of remittances by official figures is reinforced by the fact that, in addition to informal cash flows, it is hard with official data to detect the substantial flow of remittances in the form of physical goods (see Konica and Filer, 2009; Mançellari et al., 1996, for a discussion).

The cyclical pattern of emigration flows and remittances suggests that emigration from Albania is a strategic response to the need to find alternative income sources in order to ease poverty at home. An increase in emigration in the aftermath of the pyramid crisis in 1996-1997, for instance, was succeeded by an increase in the amount of remittances received by the Albanian households in subsequent years (Figure 3.3).

Data Sources Used in Previous Studies

A lack of individual and household data on migrants and non-migrants from Albania, largely due to the absence of appropriate sampling frames, has hampered empirical research on migration from Albania and its consequences. Before data from the first Albania LSMS in 2002 became available, a number of studies were conducted using self-collected surveys or convenience samples of migrants and non-migrants and their households that achieved various degrees of representativeness.

This problem is not specific to Albania. Migrants are "rare elements" in the population and representative surveys of migrant households are rare (McKenzie and Mistiaen, 2007). Researchers tend to use specialized surveys of non-probability samples of migrants and non-migrants and their families, which are often based on the snowball method of collecting data, or data collected from regions with high emigration. With few data sets using fully appropriate survey methods, many studies are done on non-representative samples of the population of migrants and their families and, therefore, provide biased results.

In the case of Albania, the small number of datasets available makes this problem even more severe. Many studies make use of the same data implying that their results may not be independent. Table 3.3 summarizes the official statistics and sample surveys used in the studies of Albanian migration to date. The three waves of the Living Standards Measurement Survey have clearly done a professional job of insuring randomness and representativeness, but they only provide data for the period ten or more years after the start of the transition. Among earlier data sources, the sample survey conducted by Konica and Filer (2009) appears to be the most scientific.

Composition of Migrants

Despite the paucity of data, there are several studies of the characteristics of migrants and the micro-level correlates of migration in Albania. These results often need to be interpreted with caution in view of data limitations (Carletto et al., 2005; Stampini et al., 2008). To illustrate, Gedeshi (2002), Kule et al. (2002) and de Coulon and Piracha (2005) are based on data of unknown representativeness. Labrianidis and Lyberaki (2004) and Labrianidis and Kazazi (2006) use data collected from a snowball sample of migrants who returned from Greece or Italy. Cavounidis (2004) bases her study of Albanian migrants in Greece on data from the 2001 Greek census and the Albanian migrants who

have chosen to undergo legalization in Greece in 1998.[3] Castaldo et al. (2005, 2007) use data on intentions to migrate, which may not be a good indicator of actual future migration, and is limited to those who had not already migrated by 2002. Konica and Filer (2009), Carletto et al. (2005), Carletto et al. (2006) and Stampini et al. (2008) use surveys that only contain data on migrants who have left no household members behind. The sample in Arrehag et al. (2006) is limited to one district in Albania characterized by very high out-migration rates while the sample analyzed by Germenji and Swinnen (2005) consists of rural households only.

Despite these limitations, certain conclusions regarding the profile of Albanian migrants are so strong that they can be asserted with confidence. Table 3.4 summarizes the characteristics of migrants in chronological order of the studies. The majority of the Albanian migrants chose Greece and Italy as their destination and emigrated illegally, at least during the first years of the transition. This was before the regularization programs in Greece and Italy were implemented. The migrants are disproportionately male, relatively young, working-age individuals with secondary or secondary vocational education.

Education most likely affects the migration decision in a non-linear way. In the rural regions of Albania individuals with secondary education are more likely to emigrate than those with only primary education (Germenji and Swinnen, 2005). Having a university degree, however, is not associated with a higher propensity to emigrate. These results may be due to the better income and employment opportunities in Albania for college graduates combined with a low return on Albanian education in foreign labor markets.

There is, however, evidence of positive selection on education at all levels among female migrants (although not among male migrants), but that the importance of education declines over time for both females and males, and the decline is more pronounced for males (Stecklov et al., 2008). This finding might be a result of increasing labor market inequality within Albania, which increases the returns to migration for better educated females in comparison to males.

Greece appears to attract less skilled and lower income migrants than Italy (Labrianidis and Lyberaki, 2004), perhaps due to both higher migration costs to Italy, as well as the peculiarities of the Greek labor market given that Greece has the largest shadow economy among EU countries, making it easier for even illegal immigrants to find an unskilled job (Baldwin-Edwards, 2004).

The characteristics of Albanian migrants in different countries may depend on the type of migration in which they are involved. During the summer hol-

[3]Studies using Greek data must always be interpreted with caution because it is often difficult to differentiate between Albanians and Kosovars and Macedonians of Albanian ethnicity.

idays, for instance, a number of teachers and public sector employees migrate temporarily to Greece for employment in the agricultural sector to supplement low public sector wages. Earnings from such seasonal work may well exceed the annual salary of a secondary school teacher in Albania (King and Vullnetari, 2003). Thus, there may be a lower than expected correlation among education and job level for migrants to Greece.

Albanian migrants originate primarily from the coastal regions and the regions close to the border with Greece. The Greek border can be crossed on foot, which significantly reduces migration costs for those who live in the south of Albania (Germenji and Swinnen, 2005). Older individuals, however, may have more trouble coping with the physical difficulties encountered crossing the Albanian-Greek border (De Soto et al., 2002).

Migrants typically come from lower-income households. Migrants' networks in the destination country are likely to have a significant role in reducing the cost of migration for these individuals. The poorest households, however, are often not able to send migrants abroad due to an inability to finance the initial move (De Soto et al., 2002; Germenji and Swinnen, 2005). Indeed, according a recent World Bank poverty assessment report on Albania cited by De Soto et al. (2002), one definition of being poor in Albania is not being able to send a migrant abroad. Furthermore, considerable anecdotal evidence exists, at least from rural areas, that access to different types of income affects the decision to send a migrant abroad. Access to non-farming income is associated with a lower propensity to send a migrant abroad. This pattern implies that migration is one of several ways used to diversify income sources for the rural population (Germenji and Swinnen, 2005).

While the first emigration wave from Albania in the early 90s consisted primarily of illegal migrants, a large number of those currently abroad are legal. While this tendency may have resulted in part from differential return rates, especially due to capture by foreign immigration authorities, many Albanians in Greece and Italy (the two predominant destinations for Albanian migrants) have taken advantage of the opportunities given by the Greek and Italian governments to legalize their status. Since 1999 the balance between the number of illegal and legal Albanian migrants has been changing in favor of the legal ones (Barjaba, 2000). After the regularization procedures in Greece and in Italy, the estimated ratios of irregular to regular migrants were 1:4 in Italy and 1:1 in Greece in 2000.

Following legalization of their status, many emigrants have also chosen to reunite with their families in the host countries (de Zwager et al., 2005). This has led to an increase in female emigration from Albania in recent years, with the number of female migrants in Greece increasing two-fold in 2001 compared

to the first emigration wave (King and Vullnetari, 2003). Illegal crossings of the Albanian-Greek border are typically undertaken by groups of Albanian men. Thus, when men and women are compared, a larger share of the female migration is legal (Baldwin-Edwards, 2004; Arrehag et al., 2006). In addition to moves for family reunification in the host country after regularization, female migration has risen relative to male migration due to the USA's Diversity Visa programs and Canada's Skilled Worker Visa program. Finally, the ratio of female to male migrants in recent years has increased because it has become more common for young Albanians to emigrate to obtain an education (King and Vullnetari, 2003).

The size of temporary migration flows towards more distant destinations, such as Italy and Germany, is also slowly increasing. This may be due to accumulating household migration experience and improving migration networks, which reduce the cost of more distant migrations (Carletto et al., 2005, 2006; Stampini et al., 2008).

Two types of returning migrants can be distinguished: those who return to resettle in Albania and circular migrants for whom a return precedes another migration to the same or another country (King and Vullnetari, 2003). Circular migration, whereby migration episodes and temporary returns to Albania alternate, is widespread among Albanians (Labrianidis and Lyberaki, 2004; Labrianidis and Kazazi, 2006). Circular migrants tend, however, to spend only short periods abroad. Labrianidis and Lyberaki (2004) report that about 40 percent of the respondents in their sample of migrants return to Albania once a year and another 28.5 percent return even more frequently. Because of the geographic proximity and the land border between Albania and Greece, which is easier and less costly to cross than the sea border with Italy, migrants to Greece return to Albania substantially more frequently than those to Italy. For the sample of migrants in Labrianidis and Lyberaki (2004), the percentage of migrants who have migrated more than once to Greece is 28 percent while and the percentage of migrants who have migrated to Italy more than once is 3.6 percent. Furthermore, their study indicates 23 percent of the return migrants in the sample move back and forth between Albania and Greece or Italy, thus "living in two countries" and taking advantage of the seasonal and temporary employment opportunities in the Greek and Italian labor markets.

Permanent return migrants may come back to Albania for diverse reasons. For many Albanians the purpose of emigration is not to settle permanently in the host country, but rather to accumulate sufficient earnings abroad to establish a small-scale, household business (Labrianidis and Lyberaki, 2004; Nicholson, 2001, 2004; Cuka et al., 2003). In samples of returned migrants, the average stay abroad is seven years (Labrianidis and Lyberaki, 2004); and remittances,

which are frequently used to establish small enterprises, tend to be saved until migrants return from abroad (Konica and Filer, 2009).

Greece might be the most feasible destination country because of its close proximity, but it is not the most desirable. The money saved from working there may also be used to finance onward migration to more distant countries (King and Vullnetari, 2003; Baldwin-Edwards, 2004; Labrianidis and Lyberaki, 2004). Others may return to Albania because they are disappointed with the jobs they can actually obtain abroad or discover improved opportunities in Albania. Furthermore, many returns to Albania are involuntary and result from enforcement actions by destination countries' police forces (Konica and Filer, 2009).

One can distinguish between temporary and permanent migrants. Those in Italy and more distant countries tend to be better educated than either non-migrants or migrants in Greece (Carletto et al., 2005, 2006; Stampini et al., 2008). Temporary migrants to Greece also come from relatively lower income households. This may be explained by the fact that relatively more wealthy households or more educated migrants are more likely to afford the higher cost of a more distant migration, as well as by the fact that it might be easier for the better educated Albanians to adapt and find employment in Italy, where the wages are higher and more non-agricultural employment is available than in Greece. Temporary migrants come mostly from mountainous rural areas and the central regions in Albania. Permanent migrants to Italy originate mostly from Tirana and the urban coastal and mountain areas. Temporary migrants to Greece mostly originate from the rural areas in the northern and central parts of Albania, whereas temporary migrants to Italy and other countries in Europe mostly originate from the urban coastal areas, agricultural communities and the mountain regions in Albania (Carletto et al., 2005). The rural areas of the district of Korce are more likely than the urban areas to send seasonal migrants abroad. This is probably due to the fewer sources of income available to rural households (Arrehag et al., 2005).

Potential Migration

Evidence from data on stated intentions to migrate is largely consistent with the evidence based on data on actual migration. Relatively younger individuals (mostly in the 26-35 age group) and males are more likely to be considering emigration, and the unemployed and individuals with secondary and vocational education exhibit the greatest desire to migrate. Outside of Tirana, and especially in rural areas, those who are relatively less poor are more likely to

consider migration. Females in households with permanent migrants are more likely to be planning to migrate than those in households without migrants (Castaldo et al., 2005, 2007).

The gaps in earnings and employment between Albania and its EU neighbors continue to be large, implying that the migration patterns of recent years are unlikely to change in the near future (Barjaba, 2000; Castaldo et al., 2007). Although many Albanians believe that migration to Greece is less costly and that it is easier to find work in Greece than in other countries, potential migrants from Albania state that the most desirable destinations are the USA, Germany and Italy (Baldwin-Edwards, 2004; Cavounidis, 2004). Migration to Greece is often regarded as temporary and only a precursor to further and more permanent migration to another EU country or to North America (King and Vullnetari, 2003; Labrianidis and Lyberaki, 2004). Relaxing the visa regime in the EU for Albanians by the EU will further reduce the cost of emigration to EU destinations other than Greece, enticing more Albanians to migrate directly to those countries. Such visa relaxation would also lead to an increase in the migration of relatively better educated Albanians. Past evidence suggests that more educated workers (with better options in Albania itself) are less willing to migrate illegally and subsequently be forced to work in the irregular economy upon arrival in the destination country (Labrianidis and Lyberaki, 2004; Labrianidis and Kazazi, 2006; Carletto et al., 2005, 2006; Stampini et al., 2008). Thus, an EU visa policy change could have implications for the potential brain drain from Albania.

Impacts of Migration

As one of the countries most affected by migration after the end of the communist era in Central and Eastern Europe, Albania has been referred to as a "laboratory for the study of migration and development" (King, 2003). The direction of the causal relationship between migration and economic development in Albania, however, is not necessarily obvious (King, 2003). Several factors are at work, including brain drain effects, the impact of remittances on consumption demand and business formation, and the joint impact of migration and remittances on labor supply.

Evidence on the brain drain from Albania is both scarce and controversial. According to World Bank estimates (2008), the cumulative migration rate of the tertiary educated from Albania was 20 percent by 2000. Since the majority of the Albanians who complete a doctoral degree in Western Europe or in the US do not return to Albania (Germenji and Gedeshi, 2008), one may argue that this

percentage is much higher. According to data from UNDP and the World Bank, over 25,000 Albanian university-level students were studying abroad in 2006, whereas the estimated number of Albanian students enrolled in public universities in Albania was only around 43,600. Many of these locally-educated Albanians eventually enroll in graduate schools abroad (Germenji and Gedeshi, 2008). Thus, with increasing migration for education purposes, much of the current danger of brain drain from Albania likely comes not from the fact that the more educated emigrate, but rather from the fact that the Albanians who obtain their education abroad find no reason to return to Albania.

The USA and Canada are currently the primary destinations for Albanian migrants with university educations (Germenji and Gedeshi, 2008). The interviews Germenji and Gedeshi (2008) conducted with representatives of universities and research institutions in Albania revealed that between 1991 and 2005, approximately 1,295 scientific workers emigrated, even though the total number of persons employed at universities and research institutes in Albania in 2005 was only about 2,500. Thus, about half of the scientific work force has emigrated, most of them with their families. The majority of those who left were in the 25-34 age group at the time of their emigration, representing a serious loss of the country's most capable scientific workers.

A problem that has only recently been addressed by the literature on Albanian migration is that emigration affects elderly people through the so-called "care drain." Although partially offset by the beneficial role of remittances for poverty reduction in Albania, emigration of the young puts substantial pressure on the inadequately developed elderly care system in Albania (De Soto et al., 2002; Vullnetari and King, 2008).

Migration significantly affects the home economy and the household members left behind through the remittances that migrants send and the savings the migrants accumulate abroad. The majority of Albanian migrants send remittances, generally to immediate family members (de Zwager et al., 2005). The amount of remittances sent to wives and children of emigrants is much larger than the amount sent to other family members (Gedeshi, 2002).

Remittances to Albania are usually sent irregularly and through informal channels due to the underdevelopment of the Albanian banking system and its limited geographical scope (Gedeshi, 2002) and the proximity of the major host countries that allows for frequent returns of both migrants themselves and members of their networks (Arrehag et al., 2005; de Zwager et al., 2005).

Recent empirical evidence from developing countries in general suggests that remittances reduce poverty (Adams, 2007). There is also evidence of a correlation between migration and poverty in Albania. The majority of Albanian households who identify themselves as relatively more prosperous have had

at least one emigrant family member who spent between 13 and 60 months abroad during the 90s (De Soto et al., 2002). Not surprisingly, most remittance income is spent on consumption and necessities, while the second most common use of remittances is refurbishing or building a house (De Soto et al., 2002; Gedeshi, 2002; King and Vullnetari, 2003; Konica and Filer, 2009). Albanian households that receive remittances have higher consumption patterns with respect to basic necessities such as food than households without remittances (Castaldo and Reilly, 2007). As summarized by Mançellari et al. (1996):

> ...[remittances] raised considerably disposable incomes and spending within the country, and the demand for imported consumer and production goods. This in turn has stimulated a rapid rise in small-scale trade and investment projects. Non-cash remittances include not just consumer goods, such as electronics and second-hand cars, but also second-hand production goods such as vans, tractors, and other machinery. Therefore, not only do remittances give the economy a new, prosperous look, with many new shops and restaurants, but they also have a direct and significant effect on production, by easing the foreign exchange constraint on buying key inputs (p. 483).

Interviews with migrants' households in Albania indicate that urban households also tend to use remittances to finance education-related expenditures while rural households pay debts or invest in agriculture (Arrehag et al., 2005; de Zwager et al., 2005).

The number of Albanian households involved in agriculture is significant and migration within the family has been found to have an effect on the type of agricultural investments made. McCarthy et al. (2006) find that permanent migration of former household members leads to more investment in livestock production and to higher agricultural and total household incomes. Previous migration of a current household member reduces livestock holdings but increases fruit cultivation (especially in the case of previous migration to Greece). This difference might be a result of the experience the migrants acquire as agricultural workers in Greece. Migrants' households make fewer agricultural investments in crop production, such as fertilizer and equipment, but invest more in livestock production (Miluka et al., 2007). This pattern may be a result of the differing labor intensity of various agricultural activities combined with the impact of prime age males being missing from households through migration.

Albanian households receiving remittances from abroad have significantly higher than average budget shares spent on durables and utilities (Castaldo

and Reilly, 2007). Migrants and their households in Albania typically invest in small retail or hospitality businesses, such as shops, bars, restaurants or small hotels (King and Vullnetari, 2003). Thus, taking into account the small scale of household entrepreneurial projects in Albania, durable goods such as refrigerators, cars, or agricultural equipment might be considered productive investment as they are often used by the Albanians in their household business (Nicholson, 2001, 2004; Castaldo et al., 2007).

Anecdotal evidence suggests that the effect of migration on the labor supply of the non-migrant family members left in Albania can be positive since other members of households in which the males are abroad need to compensate for the absence of the migrants by working more. This is particularly true in rural areas, where it is common for the households to work on their own land (De Soto et al., 2002; Vullnetari and King, 2008). Remittances, however, are a source of non-labor income for those household members who remain in Albania, and may reduce the probability of Albanian women working (Konica and Filer, 2009). A distinct negative effect can be found on the labor force participation for women, although the effect is limited to households with a migrant in Italy (Carletto et al., 2006). This pattern may be because the earnings of the migrants in Italy are higher. Such an effect is important in the case of Albania as unemployment pressures on the local labor market are decreased not only through emigration, but also through the reduction in female labor supply.

Data from 2005 show that members of households with migrants spend fewer hours working in agriculture, both in total and in per capita terms (Miluka et al., 2007). In order to partially offset missing male labor, however, women in such households work more than females in households without migrants. There is also evidence that migrants' households make fewer agricultural investments in crop production, but they do invest in livestock production. This evidence leads to the conclusion that migration in Albania may be a strategy to divest from crop production and invest into livestock. One can expect that this may eventually lead to land sales, land consolidation, and an agricultural sector with better investment and return prospects in Albania.

Macroeconomic data from a large number of countries for the period 1975-2003, indicate that the amount of remittances has a positive impact on the ratio of bank credit to the private sector and the share of bank deposits as a percentage of GDP (Aggarwal et al., 2006). There is, however, no evidence of this effect in Albania. One suggestion is that the Albanian financial sector is currently not able to effectively allocate remittances to productive activities and that, while the banking sector has been somewhat more successful recently in attracting the savings of migrants, the majority of Albanian households still place little

trust in the formal financial sector (Uruçi and Gedeshi, 2003).

León-Ledesma and Piracha (2004) studied the impact of return migration on economic development in Central and Eastern Europe during the transition from communism from a macroeconomic perspective. Due to the fact that migrants' remittances and savings can be used to finance consumption and productive investment that lead to job creation, they find evidence from Central and Eastern European countries (unfortunately from a sample that does not include Albania) that a larger number of return migrants increases labor productivity. Although there is little evidence of large investments resulting solely from migration and remittances in Albania (Barjaba, 2000), there is more than anecdotal evidence that they support the private sector development by allowing migrants' households to invest in small-scale household business projects (Konica and Filer, 2009; Kilic et al., 2007).

It is the return of migrants themselves that is critical in establishing small enterprises, rather than the simple sending of funds to family members left behind (Konica and Filer, 2009). A specialized survey revealed that although most Albanian migrants work illegally and in low-skilled occupations, the savings and skills acquired abroad help to establish their own business upon return. Thus, temporary migration in Albania may be motivated by the possibility of improving the migrants' chances of finding better employment opportunities upon return (Kule et al., 2002). The same data also revealed that return migrants are almost twice as likely to be self-employed as those who never migrated (Coulon and Piracha, 2005).

Return migrants from Greece and Italy are better off in terms of both employment and living conditions than they were prior to migration, and return migrants from Greece perform relatively better in the Albanian labor market upon return than those who migrated to Italy (Labrianidis and Lyberaki, 2004; Labrianidis and Kazazi, 2006). A positive correlation between the length of stay abroad and the likeliness of owning a business upon return is also evident.[4] More recent nationally representative data from the 2005 Albanian LSMS show that men with previous migration experience are more likely to work off-farm and be self-employed (Carletto et al., 2006).

A study that attempts to control for possible endogeneity of the migration decision and length of stay abroad finds that past household migration experience has a positive impact on the probability of owning a business and that work experience in Italy is relatively more important than migration experience from Greece (Kilic et al., 2007). The positive effect is seen, however, only for migration experience during 1990-2000. Based on the findings, the authors

[4] All the findings, however, are not based on nationally representative survey data and, therefore, should be interpreted with caution.

suggest that more recent migrants may still need to acquire additional skills and/or savings in order to complete their "migration cycle" and establish a business upon return.

Although significant return migration may be desirable for a number of reasons, the return of those migrants who emigrated in the mid-1990s during the first wave of emigration to Greece and Italy was interrupted by the pyramid scheme crisis, which sent a new wave of Albanian migrants abroad (de Zwager et al., 2005). During recent years there has been little evidence of voluntary return migration, and those who do return are mostly involuntarily returned by foreign immigration authorities, seasonal workers in Greece, or household members who spend short periods abroad to augment the insufficient incomes they earn in Albania or to accumulate savings that would enable them to invest in a small household business at home. It may also be that return migration is motivated partially by "push" factors such as a failure to integrate abroad or to earn enough to be able to send remittances (Barjaba, 2000; King, 2003) rather than the attraction of increased opportunities in Albania.

The Albanian government and the International Organization for Migration (IOM) in Tirana have recently made efforts to attract return migrants by providing material and financial assistance to those who choose to return and reintegrate. However, the number of emigrants who have returned this way has been insignificant. Between 2000 and 2004, just over 300 emigrants took advantage of these programs (de Zwager et al., 2005). More than half of Albanian migrants abroad who have been interviewed by IOM Tirana would like to return to Albania in the future, possibly during the period 2010-2015. These predictions, however, can only be based on stated intentions to return rather than what actually happens. It is unrealistic to expect that significant return migration will occur in the near future, particularly among the economically active population abroad, as long as the large income gaps between Albania and the destination countries persist (Vullnetari, 2007).

A further impediment to potential return flows is the increase in family reunification emigration during recent years, especially after the regularization processes in Greece and Italy (Vullnetari, 2007). The return of children of current migrants who have settled abroad seems unlikely. Among Albanians who emigrated during the first waves, some may return after retirement due to cost of living differentials. Such return migration, if it occurs, is likely to be directed mostly towards Tirana or urban areas. It will further exacerbate housing shortages, and is unlikely to inject significant investment into the Albanian economy.

Analysis, Trends and Policy Recommendations

The prospects of significant return migration to Albania are bleak, largely due to a lack of investment opportunities. This situation is aggravated by the persistently low incomes and spending capacity in Albania, the lack of long-term credit, poor basic services, and underdeveloped infrastructure.

The trends towards regularization and integration in the host countries also make future return migration of the younger generation unlikely. Albanians currently account for over half of the total number of immigrants in Greece and, compared to other immigrant groups, a large number of Albanian children attend Greek schools (Cavounidis, 2004). The growth in remittances to Albania may also decrease in the future with family reunion and integration trends becoming stronger in the host countries (Gedeshi, 2002).

While investment in infrastructure, especially in the rural areas, may decrease emigration and attract return migration through increasing the investment opportunities in the Albanian private sector, access to alternative income sources, lower migration costs and higher incomes for the poorest households may lead to more households being able to send migrants abroad (Germenji and Swinnen, 2005). Furthermore, the potential increase in emigration towards other EU countries may lead to further human capital flight from Albania. Overall, it seems unrealistic to expect major changes in the pattern of Albania being a major exporter of labor in coming years.

The possibility of future EU enlargement to include Albania, as well as countries that are similar to Albania in terms of economic conditions and recent emigration patterns, such as Moldova, Macedonia (already a candidate) and other countries in the Western Balkans and the South Caucasus, calls for a comparison with previous EU enlargements in order to speculate about the potential impact on migration in Europe following further EU enlargement.

Currently, Albania is at the upper end of the distribution among the potential accession countries and significantly above the recent EU joiners (see Table 3.5) in both the number of migrants and remittances as a share of GDP.[5] Official estimates of the remittances as a percentage of GDP in 1994 which are available for some of the transition countries[6] indicate that, unlike the earlier joiners from 2004, the economies of the next wave of potential accession countries have been heavily and consistently reliant on remittances. In 1994, for instance, remittances exceeded 15 percent of Albania's GDP, while, with the

[5]The comparison with Cyprus and Malta is not indicative as both economies are relatively small and have simultaneously experienced large immigration inflows.

[6]Data on remittances as a percentage of GDP in 1994 is available for Cyprus, the Czech Republic, Estonia, Lithuania, Malta, Poland, Romania, the Slovak Republic, and Slovenia from the World Bank WDI 2008.

exception of Cyprus and Slovenia, remittances in all other countries were below 1 percent of GDP.

Furthermore, a comparison of the change in the official remittances between 2002 (one year before the accession) and 2005 (one year after the accession) for the group of countries that joined the union in 2004 and two control groups of countries during the same period (low income prior EU members[7] and non-accession CEE countries[8]) shows that remittances for the 2004 accession wave increased substantially more than the remittances for the other two groups. Remittances to joiners increased by 160 percent, compared with an increase of 85 percent for non-accession CEE countries and a fall of 5 percent for remittances to low-income current EU members.[9] The larger increase in remittances after accession, despite restrictions on labor migration imposed by some old EU members, suggests that potential EU accession is unlikely to undermine the importance of remittances as a source of household income not only for the Albanian economy, but also for the economies of other potential joiners which currently exhibit migration patterns similar to those of Albania.

In short, the issue of potential EU accession and its effect on Albania is complex. There is no reason to believe that emigration will not continue to play an important role for Albania. Indeed, accession may even increase outflow in the absence of severe restrictions on labor mobility, especially that of highly trained workers, which would violate the principle of Europe being a single economic space. On the other hand, in a global economy it is possible that Albania's comparative advantage may well be a skilled, motivated labor force, and that the long-run development of the country can best be promoted by its neighbors recognizing that easy access to improved opportunities abroad may well be the best form of development assistance that can be provided to Albania and other, similarly situated, countries.

[7] Greece, Spain and Portugal.

[8] Albania, Bosnia, Bulgaria, Croatia, Macedonia, Moldova and Serbia.

[9] These figures exclude Estonia, Slovakia and Romania, where data inconsistencies cause us to doubt the reported magnitude of remittance increases.

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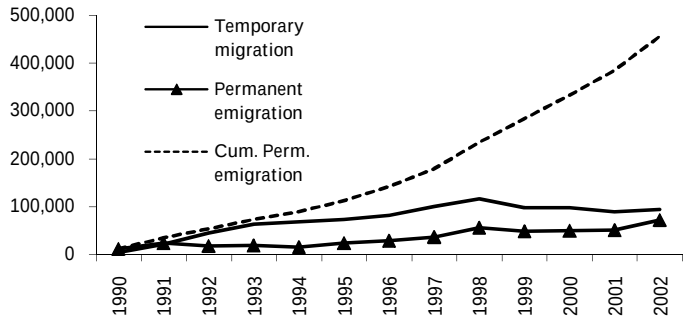
Table 3.1: Estimates of the Number of Albanians Living Abroad from Various Sources

Country	1999		2001		2005	
	1[a]	2[b]	3[c]	4[d]	5[e]	6[f]
Australia				1,451		
Austria	856			1,834		2,000
Belgium	368	2,500		1,413		5,000
Canada		5,000		6,280		11,500
Czech Republic				178		
Denmark	76			114		
Finland	30			40		
France	2,000	2,000		2,666		2,000
Germany	11,343	12,000				15,000
Greece	500,000	500,000		403,852		600,000
Hungary	74			141		
Ireland	10			208		
Italy	200,000	200,000		159,207		250,000
Japan				31		
Luxembourg	33			223		
Mexico				8		
New Zealand				63		
Norway				208		
Poland				60		
Portugal	8			41		
Romania	16					
San Marino	5					
Slovak Republic				17		
Slovenia	36					
Spain	111			467		
Sweden	145			538		
Switzerland	791			1,504		1,500
The Netherlands	449			437		1,000
Turkey		2,000		3,313		5,000
United Kingdom	5,000			2,314		50,000
USA		12,000		39,780		150,000
Total	721,351	735,500	663,000	626,388	860,485	1,093,000

Notes: The figures above are based on estimates originally provided by: [a]Eurostat (1999); [b]The Albanian Ministry of Labor and Social Affairs (2001); [c]INSTAT(2002); [d]OECD (2006); [e]The World Bank (2008); [f]The Albanian Ministry of Labor and Social Affairs (2004).

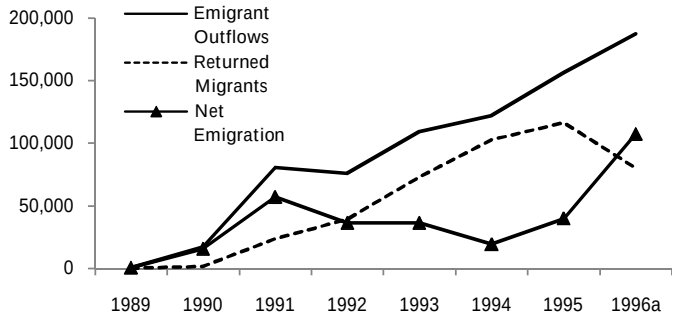
Sources: Barjaba (2000), King (2003, 2005), OECD (2006), The World Bank (2008)

Figure 3.1: Albanian Emigration (1990-2002)



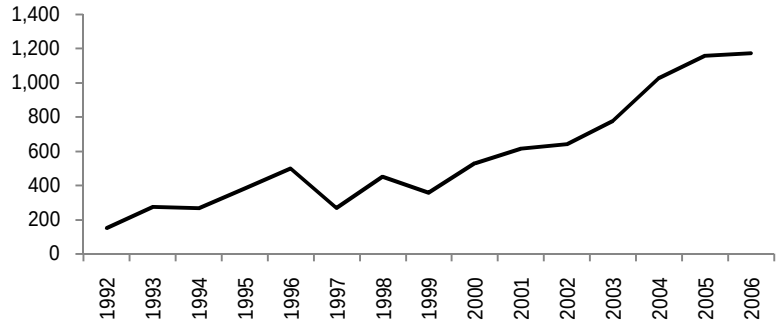
Note: The figures are based on the 2002 and 2003 Albania LSMS.
Source : Carletto *et. al.* (2005)

Figure 3.2: Emigration and Return Migration (1989-1996)



Source : Konica and Filer (2009)

Figure 3.3: Workers' Remittances (1992-2006): Millions of USD



Source : The World Bank World Development Indicators 2008

Table 3.2: Remittances as Share of GDP, FDI, and Official Development Assistance and Official Aid (1992-2006)

Year	Share of GDP	Share of FDI	Share of ODA and OA
1992	0.21	7.5	0.37
1993	0.22	4.74	0.93
1994	0.13	4.99	1.62
1995	0.16	5.49	2.13
1996	0.17	5.54	2.21
1997	0.12	5.62	1.61
1998	0.17	10.05	1.68
1999	0.10	8.66	0.73
2000	0.14	3.71	1.67
2001	0.15	2.97	2.28
2002	0.14	4.77	2.09
2003	0.14	4.37	2.23
2004	0.14	3.14	3.44
2005	0.14	4.49	3.64
2006	0.13	3.74	3.66

Note: The data presented is total workers' remittances in millions of current USD, official BoP statistics.

Source: The World Bank World Development Indicators 2008

Table 3.3: Data Sources Used in Previous Studies

	Year	Sample Size	Sampling Frame	Selection Criteria
Official Statistics				
Albania Population and Housing Census	1989	3,182,417	No sampling	Whole population covered
Programme for Regularization of Unauthorized Migrants in Greece	1998	241,561 Albanians (out of 371,641 non-Greek applicants)	No sampling	Migrants who have applied for regularization in Greece (i.e., migrants who either entered Greece illegaly or entered legally but subsequently became illegal)
Albania Population and Housing Census	2001	3,069,275	No sampling	Whole population covered
Greece Population Census	2001	438,036 Albanians	No sampling	Whole population covered
Sample Surveys				
Konica and Filer (2005)	1996	1,000 households	Random selection of geographic areas - one town per region. Random selection of interviewed households within area from electricity service records	Whole population covered
Survey of individuals and firms in Albania conducted within the Phare-ACE project framework	1998	1,500 individuals and 200 firms	None	Individuals (only one person per household qualifies for the sample) in all regions of Albania and firms in 23 (out of 36) regions; In each region the number of individuals interviewed corresponds approximately to the size of the population
Sample survey of newly regularized migrant population in Greece (Cavounidis, 2004)	2000	1,074 individuals	All migrants in Greece who have been regularized under the regularization program in 1998 and who have successfully submitted applications for obtaining a "green card"	Quotas set by nationality and gender based on the information provided in the "green card" application

	Year	Sample Size	Sampling Frame	Selection Criteria
Survey on the foreign currency remittances from emigration (Gedeshi, 2002)	2000	350 individuals	None	Legal, non-seasonal Albanian emigrants living in Greece, Italy, France, the US, and Canada, interviewed either at the border areas in Albania or via e-mail
Survey of rural households in Albania	2000	1,232 households (4,566 individuals)	1998 Agricultural Census records	Multi-stage random sample of rural households in Albania
An Inquiry on Emigration and Remittances Flow in the Scutari District conducted by the Center for Economic and Social Studies (CESS), Tirana and Centro Studi di Politica Internazionale (CeSPI), Rome (Uruci and Gedeshi, 2003)	2001-2002	48 migrants and 48 households	None	Migrants from the Scutari district in Albania, interviewed at the border regions and in small towns in the south of Albania, emigrants's households living in the Scutari district
Survey in the district of Korce by the Center for Refugee and Migration Studies of the International Catholic Migration Commission	2002	1,315 households (5,301 individuals)	The 2001 Population and Housing Census records	Migrant and non-migrant households in rural and urban areas in the Korce district; oversampling in the the most affected by emigration and depopulation western part of the district
Socioeconomic Household Survey by the World Bank (De Soto, 2002)	2002	460 households (2,300 individuals)	Lists of residents provided by leaders of villages and municipalities	Households randomly selected in 10 preselected sites in Albania (45-47 households per site) with approximately equal representation of rural areas, peri-urban areas and municipalities in each site

	Year	Sample Size	Sampling Frame	Selection Criteria
Survey among return migrants from Greece and Italy (Labrianidis and Lyberaki, 2004; Labrianidis and Kazazi, 2006)	2002	324 individuals (300 males and 24 females)	None	Return migrants over 18 years old from various parts in Albania who have lived in Albania for at least one year following a stay either in Greece or in Italy where they have spent at least one year (snowball sampling)
Albania Living Standard Measurement Survey (LSMS)	2002	3,599 households (16,521 individuals)	The list of enumeration areas prepared for the purposes of the 2001 Population and Housing Census	Multi-stage stratified random sample, national coverage
Albania LSMS (Albania Panel Survey Wave 2)	2003	2,155 households	The households interviewed for the Albania LSMS in 2002 (Wave 1)	Multi-stage stratified random sample, national coverage (approximately half the 2002 LSMS households have been re-interviewed for Wave 2 of the panel)
Albania Living Standard Measurement Survey (LSMS)	2005	3,638 households	An updated frame of enumeration areas resulting from the 2001 Population and Housing Census	Multi-stage stratified random sample, national coverage
Survey of Migrants and Migrant Households by the International Organization for Migration (IOM) Tirana	2005	698 migrants abroad and 1,006 households in Albania	None	Albanian legal and illegal emigrants in targeted areas of Greece, Italy, and the UK; Households with at least one member working abroad, selected from the regions of Korca, Kukes, Elbasani, Gjirokaster, and Shkoder

Table 3.4: Composition of Migrants

Study	Gender	Age	Education	Region of Origin	Occupation before Migration	Destinations	Legal/Illegal Status	Occupation at Destination	Other Charactersitics
Gedeshi (2002)	Predominantly male (75%)	Young (< 35 (53%))	Secondary education (59%), higher education (24%)	NA	Mostly unemployed (39%)	Greece (54%), Italy (41%)	Legal (82%)	Services (48%), industry (33%), construction (9%), agriculture (4%)	Previous migration experience (67%); married (70%); emigrated with family (71%)
De Soto et al. (2002)	Predominantly male	14-40 age group	NA	NA	Mostly unemployed	NA	NA	NA	Relatively less poor households with migrant members abroad
Kule et al. (2002); de Coulon and Piracha (2005)	Predominantly male	Young	Migrants are slightly less qualified than non-migrants	NA	NA	Greece and Italy (85%)	Mostly illegal (60%)	Mostly unskilled (75%), part-time (58%) jobs; Primarily working in services (32%), construction (26%) and agricultural (20%) sectors	Mostly single

Study	Gender	Age	Education	Region of Origin	Occupation before Migration	Destinations	Legal/Illegal Status	Occupation at Destination	Other Charactersitics
Baldwin-Edwards (2004)[a]	NA	NA	NA	NA	NA	NA	Female migrants in Greece more likely to have entered legally than male migrants	Males: construction (42%), agriculture (23%), industry (12%), tourism (12%); Females: other (housekeeping) (52%), tourism (19%), agriculture (15%), industry (9%)	NA
Labrianidis and Lyberaki (2004); Labrianidis and Kazazi (2006)	Predominantly male	NA	Males: secondary and vocational; Females: secondary and university; The level of education of those who migrate to Italy much higher than that of those who migrate to Greece	Central and Southern Albania	Full-time employment (55%), seasonal work (26%), unemployed (15%)	Greece, Italy (the study is based on interviews with 324 return migrants from Greece and Italy)	55% crossed the border illegally	Employers (67% of males and 26% of females)	Relatively less poor

Study	Gender	Age	Education	Region of Origin	Occupation before Migration	Destinations	Legal/Illegal Status	Occupation at Destination	Other Charactersitics
Cavounidis (2004)[a]	Predominantly male (59%)	25-44 (43%)	NA	NA	NA	Greece, Italy	NA	Skilled trades occupations, machine operatives, elementary occupations: Males work mostly in construction (44%) and agriculture (24%) and females as domestic workers (54%) and in commerce and services (20%)	Married: males (50%), females (80%); have access to migrant neworks through friends and relatives in Greece
Castaldo et al. (2005)[b]	Predominantly male	26-35 age group	Individuals with vocational education most likely to consider migration	NA	Mostly unemployed	NA	NA	NA	Outside of Tirana and in rural areas the relatively less poor are more likely to consider migration; females in households with permanent migrants

Study	Gender	Age	Education	Region of Origin	Occupation before Migration	Destinations	Legal/Illegal Status	Occupation at Destination	Other Charactersitics
de Zwager et al. (2005)	Predominantly male	Young	Relatively well educated	NA	NA	Greece, Italy, the UK, USA, Canada	NA	Males: construction, agriculture (Greece); construction, industry, services (Italy); construction, services (the UK); Females: domestic work (Greece, Italy); sevices (the UK)	NA
Konica and Filer (2009)	Predominantly male	Young, working age	Mostly individuals with secondary education	Mostly from the western and the southern parts of Albania	NA	Between 1990-1996: Greece (70%), Italy (15%), USA (4%), Germany (2.5%)	Between 1990-1996: 82% of migrants to Greece and Italy were illegal, 23% to other countries; By mid-1996, 62% in Greece, 47% in Italy and 13% in other countries are legal	NA	Mostly single, from large, low-income households; Female migrants more likely to be married and to emigrate with their spouses

Study	Gender	Age	Education	Region of Origin	Occupation before Migration	Destinations	Legal/Illegal Status	Occupation at Destination	Other Charactersitics
Arrehag et al. (2006)[c]	Predominantly male	Relatively young (35-44); female migrants are slightly older than male migrants; most first time migrants are in the 20-44 age group; migrants from urban areas tend to be slightly older	Mostly individuals with secondary education, both male and female urban migrants have completed more years of schooling than rural migrants	Both from rural and urban areas; female migrants more likely than males to be from urban areas	Mostly unemployed	First migrations from urban areas: Greece (84%), USA (5%), Italy (5%), Germany (3%); First migrations from rural areas: Greece (85%), Macedonia (8%), USA (3%), Italy (2%)	First-time migration episodes: from urban areas more likely to have entered legally (69%), from rural areas - illegally (54%); Legal entry females (73%), males (47%); Most recent migration episode: mostly legal entry (89% of the rural and 86% of the urban migrants)	Unskilled occupations	Mostly married; Typically from households with more than one migrant
Castaldo et al. (2007)[b]	Predominantly male; Females from the lowest income households	Relatively young; older females more likely to consider migration than older males	Individuals with secondary and vocational-level education most likelty to consider migration	Urban areas	Mostly unemployed	NA	NA	NA	Individuals from regions with high unemployment and low district-level hourly wages

Study	Gender	Age	Education	Region of Origin	Occupation before Migration	Destinations	Legal/Illegal Status	Occupation at Destination	Other Charactersitics
Germenji and Swinnen (2007)[d]	Predominantly male	Young (non-linear impact of age on the probability to migrate, the highest propensity to migrate around 29)	Non-linear effect of education on the likelihood of migration; those with secondary education are the most likely to work abroad	Coastal areas and regions close to the Greek border	NA	NA	NA	NA	Mostly single; average income households with access to fewer alternative income sources; access to migration networks through current members working abroad; from regions with higher income inequality

Study	Gender	Age	Education	Region of Origin	Occupation before Migration	Destinations	Legal/Illegal Status	Occupation at Destination	Other Charactersitics
Carletto et al. (2005); Stampini, et al.(2008)	Predominantly male	Mostly younger	Permanent migrants: tertiary educated migrants choose destinations other than Greece and Italy; Temporary migrants: migrants to Italy tend to be better educated compared to non-migrants and migrants in Greece	Temporary migrants: mostly from rural areas in the mountain and central regions; migrants to Greece mostly from rural areas in the northern and central parts of Albania; migrants to Italy and other countries in Europe mostly from the urban coastal areas	Permanent migrants: non-agricultural activities and wage work migrate less often to Greece	Permanent migrants: Greece (49%), Italy (35%); females choose more often destinations other than Greece and Italy; Temporary migrants: Greece (80%), Italy	Temporary migrants are mostly illegal (68%)	NA	Permanent migrants: children of current household heads in Albania, from lower income and relatively smaller households; Temporary migrants: migrants to Greece come from relatively lower income households, the reverse is true for those who migrate to Italy

Notes: [a]The study refers to the Albanian migrants in Greece only; [b]The authors use intentions data to examine the factors that influence the propensity to consider migration among those who have not migrated in the preceding five years; [c]The study is based on a survey conducted in the Korce district; [d]The study is on temporary work migration from rural areas only.

Table 3.5: Albanian Emigration and Remittances Compared to Neighboring Transition Countries

	Emigrants as % of Population (2005)	Remittances as % of GDP (2006)
Albania	27.5	14.9
Non-Accession Transition Countries		
Armenia	26.9	18.3
Azerbaijan	16.2	4.0
Belarus	18.4	0.9
Bosnia & Herzegovina	37.7	17.2
Croatia	16.0	2.9
Georgia	22.9	6.4
Macedonia	18.2	4.0
Moldova	16.8	36.2
Russia	8.0	0.3
Serbia & Montenegro	21.9	13.8
Ukraine	13.1	0.8
Recent EU Accession Countries		
Bulgaria	12.1	5.4
Cyprus	19.2	n.a.
Czech Republic	4.1	0.8
Estonia	13.7	2.4
Hungary	4.7	0.3
Latvia	10.1	2.4
Lithuania	9.3	2.1
Malta	26.5	0.6
Poland	6.0	1.3
Romania	5.7	5.5
Slovak Republic	9.6	0.8
Slovenia	6.8	0.8

Source : World Bank Migration and Remittances Factbook 2008