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Modeling Migration Dynamics in Albania

A Hazard Function Approach

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Abstract

Since 1990 migration flows from Albania have been massive, relative to the size of the country and its population, but they have also fluctuated over time. This paper presents and discusses various descriptive trends, mainly in graphical form. The data come from the Albanian Living Standards Measurement Survey, 2005 round, and cover the period 1990–2004. The resulting observed trends reflect changing push and pull factors in Albania and the two main host countries, Greece and Italy. The paper also presents a hazard approach to modeling Albanian emigration and return migration. This analysis highlights, among other things, the relevance of networks in Albanian migration dynamics, both to promote emigration and to delay return.

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World Bank

Introduction

Following the fall of Communism and the opening of the borders in the early 1990s, massive migration from the transition economies in Eastern Europe towards more affluent Western neighbors seemed certain. However, despite rising unemployment and poverty, the mass exodus never materialized, except in a few cases. Albania is one such case.

Migration, whether rural to urban or international, has emerged as the most common livelihood coping strategy in Albania, and has served as an important escape valve for unemployment and other economic difficulties brought on by the transition to a market economy. Driven by these dire economic conditions, and facilitated by geographical proximity and the lure of Western affluence transmitted through Italian television channels (Mai 2001), many Albanian households perceived migration, whether temporary or permanent, as an effective strategy for sustaining and improving their economic livelihoods. This view was amply reflected in the government's complacent position towards emigration, which was seen, at least initially, as a means of exporting unemployment and importing wealth.

During the communist era (1944-90), migration had come to a virtual halt, as it was officially prohibited, and emigrants and family members left behind had been ostracized or severely punished. When the communist government eventually fell, the end of the controls on internal and external migration and the collapse of the centrally planned economy unleashed a demographic shift at an unprecedented pace, as individuals and entire households started migrating to the cities or leaving the country altogether. By many accounts, within a decade the number of Albanians abroad swelled to at least 600,000 individuals (King and Vullnetari 2003) or as high as 800,000 (Barjaba 2000). More recent estimates increase the figure to over 1 million (Government of Albania 2005).

These large-scale migration flows have contributed to the growing importance of remittances as a major source of income for many Albanian households and for the national economy. Officially, such transfers are estimated to have reached US$ 1 billion in 2005, constituting 14 percent of GDP (IMF 2006). Remittances thus serve as the most important source of foreign exchange, almost twice as large as the value of exports, more

than seven times the value of foreign aid and almost fivefold the amount of foreign direct investment in 2005.

In view of the extremely dynamic nature of the Albanian migratory phenomenon, the main objective of this paper is to model migration trends and update our knowledge and understanding of migration in Albania, based on the 2005 Albanian Living Standards Measurement Survey (ALSMS) carried out by the Albanian Institute of Statistics (INSTAT) in collaboration with the World Bank. The 2005 ALSMS contains a number of innovations, particularly in relation to the migration module, which enable us to fully characterize the evolution of migration since its onset in 1990. Specifically, the paper will analyze the determinants of the decision to migrate, and to return, using a conditional hazard model, allowing us to assess the influence of changing conditions, e.g. household demographics and other time-dependent variables such as shocks, networks and migration policies. The goal is to answer some of lingering questions in the current policy dialogue on migration in Albania. Are migration and the remittance flow tapering off? Is the demographic and socio-economic make-up of migrants changing over time? Is the flow of returnees increasing, and what is its composition?

Characterizing international migration flows

As widely documented in previous studies (for instance Carletto *et al.* 2004; INSTAT 2004; King *et al.* 2005; King and Vullnetari 2003), Albania is a country on the move, with massive levels of both internal and international migration. In this section of our paper, based on full migration histories reconstructed in the ALSMS 2005 using recall methods, we reconstruct international migration from Albania since 1990. ALSMS 2005 contains an unusually rich module on international migration for both current and former household members. In addition, the migration module collected extensive information on migrant networks.

Specifically, we will describe two different migration patterns, current and past migrants, and later model them separately. This latter group is also analyzed based on the year of last return to better characterize the flow of returnees. Current migrants are defined as all former household members who no longer live in the household and are currently living abroad.[1] Conversely, past migrants are all current household members who have been abroad for at least one month since 1990, and have now returned to live in

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the household. Clearly, any migration decision is not irrevocable, thus a permanent migrant may decide to return at some point in the future; while a current household member with past migration experience may decide to migrate permanently at some time in the future. Hence the distinction, common in migration studies, between temporary and permanent migration, is inherently problematic. The issue is particularly thorny for the most recent migrants who may still be in the process of making a final decision on where to settle indefinitely. For this reason, we only include migration episodes that have occurred up to December 2004; thus, we only consider migrants who have been abroad for at least six months (for current migrant), or must have returned in Albania at least six months before the survey (for past migrants).[2]

Current migrants

As shown in Figure 1, the flows of (current) migrants have fluctuated considerably, more than doubling in the aftermath of the collapse of the notorious pyramid scheme in 1997, peaking in 2000 at about 50,000 new migrants per year, and steadily decreasing after that.[3] The latter downward trend is particularly relevant to the current policy debate. Is migration from Albania now tapering off? What is driving the downward trend of recent years? Several pertinent hypotheses will be explored later in the paper when we analyze changes in the determinants of migration over time.

Figure 1 *Flow of current migrants, by year of migration*
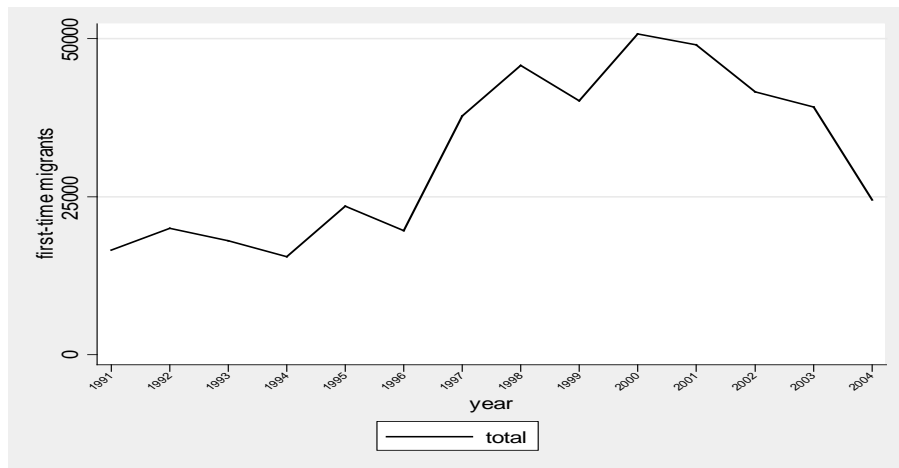
In terms of place of origin within Albania of these external flows, the largest proportion comes from rural areas and the gap across location has increased over time: in

fact, by 2002, migration from rural areas accounted for about two-thirds of total migration, as shown in Figure 2.

Figure 2 *Permanent migrants by location of original household, 1991-2004*
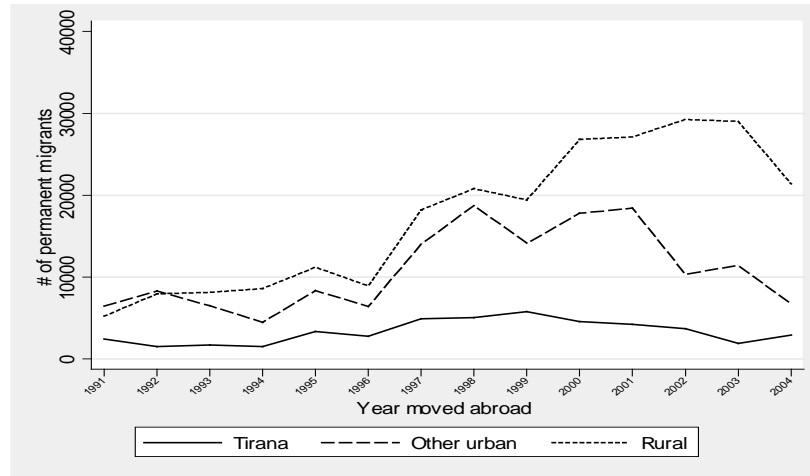
Looking at the trends of current migrant flows by regional stratum[4] reveals an important finding: reflecting the overall trend, the number of new migrants has dropped considerably over the past few years in all but the Mountain stratum, where migration flows have considerably increased since 2000 (see Figure 3). The Mountain region is the poorest in Albania, with poverty rates well above the national average (Zezza *et al.* 2005). This region, at least in the early stages of migration, seemed to have been excluded from the massive movements of international migrants that characterized other regions of the country. The trend is clearer in Figure 4 where we report the shares of permanent migrants: the Mountain region is the only one exhibiting a continuous upward trend, becoming steeper over the past several years, by 2004 representing over 10 percent of the stock of current migrants. These trends reflect a change in the composition of migration flows in terms of their geographic origin within Albania, with the poorest Mountain regions contributing an increasing share of total migration, while the other regions show almost constant trends. It must me noted, however, that despite this trend, the bulk of current migrants are still from the Central and Costal region.

Figure 3 *Flow of permanent migrants by region, 1991-2004*
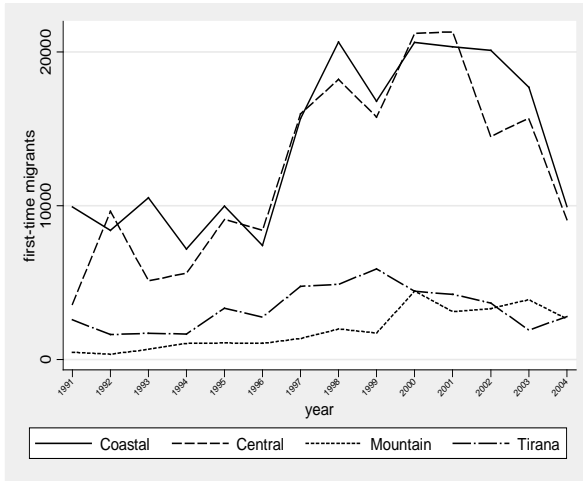
Figure 4 *Shares of permanent migrants by region, 1991-2004*
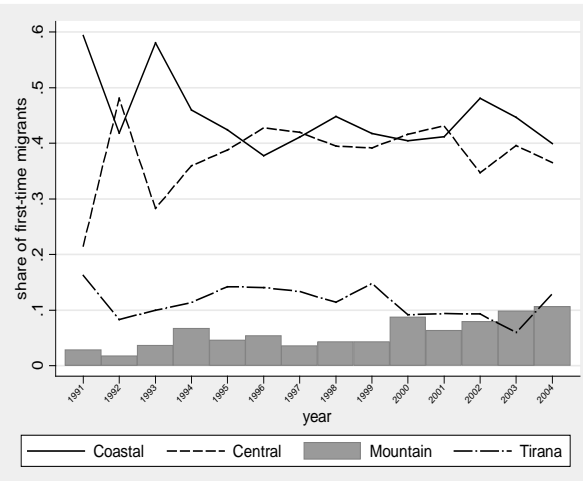
As can be seen in Figure 5, an increasing number of members living the original households tend to set up their own families in Albania and migrate less abroad. Despite this trend and the decreasing number of overall emigrants in very recent years, however, the shares of 'split-offs' moving abroad remain remarkable, with about half of the 2004 split-offs currently residing abroad. Also, considerable differences can be observed in terms of country of destination of these first migration episodes: while overall Greece and Italy each account for about 40 percent of total current migration, the pattern has fluctuated somewhat over the years, presumably in response to country-specific migration policies and other pull factors.

Figure 5 *Current residence of split-offs, by year in which they left*
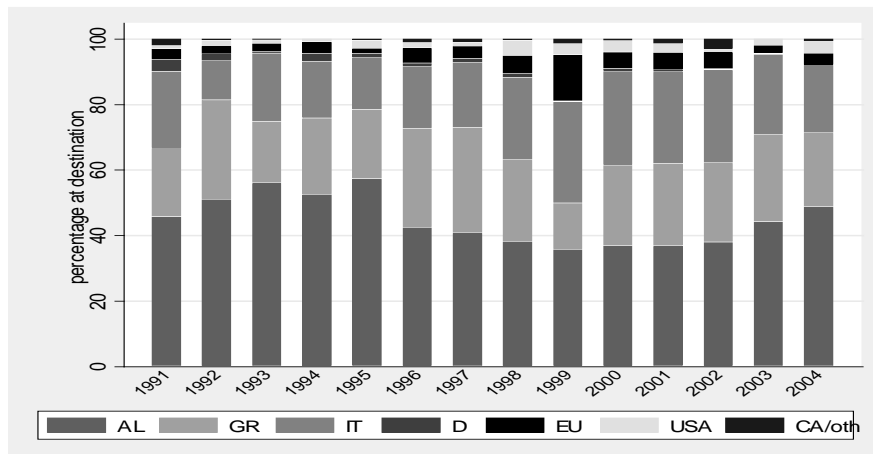
Particularly revealing is the large increase of migration to Greece in the two years preceding the first regularization campaign in 1998 (this also coincides with the years immediately following the collapse of the pyramid scheme), followed by a drastic drop in 1999, when the proportion of migration to Italy and beyond was at its highest.

The same relationships can be seen in the Figure 6, where we report the total number of emigrants by year of migration and country of destination, as well as the recent regularization programs in Greece (the solid vertical lines) and Italy (the dotted vertical line). In recent years, migrants tend to go farther away than before. Since 1999, Italy has become the most popular destination for individuals moving abroad for the first time, though migration flows to this destination are steadily decreasing, particularly after the big regularization program of 2002 and as a result of stricter migration policies after that (King and Mai 2008, 85-6). Despite the downward trend of recent years following a peak in 1999, proportionately more people are now migrating to other European destinations such as the UK and Germany, as well as to North America. Presumably, following the establishment of migrant networks abroad, migration becomes less onerous, allowing people to travel longer distances to more preferred destinations and settling there. We will explore these hypothesized relationships in more detail later.

Figure 6 *Destination of current migrants*
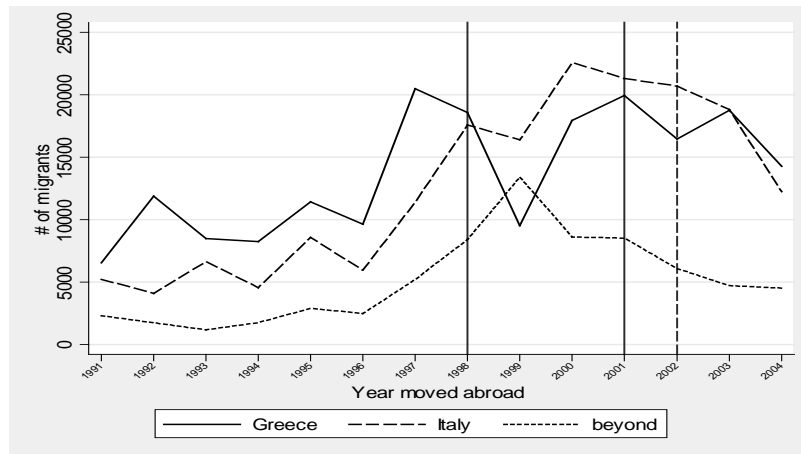
The demographic and socio-economic make-up of current emigrants is also changing: older individuals and more women are migrating in more recent years. Figure 7 shows that females moved from 20 to 60 percent of the male flow within a decade 1991-2001;

while Figure 8 shows that average age at migration increases over time, except for females. Both trends may have substantial implications in terms of future remittances as a consequence of the lower earning potential of these groups. A possible explanation of these trends is the increasing flow of migrants for family reunification purposes following recent regularization schemes in the two main destination countries.

Figure 7 *Female/male ratio for first-time permanent migrants*
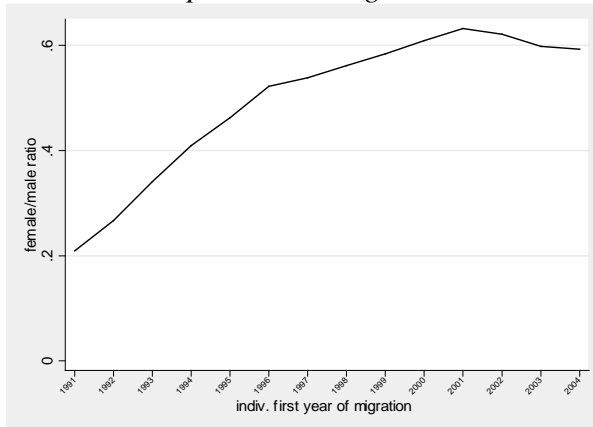
Figure 8 *Average age at migration by gender*
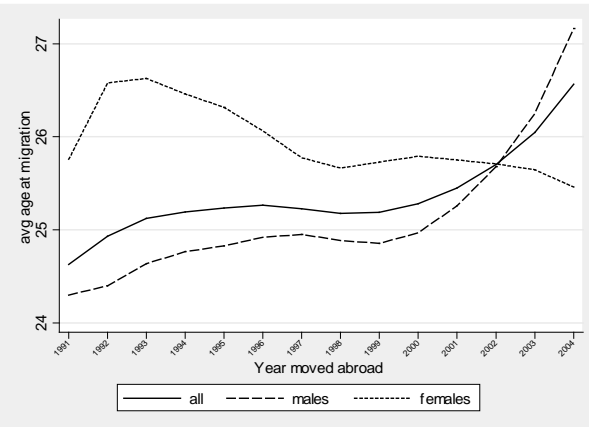
Furthermore, larger numbers of less educated individuals are migrating in recent years. Interestingly, female migrants are on average more educated than men, particularly in the 1990s; the gap narrows somewhat after 2000 (Figure 9). The breakdown of the education trends by main destination (Figure 10) and place of origin of the migrants (Figure 11) reveals some interesting differences.

Figure 9 *Trends in educational level of permanent migrants, by gender, main destination, and origin (1991-2004)*
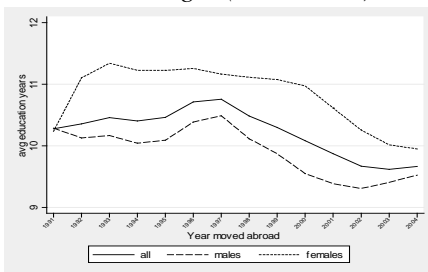
Figure 10 *Educational level of permanent emigrants by main destination*
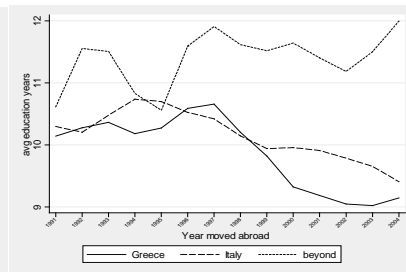
Figure 11 *Educational level of permanent emigrants by region of origin*
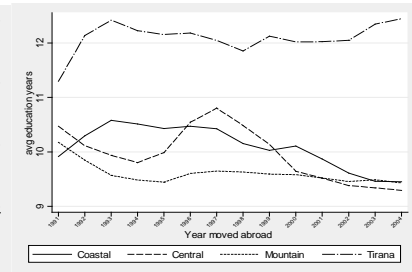
The general downward trend in educational levels does not concern the flow of permanent migrants moving from Tirana and going to destinations beyond Greece and Italy. For this particular group of migrants only, educational levels of migrants have remained stable over the years, at levels significantly above the rest going to Greece and Italy, and originating from other parts of Albania.

Table 1 gives further evidence on some of the contrasts already noted, and introduces new variables into the analysis. Permanent migrants are generally younger, male and slightly more educated than the average adult left behind. They are also more likely to come from female- and single-headed households.[5] As expected, migrants come from larger households (in 1990) which, largely as a result of migration, are now significantly smaller. Similarly, households with migrants are on average less educated, partly as a result of the migration of the more educated members in the household. Also, migrant households are significantly older, following the migration of the younger members in the family. Finally, households with a migrant are also wealthier, as illustrated by the different poverty indicators, although clearly the causality direction is ambiguous.[6]

Table 1 *Characteristics of permanent migrants and their household of origin*

	non-migrants	*migrants*	*Total*
Individual characteristics			
% of females	0.69	0.35	0.53
age	36.6	31.5	34.22
years of schooling	9.8	10.1	9.96
Household characteristics			
poverty headcount	0.21	0.12	0.19
severe poverty	1.62	0.61	1.33
poverty gap	4.7	2.2	4
dependency ratio	0.84	0.81	0.83
household size	4.54	3.48	4.18
household size in 1990	5.07	6.36	5.51
number of adults (age>=15)	3.24	2.93	3.14
number of adults in 1990	3.76	5.81	4.46
head is female	0.08	0.18	0.11
average adult years of education	9.23	8.36	8.93
max adult years of education	11.08	10.12	10.75
head is unemployed	0.05	0.04	0.04
head is married	0.90	0.84	0.88
head is widow/er	0.07	0.15	0.09
head is single	0.10	0.16	0.12
age of household head	48.5	59.3	52.14
average age of adults in household	39.7	46.3	41.95

Note: Shaded cells indicate significance at the 5 percent level, or lower.

Past migrants

In a similar fashion as was done in the previous section, we now explore trends and characteristics of past migration of household members. As mentioned, we classify as past migrants all current household members who have been abroad for more than one month continuously and have returned to Albania prior to December 2004. The make-up of this group of migrants is rather different, both in terms of their socio-economic and demographic characteristics as well as in terms of their geographic origins and destinations.

Approximately 13 percent of adult individuals reported having spent at least one month abroad during the last 14 years, of whom about half (53 percent) are household heads. At the household level, this translates to about one in three households in Albania having had at least one episode of temporary migration since 1990. The vast majority of these households (82 percent) have had only one member abroad. This suggests that, contrary to permanent migration, temporary migration is generally taken up by only one household member, mostly the male household head.

The time-series trend reveals a bimodal distribution, with the two peaks corresponding to the initial opening of the borders in the early 1990s and the years immediately following the collapse of the pyramid scheme in late 1996 (Figure 12).

Figure 12 *Flow of first-time temporary migrants by gender*
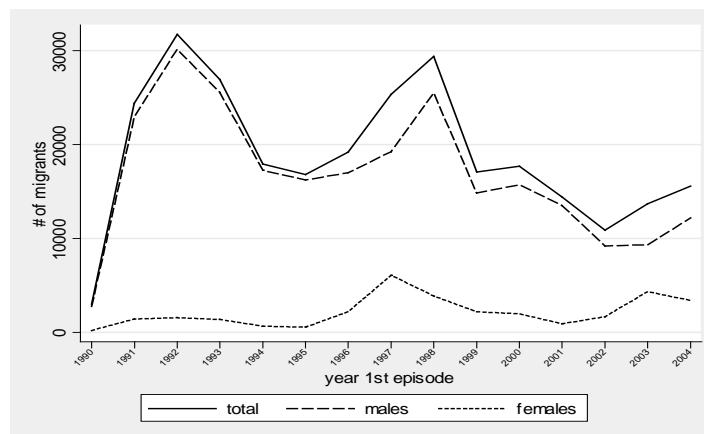
As noted earlier, the peak in the early 1990s captures the massive out-migration of those years which, in the majority of cases, eventually resulted in a return to Albania. Also, in net contrast with the characterization of permanent migration, temporary migrants are

almost exclusively male, capturing the male-dominated nature both of the first wave of migration in the early 1990s and of seasonal/circular work migration, mainly to nearby Greece.

Although the number going to Greece has dropped significantly over the past few years, Greece remains by far the main destination of these temporary flows (Figure 13). It is interesting to note that the overwhelming majority of the early wave of migrants, who eventually returned to Albania, had gone to Greece. Although not surprising, the magnitude of the difference across destinations, particularly with Italy, is nonetheless remarkable. This net differentiation in patterns of temporary migration by destination must be interpreted in conjunction with the trends in current migrants and is likely to be the result of multiple factors, including the make-up of these initial migrants and the conditions and policies in the host countries, which ultimately determined who stayed abroad (considerably fewer, more equally divided between Greece and other destinations) and who returned (mostly from Greece).

Figure 13 *Flow of first-time temporary migrants by destination*
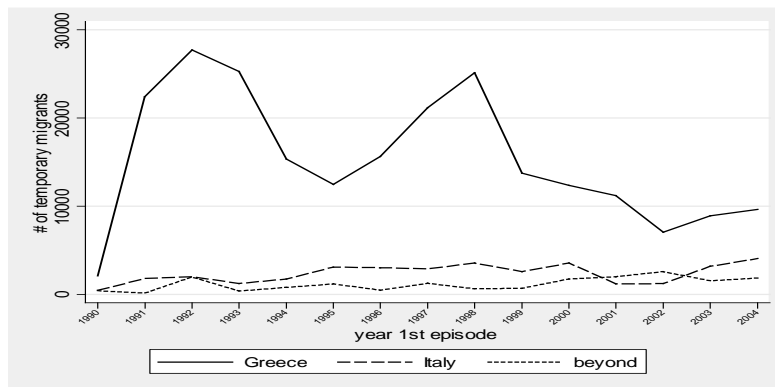
Similarly to what was observed above for permanent flows, the education levels of temporary migrants have been deteriorating over time, while the average age of migrants has increased (Figures 14 and 15 respectively). With respect to the age of temporary migrants, it is interesting to note the peak corresponding to the years immediately following the collapse of the pyramid saving schemes. The trend is indicative of an intensification of push factors, inducing migration of less suitable candidates. Since 1999, however, the average age at migration for first-time temporary migrants has once again dropped down below 30 years of age.

Figure 14 *Education of first-time migrants (number of years of schooling)*
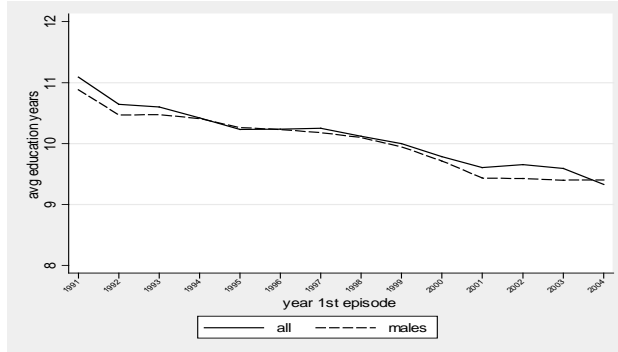
Figure 15 *Age of first-time migrants*
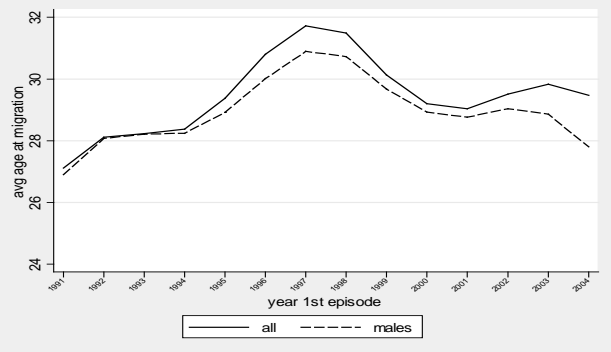
As expected, a larger share of temporary migrants originated in rural areas, mostly from the Central region closer to the Greek borders (see Figures 16 and 17). Although to different degrees, all areas experienced an increase in outflows in the periods after the opening of the borders and the collapse of the pyramid scheme. This last peak also coincides with the 1998 regularization in Greece, which may account for part of the increase in 1997-98. In fact, we observed that most of the 1998 flow originated in the rural areas of the Central region, the primary reservoir of migration to Greece.

Figure 16 *Flow of first-time temporary migrants by location of original household*
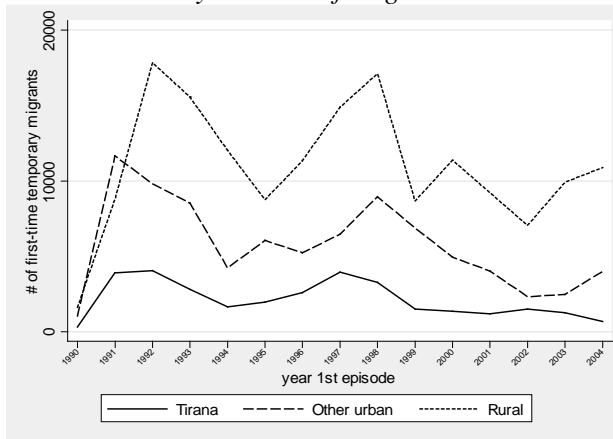
Figure 17 *Flow of first-time temporary migrant by region of residence of original househo*
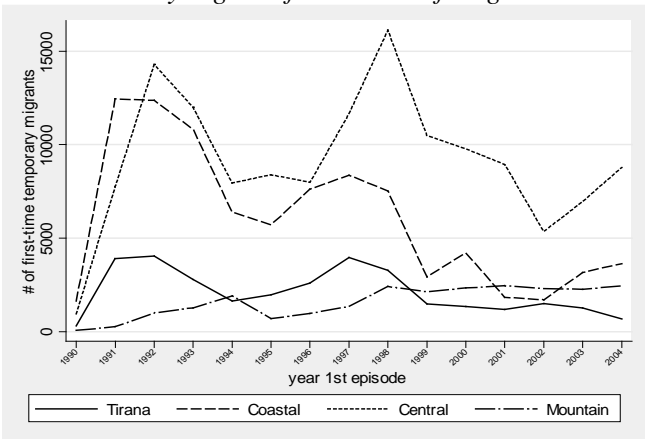
The flow figures, considering both the timing of temporary departures and returns, are cumulated in Figure 18 to estimate the stock of temporary migrants abroad in each year. As expected, the stock of temporary migrants abroad in a given year sharply increased in correspondence of the two major episodes of migration 'outbreak' in the early 1990s and post-1996, and have leveled off over the past few years.

Figure 18 *Stock of temporary migration by destination*
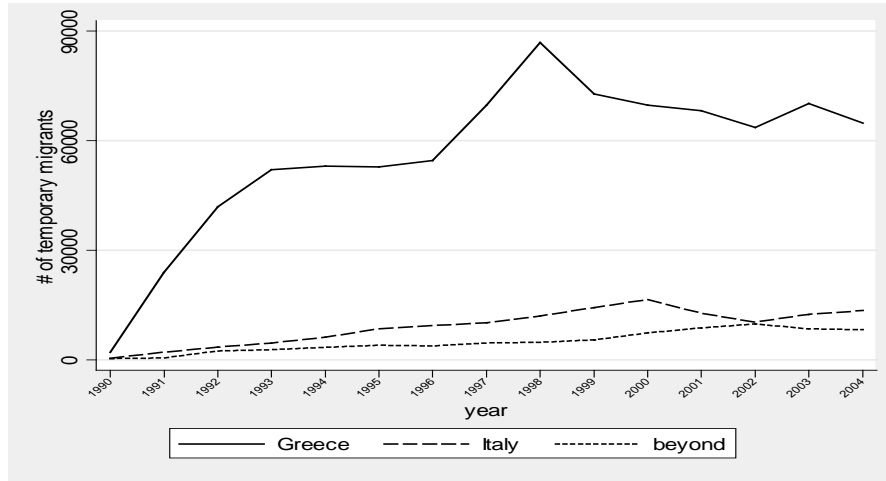
Moving now to migrant vs. non-migrant comparisons, temporary, short-term migrants are mainly younger, male, married, slightly more educated individuals from male-headed and more numerous households (Table 2). On average, they have migrated about four times in a 14-year period for a total of 26 months .[7]

Table 2 *Characteristics of temporary migrants and their families*

	Non- migrants	*migrants*	*Total*
% of females	0.58	0.12	0.52
age	41.8	37.8	41.26
years of education	8.7	10.1	8.92
poverty headcount	0.18	0.19	0.19
severe poverty	1.32	1.35	1.33
poverty gap	3.98	4.04	4
unemployment ratio, last week	0.11	0.09	0.1
dependency ratio	0.82	0.84	0.83
household size	3.93	4.71	4.18
number of adults (age>=15)	2.98	3.45	3.14
head is female	0.14	0.06	0.11
average adult years of education	8.82	9.17	8.93
max adult years of education	10.58	11.11	10.75
head is unemployed	0.05	0.04	0.04
head is married	0.86	0.92	0.88
head is widow/er	0.11	0.07	0.09
head is single	0.14	0.08	0.12

Note: Shaded cells indicate difference significant at 5 percent, or lower.

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Returnees

In the previous section, we analyzed past migrants based on the year of first migration. A different way to look at this group is to look at flows of returnees by year of return. In Albania little attention has been paid, both in policy-making and in research, to return migration, a phenomenon which is becoming increasingly important as the migration process matures. As seen in the previous section, much of the migration from Albania, particularly the flow to neighboring Greece, has traditionally been temporary in nature, whether seasonal or circular.[8] The limited empirical evidence available seems to suggest a 'migration cycle', involving multiple migration episodes prior to settling, either in the host or the source country (Labrianidis and Hatziprokopiou 2006). Most migrants tend to stay abroad long enough to save sufficient money to better their conditions at home. According to available evidence, few at the onset decide to leave for good, although many will end up staying abroad permanently (Nicholson 2001; Labrianidis and Kazazi 2006). Clearly, the decision to migrate (or to stay) is neither definitive nor irreversible: although 70 percent of the returnees interviewed by Labrianidis and Kazazi (2006) reported they had returned for good, more than half also declared that they would migrate again if necessary.

In today's Albania, emigration and return migration go hand-in-hand: while a stable flow of individuals continue to emigrate towards increasingly more distant destinations, a growing number of returnees are establishing residence back home. A fair share of these returnees use (some of) their foreign earnings to set up low-return family businesses, often small replicas of the businesses they were exposed to while abroad (Labrianidis and Hatziprokopiou 2006). The probability of establishing such small enterprises increases with the time they spent abroad (Kule *et al*. 2002). Kilic *et al*. (forthcoming) also find evidence of a positive and strong relation between return migration and business ownership and find that the likelihood of being involved in one's own business is highest among households returning from countries other than Greece. However, in most cases these businesses are small, low-return and informal family endeavors in the service sector, suggesting poor entrepreneurial skills on the part of the returnees (Nicholson 2004).

Nonetheless, the potentialities of return migrants are enormous, both in terms of the financial and possibly human capital that they bring back - to date a vastly untapped

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resource. Here we take advantage of the ALSMS to characterize the flow of returnees and, based on these characteristics, assess its potential for development. As expected, the time-pattern of return migrants is increasing at an impressive rate, especially since 2001, and it is male-dominated, as shown in Figure 19.

Figure 19 *Flow of return temporary migrants by gender*
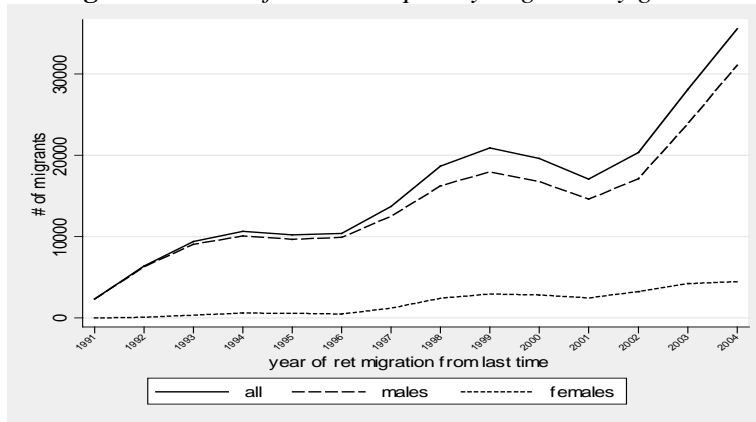
Presumably, the most recent returnees are more likely not to have completed their 'migration' cycle and, as shown in Figure 20 below, are more likely to migrate again in the immediate future. Consequently, at a minimum the figure for 2004 should be taken as an overestimation of the actual flow of returnees, as some of the recent returnees may end up settling abroad in a future migration episode. However, even if we consider the peak in 2004 a statistical artifact, the upward trend is unequivocal and its potential impact undeniable.

Figure 20 *Share of return temporary migrants by intention to migrate again*

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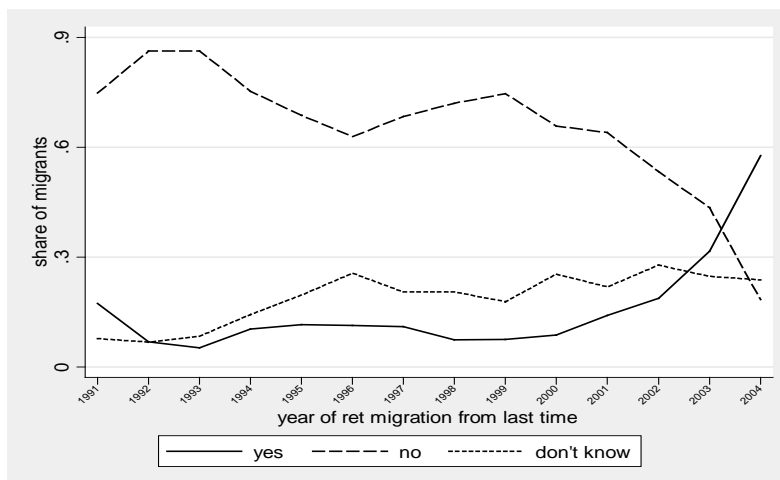
The time trends in demographic and socio-economic characteristics of these flows are not very encouraging and are indicative of little 'brain gain' (Figure 21). Returnees' average years of education is decreasing steadily since 1995 and at a steeper rate than the downward trend observed in the education level of new migrants (Figure 9). Furthermore, although the peak in the average age of returnees around 1999 could be expected in view of the massive outflows of older migrants following the 1996-97 pyramid scheme crisis in which the majority of Albanians lost most of their savings, the spike in most recent years may be a matter of concern (Figure 22).

Figure 21 *Average education of last-time migrants by gender*   **Figure 22** *Average age of last-time migrants by gender*
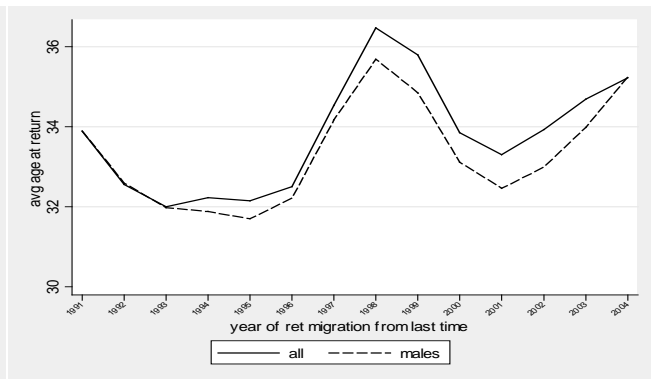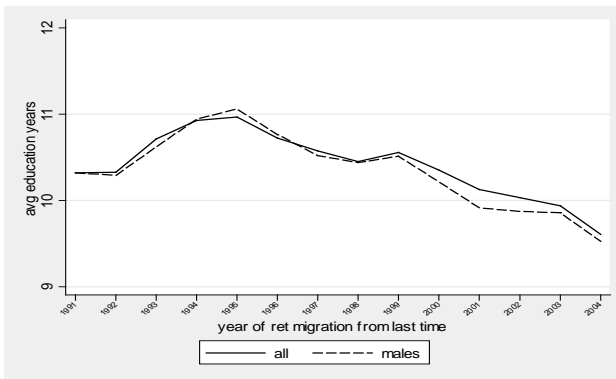
Even more disturbing are the trends in terms of welfare: in recent years, returnees are coming back to poorer households compared with earlier years. All these trends combined are suggestive of some negative selection among migrants, with increasingly older, less educated individuals returning to poorer households. As such, and as put forth anecdotally by Barjaba (2000), return migration may reflect failure to succeed abroad, thus making it a less likely catalyst of growth at home. De Coulon and Piracha (2003) also find evidence of negative self-selection among returnees. Not surprisingly, the lion share of returnees comes from nearby Greece (Figure 23).

Figure 23 *Flow of returning temporary migrants by last destination*
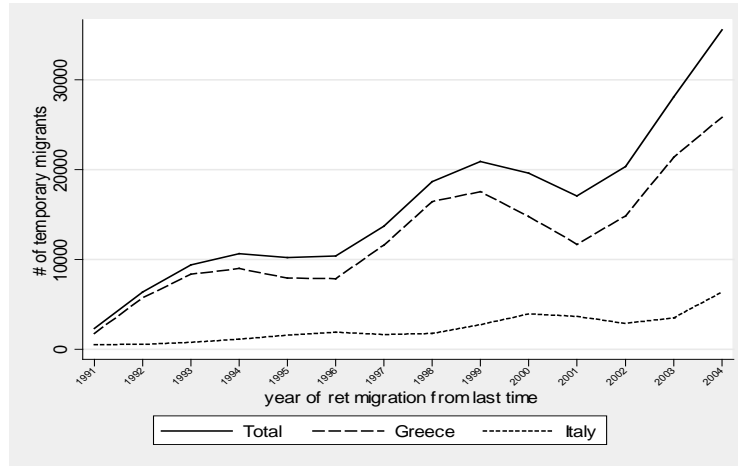
Modeling migration and return decisions

The empirical model

The descriptive analysis set out above has revealed an extremely dynamic process, both in terms of migration trends as well as their correlates. From a policy perspective, it becomes crucial to relate determinants to outcomes and to understand how changes over time have influenced migrants' decisions. Migration is a repeated decision which an individual continues to make every year when he or she decides to either migrate or stay in Albania; and for those who have migrated, whether to return or stay abroad. As such, modeling the decision to migrate using dichotomous choice models, as often encountered in the literature, may be limited and misleading as such models ignore the dynamic and repetitive nature of the process. We therefore suggest that the migration process is more properly modeled as a repeated decision conditional on past occurrences and affected by changing conditions over time. In addition, dichotomous models fail to provide information on the diffusion of migration and thus on the role played by changing conditions on the spreading, or thinning out, of the phenomenon. In this study, we model both the decision to migrate, as well as the decision to return, using a single-spell duration model framework.[9] The pre-migration and migration spells will be analyzed in relation to a number of time-variant (and invariant) covariates in order to shed light on the dynamics of migration, its diffusion over time, and the efficacy of policy interventions in regulating migration flows.

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Here we first model the individual decision to migrate abroad using a single-spell duration model with time-varying covariates. In this context, the spell is identified as the number of years between the first year of the individual's exposure to the 'risk of migration' and the actual year of migration.[10] Individuals who have not yet migrated by 2004 are treated as right-censored, indicating that they are still at risk of migration, and their pre-migration spell may end at some unobserved future date. We estimate three separate models. We first estimate a model where no distinction is made between types of migration and model the decision of first migration. We then separate the spells for permanent and temporary migrants to test the hypothesis that the processes are driven by different factors.

In a similar fashion, for migrants only, we estimate a second model where the spell equals the number of years between the first (departure) and the last (return) migration episodes. As such, the spell is a measure of the individual's migration cycle, where we estimate the probability of return conditional on having migrated, i.e. we restrict the sample to those individuals who, by the end of 2004, had migrated abroad. Again, some migrants are still abroad and may decide to return at some unobservable future date and thus we treat these observations as censored.

To test the robustness of the estimation to the functional specification, we also estimated the same models assuming a Weibull hazard function. Differently from the Weibull specification, the log-logistic is a more flexible form as it does not impose a monotonic hazard rate. We only report the estimates of the more flexible log-logistic specification; however, the Weibull results are qualitatively similar both in terms of sign and magnitude of the coefficients.

Being the effect on the hazard rates, in all models a positive coefficient is associated with a longer spell; thus, in the first migration model, this means that higher values of a covariate correspond to a lower probability of early migration, i.e. a longer *pre-migration* spell. Conversely, in the return model, the same positive coefficient will be associated with longer *migration* spells, i.e. delayed or no return.

The determinants of migration and return

In our migration model, of particular interest are a number of variables that, given their time-variant nature, make the migration estimations distinctive. Specifically, we

introduce two time-variant variables measuring the build-up of the migrant networks at each year since 1990, in Greece or in Italy and beyond. The assumption is that that decision to migrate each year will depend on the specific network in each country at that time, with larger networks making migration more likely to occur. Furthermore, we include a number of time-variant variables indicating the household's exposure to various types of shocks. The specific shocks include the pyramid scheme collapse, the loss of property, loss of job of a breadwinner, and illness and death in the family. We also introduce an epoch dummy for the period 1999-2004 to capture the effect of various regularization schemes in Greece and Italy.[11] Finally, we control for a number of demographic and socio-economic features at the individual and household level. The estimation of the three models of first migration using a log-log specification is reported in Table 3.

For return, similar variables as in the first model – with the exception of the following – are used. On the one hand, we control for the country of destination, as each country shows different pull factors. Finally, we also control for the migrant's occupation during the last migration episode, with being unemployed as the reference group. Presumably, individuals employed in better jobs can be assumed to be better integrated in the host country and thus less likely to return.

Results

Migration

We see from Table 3 that older females from the Mountain region are among the least likely to migrate, whether temporarily or permanently. Everything else held constant, individuals from the Coastal and Central regions, particularly if they are from urban areas, are the most likely to migrate permanently, while individuals from the Mountain region are less likely to migrate compared to individuals from Tirana, the reference stratum. Education has a positive impact on the timing of migration: more educated individuals are more likely to migrate sooner.

As predicted, well established networks abroad, regardless of the type of migration, increase the probability to migrate sooner. While this is true for permanent migration, it is interesting to note the shift in sign of the Italian network on temporary migration, suggesting that households tend to specialize in terms of destinations and types of

migration, with households with well established networks in Italy being less likely to send temporary migrants (to Greece).

Table 3 *Maximum Likelihood Migration Duration Models (log-logistic hazard function)*

	any migration		perm migration only		temp migration only	
	coef	rob.sd	coef	rob.sd	coef	rob.sd
origin of spell	-0.008**	0.004	-0.016***	0.005	0.029***	0.01
gender (female=1)	0.673***	0.025	0.283***	0.025	1.562***	0.067
coastal region	-0.197***	0.033	-0.221***	0.039	-0.132	0.082
central region	-0.071**	0.034	-0.091**	0.041	-0.046	0.081
mountain region	0.114***	0.035	0.057	0.042	0.204**	0.082
urban areas	-0.024	0.021	-0.090***	0.026	0.102*	0.053
age (in years)	0.049***	0.001	0.052***	0.002	0.046***	0.003
years of education	-0.123***	0.018	-0.095***	0.02	-0.162***	0.046
years of education squared	0.005***	0.001	0.004***	0.001	0.007***	0.002
no. of household members age 0-14	0.013*	0.008	0.039***	0.01	-0.035**	0.017
no. of males in household age 15-35	-0.006	0.009	-0.099***	0.011	0.124***	0.028
no. of females in household age 15-35	-0.050***	0.012	-0.016	0.015	-0.060*	0.035
no. of males in household age 36-55	-0.118***	0.013	-0.298***	0.018	0.224***	0.03
no. of household members age >55	-0.095***	0.016	-0.235***	0.021	0.313***	0.045
migrant network in Greece	-0.322***	0.022	-0.240***	0.021	-0.245***	0.067
migrant network in Italy and beyond	-0.234***	0.019	-0.235***	0.019	0.175***	0.062
household-level shocks						
pyramid collapse	0.007	0.056	0.054	0.063	-0.375***	0.126
property loss	-0.002	0.05	-0.016	0.061	0.026	0.126
job loss	0.001	0.019	0.086***	0.023	-0.139***	0.042
illness/death of household member	0.029**	0.014	0.021	0.015	0.046	0.048
wealth index in 1990	-0.018***	0.005	-0.006	0.007	-0.041***	0.013
regularization programs (epoch dummy >1998)	0.180***	0.026	0.174***	0.03		
constant	2.099***	0.115	2.624***	0.129	2.570***	0.299
logarithm of gamma	-0.996***	0.019	-1.052***	0.028	-0.533***	0.026
gamma	0.369		0.349		0.587	
no. of subjects	12,753		12,753		12,753	
no. of failures	2,955		1,971		984	
total time at risk	147,757		155,428		158,298	
log-likelihood	-6,041		-4,304		-3,400	
chi2	4,916		3,664		1,036	
prob.	0		0		0	
note: .01 - ***; .05 - **; .1 - *						

Another interesting finding relates to the differential effect of various types of shocks on the different types of migration. The collapse of the pyramid schemes at the end of 1996 appears to have triggered a massive exodus of migration which, however, in most cases ended up being only temporary. As also suggested by the descriptive statistics, the sudden loss of savings created a strong push for less suited individuals, such as older and

less educated people, to migrate. However, these individuals were also the most likely to return after a period abroad.

Better-off individuals (in 1990), as measured by an asset index, were the most likely to migrate sooner, but only temporarily. The results may be driven by the specificity of the indicators, as the index includes only a limited number of durables in 1990. It may also indicate the existence of a threshold, with more distant permanent destinations being beyond the reach of the majority of the potential migrants, given the generally inadequate asset position amongst most Albanian households in 1990.

Finally, the demographic composition of the household at the time of each migration episode does count,[12] supporting the idea that migration is a household-level decision, as implied by the New Economics of Labor Migration (NELM) theories (Stark and Bloom, 1985; Stark, 1991). Availability of working-age males makes permanent migration significantly more likely, while the presence of children in the household tends to delay it. On the contrary, the impact on temporary migration is virtually the opposite. This, again, could be suggesting that permanent and temporary migrations are substitute income strategies, and the household's pre-migration composition partly contributes to the decision on the type of migration pursued.

Return

In Table 4 we report the estimate of the return model. Again, a positive coefficient indicates a longer spell, i.e. the individual is more likely to remain abroad. The findings are quite revealing. Contrary to the results of the migration model, where women were less likely to migrate, once they migrate they are also more likely to have longer migration spells or remain abroad permanently. Late migrants are more likely to return; this may be an indication of more restrictive migration policies in host countries in recent years, making permanent residence less likely. Conversely, it can also be an indication of the fact that late migrants, particularly if the first migration episodes occurred in the past few years, have had insufficient time to complete their 'migration cycle' or to decide to settle abroad. Migrants with families in urban areas are more likely to return. Also, not surprisingly, older migrants are more likely to settle back in Albania.

A rather disturbing finding is related to the education variable: more educated migrants are the least likely to return to Albania. This is particularly true for the most

highly educated, who are the least likely to ever return. The implication in terms of brain drain, and lost brain gain, are obvious and potentially very damaging to future development.

Table 4 *Maximum Likelihood Return Duration Models (log-logistic hazard function)*

	Coef.	Rob. SE
origin of spell	-0.137***	0.009
gender (female=1)	0.310***	0.076
spouse is abroad with migrant	0.897***	0.077
coastal region	0.036	0.085
central region	0.055	0.085
mountain region	0.133	0.094
urban areas	-0.158***	0.060
age (in years)	-0.023***	0.003
years of education	0.240*	0.135
years of education squared	-0.025**	0.012
years of education cubed	0.001*	0.000
no. of household members age 0-14	-0.085***	0.022
no. of males in household age 15-35	0.125***	0.031
no. of females in household age 15-35	-0.080**	0.037
no. of males in household age 36-55	0.320***	0.037
no. of household members age >55	0.351***	0.041
migrant network in Greece	0.105***	0.032
migrants network in Italy and beyond	0.170***	0.044
minimum distance to border crossing	0.001	0.001
Regularizations (epoch dummy >1998)	0.440***	0.073
country of destination		
Greece	0.629***	0.074
Italy	0.432***	0.087
occupation while abroad		
agriculture	0.138	0.099
crafts	0.493***	0.093
service	0.480***	0.113
blue collar	0.415***	0.100
white collar	0.993***	0.185
other	0.232	0.244
constant	1.608***	0.515
logarithm of gamma	-0.672***	0.028
gamma	0.511	
no. of subjects	2,955	
no. of failures	984	
total time at risk	16,736	
log-likelihood	-1,912	
chi2	1,285	
prob.	0.000	
note: .01 - ***; .05 - **; .1 - *		

As expected, the presence of a well-established network abroad, whether in Greece or Italy and beyond, delays returning to Albania. Also, having a job delays return but, as expected, the type of occupation also affects the spell, with people in agriculture the most likely, and white-collar workers and professionals the least likely, to return to Albania compared with all other occupations (see also Carletto and Kilic (2009) on this). As seen in the previous model, regularization programs tend to discourage new migration but they favor longer migration spells among migrants. Having children in Albania, as well as more females between 15 and 35 years of age, expedites return. More working-age members, as well as older members in the households, delays return. The results may in part be indicative of households at different points in their life-cycle choosing different migration strategies.

Conclusions

Overall, migration in Albania continues to be a very dynamic and all-pervasive phenomenon, with the majority of Albanian households having experienced some form of migration since 1990 and one third of households having at least one split-off household member currently living abroad. Striking changes in both the magnitude and composition of the flows are still occurring at an impressive pace, with new patterns emerging over the past few years, and old patterns stabilizing or transforming, in response to changing conditions in the main host countries and as part of a natural maturation of the migration process.

Our analysis suggests that, after the record outflows following the collapse of the pyramid saving scheme in late 1996, international migration appears to be tapering off. The various regularization programs in the two main destination countries, combined with stricter migration policies, also seem to have played a role in this stabilization. Although migration is likely to continue at a sustained level for years to come – at least as long as economic differential remains with the neighboring countries – it is obvious that the outbreak of domestic crises and sudden shocks have been behind the two large migration epochs over the past 15 years. Avoiding these types of distressing situation in the future, and ensuring a more stable economic environment, will certainly contribute to further stabilize migration flows at manageable levels.

The downward trend in current migration flows is shared by all regions in Albania except the poorer Mountain region, which instead exhibits increasingly positive trends over the entire period analyzed and which, until recently, appeared to have been cut off from this type of long-term, and presumably more lucrative, migration. Compared with the 1990s, proportionately more permanent migrants are now coming from the Mountain region. However, in terms of destinations, a lower proportion of the migrants from this poorest region make it beyond Greece and, to an even greater extent, beyond Italy. The flow to farther, more preferred destinations is still predominantly from Tirana and other urban centers. Surprisingly, though, split-off migrants from the poorer Mountain regions have a higher propensity to remit and, on average, they remit more. The poverty reduction potential of these relatively new flows of migrants, and the resulting remittances back home, is enormous; indeed, some of these effects may already be at work, as reflected in the progress in poverty reduction achieved by the Mountain region over the past few years.

As pointed out, the socio-demographic characteristics of migrants have been changing over time, suggesting an overall deterioration of the human-capital quality of more recent flows: less educated and older migrants appear more likely to migrate in recent years, in addition to an ever-increasing number of women (however the latter have higher educational levels, on average, than men). Excluded from these patterns is migration to destinations other than Greece and Italy. These other destinations continue to attract better educated and potentially more productive migrants, mostly from Tirana and other large cities. Thus, two clear flows emerge, with increasingly less educated migrants from rural areas seeking a better life in Greece and Italy, and more educated urban dwellers, often female, migrating to farther destinations in Northern Europe and North America.

Also, not surprisingly, the unstable economic situation and sudden shocks have created stronger push factors at different points in time, resulting in larger numbers of less-suitable individuals taking the migration path. However, as reflected in the trends and composition of the flows of returnees, these less endowed migrants are also more likely to return, and to return sooner. As confirmed by the ALSMS data for 2005, returnees are on average worse-off than permanent migrants and the likely stayers. Although a large share of these returnees has been successful in securing a job – often not

in agriculture – upon return, evidence from this and other studies seems to suggest that these negatively selected groups of migrants are bringing back few acquired skills to enable them to significantly improve their financial situation once back home. As a consequence of this, migrating again is often the only option left to many.

In line with previous findings (Stampini *et al.* 2008), our hazard analysis has also highlighted the importance of networks to promote migration, but also to delay return and favor integration in the host countries. As networks develop, the costs associated with migration and assimilation in the host country go down, thus facilitating migration by less suited individuals, even to farther, more favored destinations.

Notes

[1] The survey collected information on all sons and daughters of the household head and/or the spouse older than 15, as well as the spouse if he/she is no longer living in the household and residing abroad. The vast majority of these split-offs belong to the first category, with sons and daughters accounting for about 98 percent of the total number.

[2] For the same reason, figures relative to more recent years and particularly 2004 should be interpreted with caution as for these recent migrants the distinction between permanent and temporary might be less clear-cut.

[3] In this and in the following figures in this section, the year indicates the year of first migration of current migrants. Thus, in case of multiple events prior to settling abroad, we are using the timing of the first of such events. However, in the majority of cases, permanent migrants only reported one migration episode. Also, the lower numbers in the early 1990s reflect the fact that a higher number of these early migrants have now returned and settled back in Albania, as reflected in the high numbers of past migrants in these early years of transition.

[4] For this analysis we use INSTAT's fourfold regional division: Coast, Centre, Mountain, and Tirana.

[5] If migrant households are classified only considering sons and daughters abroad, as expected the proportion of female headed households drops to 13 percent, compared with 18 percent in Table 1, which also considers migrant spouses.

[6] On the one hand, poverty might be hypothesized to cause migration; on the other hand, only the more wealthy households may be able to afford migration, particularly to more distant destinations. Furthermore, the returns to migration, largely in the form of remittances, lift households out of poverty. Some of these issues are further explored in Zezza *et al.* (2005).

[7] This number is likely to be an underestimation of the total number of episodes due to the way full histories were collected. In addition, as shown by Smith and Thomas (2003) for Malaysia, some of the short episodes far back in time are likely to be under-reported, particularly when the events are multiple and spanning over a long period.

[8] Compared to Italy, the process of obtaining legal status in Greece is more difficult for Albanian migrants, as family reunification has been discouraged and migrant regularization has been slower (Baldwin-Edwards 2002). In this respect, it should not be surprising that particularly the flow to Greece has been more temporary in nature.

[9] Although the use of duration models had its origin in biomedical research, this estimation technique has been increasingly applied to a variety of issues in economics, including technology adoption, unemployment spells and even participation in social assistance programs. For reviews of empirical application of duration models in social sciences see Kiefer (1988) and Lancaster (1990).

[10] The origin of the spell is either 1990 or the year in which the individual turns 15, whichever comes later.

[11] Greece has had two separate regularizations. The first in 1998 was completed in the span of a few months, while the second, started in 2001, took longer to be implemented due to administrative difficulties. Italy's largest regularization was carried out in 2002, following several others earlier.

[12] It is worth highlighting that in each year *t* the household composition refers to year *t-1* and, as such, is not affected by migration of its household members in *t*.

References

Baldwin-Edwards, M. 2002. Southern European labour markets and immigration: A structural and functional analysis, *Working Paper* 5. Athens: Mediterranean Migration Observatory.

Barjaba, K. 2000, Contemporary patterns in Albanian migration, *South-East Europe Review* 3(2): 57–64.

Carletto, C., Davis, B., Stampini, M., Trento, S., and Zezza, A. 2004. Internal mobility and external migration in Albania, ESA Working Paper 04-13, Rome, FAO.

Carletto, C., and Kilic, T. 2009. Moving up the ladder? The impact of migration experience on occupational mobility in Albania, *Policy Research Working Paper*, n. 4908, The World Bank.

de Coulon, A., and Piracha, M. 2005. Self-selection and the performance of return migrants: the source country perspective, *Journal of Population Economics* 18(4): 779-807.

Government of Albania. 2005. *National strategy on migration*. Tirana: Government of Albania and IOM.

IMF. 2006. *Albania: Poverty reduction strategy*, Annual Progress Report. Washington DC: IMF.

INSTAT. 2004. Migration in Albania. Tirana: INSTAT.

Keifer, M. 1988. Economic duration data and hazard function, *Journal of Economic Literature* 27(2):646-679.

Kilic, T., Carletto, C., Davis, B., and Zezza, A. forthcoming. Investing back home: Return migration and business ownership in Albania, *Economics of Transition*.

King, R., and Mai, N. 2008. Out of Albania: From crisis migration to social inclusion in Italy. New York and Oxford: Berghahn.

King, R., Mai, N., and Schwandner-Sievers, S. eds. 2005. *The new Albanian migration*. Brighton: Sussex Academic Press.

King, R., and Vullnetari, J. 2003. *Migration and development in Albania*. Working Paper C5. Brighton: Development Research Center on Migration, Globalisation and Poverty. University of Sussex.

Kule, D., Mancellari, A., Papapanagos, H., Qirici S., and Sanfey, P. 2002, The causes and consequences of Albanian emigration during transition: Evidence from micro data, *International Migration Review*, 36(1): 229-239.

Labrianidis, L., and Hatziprokopiou, P. 2006. The Albanian migration cycle: Migrants tend to return to their country of origin after all, in *The new Albanian migration*, edited by R. King, N. Mai, and S. Schwandner-Sievers. Brighton: Sussex Academic Press.

Labrianidis, L., and Kazazi, B. 2006. Albanian return-migrants from Greece and Italy: Their impact upon spatial disparities within Albania, *European Urban and Regional Studies*, 13(1): 59-74.

Lancaster, T. 1990. The econometric analysis of transition data. Cambridge: Cambridge University Press.

Mai, N. 2001. 'Italy is beautiful': The role of Italian television in the Albanian migratory flow to Italy, in *Media and migration: Construction of mobility and difference,* edited by R. King, and N. Wood. London: Routledge.

Nicholson, B. 2004. The tractor, the shop and the filling-station: Work migration as self-help development in Albania, *Europe-Asia Studies* 56(6): 877-90.

Nicholson, B. 2001, From migrant to micro-entrepreneur: Do-it-yourself development in Albania, *South-East Europe Review*, 4(3): 39-41.

Smith, J. P., and Duncan, T. 2003. Remembrances of things past: test-retest reliability of retrospective migration histories, *Journal of the Royal Statistical Society: Series A (Statistics in Society),* 166 (1): 23-49.

Stampini, M., Carletto, C., and Davis, B. 2008, International migration from Albania: the Role of family networks and previous experience, *Eastern European Economics*, 46(2): 50-87.

Stark, O., 1991. *The Migration of Labor*, Cambridge: Basil Blackwell.

Stark and Bloom D. E. 1985. The New Economics of Labor Migration**, *The American Economic Review* Papers and Proceedings*, 75(2): 173-178

Zezza, A., Carletto, G., and Davis, B. 2005. Moving away from poverty: A spatial analysis of poverty and migration in Albania, *Journal of Southern Europe and the Balkans* 7(2): 175-94.