Does clandestinity damage potential development in the countries of origin? A study of illegal migrants in Italy

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Abstract

Whereas the return-remittance nexus (favouring sending countries' development) received extensive attention for legal migrants, little is known for illegal migrants, dominating migratory flows nowadays.

Based on a representative sample of illegal migrants in Italy in 2003, our analysis focuses on their expected level of remittances and intentions to return. Clandestine immigrants and asylum seekers, the two main categories of illegal entrants, substantially differ in their motivation to notify their presence to the receiving countries' authorities. The formers face higher income uncertainty. Our finding that clandestines have a lower propensity to remit has important economic consequences.

By shifting the balance from legal to clandestine migration, restrictive migratory policies damage ability and incentives for individuals to remit and, thus, sending countries' development. Temporary migration schemes lowering migrants' uncertainty and risks could benefit both receiving and sending countries.

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1. Introduction

Since the early 1990s, as globalisation gained momentum, the growing flows of foreign direct investment (FDI) from industrialised to emerging economies stimulated a passionate debate on their impact on the development of the receiving countries. It was stressed that FDI flows might engineer quicker development by removing financial constraints as well as by favouring technology transfer. Later on in the 1990s, as repeated crises hit several emerging economies previously blessed by large FDI flows, the dark side of these flows materialised in the literature with scholars underscoring how their intrinsic volatility was partly responsible for the boom-bust cycle behind those crises.

This offered an additional motivation for development economists to turn their eyes on migrants' remittances. It was, in fact, observed that large remittances were playing a role in removing financial constraints for receiving countries as well as in promoting technology transfer to these countries (see World Bank, 2004). In 2004, the international flow of remittances formally transmitted to developing countries was about $150 billion (approximately 2% of their GDP). Remittances are increasingly important not only because of their mere size but also because they provide emerging economies with a stable source of international exchange. Thus, their stability gained special attention from the macroeconomic perspective on development.[1]

Interestingly, the attention for remittances shown by the macro development economists nested on the fertile ground ploughed by micro development economists who had already explored in great detail the individual motivations behind remittances, the means to channel them and their use in the country of origin.[2]

Given that remittances and return migration should be considered as interconnected choices, the micro development literature had already reached the conclusion that return migration and remittances are the two main channels linking migration and economic development in the migrants' sending countries.

Although extensive research has been conducted on the return and remittance behaviour of legal migrants, very little is known on illegal migrants and this is mainly

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[1] However Chami, Fullenkamp and Jahjah (2003) highlight that, due to the moral hazard problem involved, remittances may be harmful to the receiving countries' development.
[2] See Rapoport and Docquier (2005) for a recent survey.

due to the lack of comparable data. However, there are at least two reasons to extend the analysis. First, the increasingly restrictive immigration policies enacted in industrial countries has more and more shifted the balance from legal to illegal migrants. Second, given the different constraints which characterise illegal migrants, in particular with respect to the greater level of uncertainty in the destination country, what was found to apply to the legal migrants is likely inappropriate for illegal migrants.

This paper focuses on the planned level of remittances and the intention to return to the home country of a representative sample of about a thousand illegal migrants crossing Italian borders in 2003. The data available concern the main demographic, socio and economic characteristics of these migrants as well as their motivations, intention to send remittances and expectations about the future.

The contribution of the paper is twofold. First, by using a unique dataset, we provide an in-depth analysis of the factors (individual and source country characteristics) affecting return and remittance decisions of illegal migrants. Second, we are able to assess how greater income uncertainty affects the two main channels linking migration and development in the country of origin. Given the lack of comparable data for legal migrants, we study the effects of income uncertainty on remittance propensity and return migration exploiting the different constraints faced by clandestines versus asylum seekers. These two classes of illegal entrants differ in two important respects: their desire/ability to be visible versus staying hidden; their wish/faculty to return to the home country versus residing permanently in the country of immigration. Asylum seekers have motivations to notify their presence to the authorities of the receiving country[3]. On the other hand, clandestine immigrants shy away official contacts, mostly waiting for the next amnesty[4]. As for return migration, this is an option open to clandestine immigrants but generally unavailable to asylum seekers, at least until major events change the situation in their country of origin.[5]

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[3] It is possible that some asylum seekers enter the destination country as clandestine immigrants and then seek asylum when they are apprehended by the police.

[4] Nascimbene (2000) analyses the first four (out of the five up to now) amnesties in Italy. Orrenius and Zavodny (2001) find that the big amnesty passed in the USA in 1986 (with the Immigration Reform and Control Act, which made legal 3 millions of illegal migrants) did not provoke an increase in the flows of illegal migrants from Mexico to the USA.

[5] The (typical) unavailability of the return option may have significant effects on migrants' behaviour given that asylum seekers have a longer time horizon for their decisions. For instance, Cortes (2004) finds higher rates of human capital accumulation for refugee immigrants compared to other immigrants to the USA.

While both asylum seekers and clandestine immigrants face a real risk of repatriation, this risk is more pronounced for those who are clandestine. Clandestine immigrants might be repatriated upon apprehension. On the other hand, asylum seekers would be repatriated in the case that the outcome of the generally long and complex procedure deciding on their request is unfavourable. Different probability of being expelled together with different incentives to be "visible" in the country of destination might have an effect on labour market performance of illegal migrants (i.e. on their ability to gain good employment opportunities and on the length of unemployment spells). Clandestine migrants face a higher income uncertainty in the host country compared to asylum seekers and, even more, compared to legal migrants.

In the empirical analysis we find that being clandestine has a potential detrimental effect on development in the migrants' countries of origin by reducing the propensity to remit. Indeed the propensity to send money in the country of origin could be negatively affected by clandestine migrants' lower ability to save (as they work precariously in the shadow economy) and/or by their need to face higher uncertainty holding a larger share of their savings at hand in the country of immigration.

While it would be optimal to assess the effect of greater risks and uncertainty on remittance behaviour by comparing legal versus illegal migrants this is hardly feasible due the lack of a suitable dataset. The strategy of comparing asylum seekers and clandestine allows us to verify whether this effect is at work. In this case, it might be considered as a lower bound estimate of the magnitude of the detrimental effects of greater uncertainty on planned remittances.

Should our results prove appropriate, we might conclude that the surge of restrictive immigration policies in developed countries, which rather than reducing the magnitude of the flows is mainly shifting the balance in favour of migration of illegal type, is likely eroding the economic benefit of migration to sending countries.

The rest of this paper is organised as follows. Section 2 discusses the determinants of remittance and return migration decisions as explored by the literature with a particular emphasis on the role of income uncertainty in the origin and destination countries. Section 3 describes the main characteristics of the Survey on Illegal Migration in Italy (SIMI) and points out the pertinent informational content. Section 4 presents empirical results whereas Section 5 summarises and concludes.

2. The determinants of remittances and the role of income uncertainty

Why do migrants remit? The literature in the field has highlighted several motives explaining remittance behaviour. The most obvious is that migrants care about relatives and friends left in the country of origin (*altruistic motive*). Theoretical models of altruistic remittances simply consider the utility of other household members as part of migrants' utility (see Banerjee, 1984).

When migration is not seen as an isolated individual decision but as occurring within a household, other motives for remittance emerge. Stark (1985) and Stark and Lucas (1982) view remittance as part of a family implicit contract which combines elements of investment (migration) and repayment (remittances). The family invests in the human capital of the migrants and finances their migration costs. Once that the migrant starts earning in the country of destination, she will start repaying the implicit (or explicit) loan back in form of remittances.

Risk diversification within a household might be seen as another important determinant of migration and remittances, see Banerjee and Kanbur (1981) and Stark and Levhari (1982). Remittances in models of co-insurance strategy within the family play the role of insurance claims.

Another motive to remit is the desire to receive an inheritance from family members left in the country of origin. Here, remittances are seen as a tool aimed at increasing the probability of being the candidates for receiving an inheritance in the future (Lucas and Stark, 1985).

Remittances might also be motivated by differential in the rates of return from capital between the origin and destination countries. In this case, migrants' savings are sent back home in order to buy properties, financial assets or make other investments. Remittance recipients, generally trusted members of the household, will administer those assets on behalf of the migrants during the migration spell.[6]

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[6] The empirical literature on remittances' determinants is rather extensive. Stark and Lucas (1988) test *altruism* vs. *risk-sharing* and find evidence in favour of the latter in Botswana. In favour of the *loan repayment hypothesis* and against *altruism* is Ilahi and Jafarey (1999). They provide evidence that remittances in Pakistan increase with migration costs and reduce with pre-migration wealth. De la Briere et al. (2002) test the *insurance hypothesis* vs. *self-interest* with data from Dominican Sierra and finds that it depends on the demographic characteristics of the migrant.

The decision to remit cannot be considered separately from the individual's decision to return. As several authors have emphasised, when there is a high probability to return, migrants have an higher incentive to save and remit (see Galor and Stark 1990; Stark 1992; Mesnard 2004). As return migrants transfer with themselves entrepreneurship, remittances may be cumulated to finance investments and start a new activity upon return.[7]

Nevertheless, little is known about propensity to remit and return intentions of illegal migrants. As already discussed above, we might expect that uncertainty and high expected volatility of income in the destination country will have a significant role in explaining illegal migrants' behaviour.

Dustmann (1997) theoretically analyses the joint decisions over return and consumption behaviour of migrants when their future income flows are strongly affected by uncertainty both in the origin and in the destination country. It moves from the result found in Galor and Stark (1990), where, supposed that the wage differential between host and home countries will last through time, migrants with a higher probability to return will save more than natives in order to face an expected income drop once back in the country of origin. Dustmann shows that, when individual utility exhibits non increasing absolute risk aversion, saving levels are explained not only by the Galor and Stark motive, i.e. by an expected future income drop, but also by the precautionary motive. In particular, by deriving a life cycle model in which migrants optimise over consumption and remigration timing in a stochastic environment, Dustmann finds that the higher the income uncertainty both in the country of destination and in the country of origin, the higher migrants will save[8].

Although Dustmann's model only examines total individual savings, applying the same argument to the size of remittances, we could expect that only income uncertainty in the country of origin would induce those planning to return home to remit more. On the contrary, uncertainty in the country of destination is likely to reduce migrants' ability to save (as they work precariously in the shadow economy) and to increase the

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[7] From this angle, the nexus between return and remit decisions underscores the possibility that the latter may depend on the former to the extent that by transferring savings from working abroad the migrant is able to overcome the financial constraints that would otherwise prevent him from starting his business upon return (Dustmann and Kirchkamp, 2002; Mesnard, 2004; Woodruff and Zenteno, 2001).

[8] Dustmann finds that income uncertainty influences also the optimal length of the migration spell, although the overall effects combines with the size of the wage gap between home and the host country.

need to hold a larger share of their savings at hand in the country of migration. What found in Dustmann (1997) appears particularly relevant in analysing illegal migrants' behaviour which is strongly characterised by risks and uncertainty.

3. The informational content of the Survey on Illegal Migration in Italy

We use a unique data source: the Survey on Illegal Migration in Italy (SIMI, henceforth). SIMI was collected from January to September 2003 by a team of researchers at the Department of Economics of the University of Bari with the support of AGIMI-Otranto.[9] The outcome of this joint effort is a survey on the main demographic and socio-economic characteristics of a representative sample of 811 illegal immigrants, as well as their motivations and future expectations. By means of "illegal immigrant" (i.e. the sampling unit) we define a (at least 18-year old) migrant that at the time of the interview had illegally entered Italy and had been staying in the country for a period no longer than 6 months either as a clandestine or with the legal status of asylum seeker. This short period minimises the measurement error when interviewees were asked to recall previous events. Note that one of the aims of the survey is to obtain an accurate recollection of earnings and expenditures before migration, as well as future expectations before departure.

These immigrants were interviewed in three types of centres, i.e. Centre of Temporary Permanence, Reception Centres and helping Centres spread in the four main regions mostly affected by the phenomenon of illegal entrance (Apulia, Sicily, Calabria and Friuli Venezia Giulia)[10].

Hence, more precisely, the observational unit is identified according to the legal status of the immigrants and in our study we consider the following two categories:

a) individuals applying for asylum or refugee status, i.e.:

▪ individuals under temporary protection for humanitarian aid;

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[9] AGIMI is a multicultural and multi-religion non-profit organization assisting migrants throughout Italy, and beyond.

[10] The original sample of 920 illegal immigrants included also a small group of illegal entrants, apprehended and waiting for an expulsion or a rejection decree (14% of the sample). As their view with respect to returning time and remittance might be drastically biased by their contingent condition of detention in a Centre of Temporary Permanence, we disregard those few cases. For a more detailed description of the sampling design, of the adopted questionnaire and of other results see Chiuri, De Arcangelis, D'Uggento and Ferri (2004).

▪ individuals that should be repatriated to a country where they would be persecuted for reasons concerning race, gender, language, religion, opinions, citizenship, personal or social condition or that would be repatriated to a country where they would not be protected from prosecution (ex art.19, 1° comma, D.lgs. no.286/98).

b) clandestine migrants: i.e., a foreigner with an expired (or no) visa that has been on the Italian territory for no longer than 6 months and that usually attends a typical migrant meeting point, like a "soup kitchen", orientation provided by voluntaries and NGOs, etc.

Overall, the 811 interviewed individuals belonged to 55 different nationalities, with the six largest fractions coming from Iraq (9.6%), Liberia (9%), Sudan (5.4%), Morocco (5.1%), Senegal (4.8%), Turkey (4.8%). The total number of interviews represented 10.82% of all the 8,502 illegal migrants that were hosted in the selected centres in the period January-September 2003. On average, the illegal migrant approaching Italy, was young (about 27 years old) and healthy. Most of the interviewees stated to be literate (85.8%), with some of them claiming a discrete considerable level of schooling, although only about 1/3 of them declared having a driving licence (35.2%). Nevertheless, about 70% of the interviewees indicated possessing low-skill qualifications. Several socio-economic indicators were also measured by considering the "geographical origin" within the country (whether coming from large cities or from the periphery or from the countryside), the availability of different utilities in the original home, the occurrence of recent natural disasters and economic crisis in the area of the migrant's dwelling. The declared individual monthly income in the country of origin was on average around 145 USD, with a very high variability due to the extreme heterogeneity of the socio-economic conditions of the interviewees. It is noteworthy that more than a half of the interviewees, once settled down in country of final destination, expected to monthly earn a monthly wage between from 500 and 1,000 USD, with an average of 937 USD. The average duration of the trip was 199 days and 45% obtained credits for financing the trip (mainly from relatives or friends). Migration is a major investment for the family: on average it is equivalent to 2 years of family earnings in the country of origin. Finally, it is worth remarking that 1/3 of the respondents judged their monthly income as "very volatile".

4. The empirical strategy

In this paper we are interested in analysing the choice over the remittance level for those (illegal) entrants who intend to return. In order to do so, we implement an ordered probit model with sample selection (Heckman ordered probit model) where the choice among four threshold remittance levels (high/intermediate/low and very low) is conditional to the expectation to return. To the best of our knowledge, there is very little evidence in the literature concerning illegal entrants and therefore we base our empirical analysis in the light of recent findings concerning legal immigrants (see Ilahi and Jafarey, 1998; Galor and Stark, 1990; Dustman, 1996, 1997, 2003). As emphasized in the existing literature, migrants' return and remittance behaviour is affected by a set of individual as well as country specific characteristics such as preferences for home consumption, income variance both in the origin and destination country, wage differential, expectation of future return investment opportunities and the existence of implicit risk sharing family contracts.

The variables used in the empirical estimation and our general expectations on their effects on the propensity to remit and return are summarized in Table 1.

Table 1 about here

Given the higher risk and income uncertainty faced by clandestine migrants we expect a negative sign on the dummy variable *clandestine* in the remittance equation. More ambiguous is the expected effect of this variable on the propensity to return. On one side the inability to fully make use of their human resources might induce some migrants to accumulate assets during the migration spells until when it becomes optimal to return and employ those assets/savings jointly with human capital in the country of origin. On the other side, the lower returns from a clandestine migration might induce other individuals to prolong their stay in the country of destination.

Economic and social conditions in the country of origin greatly affect the willingness to return and the amount of savings remitted. Here, we use as proxy two measures of infrastructure endowments in the developing country (one country and one village specific) together with a measure of per capita GNI.

Events such as *natural disasters*, *political and ethnic conflicts* and *economic and financial crise*s might increase the amount remitted for altruistic motives but at the same time reduce the share of savings invested in the country of origin. These events

might have profound and different implications on the intentions to return. In fact, while social conflicts or civil wars might have a permanent effect on migration, economic or financial crisis might lead to a temporary out-migration which might be subsequently re-absorbed when economic conditions improve again.

We control for the potential effect on remittance and return behaviour of belonging to a religious minority group. We also add an interaction term with an index of Ethnic Polarization (see Montalvo J.G. and Reynal-Querol M., 2005) which captures the degree of ethnic polarization within a country: the index ranges between zero (very high polarization, and higher probability of social exclusion of minority groups) and one.

In order to capture the magnitude of individuals' home attachment we use the following variables which proxy for the intensity of family ties: *number of children*, *children left at home* and *relatives left at home*. Dustmann (2003) shows that parents' return decision is significantly affected by considerations about the utility of their children.[11] In our analysis we are able to investigate whether both the number of family members and their location play a role in the migrants' decision.

In addition to family ties, preferences for the home location will also depend on the degree of c*ultural and social diversity* between the origin and destination countries; a different religion is one important dimension on which such diversities are expressed. We include a set of dummy variables in order to capture the, generally, greater psychological cost of migration faced by individuals of non Catholic believes (*Muslim, Buddhist*) and of *Asian* origin.

Previous findings in the literature regarding legal migrants show that individuals with higher *skills* and *education* have a lower propensity to return in the origin country. Nevertheless, this evidence would not necessarily hold in the case of illegal migrants, given their reduced ability to fully exploit their human capital potential. We also do not have a definite *a priori* on their effect on the relative propensity to remit.

Expectations and future opportunities in the country of origin are also influenced by job experiences before than migration took place. Thus we include a dummy variable for *unemployment status* in the country of origin and for acquired skills and

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[11] For a detailed description of the variables see Table 1 in the Data Appendix.

qualifications which typically lead to self-employment. We expect the former to have a negative effect on the propensity to return. On the contrary, we expect a positive effect of *potential self-employment* on the willingness to return. This because migration is often the only way to overcome financial constraints in the country of origin before starting an entrepreneurial project once back home.

Financial arrangements within the family could significantly affect migration behaviour (Stark and Lucas, 1988). Individuals receiving financial support from family and friends are expected to have a higher propensity to remit, especially in the case they intend to return. Less obvious is the expected sign of a control variable for *household wealth* in the country of origin (home and real estate ownership). Two contrasting motives might be in force: an altruistic motive could induce the migrant to remit less the wealthier her family is; as well higher remittance might increase the likelihood of obtaining an inheritance.

Notice that, in order to implement the two-step ordered probit model with selection, we need to introduce a number of variables that are assumed to affect *a priori* only the choice of return. Here, those variables are previous experience of migration, migration social network and (logs of) geographical distance between the country of origin and that of destination. While it is rather straightforward to expect that previous experience of migration would have a negative effect on return (Constant and Zimmermann, 2003), the effects of social network and distance might be ambiguous. However, the fact of having relatives already abroad might positively affect the probability of return in case of risk-sharing behaviour. Also, geographical distance might have a positive effect on return if illegal entrants show strong family and cultural ties.

5 The empirical results

Tables 2 and 3 respectively show the empirical results of the probit model on the intention to return (first step) and the estimates of the (Heckman) ordered probit model with selection (second step) on the propensity to remit.

Table 2 about here

We find that family and cultural ties positively affect the migrant decision to return. Also, assuming that Muslims expect a lower probability of integration in the destination country than those belonging to other religion (mainly Catholic), a positive effect on the probability of return is consistent with our expectations.

We find that economic and financial crises are perceived as less permanent than conflicts in the village of origin. Indeed, the fact of having experienced a financial or economic crisis in the last five years in the village of origin has a positive and significant effect on return whereas having experienced a social conflict has a negative and significant effect.

As expected, being unemployed before migrating, increases the variance in income in the country of origin and has a strong negative effect on return. The coefficients on the variables that proxy for future investment opportunities, namely micro and macro infrastructure and per capita GNI, in the country of origin turn out to be positive although only the last one significant. This might be interpreted as evidence of both expectation of future investment and positive response to low income variance in the country of origin.

Lastly, as expected, the probability of return is lower for those that have already experienced migration and significantly higher for those that already have relatives abroad and are geographically more distant from the country of origin.

What is the effect of *clandestinity*, and therefore higher income uncertainty in the destination country, on the intention to remit? Our analysis shows that, conditioning on return, being clandestine has a negative and significant effect on the propensity to remit. We interpret this effect as the consequence of higher risk and income uncertainty faced by clandestines *vis à vis* asylum seekers. Clandestine migrants generally face very high constraints in terms of ability to secure good employment opportunities and rarely are able to fully use skills and human capital accumulated in the home country (*brain waste*). Income earned by these individuals will be usually lower and more volatile compared to other migrants. Clandestines thus would be induced to have higher personal precautionary savings and, as a consequence, a lower propensity to remit.

Table 3 about here

In line with our expectation, we also notice that the migrants that left children at home and/or declared to be Muslim have a higher probability of remitting.

Those that expect to return intend to remit more when they have recently experienced a natural disaster in their village of origin. We find that individuals belonging to a minority group have a higher propensity to remit, and the incentive to remit is even greater at higher levels of ethnic polarization. We read these results as evidence supporting the altruistic motive within groups with stronger cultural identity.

Whereas infrastructures, social conflicts and economic crises play a role in the return decision, they do not affect the relative propensity to send money back home. However this decision is positively affected by per capita GNI.

Also, the probability of remitting a high share of income is larger for those with higher skills and education and a good potential for entrepreneurship.

The negative and significant coefficient of the family wealth variable provides evidence in favour of the altruistic motive, rather than a self-interested search for bequest. In addition, we find evidence of risk sharing behaviour as the dummy for debt with relatives and friends for financing the trip is positive and significant.

The marginal effects of each regressor on the four threshold levels are reported in Table 4.

Table 4 about here

In sum, our main finding is that the propensity to remit is negatively affected by the clandestine status. This might be due to the higher uncertainty that clandestine migrants face in the country of destination with respect to other illegal migrants. Given the relevance of remittance for development in many poor countries this result might have important policy implications. We also find evidence that remittance are induced by altruism, risk-sharing behaviour and expectations on future return investment.

5. Conclusion

This paper addressed the nexus between the return and remit decisions (both directed to the country of origin) of illegal migrants to the European Union. Economists are devoting great attention to the potential role of these decisions to ignite development in source countries by removing financial constraints (remittances) and by

fostering entrepreneurship and technology transfer (return). While this nexus has been already explored for regular migrants, little is known about illegal migrants. Yet illegal migrants face a rather different context, which leads us to presume that such nexus may exhibit different features with respect to what observed for regular migrants. Should our conjecture prove appropriate, the findings would have important policy implications, as the bulk of new inflows are now made of illegal migrants.

To start filling the knowledge gap on how return and remit decisions happen for illegal migrants we referred to Dustmann (1997) model and used a novel database recently collected on migrants apprehended in Italy, the main gateway for illegal migrants trying to reach the European Union.

Our estimates of an ordered probit on the intensity of remittances conditional on return confirmed the central role of the relative variance of expected income in the country of destination versus the country of origin, the intensity of familial links and of related altruistic motives, the likelihood of starting a business in the home country upon return. All of these determinants seem common to both regular and illegal migrants. Yet, we found that being clandestine (though increasing the probability of return) significantly lowers the intensity of remittances. We argued that this result likely derives either from clandestine migrants' lower ability to save (as they work precariously in the shadow economy) or from their need to face higher uncertainty holding a larger share of their savings at hand in the country of migration. Whatever the explanation, it was proved that the return-remit nexus is significantly different for clandestine migrants vis-à-vis other migrants. The remittance cost of being clandestine is strictly associated to the higher uncertainty these migrants face compared to legal migrants and asylum seeker.

Restrictive immigration policies in rich countries, while having little or no effects on the overall size of the flows, generate each year hundreds of thousands of clandestine migrants. In the light of our findings, this policy-induced income uncertainty might imply a considerable cost in terms of development potential in the countries of origin via a reduction in remittances flows. The policy answer to this issue should be found in the design of temporary migration schemes which greatly reduce risks and uncertainty faced by migrants and, at the same time, allow them to fully make use of their skills and human capital for the benefit of both origin and destination

countries. Those schemes should be designed in a flexible way in order to allow migrants to stay long enough to accumulate the planned amount of financial assets (for instance by not precluding migrants to re-apply for the scheme) and therefore reducing therefore the incentive of overstaying the temporary visa and becoming clandestine.

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Tables Appendix

Table 1 Descriptive statistics: SIMI main variables

Variable name	Description	Mean (St.Dev.)	Expected sign on return	Expected sign on remittance level conditional on return	Data Source
Remit	Ordinal variable indicating the amount of savings the individual intend to remit out of 100 US$: 1. below 40$; 2. from 41 to 60$; 3. from 61 to 80$; 4. above 81$.	2.63 (1.01)			*Questionnaire*
Return	Dummy variable which equals 1 if the individual expects to return to her country of origin.	0.59 (0.49)			*Questionnaire*
Clandestine	Dummy variable which equals 1 if the entrant is a pure clandestine.	0.34 (0.47)	+/-	-	*Questionnaire*
Natural disaster	Dummy variable which equals 1 if the migrant declares that a natural disaster, epidemic or famine happened in the village or city of origin (residence) in the last 5 years	0.37 (0.48)	-	+	*Questionnaire*
Social Conflict	Dummy variable which equals 1 if the migrant declares that a social conflict in the village or city of origin (residence) in the last 5 years.	0.71 (0.45)	-	+/-	*Questionnaire*
Economic Crisis	Dummy variable which equals 1 if the migrant declares that an economic or financial crisis happened in the village or city of origin (residence) in the last 5 years.	0.87 (0.34)	+/-	+/-	*Questionnaire*
Infrastructure (macro)	Dummy variable which equals 1 if the individual comes from a country where the number of telephone mainlines, daily newspapers, radio and television sets for 1.000 people is higher than the average of the 56 countries in our sample.	0.14 (0.34)	+	+	*Country Tables "ITC at glance" Development Data Group, World Bank*
Infrastructure (micro)	Dummy variable which equals 1 if the individual declares to have electricity at home and to live close to both a hospital and a school.	0.74 (0.44)	+	+	*Questionnaire*
Minority	Dummy variable which equals 1 if the individual belongs to a religious minority group in the country of origin	0.37 (0.48)	-	+	*Questionnaire*

Minority* Ethnic polariz. index	Interaction between "minority" and the Index of Ethnic Polarization (see Montalvo J.G. and Reynal-Querol M. 2004) which captures the degree of ethnic polarization within a country (index → 0 means very high polarization; index → 1 means very low polarization)	0.26 (0.35)	+	-	*Questionnaire*
Number of children	Number of children independently of the fact that they are with the migrant or are residing in the country of origin.	0.59 (1.14)	+/-	+/-	*Questionnaire*
Children at home	Dummy variable which equals 1 if one or more children are residing in the country of origin	0.23 (0.42)	+	+	*Questionnaire*
Relatives left	Number of family members left in the country of origin.	5.16 (4.08)	+	+	*Questionnaire*
Potential self-employed	Dummy variable which equals 1 if the entrant declares to have skills and/or job qualification which make her more likely to be self-employed .	0.55 (0.50)	+	+	*Questionnaire*
High education	Dummy variable which equals 1 if the migrant declares to have a secondary school or first degree.	0.28 (0.45)	+/-	+/-	*Questionnaire*
Language proficiency	Ordinal variable measuring the individual declared degree of proficiency in the language of the intended country of destination (0 = none; 1 = basic; 2 = good or advanced)	0.57 (0.73)	-	+/-	*Questionnaire*
Not employed	Dummy variable which equals 1 if the migrant was not employed before departure.	0.56 (0.50)	-	+/-	*Questionnaire*
Migro debt family and friends	Dummy variable which equals 1 if the migrant has to re-pay debts to finance the cost of the trip to relatives or friends.	0.36 (0.48)	+ / -	+	*Questionnaire*
Household wealth in the origin country	Dummy variable which equals 1 if the family in the country of origin owned the house <u>and</u> other real estates in 2002	0.19 (0.39)	+	+/-	*Questionnaire*
Per capita GNI in the country of origin (in log)	Ln of Gross National Income in the country of origin in 2003 adjusted by PPP	6.61 (1.13)	+	+/-	*World Bank (WDI)*
Past migration	Dummy variable which equals 1 if the individual already has migration experience	0.26 (0.44)	-	==	*Questionnaire*
Migration network	Dummy variable which equals 1 if the individual migrates within an established migration network and	0.35 (0.48)	+/-	==	*Questionnaire*

	0 if he is a "front runner"				
Distance (in log)	Distance in KM from the capital city of the country of origin to the capital city of the country of intended destination (log)	7.99 (0.71)	+/-	==	*Gazetteer of Conventional Names, Third Edition, August 1988, US Board on Geographic names and on other sources*
Asia	Dummy variable which equals 1 if the individual county of origin is in the Asian continent	0.29 (0.45)	+	+/-	*Questionnaire*
Muslim	Dummy variable which equals 1 if the individual declares to be a muslim	0.58 (0.49)	+	+/-	*Questionnaire*
Buddhist	Dummy variable which equals 1 if the individual declares to be a buddhist	0.02 (0.12)	+	+/-	*Questionnaire*

Table 2 Intentions to return: results of a probit model

Variables	coeff. (std er.)	marginal effects [1]
Clandestine	0.567	0.201
	(0.157)**	(0.052)**
Natural disaster	-0.015	-0.006
	(0.131)	(0.049)
Social Conflict	-0.445	-0.159
	(0.157)**	(0.053)**
Economic Crisis	0.452	0.176
	(0.182)*	(0.072)*
Infrastructure (macro)	0.201	0.073
	(0.240)	(0.085)
Infrastructure (micro)	0.274	0.105
	(0.146)	(0.057)
Minority	0.301	0.111
	(0.390)	(0.141)
Minority*Ethnic Polarization Index	-0.579	-0.217
	(0.536)	(0.201)
Number of children	-0.067	-0.025
	(0.079)	(0.029)
Children at home	0.382	0.137
	(0.214)	(0.073)
Relatives left	0.044	0.016
	(0.015)**	(0.006)**
Potential Self-employed	0.128	0.048
	(0.115)	(0.043)
High education	0.139	0.052
	(0.133)	(0.049)
Language proficiency	0.200	0.075
	(0.086)*	(0.032)*
Not employed	-0.120	-0.045
	(0.117)	(0.044)
Migro debt with family and friends	0.500	0.181
	(0.124)**	(0.043)**
Household wealth in the origin country	0.336	0.120
	(0.160)*	(0.054)*
Past migration experience	-0.191	-0.073
	(0.128)	(0.050)
Migration network	0.394	0.144
	(0.131)**	(0.046)**
Distance (in log)	0.640	0.240
	(0.142)**	(0.053)**
Asia	-0.896	-0.342
	(0.192)**	(0.071)**
Muslim	0.284	0.107
	(0.139)*	(0.052)*
Buddhist	-0.031	-0.012
	(0.446)	(0.169)
Log(per capita GNI)	0.283	0.106
	(0.105)**	(0.040)**
Constant	-7.759	
	(1.661)**	

Note: Dependent variable: Intention to return (yes = 1, no = 0).Standard errors in parentheses: *
significant at 5%; ** significant at 1%; Log likelihood = -338.569. No. of observations 663
[1] Marginal effects are computed at mean values and for dummy variables dx/dy is computed as a discrete
change from 0 to 1.

Table 3 Intention to Remit: two-step Heckman's Ordered Probit

Dependent variable: Intended level of remittance (4 levels)	Coefficient (s.e.)
Clandestine	-0.378 (0.144)**
Natural disaster	0.268 (0.116)**
Social Conflict	-0.128 (0.141)
Economic Crisis	0.132 (0.195)
Infrastructure (macro)	0.062 (0.197)
Infrastructure (micro)	0.108 (0.137)
Minority	1.110 (0.395)**
Minority*Ethnic Polarization Index	-1.068 (0.549)*
Number of children	-0.146 (0.070)**
Children at home	0.720 (0.194)**
Relatives left	0.027(0.019)*
Potential Self-employed	0.237 (0.103)**
High education	0.344 (0.118)**
Language proficiency	-0.040 (0.083)
Not employed	-0.107 (0.109)
Migro debt with family and friends	0.262 (0.128)*
Household wealth in the origin country	-0.374 (0.011)*
Asia	-0.495 (0.136)**
Muslim	0.431 (0.139)**
Buddhist	0.856 (0.400)*
Log(per capita GNI)	0.0370 (0.073)**
λ_r	0.697 (0.245)**
Ancillary parameters	
k_1	0.363(0.607)
k_2	1.386 (0.610)
k_3	2.366 (0.615)
Observations	546

Note: Number of observations 546. Log likelihood = -675.35 * significant at 10%. ** significant at 5%. Standard errors computed by bootstrap.

Table 4 Intention to Remit: marginal effects

Variables	(1) Df/dx (0-40%)	(2) Df/dx (41-60%)	(3) Df/dx (61-80 %)	(4) Df/dx (80-100%)
Clandestine	0.087	0.063	-0.054	-0.096
	(0.034)**	(0.022)**	(0.023)**	(0.033)**
Natural disaster	-0.056	-0.050	0.033	0.073
	(0.022)*	(0.021)*	(0.013)*	(0.030)*
Social Conflict	0.027	0.024	-0.016	-0.035
	(0.027)	(0.025)	(0.015)	(0.037)
Economic Crisis	-0.030	-0.022	0.019	0.034
	(0.042)	(0.027)	(0.027)	(0.042)
Infrastructure (macro)	-0.013	-0.012	0.008	0.017
	(0.040)	(0.037)	(0.023)	(0.55)
Infrastructure (micro)	-0.024	-0.019	0.015	0.028
	(0.029)	(0.021)	(0.018)	(0.032)
Minority	-0.203	-0.206	0.079	0.331
	(0.056)**	(0.060)**	(0.017)**	(0.110)**
Minority*Ethnic Polarization Index	0.231	0.194	-0.139	-0.285
	(0.106)*	(0.091)*	(0.066)*	(0.130)*
Number of children	0.032	0.027	-0.019	-0.04
	(0.014)*	(0.012)*	(0.009)*	(0.017)*
Children at home	-0.130	-0.142	0.056	0.216
	(0.028)**	(0.037)**	(0.013)**	(0.058)**
Relatives left	-0.006	-0.005	0.003	0.007
	(0.003)*	(0.002)*	(0.002)*	(0.004)*
Potential Self-employed	-0.052	-0.042	0.032	0.063
	(0.022)*	(0.017)*	(0.014)*	(0.025)*
High education	-0.068	-0.067	0.037	0.098
	(0.021)**	(0.024)**	(0.011)**	(0.034)**
Language proficiency	0.009	0.007	-0.005	-0.011
	(0.017)	(0.014)	(0.010)	(0.021)
Not employed	0.023	0.020	-0.014	-0.029
	(0.022)	(0.018)	(0.013)	(0.027)
Migro debt with family and friends	-0.055	-0.049	0.032	0.072
	(0.026)*	(0.024)*	(0.015)*	(0.035)*
Household wealth in the origin country	0.091	0.057	-0.058	-0.09
	(0.037)**	(0.018)**	(0.025)**	(0.029)**
Asia	0.119	0.076	-0.076	-0.12
	(0.035)**	(0.018)**	(0.024)**	(0.029)**
Muslim	-0.098	-0.073	0.060	0.111
	(0.031)**	(0.022)**	(0.020)**	(0.032)**
Buddhist	-0.111	-0.183	-0.002	0.297
	(0.026)*	(0.080)*	(0.054)*	(0.156)*
Log(per capita GNI)	-0.008	-0.007	0.005	0.01
	(0.014)	(0.012)	(0.009)	(0.018)
λ_r	-0.151	-0.126	0.090	0.186
	(0.054)**	(0.047)**	(0.035)**	(0.067)**

Note: Standard errors in parentheses   * significant at 5%; ** significant at 1%