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

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Abstract

While the return-remittance nexus (favouring sending countries' development) received extensive attention for legal migrants, little is known for illegal migrants, dominating migratory flows nowadays. Clandestine immigrants and asylum seekers, illegal migrants' two classes, substantially differ in their motivation to notify their presence to the receiving countries' authorities. The former face higher income uncertainty.

Building on a representative sample of illegal migrants in Italy in 2003, we focus on expected level of remittances and intentions to return. Our finding that clandestine migrants send fewer remittances has important 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 remittances were also becoming large, were playing a role in removing financial constraints for receiving countries as well as in promoting technology transfer to these countries. In 2002, the international flow of remittances to developing countries was about $80 billion (about 2% of their GDP). What's more, remittances are not only increasingly important because of their mere size but they also provide emerging economies with a stable source of international exchange. Thus, their stability gained remittances special attention from the macroeconomic perspective on development (see World Bank, 2004).[1]

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

Considering that remittances and return migration should be looked at 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 return and remittance behaviour of legal migrants, very little is known on the links between these two decisions for illegal migrants. However, there are two reasons to study this. First, in light of the increasingly restrictive immigration policies enacted in industrial countries, the balance has shifted more and more from legal to illegal migrants. Second, given the different constraints which characterise being illegal, 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. Hence, we need to extend the return-remit analysis to illegal migrants.

Illegal immigrants may be divided into two broad classes, asylum seekers and clandestine immigrants, which differ in two important respects: their desire/ability to live in the open vs. staying hidden; their wish/faculty to return to the home country vs. residing permanently in the country of immigration. On the former, asylum seekers have a motivation to notify their presence to the authorities of the receiving country,[3]

[1] Perhaps the only contrary voice is Chami, Fullenkamp and Jahjah (2003) who stress that, because of the moral hazard problem involved, remittances may be harmful to the receiving countries' development.
[2] See Rapoport and Docquier (2005) for a recent survey.
[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.

whereas clandestine immigrants shy away official contacts and tend to live working quietly, waiting for the next amnesty which will make them legal migrants,[4] or for their return to the country of origin. As to return migration, this is an option open to clandestine immigrants but instead generally unavailable to asylum seekers, at least until major events change the situation in the country of origin.[5] While both asylum seekers and clandestine immigrants face the real risk of repatriation, for the latter group this risk is more pronounced. On one hand, clandestine immigrants will be generally repatriated upon apprehension, an event that might materialise with some positive probability. On the other hand, the outcome of the generally long and complex procedure deciding on their request might be unfavourable to asylum seekers, in which case they would also be repatriated. Different probability of being expelled together with different incentives to being "visible" in the country of destination will have a likely effect on labour market performance of illegal migrants (for instance their ability to gain good employment opportunities and 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.

Higher income uncertainty in the host country likely affects both the remittance and return decisions of the illegal migrants. A key reference in the literature is the theoretical paper by Dustmann (1997). He analyses the joint decisions over return and consumption behaviour of migrants when their future income streams are strongly affected by uncertainty both in the home and host country. The basic assumption which drives the optimal timing for return is that the marginal utility of consumption is higher in the home country than in the host country. The theoretical model introduces some novelties to the debate: if the migrant faces a higher income variance in the host country compared to natives and a high income variance also in the origin country, then he will accumulate more wealth than a native worker while being abroad due to the precautionary saving motive. Moreover, income uncertainty influences also the optimal length of the migration spell, although the overall effect combines with the size of the wage gap between the home and host country. In particular, if the gap is large and the labour market in the origin country is very risky, uncertainty should induce the migrant to defer his return. If, instead, labour market risk is perceived higher in the home country than in the host-country, than uncertainty is likely to reduce his stay abroad.

In the light of those theoretical implications, this paper focuses on the planned intention to return and on the level of remittances for a representative sample of 920 illegal migrants crossing Italian borders in 2003. The available data concern the main demographic, economic and social 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, using this using unique dataset, we provide an in-depth analysis of the factors (individual as well as source country

[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.

characteristics) affecting return and remittance decisions of illegal migrants. To the best of our knowledge, given the lack of comparable data, this is the first contribution in the direction of knowing more on these attitudes for illegal migrants, who are by far outnumbering legal migrants. Among other things we find that family and cultural ties as well as individual education and skills play a significant role in the decision of both returning and remitting. Those choices also significantly depend on the difference in marginal utility of consumption and in the perceived level of labour market risk at home and in the host country.

Second, we are able to assess how greater income uncertainty (due to clandestineness) affects the two main channels linking migration and development in the country of origin, namely remittance propensity and return migration. Given the unavailability 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 clandestine versus asylum seekers.

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

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 therefore likely eroding the economic benefit of migration to sending countries. Our results strengthen the case for 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 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) reducing therefore the incentive of overstaying the temporary visa and becoming clandestine.

The rest of the paper is organised as follows. Section 2 recaps 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 is devoted to describe in detail our database, the Survey on Illegal Migration in Italy, and point out the pertinent informational content. Our econometric analysis and the chief results reached are presented in Section 4. We synthesise the main conclusions and policy implications in Section 5.

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

Why do migrants remit? The literature has highlighted several motives explaining remittance behaviour. The most obvious one is that migrants care of those left behind 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 seen not as an isolated individual level decision but as occurring within a household, other motives for remittance emerges. 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 the migrant starts to earn in the country of destination he/she will start repaying the implicit (or explicit) loan back to the family in the form of remittances. Risk diversification within a household might be seen as another important determinant of migration and remittances as initially proposed by Banerjee and Kanbur (1981) and Stark and Levhari (1982). Remittances in these 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. Remittances are therefore seen as a tool aimed at increasing the probability of being the candidates for receiving an inheritance in the future.

Remittances might also be motivated by purely self-interest motives. This is the case when 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 for the migrants during the migration spell.[6]

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

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 destination country.

It moves from the result found in Galor and Stark (1990), that 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, as the wage differential between host and home countries will last through time. However, Dustmann (1997) further extends their result, by deriving a life cycle model in which migrants optimise over consumption and remigration timing in a stochastic environment.

[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.

[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).

The model assumes that for a migrant worker the marginal utility of consumption is higher in the country of origin than in the destination country. This argument can be easily explained by referring either to pure altruism towards relatives left in the country of origin, or to cultural and religious ties that will provide higher utility per unit of consumption or by considering a greater reward in the home country of a human capital investment acquired in the host country.

Moreover take future earnings in the origin and in the destination country respectively as $y^O(t,z)$ and $y^D(t,x)$, given *t*, the optimal time spent in the destination country and *z* and *x* two random variables with some known correlation ρ. The stochastic components *z* and *x* might capture, in either nation, economic downturn or socio-political instability or also more specific idiosyncratic income risks, due to the labour market conditions especially when initial search costs are high and informal social networks are absent (e.g. in the case of front-runners in the destination country).

Thus, if the interest rate and the rate of time preference are both set equal to zero, the migrant will solve the following optimal intertemporal problem:

$$\begin{aligned} &\max_{t,C} E\left[V\left(C^D, C^O; t\right)\right] \\ &s.t. \quad tpC^D + (1-t)C^O + \eta = y^D(t,x) + y^O(t,z) \end{aligned} \tag{1}$$

where *p* is the relative price level in the destination country and the variable η captures migration costs. Given income uncertainty, Dustmann shows that when individual utility in (1) exhibits non increasing absolute risk aversion, then 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, a first order Taylor series expansion of the first order conditions leads to the following:

$$E\left[u'^D\left(C^D\right) - u'^O\left(C^O\right)\right] \approx -\frac{1}{2}\frac{1}{[1-t]^2} u'''^O\left(C^O\right)\left[Var\left(y^D + y^O\right)\right] \tag{2}$$

where $Var\left(y^D + y^O\right) = Var\left(y^D\right) + Var\left(y^O\right) = y^{D2}\sigma_x{}^2 + y^{O2}\sigma_z{}^2$, in the case of $\rho = 0$.

It is a rather well-known result in the savings literature, which holds true here as well, that precautionary savings are not displayed in the case of a quadratic utility function ($u'''^O = 0$). But, whenever $u'''^O > 0$, given that the (clandestine) migrant faces a higher income variance than that one of a native (legal) worker, then he will accumulate more wealth while being abroad due to the precautionary saving motive. The higher the uncertainty and income variances in the country of destination and the higher will be precautionary savings and the lower the size of remittances. Uncertainty is likely to reduce migrants' ability to save (as they work precariously in the shadow economy) and to increase the need to hold a larger share of their savings at hand in the country of migration.

Moreover, 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.

To see this, just consider (for $0<t<1$ and again $\rho=0$) that by deferring his return the migrant decision produces a change in total income variance of:

$$y_x{}^D y_{xt}{}^D \sigma_x{}^2 + y_z{}^O y_{zt}{}^O \sigma_z{}^2 \quad (3)$$

Note that in (3) the sign of the first term is positive (i.e. he increases his exposition to uncertainty in the destination country), meanwhile the second term is negative (i.e. he faces a lower uncertainty in the country of origin).

Therefore, if the wage gap is large and the labour market in the country of destination is very risky, uncertainty should induce the migrant to anticipate his return. If, instead, labour market risk is perceived higher in the country of origin than in the destination country, than uncertainty is likely to prolong his stay abroad.

The aim of our paper is to empirically test the hypotheses we derive from Dustmann's model which are particularly relevant in analysing illegal migrants' behaviour. As it will be clarified in the following section, the richness of the data set allows us to test these hypotheses by exploring the "expectations at the gate" of a sample of illegal immigrants, both clandestine migrants and asylum seekers, to Italy concerning the remittance behaviour and the propensity to return in the country of origin in the future.[8]

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

We use a unique source of data: 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 920 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) clandestine or asylum seeker that has been staying in Italy for a period no longer than 6 months. 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).

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

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

- individuals under temporary protection for humanitarian aid;

[8] In the empirical estimations, the optimal remigration timing is simplified to the "yes" or "no" return decision (see Section 4). As in the Dustmann model, the return decision will depend on which alternative will provide the migrant a higher utility level, given the level of uncertainty involved in each option.

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

- 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) individuals waiting for a rejection decree with accompaniment to the closest border: the rejection decree is usually issued by the local police authority (Questore) to an individual that arrived in Italy avoiding border controls and that was stopped immediately after her/his arrival.[10]

c) individuals waiting for an expulsion decree: the decree is issued by the local administrative authority (Prefetto) when the migrant avoided border controls and was not rejected yet.

d) 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.

Table 1 about here

Overall, the 920 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%; Table 1). 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". For a detailed description of the sampling design, of the adopted questionnaire and of other results see Chiuri, De Arcangelis, D'Uggento e Ferri (2004).

[10] According to the current law on migration, when there is no prompt carrier for the immediate rejection, the foreigner can be detained in a Centre of Temporary Permanence.

4. Empirical Application

The peculiarity of the data- set allows us to measure the expectations to return and propensity to remit for a sample of illegal entrants. In this paper we are particularly interested in analysing the choice between high versus low remittance level of those (illegal) entrants who intend to return. In order to do so, we implement a probit model with sample selection (Heckman probit model) where the choice between high/low remittances is conditional to the choice of 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). Migrants' return and remittance behaviour, as emphasized by the existing literature, is affected by a set of individual as well as country specific characteristics such as the intensities of preferences for home consumption, income variance both in the origin and destination country, wage differential, expectation of future return investment opportunities and the existence or not of implicit risk sharing family contracts.

Disregarding the correlation in the two labour market shocks and based on what explained in section 2, our general expectations on the effects of those components might be summarized as in Table 2.

Table 2 about here

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 addition to family ties, preference for the home location will also depend on the degree of cultural 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 dummy variable in order to capture the, generally, greater psychological cost of migration faced by individuals of Islamic religion (*Muslim*).

Uncertainty and volatility of income in the country of origin greatly affects the willingness to return and the amount of savings remitted. Events such as natural disasters, political and ethnic conflicts and economic and financial crises might, for instance, increase the amount remitted for altruistic motives but reduce at the same time the share of savings invested in the country of origin. In relation to return intentions, political and ethnic conflicts might be expected to discourage migrants' return in the country of origin while, on the contrary, in the case of economic crises migration might simply be an adjustment to the temporary labour market unbalance generated by the economic downturn. In our empirical analysis we proxy for variance of income in the country of origin by using dummies for natural disaster, conflict and crisis in the village of origin. In addition, we use an index of ethnic fractionalisation as recently computed in Montalvo and Reynal-Querol (2005).

Expected future income drop is a proxy for wage differential as well as the unemployed dummy. On the other hand, the variables that proxy for expectation of future return investment are the ICRG index and infrastructures. The latter are

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

represented by a dummy for having electricity at home, being close to an hospital and to a school in the village of origin, and a dummy for those countries of origin that have more than the average number of telephone mainlines, television, radios and daily newspapers per 1,000 people. Variance in the destination country is proxied by dummies for clandestine, for having a potential positive attitude towards self-employment and for high education. Also, a dummy for having financed the cost of the trip by debt with relative and friends is a proxy for a risk-sharing behaviour. Lastly, we consider a dummy for expected change of job that is meant to proxy for possible human capital accumulation during the migration experience.

Notice that, in order to implement the two-step probit model with selection, we need to introduce a number of variables that are assumed *a priori* to affect 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.

Table 3 shows the results of the (Heckman) probit model with selection.

Table 3 about here

What is the effect of clandestineness, and therefore higher income uncertainty in the destination country, on the intention to return? In accordance with Dustmann (1997) hypothesis, our analysis shows that, ceteris paribus, clandestineness reduces the intended length of migration spells.

We find evidence of the importance of preference for home country consumption. In fact an illegal immigrant is more likely to return as she has left children and relatives at home. 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 coherent with our expectations. When considering the effect of variance in the country of origin we interestingly 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 therefore has a strong negative effect on return. Also, the expected income drop has a negative although insignificant impact on the return decision. The coefficients on the variables that proxy for future investment opportunities turn out to be all significant and positive. As for the variables that proxy for income variance in the destination country, we notice here that potential self-employed and high education proxy for entrepreneurial skills and human capital, respectively. Interestingly, individuals with more potential entrepreneurship have a higher probability of return. This might be interpreted as evidence of both expectation of future investment and positive response to low income variance in the country of origin. On the other hand, the coefficient on the dummy for high education is unexpectedly negative but insignificant.

Also, we find evidence of risk sharing behaviour as the dummy for debt with relatives and friends for financing the trip is positive and significant. Lastly, as expected, the probability of return is lower for those that have already experienced migration and higher for those that already have relatives abroad and for those that are more distant from the country of origin.

As to the main focus of our analysis, remittances, we find that clandestineness has a negative and significant effect on the propensity to remit. 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. Income earned by these individuals will be usually lower and more volatile than for other migrants requiring a greater share of savings to be held for precautionary reasons; as a consequence their ability to remit is negatively affected.

Among the variables that proxy for preference for home consumption only the dummy for children left at home and the dummy for religion remain significant, meaning that among those who expect to return, the ones that left children at home and/or declare to be Muslim have a higher probability of remitting a higher share of income. Also, those that expect to return intend to remit more when the variance in the country of origin is higher: *i.e.* they have recently experienced a natural disaster in their village of origin or in the country of origin there is higher probability of social conflict (*i.e.* high index of fractionalization). Infrastructures and therefore expectation of future return investment play an important role in the choice of remittance: the coefficients on ICRG, micro and macro infrastructure are all positive and significant. Therefore, not surprisingly, the probability of remitting a high share of income is also larger for those that expect to return and have a good potential for entrepreneurship. Also, as before, we find evidence of risk sharing behaviour. We notice in passing that the proxy for different employment that aims to capture the effect of the acquisition of new skills during the migration experience has the correct sign but is not significant.

In sum, we conclude that the propensity to remit is negatively affected by clandestineness. 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 has important policy implications that will be discussed in the next section. In addition to this result, we find that individuals who intend to return expect to remit a higher share of their income as they have stronger family or cultural ties and expect high income variance in the home country. They also show a risk-sharing behaviour and have positive expectations of future return investment.

5. Conclusion

This paper addressed the nexus between the return and remit decisions (both directed to the country of origin) of 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 still known about these two decisions for 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 a probit on the intensity of remittances conditional on return confirmed as key determinants: the relative variance of expected income in the country of destination vs. 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 clandestineness 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.

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Data Appendix

Remit is a dummy which equals one if the expected level of remittance is 40% or more.

Return is a dummy which equals one if the individual expects to return to her country of origin.

NChildren is a variable for the number of children independently of the fact that they are with the migrant or have been left at home.

Children at home is a dummy which equals one if one or more children has been left at home.

Relatives left is a dummy equal to one if one or more relatives are left in the country of origin.

Muslim is a dummy equalling one if the individual declares to be a Muslim.

Natural disaster is a dummy which equals one 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

Conflict is a dummy which equals one if the migrant declares that a social conflict in the village or city of origin (residence) in the last 5 years.

Crisis is a dummy which equals one if the migrant declares that an economic or financial crisis happened in the village or city of origin (residence) in the last 5 years.

Ethnic Diversity in the fractionalization index computed in Alesina (2002). It is bounded between 0 (= maximum homogeneity) to 1 (= maximum heterogeneity) of ethnic groups in the country of origin.

Not employed is a dummy which equals one if the migrant is not employed before departure.

Income drop is the expected growth of income in the country of destination adjusted by PPP.

ICRG is a composite indicator of political, financial and economic risk. The ICRG Risk Rating system assigns a numerical value to a predefined group of risk components, according to a pre-set scale of values and for a large number of countries, the aim being to allow for comparability among country risk levels. Each scale is defined by awarding the highest value to the lowest risk, and the lowest value to the highest risk [see Chiuri, De Arcangelis and Ferri (2004) for details].

Infrastructure (micro) is a dummy which equals one if the individual declares to have electricity at home and to live close to both a hospital and a school.

Infrastructure (macro) is a dummy which equals one if the individual comes form a country where the number of telephone mainlines, daily newspapers, radio and televisions sets for 1.000 people is higher than the average of the 56 countries in our sample. (*Country Tables "ITC at glance" Development Data Group, World Bank*)

Clandestine is a dummy which equals one if the entrant declares to be a clandestine.

Potential self-employed is a dummy which equals one if the entrant declares to have a job qualification for which she doesn't necessarily need to be employed.

High education is a dummy which equals one if the entrant declares to have a secondary school or first degree.

Migro debt family and friends is a dummy which equals one if the entrant has to re-pay debts to finance the cost of the trip to relatives or friends.

Employment change is a dummy which equals one if in the final destination the individual expects to get a type of job that is different from the job qualification declared.

Past migration is a dummy which equals one if the individual already has migration experience

Social migration distance is a dummy which equals one if the individual already has relatives abroad.

Tables Appendix

Table 1 Descriptive statistics: SIMI main variables

Interviewee characteristics	No. valid response	Mean (St dev)	Interviewee characteristics	No. valid response	Mean (St dev)
Interviewee status	902		**Education**		
Applicant for asylum, refugee	524	0.58	*Ability to read and write:*	909	
Waiting for rejection	17	0.02	Yes	789	0.87
Waiting for expulsion	92	0.10	No	120	0.13
Clandestine	269	0.30	*Highest degree:*	901	
Main nationality	920		None	138	0.15
Iraq	88	0.10	Primary school	244	0.27
Liberia	83	0.09	Middle school	278	0.31
Sudan	50	0.05	Secondary school	196	0.22
Morocco	47	0.05	University or post-graduate degree	45	0.05
Senegal	44	0.05	*Driving licence:*	884	
Turkey	44	0.05	Yes	295	0.33
Other	564	0.61	No	589	0.67
Gender	920		**Employment characteristics:**		
F	125	0.14	*Job qualification*[12]	1113	
M	795	0.86	Mason/carpenter	125	0.11
Age by gender	906		Artisan	99	0.09
M	783	27.2(6.1)	Cleaner	90	0.08
F	123	27.0(6.9)	None	90	0.08
Marital status	916		Driver	81	0.07
Married	273	0.30	Salesman/dealer	81	0.07
Never married	609	0.66	Farmer/forester	80	0.07
Divorced/separated	23	0.03	Other	467	0.42
Widow/ widower	11	0.01	*Occupational status in 2002*	895	
Religion	914		Not employed	521	0.58
Muslim	533	0.58	Employee	246	0.27
Catholic Christian	209	0.23	Self-employed	128	0.14
Orthodox Christian	93	0.10	*If employed*	374	
Other	79	0.09	Farmer/forester	64	0.17
Living standards before migration			Artisan	43	0.11
Place of origin	914		Mason/carpenter	33	0.09
Countryside	356	0.39	Salesman/dealer	32	0.09
Urban centres	426	0.47	Driver	30	0.08
Large cities	132	0.14	Other	172	0.46
Electricity	917				
Yes	682	0.74	*Monthly individual income in 2002*	454	144.72 (151.21
No	235	0.26	*Monthly family income in 2002*	618	216.00 (231.74)
Telephone line	913				
Yes	302	0.33			
No	611	0.67			

[12] More than one answer was allowed.

Table 1 (continued)

Interviewee main characteristics	No. valid response	Mean (St dev)	Interviewee main characteristics	No. valid response	Mean (St dev)
N. of relatives with the interviewee	902		**Income expectation and future projects:**		
None	769	0.85	*Final destination*	912	
From 1 to 2	87	0.10	Italy	689	0.76
More than 2	46	0.05	Germany	89	0.10
N. of relatives left at home	915		United Kingdom	42	0.05
None	78	0.09	France	38	0.04
From 1 to 2	86	0.09	Other	54	0.06
From 3 to 5	431	0.47	*Type of job expected in the destination:*	1116	
From 6 to 7	175	0.19	No idea	270	0.24
More than 7	145	0.16	Mason/carpenter	119	0.11
			Farmer/forester	112	0.10
Migration costs and financial conditions:			Cleaner	98	0.09
Cost of the trip	881	1644.9 (1417.2)	Professional servant	73	0.07
Debt (loan) to finance the trip	871		Artisan	67	0.06
Yes	387	0.44	Other	377	0.34
No	484	0.56	*Expected monthly income in the final destination:*	809	937.30 (858.2)
Financing institution	373		*Expectation to return home:*	911	
Banks	9	0.02	Yes	537	0.59
Relatives	191	0.51	No	374	0.41
Friends	139	0.37	*$ intended to remit out of 100 $ earned*	908	
State	4	0.01	0	17	0.02
Relatives/friends	30	0.08	1-20	90	0.12
Maturity of debt to finance the trip	293		21-40	225	0.29
Up to 1 year	101	0.34	41-60	230	0.29
From 2 to 3 years	157	0.54	61-80	136	0.18
From 4 to 9 years	32	0.11	81-100	76	0.10
More than 9 years	3	0.01			

Note: nominal variables in USD

Table 2 Summary of the expected effects on the propensity to remit and probability to return

	Remittance level: high vs. low	Intention to Return: Yes or No
Preferences for home country consumption	*Positive*	*Positive*
Wage differential Drop in future income at home	*Positive*	*Negative*
Variance in income in the country of origin	*Positive*	*Negative*
Variance in income in the country of destination	*Positive*	*Positive*
Expectation of future return investment	*Positive*	*Positive*
Risk Sharing	*Positive*	*Positive*

Table 3 Results of the Probit model with selection

	Coefficient (s.e.)	Marginal effects
Remit		
Potential Self-employed	0.390(0.127)*	0.131
High education	0.132(0.143)	0.046
nChildren	-0.055(0.090)	-0.019
Children at home	0.570(0.216)*	0.207
Relatives left	0.022(0.016)	0.007
Natural disaster	0.251(0.143)**	0.087
Conflict	-0.047(0.168)	-0.016
Crisis	-0.020(0.212)	-0.007
ICRG	0.021(0.010)*	0.007
Infrastructures (micro)	0.677(0.198)*	0.255
Infrastructures (macro)	0.342(0.171)*	0.123
Clandestine	-0.344(0.156)*	-0.113
Not employed	-0.132(0.141)	-0.046
Ethinic diversity	0.562(0.283)*	0.193
Muslim	0.260(0.141)**	0.088
Migro debt family and friends	0.312(0.130)*	0.108
Income drop	-0.062(0.099)	-0.021
Employment change	0.003(0.135)	0.001
Constant	-2.835(0.694)*	
Return		
Potential Self-employed	0.395(0.118)*	
High education	-0.017(0.135)	
nChildren	-0.121(0.085)	
Children at home	0.801(0.220)*	
Relatives left	0.045(0.016)*	
Natural disaster	0.169(0.134)	
Conflict	-0.292(0.164)**	
Crisis	0.524(0.192)*	
ICRG	0.023(0.009)*	
Infrastructures (micro)	0.530(0.188)*	
Infrastructures (macro)	0.339(0.175)*	
Clandestine	0.657(0.157)*	
Not employed	-0.282(0.125)*	
Ethinic diversity	-0.157(0.296)	
Muslim	0.257(0.129)*	
Migro debt family and friends	0.357(0.122)*	
Income drop	-0.087(0.068)	
Employment change	0.069(0.129)	
Past migration	-0.270(0.128)*	
Social migration network	0.623(0.118)*	
Distance	0.331(0.108)*	
Constant	-5.198(1.108)*	

Note: Number of observations 610. Log likelihood = -509. $\rho = .97$. LR test of independent equations ($\rho = 0$) $\chi_{(1)}^2 = 24.6$ P-value (0.0000). * significant at 5%. ** significant at 10%.