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**“DETERMINANTS OF REMITTANCES TO SOUTHERN MEDITERRANEAN COUNTRIES :  
WHEN HISTORY MATTERS !**

***THE TEACHINGS OF TWO NEW SURVEYS”***

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## INTRODUCTION

Remittances by migrants have become an important source of revenue for home countries. It is a well-known fact that in the Mediterranean area in particular, remittances have become more important than foreign direct investments, portfolio investments, or public aid for development. The stakes concerning the utilization of these funds remain a bone of contention. Funds transfers or remittances by migrants are a stock issue in economic literature : their quantitative and monetary aspect, the existence of series, their entry in the balance of payments, as well as their “growing formalisation” have been the object of empirical studies in particular on a macroeconomic level. The impact for the home country’s economy depends on the destination of these funds. Indeed, the effects on the home country vary according to whether they focus on current consumption expenses or on real estate investments. The empirical literature concerning the impact of these transfers is at variance because of the difficulty to quantitatively assess their net effect. Some studies thus emphasize the beneficial effects of remittances on the economic development of migrants’ home countries, whereas others highlight their negative impact. But this absence of consensus may be explained by the lack of unified studies on both the causes and the effects of remittances (Chami *et al*, 2003).

Specifying the causes or the determinants of these transfers would help us to gain deeper insight into the complexity of the effects. The microeconomic motivations as analysed by economists have stressed the altruistic, exchange, and/or strategic behaviour on the part of migrants and their families. Sociological approaches have also investigated this domain by emphasizing the hidden aspects of the monetary transfer so as to introduce a relevant debate on the avoidance of material transfers and by tackling “social remittances”.

The heterogeneity of the actors who send money to their home country - who are not only salaried migrants – as well as that of the remittances themselves may partly explain why the effects of these funds transfers are so ambiguous. The diverse remittances are not only made by migrants and workers, but also by students, cross-border or seasonal workers, and indirectly children (second generation) who transfer to the immigrants’ parents.

This difficulty has to be taken into account by empirical studies on macroeconomic data. This is why only research focusing on individual data can account for this complexity and give us deeper insight into both the behaviour of those who remit and the determinants of these remittances as well as their final destination.

In this paper, we essentially aim to present the findings of an original survey we have conducted in 2007-2008 of 1,000 people who transfer money to the three Maghreb countries, to Turkey and to the countries of Sub-Saharan Africa. We also resort to a second survey conducted by DREES in order to discover the difference in the behaviour of those who send and those who do not send money. The sample covers 3,500 people for the area we are interested in. Based on the theoretical analyses of the microeconomic determinants of funds transfers, we aim to question a few assumptions linked to the characteristics of migrants on the one hand and to certain subjective variables (attachment, language...) on the other.

Our methodology consists of assessing probit and multivariate probit models in order to test not only the likelihood of remittances and the level of the amounts that are transferred but also the motivations to transfer.

We wish to check two major hypotheses on migrants' behaviour concerning remittances. First, we aim to verify if the decisions whether to transfer money or not depend on the objective characteristics of migrants or on subjective variables that cannot be directly observed (Funkhouser, 1995). We also wish to check in particular if, after controlling all variables (income, education, age, nationality...), subjective variables like those related to the migrant's attachment to the home country are determining. We equally aim to verify the conventional wisdom according to which the duration of the stay goes against the motivation to remit owing to a hypothesis positing the erosion of the migrant's ties with the home country. The second group of assumptions we would like to check deals with the explanation of the different motives to remit through the diverse use made of the money sent by migrants.

This paper first provides an overview of the chief theoretical arguments that account for the motivations to remit as well as the main findings of the empirical literature (section 1). We then present the data and the principal descriptive results of our two surveys (section 2). Section 3 introduces the model and the main results. Section 4 is made up of the conclusion on the orientations for further research and the academic and economic policy implications of our findings.

## 1. THE ECONOMICS OF DETERMINANTS OF REMITTANCES

The literature on remittances, along with that on the decisions to migrate, is ancient and extensive and may be divided into two big categories. On the one hand, a macroeconomic literature mainly aims to study the effects of funds transfers. On the other hand, a more restrained microeconomic literature examines the causes as well as the effects of these money transfers as synthesized below.

The first research related to remittances has identified and described the different costs and profits money transfers may lead to (Russel, 1986). The migrant's altruistic feelings towards the family or the relatives he has left behind cannot account for all of the remittances. The latter may be determined by other motivations, whether they be individual or stem from family arrangements, such as what is referred to as inheritances, repayments to the family, exchanges of services, of insurance or investment (Rapoport and Docquier, 2006).

Remittances can first and foremost be accounted for by the altruistic feelings of the migrant towards his family. Migrants integrate the utility of their family into their own utility. In this case, the nature of the funds transfer is compensatory and countercyclical in order to offset a decrease in the income of the family who has remained in the home country.

There exist several degrees of altruism but also other types of motives which Lucas and Stark (1985) have qualified as "tempered altruism", that can either replace or coexist with altruism. For instance, remittances can be linked to a motive such as the exchange of services. The migrant purchases services from family members who have remained in the home country, like for example taking care of the children or of existing assets. This type of exchange, remittances against services, is more often used by temporary migrants. In this case, when the family income increases, the quality of the services done will improve and their cost will go up, which implies a raise in remittances. But this positive relation only exists if the demand for services on the part

of the migrant is inelastic to costs, for conversely, the demand and associated transfers can decrease in case there should be an increase in the income and in the cost of services. The relation between the income of the recipient family and remittances is therefore, in the case of exchanges, either positive or negative (as in the case of altruism) according to the elasticity of the migrant's demand. Imperfect information, like information asymmetry between the family and the migrant (moral hazard) can also alter this relation to the benefit of the family.

The repayment of debt to the family, whether contracted or not within the framework of an arrangement, may be considered as a particular case of exchanging services in a context of imperfect credit markets, and within the framework of a model integrating a social and intergenerational component. The remittance may correspond to the repayment of the migration cost if the journey has been financed by the family. The transfer may also repay a loan to invest in education and/or a loan made before migrating. The extended family finances the education of children so that they may find a job more easily, earn higher wages abroad, and then remit in order to repay the initial investment. To the extent that migration is costly, the number of migrants sent per family is bound to be limited and families who are better-off are more likely to benefit by such types of investment. This may account for the effect of remittances on widening inequalities in the home country.

Sending a family member abroad (or to the city for a rural family) so that he may send money is also arranged within the family structure in the case of insurance. The subsequent remittance has to compensate for an accidental decrease in the family income. This motive is thus all the more frequent as the family income is volatile and sensitive to shocks, like agricultural incomes that are subject to climatic conditions. Migrations practically enter a calculated choice of portfolio and risk diversification, where the family seeks to stabilize its income (the emigrant's remittances) so as to smooth its consumption. Information asymmetry can here again benefit to the family.

These remittances can result from the behaviour developed by the migrant and/or his family, or from informal intra-family contracts. Thus, the existence of an inheritance for instance allows for a reinforcement of the links between the family and the migrant, and leads to maintaining the remittances in the long run. Insofar as the migrant is concerned, he thus ensures, through his remittances, that he will actually come into his share of his parents' inheritance when the time comes. The migrant may also implement a mere strategy to invest in the patrimony that will be bequeathed to him. Insofar as the family who stays in the home country is concerned, they thus ensure, by compelling the migrant and even threatening him with depriving him of his right to the inheritance, that he actually makes those remittances.

Finally, the empirical literature favours a combination of all of these motivations. It has shown that altruistic motives hardly ever exist alone but rather tend to combine with self-interest (for an inheritance or an investment in reputation, with a view to resettling in the home country) according to individual logics and/or within the framework of family arrangements (such as co-insurance, exchanges of services or the repayment of costs incurred prior to migration) as well as according to the country, culture and period. These empirical studies are based on specific surveys either of migrants in the host country, or of families in the home country. The countries that have been studied most are those of Sub-Saharan Africa, South America and Asia. To our knowledge, no empirical studies have been carried out on the Maghreb countries so far.

If Altonji, Hayashi and Kotlikoff (1997) have ruled out the hypothesis of pure altruism in the context of interpersonal transfers in the United States, what can be said about remittances to developing countries? Most studies measure the altruistic motive through the impact of the rise in the income of recipient families or that in the migrants' income on the likelihood or the

amount of remittances. Nearly all studies conclude on a positive relation between the migrant's income and remittances. When the migrant can share more, he will send more important amounts of money and will do so more often. But the findings are much more heterogeneous insofar as the relation between the transfers and the income of the family in the home country are concerned.

Lucas and Stark (1985) have highlighted a positive relation between remittances and the income of recipient families in Botswana, an impossible relation in the case of a sheer altruistic motive. The authors have therefore assumed that other motives such as exchange, insurance or inheritance could thwart altruism. In the latest assessments, the sign of the relation has proved to be ambiguous. Just like Lucas and Stark (1985), Itzingsohn (1995) for the Caribbean and Osili (2007) for Nigeria find a positive effect of the family income on transfers. However, for other studies (Germenji *et alii*, 2001, Osaki, 2003, Chavez, 2004, Yang, Choi, 2005, Craciun, 2006) the relation is negative. But we have mentioned before that if the positive relation excluded the altruistic motive, the reverse relation did not exclude the other motives, except that of an inheritance. The income may also have a non-linear effect according to the income distribution, negative for low and positive for higher incomes (Cox, Eser, Jimenez, 1998, for Peru).

Other elements gainsay the thesis of a sheer altruistic motive. Thus, the existence of several emigrants within one and the same family ought to enable them to share the amount of remittances. Yet the expected negative relation between transfers and the number of emigrees within the family remains unchecked, except for Guiana (Agarwal, Horowitz, 2002), and in Mali (Gubert, 2002). Other studies (Germenji *et al*, 2001, Hoddinott, 1994 and Chavez, 2004) even conclude on a positive relation, gainsaying the expected sign for the altruistic motive. Besides, altruistic migrants ought to send higher amounts of money to large or needy families ; but this link has not very often been verified. Having a family in an ailing economic situation increases the probability of remittances or of sending higher amounts of money, as is shown by studies on the Caribbean and on Sub-Saharan African countries (Itzigsohn, 1995, Agarwal, Horowitz, 2002, Gubert, 2002 and Osili, 2007), but this relationship turns out not to be significant for many other regions (Osaki, 2003, Holst, Schrooten, 2006, Craciun, 2006 for the latest ones). Lastly, from a theoretical point of view, the extension of the stay in the home country and the decrease in the frequency of visits to the home country is often associated with weak family ties, a slump in the degree of altruism and therefore a decrease in the remittances. But this negative relation between the duration of the migrant's stay and remittances has not been confirmed by most works (except Banerjee, 1984 and Funkhouser, 1995) : on the contrary, the longer the migrant's stay in the host country, the more important his remittances (Agarwal, Horowitz, 2002, Osaki, 2003, Durand *et alii*, 1996, Lucas, Stark, 1985, Amuedo-Dorantes, Pozo, 2006, de la Brière *et alii*, 2002, Gubert, 2002, Hagen-Zanker, Siegel, 2007, Craciun, 2006). It seems rather that migrants aim to keep in touch with their home country and that other explanations or motives may account for this positive relation. The duration of immigration should also be related to the context of departure, that is to say the date and the place of the departure from the home country.

As the altruistic motive cannot explain the remittance by itself, other motivations have been assessed in empirical studies. In their reference article, Lucas and Stark have tested the motive of exchanges of services, such as child minding by families. Transfers increase along with the number of children in the home country, like Botswana, and the link is even stronger if children of close relatives are concerned (nephews, grand-children...). This shows that the exchange motive can also stem from a family agreement made prior to the migration. As it is often the grand-parents who receive money from emigrated parents in order to raise the grand-children who have stayed in the home country, the age of recipients has often been verified by studies.

Recipients who get the highest remittances are those who are more than sixty years old and have grand-children, in China (Secondi, 1997), in Albania and in Moldavia (Germenji *et alii*, 2001, Hagen-Zanker, Siegel, 2007), in the Dominican Republic (de la Brière *et alii*, 2002) and in El Salvador (Chavez, 2004).

The repayment of loans can be measured by examining migration costs and the educational level of migrants. Migrants who have had help from their family to finance the cost of their journey ought to send more money, as is confirmed by studies that find a significant relation in Mexico (Durand *et alii*, 1996), for Samoans in Australia (Brown, 1997), in Albania (Hagen-Zanker, Siegel, 2007) and in Pakistan (Ilahi, Jafarey, 1999), where funds transfers are financed by the extended family who receives more important remittances in return. Moreover, migrants with a higher educational level should reimburse, through these funds, the investment made by their parents in their education. Several authors have noticed a positive relation between the immigrants' level of education and their remittances, like in French Guiana (Agarwal, Horowitz, 2002), in the Dominican Republic (de la Brière *et alii*, 2002) or in Germany (Holst, Schrooten, 2006). This positive relation would thus confirm the thesis of repaying loans rather than that which tends to indicate that skilled migrants remit less and less over time, since they wish less to return to their home country as they have more opportunities in the host country. But in order to check this assumption, a cohort ought to have been followed.

The insurance contract made between migrants and households is often measured by analysing the effect of shocks on the families and the impact of shocks affecting migrants on remittances. An accidental event affecting the family in the home country (like for instance, a climatic disaster, the disease or the death of a family member) increases remittances. These links have been found in Botswana (Lucas and Stark, 1985), in Mali (Gubert, 2002), and in El Salvador in particular for agricultural families (Halliday, 2004, Chavez, 2004). Some studies have gone further into this mechanism. Amuedo-Dorantes, Pozo (2006) have distinguished several insurance methods and have highlighted that young weakly-skilled Mexican migrants from large families were most likely to resort to co-insurance. For Dominican migrants, de la Brière *et alii* (2002) have assessed the importance of each motivation according to the migrant's gender, the country of destination and the composition of the household. The remittances of immigrated women in the United States are more linked to insurance reasons than those of women who have emigrated to other countries. Insurance is also the main motivation for remittances by single male emigrants who have parents with health problems. Furthermore, authors claim the motives linked to insurance and inheritance to be complementary.

The inheritance motive is often assessed by examining the link between remittances and the wealth of households as well as the intention to return to the home country. In theory, migrants who have the possibility to come into an inheritance should send more funds if their parents' patrimony is important. For Lucas and Stark (1985), the eldest sons remit more than the other children of the family in Botswana, all the more so if the family possesses big herds of cattle. As migrants invest more in affluent families in Kenya so as to ensure their inheritance, this tends to widen the inequalities between recipient families (Hoddinot, 1994). Results are identical for remittances to communities in Nigeria ; it is the richest communities who receive most transfers (Osili, 2004). Samoan heirs have even more incentives to send money in order to improve their future patrimony if they wish to return to their home country (Brown, 1997). As young Dominicans who intend to return are not sensitive to shocks affecting their families, de la Brière *et alii* (2002) think that their remittances are more linked to the inheritance than to the insurance motive.

Another type of motivation that can be linked to a possible return has been emphasized by Azam and Gubert (2005). Malian migrants make transfers to improve their social prestige within their

clan, and if this is a common concern among all Africans, it seems to be more prominent for this ethnical group. It follows from all this that the social context is also an important element to be taken into account in order to understand remittances. This context, which is rarely present in studies that focus on the individual characteristics both of migrants and of recipient households, has been rightly highlighted by Durand *et al* (1996) and Sana and Massey (2005). The presence of banks and of business opportunities does improve remittances, but in particular to communities with good economic dynamics. For Mexicans, the presence of a producers' cooperative (ejido) in the village increases the likelihood to spend remittances for productive utilizations, but this context does not hold for Dominicans.

Our aim is therefore not only to take into account the determining objective variables of remittances (income, education, age, nationality...) but also to explicitly integrate the role of subjective variables (attachment to the home country) as well as to contextualise the duration of the stay by introducing the date and the context of the migrants' arrival in relation with the duration of their stay in the host country. This enables us afterwards to cross-check the objective and subjective characteristics of migrants with the ultimate destination of their remittances.

## 2. DESCRIPTION OF THE DATABASES USED IN THIS PAPER

We will use two types of surveys here in order to gain deeper insight into the remittance behaviour from France to Southern Mediterranean countries, namely Algeria, Morocco, Tunisia and Turkey. We are interested in migrants from Sub-Saharan Africa as a reference group to the extent that in France, this group is renowned for having an intensive remittance activity to their home country.

On the one hand, we use the survey by DREES entitled "The profile and track of migrants" which provides information on migrants in France and which enables us to discover the motivations and the characteristics of those who transfer money as compared to those who do not remit. Once we have documented the difference in behaviour for our nationalities, we will resort to the survey we have carried out ourselves in post offices in France (2MO survey<sup>1</sup>) so as to gain deeper insight into the characteristics, the motivations, the aims and the level of remittances made by this population who transfers money to their home country. We will give a brief description of these two surveys that are used in the econometric analysis of section 3.

### 2.1 THE "PROFILE AND TRACK OF MIGRANTS" DREES SURVEY

The Research, Study, Evaluation and Statistics Division (DREES) has conducted a survey, entitled "Profile and track of migrants", since 2006. This quantitative two-stage survey (stage 1 in 2006, stage 2 in 2007) has been carried out face-to-face in the thirty main departments (among which Ile de France, Rhône and Bouches du Rhône) with a representative sample of 6,280 migrants

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<sup>1</sup> 2MO survey for Miotti-Mouhoud-Oudinet.

aged 18 or above, eligible to the reception and integration contract (CAI). This survey aims to better understand the walks of life and the different (residential, professional, and domestic) trajectories of people who have obtained a French residence permit of at least one year and are therefore likely to settle in France on a long-term basis.

Foreigners who are eligible to the reception and integration contract (CAI), account for roughly half of all migrants who obtain a residence permit: 120,000 permits ranging from one to ten years were delivered in 2006 as compared to 116,000 temporary migrants (from three to twelve months) in 2005<sup>2</sup>.

The sample of the survey is thus made up of “newly arrived” migrants and of regularized people who arrived in France much longer ago. Among the “newcomers”, the most numerous category is made up of foreign spouses of French nationals (41%); next to this category rank those composed of immigrants who have come to France within the framework of family reunification (11%), and of refugees (8%). The other important category is made up of foreigners who have been regularized because of personal or family links, or because they have lived in France for more than ten years (36%). Students are not concerned by this device.

These migrants are young – 47% are less than 30 and only 9% are 45 or above – and are mainly women (54%). Immigration because of family reunification largely concerns women (71%), contrary to regularizations for residence of over ten years – only 41% of women. Nearly a quarter of migrants have at least one child who lives abroad. Nearly half of all migrants who obtained a residence permit in 2006 originate from North African countries. Thus, 21% of newly arrived migrants were born in Algeria (1,437 people), 15% in Morocco (786) and 7% in Tunisia (430). More than 20% were born in Sub-Saharan Africa, among which 492 in Senegal, Mali and the Ivory Coast. 6% of migrants come from Turkey (325). In total, for a comparison of these findings with the 2MO survey, we have singled out 3,505 people who correspond to the nationalities we study, namely : North Africa, Turkey and Sub-Saharan Africa.

Inflows of migrants to France for reasons linked to family reunification or because their spouse is a French national mainly originate from the Maghreb (in particular Algeria for the reunification of spouses, Morocco and Tunisia for family reunification). Turkish migrants have also mostly come to France within the framework of family reunification or as refugees. People originating from Sub-Saharan Africa make up the majority within the category of regularizations (35%).

Foreigners who have been regularized for having resided for more than ten years therefore arrived in France well before the other categories (before 1998). Those who have been regularized for family links mainly arrived over the period 1999-2003, refugees in 2004-2005, and the other categories in 2006.

Nine migrants out of ten arrived in France straight from their home country. Taking into account their status (and leaving out refugees), three quarters of them were acquainted with French residents before their arrival, and half of these people indicate that having such acquaintances has been of great help. The supportive network exceeds the family circle since people who have been regularized declare having benefited on their arrival by as dense a network as the migrants who are spouses of French nationals or who have immigrated because of family reunification.

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<sup>2</sup> Annual report of the Department of Population and Migrations.



To the extent that 35 % of newly arrived migrants settled in France in 2006, it is not surprising that only 42 % had a job at the moment of obtaining their residence permit. Those with the fewest jobs are those who immigrated because of family reunification.

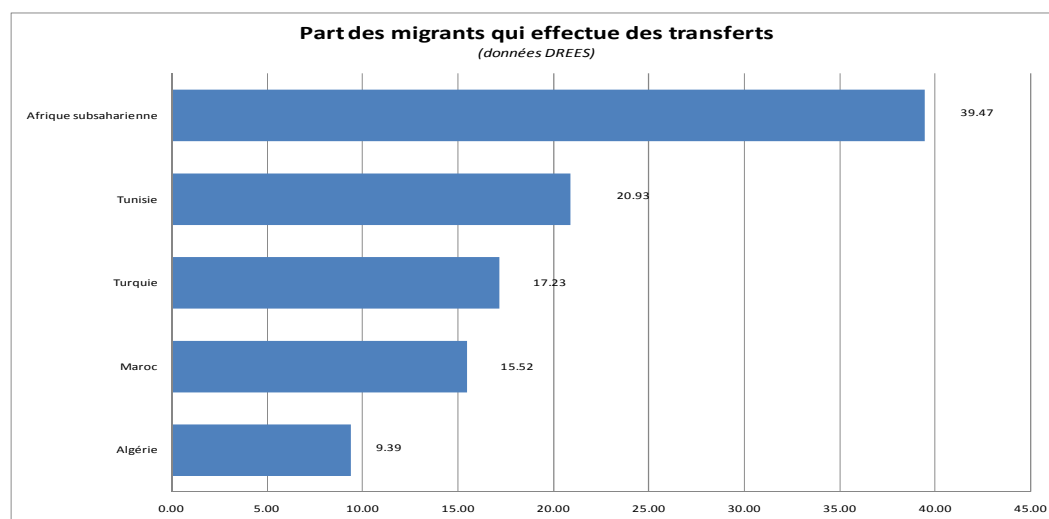
A sector analysis shows that catering is predominant (30% of jobs held by migrants), followed by construction (23%) and services to companies (13%).

The following topics are broached in the first step of the questionnaire :

- the migration track before the arrival in France and knowledge of France
- living conditions prior to the migration (employment, housing...)
- the migration project
- the arrival in France and the reception system
- housing (prior and current)
- family history (parents, children, etc.)
- current living conditions (language, training, professional occupation, income and resources - detail of the type of resources and the total amount-)
- social life (supportive network, ties with the home country)
- representations and values

The data of this survey have never been used to analyse the behaviour linked to remittances. In the selected sample of 3,505 migrants under study, a much more important proportion of those who remit than those who do not can be observed for migrants from Sub-Saharan Africa (nearly 40 %) than for migrants from North African countries and from Turkey. As for Algerian migrants, the proportion of those who transfer seems to be very weak in this survey (9 %) but this share is probably underestimated because of the use of widespread informal channels by this community (graph 1).

**GRAPH 1. SHARE OF MIGRANTS IN FRANCE WHO TRANSFER MONEY IN %**



Source : DREES survey « Profile and track of migrants ».

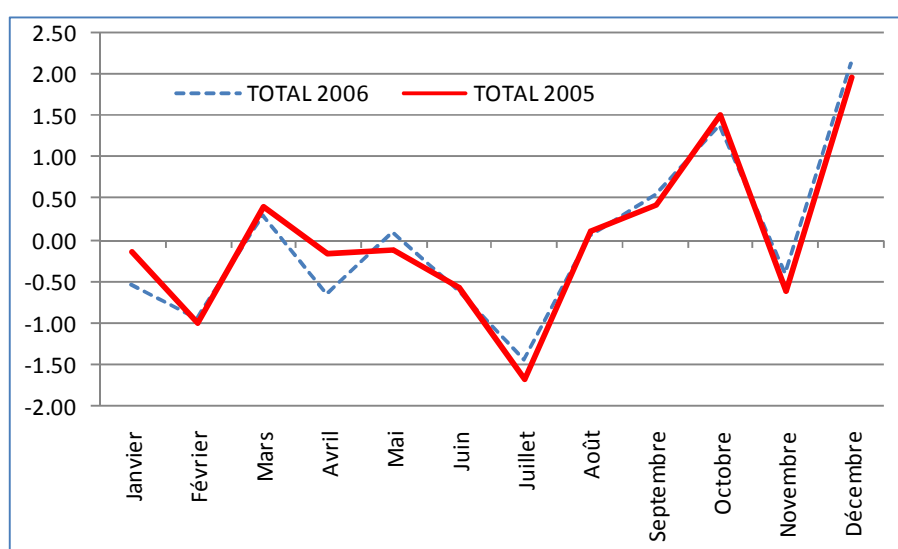
## 2.2. THE 2MO SURVEY

### 2.2.1. THE AIMS OF THE SURVEY

We conducted this survey at the end of 2007, within the framework of a research convention with the Research Institute of the Deposit and Consignment Office as well as with the Research Mission of La Poste, questioning 1,000 respondents who remit to Algeria, Morocco, Tunisia, Turkey and the countries of Sub-Saharan Africa.

The original feature of this survey first lies with the fact that the statistical data, provided by La Poste, concerning the daily amounts of remittances and their destinations over a two-year period (2005 and 2006), have been processed per post office and cover the whole of the French territory. This has enabled us to spot the peak periods of remittances, month after month and week after week, over two years. Thus, as is shown in graph 2, remittances slacken just before the summer and reach a peak after the summer holidays, in September-October, as well as in December-January. The end of the year has been singled out for conducting this survey in post offices.

GRAPHI 2. MONTHLY EVOLUTION OF REMITTANCES IN ALL FRENCH POST OFFICES IN 2005 AND 2006



Source : Data provided by La Poste, calculations by the authors. 2MO Survey.

The second methodological step has consisted in selecting the most representative post offices according to the number of remittances made by the migrants under study. Moreover, a factorial analysis has made it possible for us to eliminate the post offices featuring a type of behaviour that differs from the average (in terms of transfer volumes and of the frequency of remittances), so as not to bias our sample (see graph A1 presenting the results of the factorial analysis in the Annex).

Face-to-face interviews lasting for about fifteen minutes<sup>3</sup> have been organised inside the post offices used for the data analysis and located in departments with the highest number of inhabitants from the countries under study, namely the following French departments : Ile de France, Rhône, Bouches du Rhône, Nord and Haute-Garonne<sup>4</sup>. The sample is thus made up of 216 people remitting to Morocco, 196 to Algeria, 196 to Tunisia, 196 to Turkey and 196 to Sub-

<sup>3</sup> These interviews have been coordinated by ourselves in relation with the polling agency BASIC, and have been carried out by Ph.D. students in economics, sociology and law, speaking Arabic, Berber and Turkish.

<sup>4</sup> Complementary surveys have been conducted in other sites, such as migrants' associations and banks for Turkish migrants in order to achieve the quota.

Saharan Africa (among whom 55 from Senegal, 46 from Mali, and 34 from the Ivory Coast). One must bear in mind that this survey aims to gain deeper insight into the financial means implemented for the transfer, the use that will be made of remittances and the reasons that spur migrants originating from the Maghreb and Turkey to make these transfers, and not to study remittances made from France as a whole, as the sample is extensive enough to be representative per nationality, and not important enough to account for all of the remittances from France.

## **2.2.2 THE EXTENT OF THE SURVEY AND THE STRUCTURE OF THE SAMPLE**

### ***i) The main transfer channels***

The sample of the survey is thus composed of people who transfer through la Poste. The majority of remittances that have been taken into account are made by Western Union, by postal order or by interbank payment transfer (TIP)<sup>5</sup>. The channels used by the migrants of this sample may bias the survey to the extent that it leaves out people who exclusively use other transfer channels and who therefore do not go through the post office. Nevertheless, migrants are asked to assess the total amount of their remittances, whichever channel is used, inclusive of informal systems, in the questionnaire.

In the sample, eight or nine people out of ten most frequently use Western Union. People originating from Sub-Saharan Africa nearly exclusively use this type of channel, whereas 10 to 12 % of the other nationalities use postal orders and almost 10 % of Turks and Moroccans resort to the banking network in priority, as these two countries have developed their banking tools in order to match the expectations of migrants.

### ***ii) The characteristics of migrants***

The sample is made up of a majority of men (60%), in particular for Turks (73%) and Algerians (64%). But there is no real bias compared to the immigrated population who is equally mainly composed of men (54 to 58% for immigrants from Turkey and the Maghreb<sup>6</sup>) since the questions related to income and remittances concern the household and not the individual.

Different well-known age structures can be noticed according to the nationalities in the population under study, that is to say, the Turkish and African population is slightly younger than the population from North Africa.

The educational level<sup>7</sup> is higher for people who remit to Algeria (30% have an academic standard) and to Morocco (24%). Only 12% of Turks have an academic standard. Among those who have a weaker educational level (at best a primary level), 45% are Turks, 35% originate from Sub-Saharan Africa and 25% from the Maghreb (table 1).

*TABLE 1 : DISTRIBUTION OF MIGRANTS BY EDUCATIONAL LEVEL*

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<sup>5</sup> For Turkish migrants, about thirty of them have been interviewed just after making a remittance through the national bank of Turkey.

<sup>6</sup> INSEE, annual census surveys, 2004 to 2006.

<sup>7</sup> The educational level is broken down into six categories : no schooling, primary level, secondary level, A-level, 2-year post A-level higher education, and lastly 4-year post-A level higher education or more.

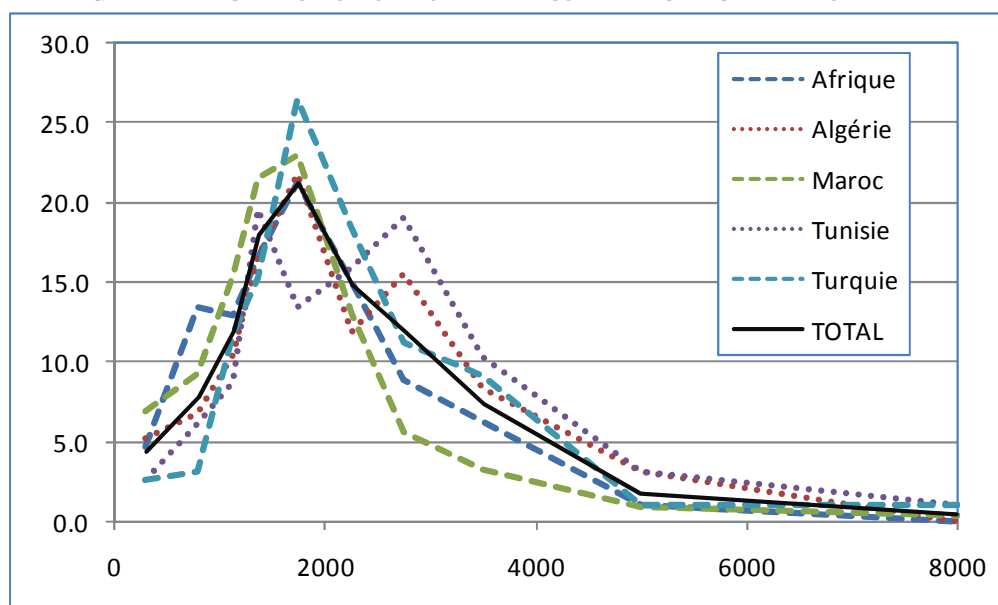
Transfers de fonds	Pas de scolarisation	Primaire (certificat d'études)	Secondaire (brevet)	Bac ou niveau Bac	Universitaire Bac + 2	Universitaire Bac + 4 et plus
vers d'autres pays africains	14,29%	20,92%	20,92%	20,92%	12,76%	10,20%
vers la Turquie	24,49%	20,92%	21,94%	20,41%	8,67%	3,57%
vers la Tunisie	5,10%	16,84%	29,08%	28,06%	14,29%	6,63%
vers l'Algérie	11,22%	14,80%	21,43%	22,45%	14,29%	15,82%
vers le Maroc	14,81%	12,96%	20,83%	27,78%	18,06%	5,56%
<b>Total</b>	<b>14,00%</b>	<b>17,20%</b>	<b>22,80%</b>	<b>24,00%</b>	<b>13,70%</b>	<b>8,30%</b>

SoSource : 2MO survey.

The situation of migrants on the labour market is rather heterogeneous. Fifteen percent of them are unemployed, even if the declarations of unemployment are relatively limited. It is the Moroccans in particular who are the most affected (29%). The most self-employed are the Turks and the Tunisians (16% and 14%).

If we study the income distribution of households, a high percentage of the income of Moroccans is orientated towards the lowest income, which probably reflects their relatively more important level of unemployment than for the other nationalities. Conversely, even if they tend to be less skilled, Turkish migrants have incomes situated around the median income of 1,750 euros a month per household (graph 3).

GRAPH 3. DISTRIBUTION OF MONTHLY INCOME BRACKETS BY NATIONALITY



Source : 2MO survey.

### iii) The structure of remittances

Most of the annual transfers concern amounts situated between 200 and 1,000 euros. The distribution is rather orientated to the first median bracket from 200 to 500 € for transfers to Morocco and Algeria. The average amount, which stands at 1,107 € a year, that is to say a monthly amount of 92 € (drawn upwards by the very high amounts of transfers) is a bit higher than the median amount.

The average transfer to Turkey and Tunisia, as well as to the other African countries stands at just under 100 €, while the remittance to Morocco comes to 82 € and that to Algeria to 73 € (subject to a complete declaration of informal transfers). If we relate this amount to the income of the migrants' household, 6% of the income of households are transferred through these channels. The share is higher for the other African countries (7,5%) and for Moroccans (6,34%). The share of Algerians (4,7%) is weaker by a third than that of Moroccans. The median frequency band of remittances is situated between 3 and 6 times a year, which amounts to an almost two-monthly average frequency.

The remittances for consumption and health expenses rank first in the mind of migrants : more than 80% of migrants state they make transfers for consumption expenses, and 70% for health. The motivation to pay for their children's studies ranks third, for 26 to 29% of people. The reasons linked to financial investment come next, for 6 to 12% of migrants ; this type of motivation is twice as high for Tunisians and migrants originating from Sub-Saharan Africa (12%) as for Turks and Moroccans (6%). Tunisians are more particularly interested in financing a local company (4% of remittances to Tunisia). Lastly, remittances that are addressed to the village or the neighbourhood (collective transfers) correspond to 3 to 4% of the migrants' remittances (table 2).

*Table 2. Distribution of remittances by objectives, according to nationalities*

	Pour les dépenses courantes	Pour régler des dépenses de	Pour régler les études	Pour financer un logement	Pour financer une entreprise	Pour votre village ou votre	Pour placer l'argent	
<b>Total</b>	<b>824</b>	<b>707</b>	<b>264</b>	<b>114</b>	<b>17</b>	<b>32</b>	<b>89</b>	<b>1000</b>
	82,4%	70,7%	26,4%	11,4%	1,7%	3,2%	8,9%	
<b>Pays africains</b>	<b>153</b>	<b>130</b>	<b>53</b>	<b>28</b>	<b>4</b>	<b>6</b>	<b>23</b>	<b>196</b>
	78,1%	66,3%	27,0%	14,3%	2,0%	3,1%	11,7%	
<b>Turquie</b>	<b>169</b>	<b>141</b>	<b>57</b>	<b>16</b>	<b>1</b>	<b>6</b>	<b>12</b>	<b>196</b>
	86,2%	71,9%	29,1%	8,2%	0,5%	3,1%	6,1%	
<b>Tunisie</b>	<b>166</b>	<b>145</b>	<b>54</b>	<b>26</b>	<b>7</b>	<b>8</b>	<b>23</b>	<b>197</b>
	84,3%	73,6%	27,4%	13,2%	3,6%	4,1%	11,7%	
<b>Algérie</b>	<b>164</b>	<b>135</b>	<b>55</b>	<b>20</b>	<b>2</b>	<b>3</b>	<b>17</b>	<b>196</b>
	83,7%	68,9%	28,1%	10,2%	1,0%	1,5%	8,7%	
<b>Maroc</b>	<b>172</b>	<b>156</b>	<b>45</b>	<b>24</b>	<b>3</b>	<b>9</b>	<b>14</b>	<b>215</b>
	80,0%	72,6%	20,9%	11,2%	1,4%	4,2%	6,5%	

*Source : 2MO survey.*

#### **iv) The topics of the questionnaire**

The following topics are broached in the questionnaire :

- the migrant's track since his arrival in France
- the date and the way migrants arrived
- the possible financial help, the reception of migrants...
- ties with the home country
- parents, spouse, children, the home region
- the frequency of returns
- construction or investment projects...
- the return possibly envisaged
- the attachment to the home country
- money transfers

- the frequency, the annual amounts
- the motivations, the channels that are used, main utilizations
- the professional activity and the income of the household
- the financial activity (savings, bank accounts, reliance on the banking sector of the home country, savings in the home country)

With the help of these two surveys, we can carry out an econometric test that will enable us to verify a few key hypotheses on the behaviour of migrants in terms of funds transfers such as have been mentioned before in the review of the theoretical and the empirical literature.

### 3. AN EMPIRICAL MODEL TO TEST THE BEHAVIOUR CONCERNING REMITTANCES TO SOUTHERN MEDITERRANEAN COUNTRIES

This paper aims to check two big assumptions on migrants' remittance behaviour. First, by using the data of the DREES survey, it should be checked if the decisions to remit or not depend on the objective characteristics of migrants or on subjective variables that cannot be directly observed (Funkhouser, 1995). We wish to verify in particular, if all variables controlled (income, education age, nationality, ...), the subjective variables like those linked to the attachment to the home country are determining. We also wish to check the conventional wisdom that the duration of the stay in the host country goes against the motivation to remit because of a hypothesis positing the erosion of the migrants' bonds with the home country. Methodologically, we here contribute a relativistic element to the criterion of duration – which cannot be considered in an absolute way – by integrating the social and political context of emigration, approximated here through the date of arrival and the original nationality (§ 3.1.).

The second group of hypotheses we wish to test concerns the explanation of the different motives to remit through the diverse ways of using the money sent by migrants (§ 3.2).

#### 3.1. WHO REMITS, WHO DOES NOT AND WHY ?

First, we aim to better understand the determinants and the specific features of migrants who remit as compared to those who do not remit, by using the findings of the DREES survey. In the different models we estimate, we have used the characteristics of migrants as independent variables, and specific variables to check certain theoretical determinants. The characteristic objective variables of migrants act both as control variables and determinants for the motivation to transmit.

We test a Probit in order to predict the likelihood to transfer money for migrants. The model is described by the two reduced equations (1) and (2) below, which correspond to the first two columns of table 3 for equation (1) and to the last two columns of table 3 for equation (2)

$$T_i = \alpha + \beta_1 R_i + \beta_2 N_i + \beta_3 A_i + \beta_4 DA_i + \beta_5 NVp_i + \beta_6 Rfp_i + \sum \beta_i VS_i + \varepsilon_i \quad (1)$$

where R corresponds to the declared amounts of the income of the household,

N : the migrant's nationality

A : the migrant's age

DA : the date of arrival in France

NVp : the standard of living in the host country <sup>8</sup> as perceived by the migrant

Rfp : the poverty or wealth level of the family in the home country as perceived by the migrant<sup>9</sup>

VS : the vector of subjective variables englobing the following variables :

- traditions-culture-languages transmitted by the migrant to his family which approximate the attachment to the home country
- the intention to resettle in the home country (a question with four possible choices)
- F1 : synthesis of the responses linked to the sense of poverty, of insecurity and the perception of the future in the home country
- F2 : synthesis of the responses linked to the perception of the quality of life in the home country.

Composite variables F1 and F2 are created from a factorial analysis, englobing questions on the conditions in the home country that have motivated the emigration<sup>10</sup> :

$$Ti = \alpha + \beta_1 R_i + \beta_2 N_i + \beta_3 A_i + \beta_4 DA_i + \beta_5 DifRp_i + \beta_6 VS_i + \varepsilon_i \quad (2)$$

The DifRp variable corresponds to the perception of the difference between the living standards in the host country and those of the family in the home country. This variable is taken into account instead of the two variables tested separately in equation (1).

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<sup>8</sup> The question asked is linked to the way the respondent perceives his income or wealth level : comfortable, barely enough, difficult, impossible without running into debt... This variable is very weakly correlated with the stated income (correlation inferior to 10 %).

<sup>9</sup> The precise question asked is “concerning money in your home country, you would say” :

1. *You were comfortably off*
2. *It was all right*
3. *It was tight, you had to be careful*
4. *You could hardly manage it*
5. *You couldn't manage it without running into debt*

<sup>10</sup> Owing to the strong colinearity between these different variables, we have chosen to synthesize them in axes F1 and F2 with the help of a factorial analysis. These two axes account for 63 % of proper values, which is largely enough to use them as independent variables.

Table 3. Probit to predict the likelihood to remit for migrants from the South of the Mediterranean in France

<i>Transfert de fonds (Oui/Non)</i>	Coef.	P>z	dF/dx	Coef.	P>z	dF/dx
Constante	-3.774	0.000		-3.422	0.000	
Algérie	-1.186	0.000	-0.254	-1.152	0.000	-0.248
Maroc	-0.807	0.000	-0.144	-0.780	0.000	-0.140
Tunisie	-0.543	0.000	-0.098	-0.516	0.000	-0.094
Turquie	-0.737	0.000	-0.114	-0.742	0.000	-0.115
<i>Pays africains</i>						
LN Revenu	0.251	0.011	0.057	0.274	0.005	0.062
Perception pays d'origine	-0.104	0.002	-0.023			
Perception en France	0.224	0.000	0.051			
Distance perceptions (France-origine)				0.163	0.000	0.037
Tradition - langue	0.097	0.000	0.022	0.095	0.000	0.021
Ln âge	0.255	0.071	0.057	0.215	0.120	0.049
Rester définitivement en France	0.118	0.263	0.026	0.124	0.241	0.027
Rester puis rentrer au pays	0.417	0.018	0.113	0.435	0.014	0.119
Rester puis aller dans un autre pays	0.499	0.110	0.141	0.513	0.094	0.146
<i>N'a pas d'idée</i>						
F1 (pauvreté, insécurité, avenir)	0.152	0.000	0.034	0.132	0.000	0.030
F2 (qualité de vie)	0.069	0.041	0.015			
Maroc 1990-1994	1.563	0.001	0.546	1.583	0.001	0.554
Algérie Avant 1990	1.294	0.002	0.446	1.265	0.003	0.435
Nombre d'observations		2387			2387	
Wald chi² (17 - 16)		243.230			232.450	
Prob > chi²		0.000			0.000	
Log pseudolikelihood		-962.348			-965.836	
Pseudo R²		0.129			0.125	

In the estimated equation, we take migrants' remittances to Sub-Saharan Africa as a reference.

First of all, the likelihood to remit is lower for migrants from the Maghreb than for those from Sub-Saharan Africa. It is the Algerians who feature the lowest probability to transfer, followed by the Moroccans, Turks and lastly the Tunisians. The marginal impact of remittances is much weaker for Algerians than for Moroccans (85 %) (See the last column of table 3), and two and a half times as weak as for remittances by Tunisians. This result can be brought together with the descriptive analysis of the relative share of transfers by nationality. Out of the entire sample of the DREES survey (graph 1 above), less than 10 % of Algerians make remittances against 15% of Moroccans, 17% of Turks, 21% of Tunisians and nearly 40% of migrants originating from Sub-Saharan Africa<sup>11</sup>.

The income of migrants who remit is represented by two variables : an objective variable (logarithm of the income of the whole household in the home country) and a subjective variable based on the perception of the migrant's income level in the host country.

As expected, an increase in the income for the migrants as a whole raises the likelihood to remit. The perception of their income, that is to say the perception of the wealth of the household who transfers, equally increases the probability to transfer, regardless of the objective income level.

<sup>11</sup> These proportions are close to the proportions found in the CSA survey of the Milhaud report (2006).



Furthermore, we have taken into account the income of the recipient family by using the perception of the living standard of the migrant's family before his departure.

The final result (see table 3) is that the more negative the migrant's perception of the family's living standard, the higher the likelihood to remit. This proxy variable of the income level of the family who stays behind provides us with information on the way the migrant currently assesses the living standard of his family in the home country before his emigration<sup>12</sup>. Finally, we have tested the effect of the difference in the migrant's perception of his income (in reality that of his household) in the host country compared to his perception of the income level of his family before his departure. The outcome is equally positive here since the wider the discrepancy between the two standards of living, the higher the likelihood to remit (the last two columns).

All in all, this result does seem to confirm the altruistic motivation of remittances highlighted by the theoretical models, without ruling out the other motivations however. Furthermore, the likelihood to remit seems to increase according to the migrant's age, in compliance with our expectations.

We have tested the motivations linked to investment in the home country with the prospect to migrate back to the home country. Indeed, the project to return significantly increases the probability to transfer money. Conversely, the decision to stay in France for ever has no impact on the likelihood to remit.

We test the effect perceived by the migrant of the context in the home country. The context is synthesized by two composite variables F1 and F2: on the one hand, poverty and unemployment, the sense of insecurity and the perception of the future for variable F1, and on the other hand, the assessment of the quality of life in the large sense of the word for variable F2. The negative perception of the quality of life in general (repulsive factors) in the home country does actually increase the likelihood to remit, in the same way as the perception of the family income in the home country as weak. All this is consistent with the altruistic model and the insurance motive.

Some variables make it possible to specify the migrants' ties with their home country. This is exemplified by the will to transmit the culture, the traditions and the language of the home country to their children. A person who is less attached to his home country will be less likely to make an effort in this educational field. In our findings, the ties with the home country thus apprehended actually play a positive and significant role in the explanation of the decision to remit, regardless of the transferred amounts that are the subject of our second model and of the data handled in the 2MO survey. Indeed, contrary to the DREES survey, our survey explicitly tackles the question of the extent of the migrants' attachment to his home country.

Lastly, we have sought to test the relative importance of the period during which migrants arrived in France in their transfer behaviour. In the case of Algerians, migrants who arrived before the 1990s clearly appear to feature a markedly higher likelihood to remit to those who arrived after this period. Then, insofar as Moroccans are concerned, those who arrived during the first half of the 1990s also seem to remit more than those who arrived after this period. As for Tunisians and Turks, there does not seem to be a significantly different period in the likelihood to remit.

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<sup>12</sup> This is not the perception at the moment of emigrating but at the moment of being interviewed during the survey in 2006.

We will aim to cross-check this result, which we deem important and original, with other objective variables not only linked to history (the age of migrants and the duration of their stay in the host country) but also to the educational level on the one hand and to a subjective variable such as the extent of the attachment to the home country on the other.

Thus, we have aimed to account for the motivations of those who transfer money to their home country as compared to those who do not remit thanks to the DREES survey. We have confirmed the role of altruistic and insurance factors but we have also found that subjective (attachment) and historical variables play an important and significant part.

In order to understand these motivations and to analyse not only the decisions to remit but also the amounts and the destinations of remittances (investment, consumption, housing...) we will now focus only on migrants who make remittances by analysing the data of our 2MO survey conducted in post offices.

### **3.2. WHO REMITS MOST, HOW MUCH AND WHAT FOR ?**

We aim to analyse the behaviour of migrants who remit more money than the average with the help of a first model (§ 3.2.1.), and to account for the motivations and the allocations of these remittances with the help of a second model (§ 3.2.2.).

#### **3.2.1. OLDER MIGRANTS WHO SETTLED LONG AGO REMIT MORE**

*The first model* is implemented with the help of the reduced equation (3). In the first step, it is assessed by MCOs since the variable of the transferred amount is quantitative although discrete (table 4A). In the second step, we use a Probit assessment by testing a binary variable between two categories, those who transfer less than the median amount, and those who transfer a superior sum of money. The aim is to assess the likelihood to remit rather than the mean amount (table 4B).

$$T_i = \alpha + \beta_1 R_i + \beta_2 N_i + \beta_3 A_i + \beta_4 Edu_i + \beta_5 ChocF_i + \sum \beta_i VS_i + \varepsilon_i \quad (3)$$

The Edu variable has been added, for it is not colinear with the income variable, contrary to what we might initially have thought. By testing the relation of colinearity between the migrants' educational and the income level, a disconnection can be observed. This can probably be explained by the relegation effects on the labour market and by the fact that employers allocate average wage levels to migrants because of the informational asymmetry on the labour market. It is worth mentioning that this result is obtained in the case of our sample concerning the nationalities present in our survey. The income and educational levels are likely to be colinear in the case of European migrants<sup>13</sup>.

A ChocF variable is explained on the basis of a question on the obligation to remit in case a shock affects the family in the home country (accident, disease)<sup>14</sup>

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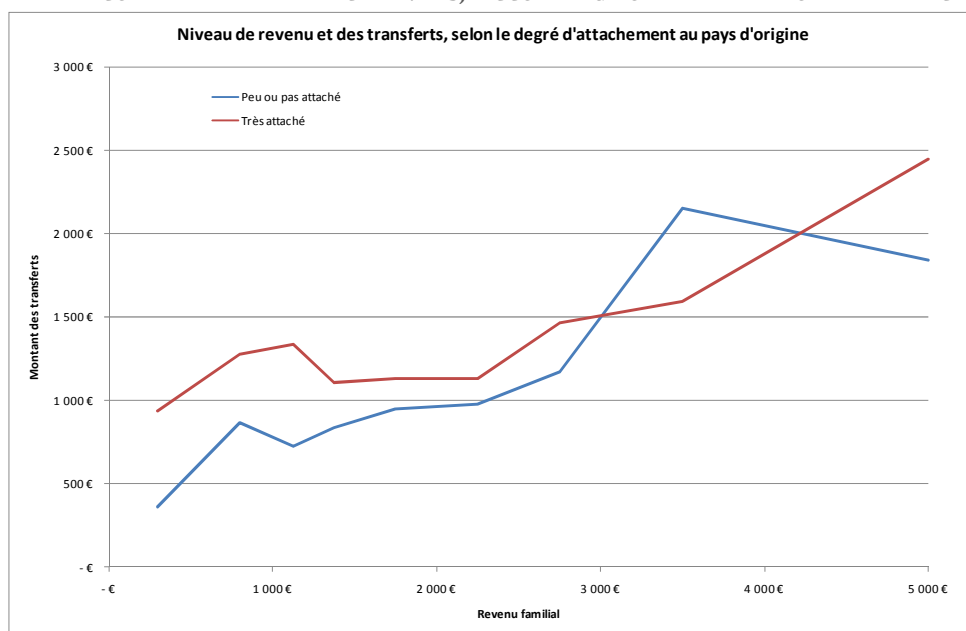
<sup>13</sup> This equation obviously cannot be generalised since the sample contains a selection bias that needs correcting. This bias will be corrected with the help of a Tobit in the definitive version of the paper.

<sup>14</sup> The question asked in the survey is: "have you had to send money because of an unforeseen family event such as a health problem or a decease ?".

The VS subjective variables are described on the basis of two questions : one on the intention to resettle in the home country, and the other one on the intensity of the attachment to the home country.

It is noteworthy that the response concerning the extent of the bonds with the home country is actually positively correlated with the amount of the remittances (graph 4).

*GRAPH 4 : INCOME AND REMITTANCE LEVELS, ACCORDING TO THE EXTENT OF THE ATTACHMENT*



*Source : calculations by the authors, 2MO survey*

TABLEAU 4A. MCO TO PREDICT THE AMOUNT OF REMITTANCES MADE BY  
MIGRANTS

<i>Volume transfert de fonds (LN)</i>	Coef.	P>t	Coef.	P>t
Constante	2.699	0.000	2.708	0.000
Turquie	-0.038	0.731	-0.027	0.798
Tunisie	0.099	0.331	0.055	0.585
Maroc	-0.119	0.248	-0.115	0.265
Algérie	-0.242	0.017	-0.269	0.008
<i>Pays Africains</i>	<i>Modalité de référence</i>			
Obligation/evenement familial	0.312	0.000	0.273	0.000
Revenu Familial (LN)	0.414	0.000	0.374	0.000
Pas de scolarité	0.215	0.041		
Primaire	0.152	0.108		
Secondaire	0.040	0.645		
<i>Bac &amp; Bac plus 2</i>	<i>Modalité de référence</i>			
Bac plus 4	0.255	0.029		
Reinstallation pays d'origine	0.251	0.000	0.261	0.000
Attachement	0.134	0.057		
<i>Age moins 25</i>	<i>Modalité de référence</i>			
Age 25-34			0.456	0.000
Age 35-44			0.535	0.000
Age 45-54			0.551	0.000
Age 55-64			0.623	0.000
Age plus 65			0.821	0.003
<i>MCO - Robust</i>				
Nombre d'observations	988		988	
R <sup>2</sup>	0.158		0.171	

TABLEAU 4B. PROBIT TO PREDICT THE LIKELIHOOD TO SEND MORE MONEY  
THAN THE MEDIAN

<i>Volume transfert de fonds (1/0)</i>	Coef.	P>z	dF/dx	Coef.	P>z	dF/dx
Constante	-4.246	0.000		-4.227	0.000	
Turquie	-0.175	0.218	-0.067	-0.161	0.255	-0.062
Tunisie	0.012	0.931	0.005	-0.025	0.857	-0.009
Maroc	-0.300	0.028	-0.116	-0.299	0.030	-0.115
Algérie	-0.358	0.010	-0.139	-0.400	0.004	-0.155
<i>Pays Africains</i>	<i>Modalité de référence</i>					
Obligation/evenement familial	0.431	0.000	0.164	0.405	0.000	0.154
Revenu Familial (LN)	0.513	0.000	0.194	0.474	0.000	0.180
Pas de scolarité	0.255	0.066	0.093			
Primaire	0.328	0.010	0.118			
Secondaire	0.147	0.200	0.055			
<i>Bac &amp; Bac plus 2</i>	<i>Modalité de référence</i>					
Bac plus 4	0.272	0.096	0.098			
Reinstallation pays d'origine	0.213	0.000	0.090	0.237	0.000	0.090
Attachement	0.204	0.028	0.078			
<i>Age moins 25</i>	<i>Modalité de référence</i>					
Age 25-34				0.503	0.001	0.183
Age 35-44				0.576	0.000	0.207
Age 45-54				0.647	0.000	0.220
Age 55-64				0.652	0.002	0.216
Age plus 65				0.823	0.010	0.251
<i>Probit regression - Robust</i>						
Nombre d'observations	988			988		
Wald chi <sup>2</sup> (12)	126.620			126.340		
Prob > chi <sup>2</sup>	0.000			0.000		
Log pseudolikelihood	-585.243			-584.005		
Pseudo R <sup>2</sup>	0.110			0.112		

First, Algerians and Moroccans clearly appear to remit significantly less than the other migrants of the sample. This observation confirms the results previously found in the likelihood of remittances based on the DREES survey (graph 1 and table 3) or the abovementioned findings on the average amounts that are transferred (see section 2.2.2.).

The obligation to send money owing to an unforeseen event (such as a health problem or a decease) significantly increases the likelihood to remit a higher amount than the median one, regardless of the income level of the respondent. This variable well reflects the insurance motive that will be dealt with in more detail in the model on motivations. This is a strong constraint affecting all migrants. The instance of such random events markedly accounts for a likelihood to remit that is superior to the median. Obviously, the existence of a project to settle again in the home country considerably and significantly increases the probability to remit more. This result is in perfect compliance with the findings of the recent literature.

Concerning the intrinsic characteristics of migrants, the following results are found :

The educational level (no schooling, primary education, secondary education, 2-year post A-level higher education, 4-year post A-level higher education or more) plays a role in accordance with the theoretical expectations (Faini, 2007) : the less skilled the migrants, the higher their likelihood to remit more money. The highly skilled are an exception (with at least four years of post A-level higher education) since they also feature a high probability to remit, which remains weaker however than that of the unskilled (unschooled and primary education level). Migrants with an average level (secondary education, A-level and 2-year post A-level higher education) tend to remit the least. Their educational level is not correlated with their income level, which reflects the imperfections of the labour market and the relegation effects that particularly affect them, as has been analysed by sociological studies<sup>15</sup>.

Finally, we have introduced a subjective characterization linked to the extent of the attachment to the home country. This variable significantly and strongly accounts for the higher level of remittances.

Thus, the typical profile of migrants who remit the most corresponds to those who are mainly from Sub-Saharan Africa, Tunisia or Turkey, unschooled, weakly educated or to a lesser extent highly educated (with at least 4-year post A-level higher education), compelled by a family event, rather elderly, with a more or less certain project to resettle in the home country to which they state being very attached. The profile of the migrants who remit the least are people from Algeria or Morocco, with a relatively average educational level (secondary education or merely 2 years of post A-level higher education), who are unlikely to settle again in the home country, relatively younger and who declare having few ties with their home country.

### **3.2.2. ANCIENT MIGRANTS REMIT AND INVEST MORE**

In a second model we propose to test three quite distinct goals or motivations to remit. Thus, **model 2** is made up of three equations that aim to account for the motivations to transfer : current expenses, investment, purchasing a house.

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<sup>15</sup> Some sociological surveys show that the most discriminated or relegated candidates on the labour market are migrants with an average educational level (A-level or 2-year post A-level higher education). See for instance S. Beaud and M. Pialoux, 2002 (Violences sociales, violences urbaines).

In order to go further into the analysis of these data, different logistic regression methods could be used to assess the probability to transfer money so as to finance the different ways of expenditure. We might then obtain biased coefficients here, since this is an instance where simultaneous decisions can be suspected (purchasing/building a home, current expenses and investments). In order to take into account this simultaneity which induces endogenous risks, we assess a multivariate Probit model (rather than three independent probit models) (see Greene, 2003; Cappellari and Jenkins, 2003). The multivariate model is therefore better adapted to the estimation of the purposes of remittances than the traditional models since there is a concurrence of events.

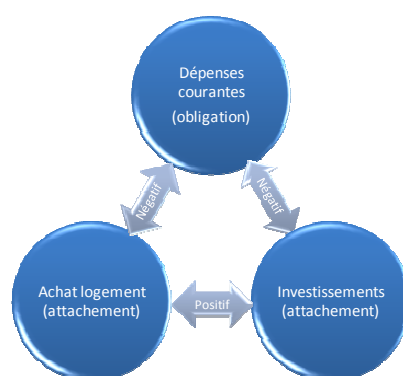
#### Equation (4)

$X$ , representing the vectors of independent variables (which may be the same for each equation) and  $\varepsilon_i$  three distributed error terms according to a normal multivariate law, with an average of 0 for each and a variance-covariance matrix  $V$ , so that  $V$  has values of 1 on the main diagonal.

This system with three simultaneous equations is assessed according to the maximum simulated likelihood method (since the estimation implies the calculation of a triple integral in the likelihood function). We use the GHK simulator (Geweke-Hajivassiliou-Keane) developed by Cappellari and Jenkins (2003) (*mvprobit* Stata procedure). The use of the GHK simulator implies that the findings depend on the number of random draws used to calculate the simultaneous likelihood function. Cappellari and Jenkins (2003) recommend to choose a number of draws that is at least equivalent to the square root of the size of the sample. Consequently, the choice of 25 draws enables us to relatively rely on the estimated parameters ( $25 > \sqrt{562}$ ). In the equation system, the following independent variables will be taken into account: the different sociodemographic variables (age, family income), certain variables concerning values (ties with the home country, obligation to send money, desire to return) as well as dichotomic variables so as to control the country effects. The significance test enables us to justify the estimation of this multivariate Probit model rather than that of three independent probits. Moreover, the correlation coefficients between the error terms of each of the equations are significant in all cases.

Furthermore, the way in which the different decisions are interrelated with one another can be observed (schematized in graph 5).

GRAPH 5 : RELATION BETWEEN THE DIFFERENT DECISIONS



Thus, the Rho sign in table 5 is negative and significant when testing motivation 2 against motivation 1 (Rho 21). Transferring money in order to pay current expenses (2) plays to the detriment of allocating remittances to buying or building a house (1). Similarly, owning a house in the home country increases the likelihood to transfer money for investment motives (3) (which is expressed by a positive and significant Rho 31). Remittances for current expenses also play a negative role in the capability to remit for investment motives (Rho 32 being negative and significant) (table 5 and and schema above).

TABLE 5. MULTIVARIATE PROBIT IN ORDER TO PREDICT REMITTANCES TO FINANCE EXPENSES

Probit multivarié	Logement		Dépenses courantes		Investissements	
	Coef.	P>z	Coef.	P>z	Coef.	P>z
Constante	<b>-3.430</b>	<b>0.001</b>	<b>12.176</b>	<b>0.000</b>	-1.435	0.173
Turquie	-0.199	0.255	<b>-3.948</b>	<b>0.000</b>	-0.034	0.855
Tunisie	-0.075	0.682	<b>-3.450</b>	<b>0.000</b>	-0.242	0.207
Maroc	0.235	0.232	<b>-4.206</b>	<b>0.000</b>	0.133	0.516
Algérie	-0.103	0.563	<b>-3.399</b>	<b>0.000</b>	-0.190	0.324
<i>Pays africains</i>			<i>Modalité de référence</i>			
LN Revenu	<b>0.368</b>	<b>0.001</b>	-0.231	0.250	0.034	0.760
Attachement	<b>1.018</b>	<b>0.000</b>	-0.506	<b>0.086</b>	<b>0.298</b>	<b>0.027</b>
Réinstallation	<b>0.430</b>	<b>0.000</b>	-0.067	0.703	<b>0.433</b>	<b>0.000</b>
LN Age	-0.071	0.746	<b>-1.209</b>	<b>0.033</b>	-0.163	0.477
Obligation	<b>-0.400</b>	<b>0.001</b>	<b>0.925</b>	<b>0.019</b>	-0.010	0.939
/atrho21			<b>-0.553</b>	<b>0.000</b>		
/atrho31			<b>0.310</b>	<b>0.001</b>		
/atrho32			<b>-0.963</b>	<b>0.000</b>		
Rho21			<b>-0.503</b>	<b>0.000</b>		
Rho31			<b>0.301</b>	<b>0.000</b>		
Rho32			<b>-0.746</b>	<b>0.000</b>		

Multivariate probit (SML, # draws= 25)

Condition = non possession de logement dans pays d'origine

Nombre d'observations 562

Likelihood ratio test of rho21 = rho31 = rho32 = 0: chi2(3) = 36.5451 Prob > chi2 = 0.000

Wald chi2(26) = 476.880

Log pseudolikelihood = -587.819

Prob > chi2 0.000

### *Remitting for current expenses: an irreducible obligation*

Remittances to pay for current expenses most often seem to constitute an irreducible obligation as is shown by the fact that the sign of this subjective "*obligation*" variable is positive and significant with current expenses, but negative with transfers for housing and insignificant for the motivation linked to investment (table 5). This confirms the assumption that migrants remit for insurance motives, a motive linked to current expenses, and not to investment expenses. Moreover, the "*attachment to the home country*" variable does not play any role whatsoever in the decision to remit for current expenses, whereas it is positively and significantly linked to the investment or housing motivation (table 5).

Income does not imply a link with remittances for current expenses, for, as is shown by the positive sign of the « *obligation* » variable, transfers for this motive will occur regardless of the migrant's income. Conversely, income does play a role in the decision to remit in order to invest money (financial investments, business, crafts, housing).

Age considerably weighs in on the decision to remit for motives concerning current expenses (negative and significant coefficient). Indeed, it is the youngest who make this type of remittances. This result can be found in the analysis by nationality. The variables associated with the migrant's origin all feature negative and statistically highly significant signs, only for current expenses. In other words, Algerian, Moroccan, Tunisian and Turkish migrants are far less likely to transfer funds in order to pay for current expenses than a migrant from Sub-Saharan Africa.

In short, the typical profile of a migrant who remits to finance the current expenses of the family group in the home country is a young migrant from Sub-Saharan Africa, who is little or not attached to his home country and who feels compelled to remit, regardless of his income level. This seems to confirm the hypothesis according to which the migration of the young whose home country is a poor Sub-Saharan African country integrates the question of funds transfers as motives for their departure, which makes it an endogenous variable to emigration.

### *Transferring in order to finance housing: a major concern for migrants with strong ties with their home country*

In the decision to remit so as to finance housing in the home country, it is the "*attachment*" to the home country variable that ranks as the most determining one (positive and significant coefficient in table 5), followed by the "*decision to resettle*" in the home country and, lastly, by the migrant's income.

Within the framework of the family organisation of Algerians, Tunisians or Moroccans in France, the parents of the first generation (whether male or female) have already made the effort to build, to improve or to extend the existing family home before. The financial flows between adult children who were born in France or who arrived in their infancy, and their parents, is organised extensively and over a relatively long period around the investment in the house (previous motive). The fathers do not return definitively but come and go (as the pension is received in France, the money is then partly or entirely transferred to the home country). Mothers equally organise the links between the home country and their children. Income is a key variable of remittances for these motives, with the aim to resettle in the home country, which is actually that of the father or the mother, as the children in some cases continue to contribute to the

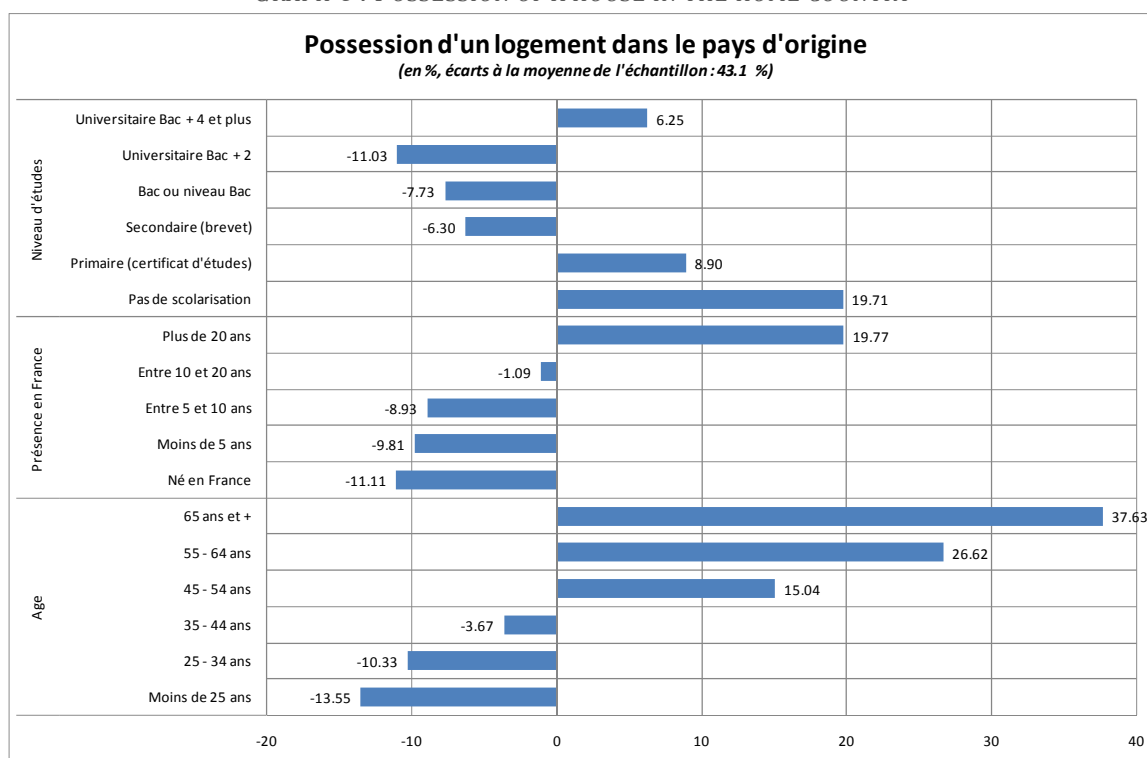


family budget. This is the reason why the “*attachment*” variable is so determining in this equation.

The “*obligation*” variable, which, one must bear in mind, is a proxy of the insurance motive and accounts for remittances intended for current expenses, supplants expenses for housing. This is linked to the budget constraint.

The age of migrants does not seem to be a determining factor in the motivation to buy real estate since more than 60 % of the old migrants who remit already possess a family home in the home country or even in their home village (graph 6)<sup>16</sup>. Furthermore, regressing the variable possession of a house in the home country with the duration of the stay results in a positive and highly significant correlation (table 6). Unschooled migrants are also those who have lived in France for a long time and equally feature the same type of behaviour (graph 6). The educational level in relation with the possession of a home follows a kind of U-shaped curve (graph 6) : unschooled migrants who have been in France for more than twenty years are the most likely to own their home ; people with a secondary education level, with an A-level or with 2-year post A-level higher education are the least likely to own a home, while the highly educated somewhat catch up with the level of ownership of the unschooled.

GRAPH 6 : POSSESSION OF A HOUSE IN THE HOME COUNTRY



<sup>16</sup> Furthermore, the model has been estimated by leaving out migrants who already possess a house in the home country from our sample. This may account for the absence of significance in the age variable in the equation.

TABLE 6. PROBIT TO PREDICT THE OWNERSHIP OF A HOUSE IN THE HOME COUNTRY

<i>Possession d'un logement dans le pays d'origine (1/0)</i>		Coef.	P>z	Coef.	P>z	Coef.	P>z
Constante		-1.643	0.007	-1.308	0.031	-1.932	0.001
Pays d'origine	Turquie	0.022	0.871	0.048	0.724	-0.024	0.859
	Tunisie	0.144	0.287	0.150	0.265	0.242	0.072
	Maroc	0.607	0.000	0.583	0.000	0.678	0.000
	Algérie	0.117	0.396	0.103	0.460	0.171	0.210
	<i>Pays africains</i>			<i>Modalité de référence</i>			
Attachement		0.371	0.000	0.372	0.000	0.376	0.000
LN Revenu		0.040	0.623	-0.002	0.983	0.085	0.280
Réinstallation		0.235	0.000	0.248	0.000	0.232	0.000
Age	Entre 25-34	0.034	0.833				
	Entre 35-44	0.193	0.237				
	Entre 45-54	0.645	0.000				
	Entre 55-64	0.891	0.000				
	Plus 65 ans	1.346	0.000				
Durée de présence en France	Moins de 5 ans			-0.002	0.990		
	Entre 5-10			0.029	0.831		
	Entre 10-20			0.195	0.119		
	Plus 20 ans			0.689	0.000		
Niveau d'études	Pas de scolarisation					0.724	0.000
	Primaire					0.420	0.000
	Secondaire					0.003	0.980
	Bac + 4					0.361	0.030
Nombre d'observations		988		988		988	
Wald chi² (12)		126.28		121.17		109.88	
Prob > chi²		0.000		0.000		0.000	
Log pseudolikelihood		-601.56		-609.16		-613.16	
Pseudo R²		0.1094		0.0981		0.0922	

### *Remitting to invest: the determining nature of the project to resettle in and the attachment to the home country*

For remittances devoted to investment, it is again the two variables “*decision to settle again*” and “*attachment to the home country*” that are determining. This confirms the idea that the ties with the home country are prominent and rank after the project to return. Yet we had noticed that it is the unschooled migrants formerly arrived in France who were the most concerned by the attachment variable. Indeed, it is not uncommon to see Algerian, Moroccan or Tunisian retired people invest in the home country, not only in the family house but also in the creation of small companies in business, services or car repair shops, thus providing employment for the family in the home country, or hoping for the return of some of their children. Once again, the age of migrants does not seem to play a significant role in the investment motive<sup>17</sup>.

<sup>17</sup> See note 18 above.

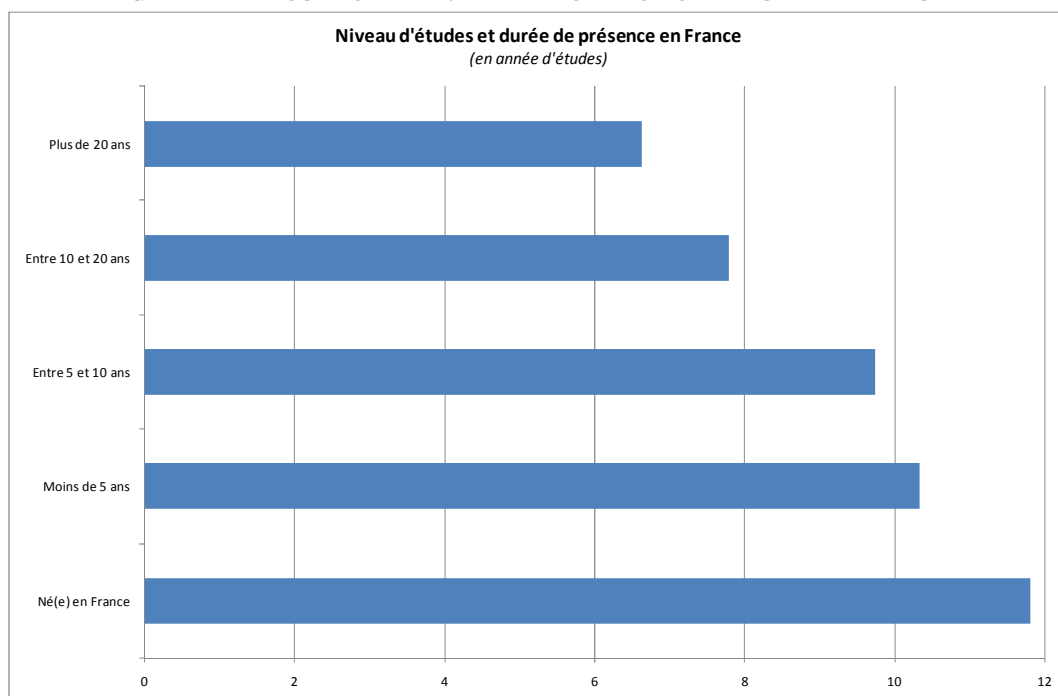
### *A synthesis of motivations*

In all, it is not surprising that a marked dividing line appears in the types of behaviour linked to remittances between the motives related to current expenses and those of the investment in and the financing of a house. Young migrants from Sub-Saharan Africa seem to be more likely to fit in with this remittance logics linked to current expenses within the constraint of an irreducible obligation. Migrants originating from Southern Mediterranean countries seem to be more concerned by the other two motives : investment in and financing of a home.

For these two motives, the attachment to the home country well appears to be determining, after the resettlement project, in the decision to remit in order to invest or to finance housing. From the point of view of the migrants' characteristics, the most fundamental feature is linked to the weak educational level (the unschooled or people with a primary education level). Moreover, when testing the impact of the duration of the presence in France separately, the most ancient migrants who arrived in the 1960s-1970s with the lowest educational levels (the Fordist sectors in France raised this unskilled labour force) again turn out to remit the most with the purpose to invest.

This result does not comply with the sense of the theoretical hypothesis according to which the migrant's ties with the home country slacken as he prolongs his stay in the host country, but let us bear in mind that this negative relation between the amount of remittances and the duration of the stay has only been assessed in the case of India (Banerjee, 1984) and of El Salvador (Funkhouser, 1995). Actually, if remittances are broken down into motivations or objectives, richer results can be found concerning this variable related to the duration of the stay. In reality, this variable should not be interpreted in the absolute but should be related to the history of emigration, the conditions of the arrival in the host country and the conditions of departure from the home country, which have an impact on the subjective and probably idiosyncratic variable of the extent of the attachment to the home country.

GRAPH 7 : EDUCATIONAL LEVEL AND DURATION OF THE STAY IN FRANCE



Source : calculations by the authors, 2MO survey

## CONCLUSION

In this paper, we have used two surveys in order to understand the types of behaviour linked to remittances from France to Southern Mediterranean countries and the migrants originating from Sub-Saharan Africa. We have handled the data of a new DREES survey on the track and the profile of migrants as well as of the 2MO survey which we have conducted in French post offices.

We have tested the hypotheses related to the types of behaviour insofar as remittances by the selected migrants are concerned.

We have first sought to check if the decisions whether or not to transfer money depend on the objective characteristics of migrants or on subjective variables that cannot be directly observe. By controlling the variables linked to income, education, age or nationality, we have highlighted the role of subjective variables as well as of those related to the attachment to the home country. We have aimed to verify the argument according to which the extension of the stay in the host country and the reduction in the frequency of visits to the home country are associated with weakening family ties and a slackening degree of altruism and therefore of remittances.

We have cross-checked this variable concerning the duration of the stay with the social and political context of emigration (approximated by the date or the period of the migrant's arrival in Franc) and the original nationality. A second group of hypotheses deals with the explanation of the different motives to remit through the diverse use made of the money sent by migrants.

First of all, the likelihood to transfer money is lower for migrants from the Maghreb than for those from Sub-Saharan Africa, which confirms the existence of a link between the need to make monetary transfers and the incentive to emigrate for the latter. Furthermore, our findings confirm the altruistic motivation to remit that can be found in the theoretical models, without ruling out the other motivations however. Indeed, if altruistic and insurance motives are determining for all the categories of migrants studied in the DREES survey, we have equally emphasized the important and significant role of subjective variables (notably the migrant's attachment to his home country) and of history, that is to say, the arrival date that approximates the conditions of the arrival and emigration of migrants. Thus, the case of Algerians is particularly interesting : those who arrived before the 1990s feature a higher likelihood to remit than those who arrived more recently. The oldest, first come and unschooled migrants have stronger ties with their home country, which accounts, after controlling several variables, for their tendency to remit more than more recently arrived migrants whose emigration can be explained rather by repulsive and insecurity factors. In other words, the arrival during the Fordist period, raised by the big industrial and construction sectors, does not have the same impact on the motivation to remit as the context of the 1990s-2000s when migrations were organised rather on personal and strategic bases concerning more highly skilled people.

The second series of empirical studies we have sought to carry out has enabled us to understand the characteristics of those who remit more than the others (all variables controlled) and to gain deeper insight into the purposes of remittances.

We also find original and coherent results with those we found in the DREES survey. Migrants from Sub-Saharan Africa, Tunisia or from Turkey whose educational level is weak or, to a lesser extent, very high (having at least 4-year post A-level higher education) appear to be those who

remit the most, first because of constraints linked to a family event. They state having strong ties with their home country.

The profile of migrants who remit the least are Algerians or Moroccans who settled only recently in the host country, with a relatively average educational level (secondary education or 2-year post A-level higher education), and who are unlikely to resettle in the home country. These migrants are younger and state having weak ties with their home country.

The motivation to remit so as to invest in the home country, for reasons other than those linked to buying a home, also concerns the unschooled and those who have been present in France the longest. These findings gainsay the theoretical hypothesis of an alteration of the migrant's bonds with the home country as the duration of the stay in the host country extends, since the duration of the settlement does not make any sense unless it is contextualized in the history of emigration, the conditions of arrival in the host country and the conditions of departure from the home country. The extent of the migrant's attachment thus appears as a discriminating subjective variable according to these historical conditions.

We will have to go further into this notion of attachment to the home country as well as the relationship between the "old migrant who arrived in the 1960s-1970s" with his children who migrated in their infancy or who were born in France, and who seem to be barely attached to their home country and therefore tend to remit much less. The question then arises if one of the reasons that may account for the remittance behaviour of the unschooled and first come does not stem from the children's contribution to the family budget which makes it possible to make higher remittances as compared to the individual incomes of fathers. This transfer relation with the delegation or obligation of children to parents would thus ultimately complete remittances in order to invest in the family house purchased long ago by inheritance or construction.

Finally, one of the implications of our findings in terms of economic policy is linked to the question of the depletion of these remittances in the future since the new immigration waves, in a context featuring a restriction of migration flows and a strategy of lowering emigration costs, are translated by a self-selection effect of the most highly skilled (Defoort, 2007). In those circumstances, the countries who receive migrants' remittances ought to think of the after-remittance instead of contenting themselves with implementing an investment management of the migrants' money<sup>18</sup>.

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<sup>18</sup> From an academic point of view, the study we have made calls for a collaboration with historians and sociologists on two precise segments of the research : the historical context and its influence on the behaviour of migrants on the one hand, and the intergenerational relationships in the behaviour linked to remittances on the other.

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