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"MIGRATIONS AND DETERMINANTS OF REMITTANCES TO SOUTHERN MEDITERRANEAN COUNTRIES: WHEN HISTORY MATTERS !

INSIGHTS OF TWO NEW SURVEYS"[1]

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Abstract

In this paper we analyze the main determinants of migrant's remittances by measuring directly the role of non observable variables related to subjective motivations and historical context of the emigration process. Subjective variables, such as attachment feeling and intent to return to the country of origin can also play a role in explaining the final uses of remittances. These subjective variables can counteract the impact of the observable variables as the education level, the income level, the household size, the duration of stay in the host country or the age of the migrant.

We have used two surveys in order to understand the types of behaviour linked to remittances from France to Southern Mediterranean countries and to Sub-Saharan Africa. The first survey used in this paper is a new DREES survey on the track and the profile of migrants and the second one is the 2MO survey which we have conducted in French post offices.

Our first result shows that, after controlling for all the variables linked to income, education, age or nationality, subjective variables such as attachment to the home country, history and the institutional context of emigration play a determinant role in explaining ramittance behaviour.

Our second result shows that migrants, who are in France for a long time and who have low education levels, also send remittances in order to invest (including investments other than housing) in their home country. These findings contradict the theoretical hypothesis of an alteration of the migrant's links with the home country as the duration of the stay in the host country increases. This can be explained by the fact that the duration of stay 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 degree of the migrant's attachment to his home country thus appears as a discriminating subjective variable according to these historical conditions. By contrast, the migrants from Sub-Saharan African countries send money for current expenditures rather than for investment. The obligation feeling seems to be the important subjective variable for remitting money.

L'objectif de ce papier est d'analyser les déterminants des transferts de fonds des migrants en mesurant directement le rôle des variables non observables liés à des aspects subjectifs et historiques de l'émigration. Ces variables subjectives telles que l'attachement, le sentiment d'obligation, le projet de réinstallation peuvent également jouer un rôle dans l'utilisation finale de ces transferts en contrecarrant éventuellement l'effet des variables objectives (revenu, nationalité, taille de la famille, âge, durée d'installation, éducation, etc.).

Dans ce papier, nous avons utilisé deux enquêtes pour comprendre les comportements de transferts à partir de la France vers les pays du Sud de la Méditerranée et également des migrants originaires d'Afrique subsaharienne. Nous avons exploité une nouvelle enquête de la DREES sur le parcours et le profil des migrants et l'enquête 2M0 que nous avons réalisée au sein des bureaux de poste français.

Notre premier résultat est que toutes variables observables contrôlées, les variables subjectives telles que l'attachement au pays d'origine, l'histoire et le contexte institutionnel de l'émigration, jouent un rôle déterminant dans l'explication des transferts de fonds.

Le second résultat obtenu concerne l'explication de l'utilisation des transferts d'argent. La motivation de transférer pour investir dans le pays d'origine en dehors de l'achat du logement, concerne aussi les plus anciennement présents en France et les moins scolarisés. Ce résultat contredit l'hypothèse théorique d'une altération des liens au fur et à mesure de la durée de séjour du migrant, car la durée d'installation n'a de sens que si on la contextualise dans l'histoire de l'émigration, les conditions d'arrivée dans le pays d'accueil, les conditions de départ du pays d'origine. Le degré d'attachement apparaît alors comme une variable subjective discriminante en fonction de ces conditions historiques.

MIGRATIONS AND DETERMINANTS OF REMITTANCES TO SOUTHERN MEDITERRANEAN COUNTRIES: WHEN HISTORY MATTERS !

By L. Miotti, E.M. Mouhoud and J. Oudinet

1. INTRODUCTION

In this paper we analyze the main determinants of migrant's remittances by measuring directly the role of non observable variables related to subjective and historical variables of the emigration process. Funkhouser (1995) shows that migrants from two countries (as Nicaragua and Salvador) with same observable characteristics have different remitting behaviors because of non observable variables, as the attachment to the country of origin. This last variable which can depend on political regime seems to be determinant for explaining remitting behavior. Our aim is to go further in this research by showing that these non observable variables depend not only on the institutional framework of the country of origin but also on the historical dimension of the emigration process, specific to the different generations of migrants. Furthermore, these non observable variables can counteract the impact of the observable variables as the education level, the income level, the family size, the duration of stay in the host country or the age of the migrants. For instance, as the duration of stay in the host country increases, the level of remittances is theoretically supposed to decrease depending on the hypothesis positing the erosion of the migrant's ties with the home country in time. But this negative relation could be changed by the emigration period and the social, political and economic context of the emigration decision. In other word, the history of emigration should matter.

We can then suppose that those subjective variables as the attachment to the home country, the feeling of obligation to remit and the intent to return home can also play a role in the use of remittances. Such results can bring some explanations to the ambiguous impact of the remittances observed at a macroeconomic level.

In this paper, we analyze the determinants and the final use of remittances of migrants settled in France and sending to the southern Mediterranean and Sub-Saharan countries; we use 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 use a second survey conducted by DREES in order to find out the difference in the behaviour of those who send and those who do not send money. The sample covers 3,500 people for the regions we are interested in. Based on the theoretical analyses of the microeconomic determinants of remittances, 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 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 also 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 point that we would like to check deals with the explanation of 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 2). We then present the data and the principal descriptive results of our two surveys (section 3). Section 4 introduces the model and the main results. Section 5 is made up of the conclusion on the orientations for further research and the academic and economic policy implications of our findings.

2. THE ECONOMICS OF DETERMINANTS OF REMITTANCES

Theoretically, the migrant's altruistic feelings towards the family or the relatives he has left behind cannot explain alone the remitting decision. The latter may be determined by other motivations, whether they be individual or arise from family arrangements, such as inheritances, repayments of loans to the family, exchange of services, insurance or investment (Rapoport and Docquier, 2006).

Within the altruism behaviour, migrants are supposed to integrate the utility of their family into their own utility. In this case, the nature of the remittances 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. In this case, when the family income increases, the quality of the services will improve and their cost will go up, which in turn implies a raise in remittances. The relation between the income of the recipient family and remittances is therefore, in the case of exchange motivation, either positive or negative (as in the case of altruism) according to the elasticity of the migrant's demand[2].

The repayment of debt to the family, whether contracted or not with 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 the education costs and/or a loan made before migrating.

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 more frequent as the family income is volatile and sensitive to shocks, like agricultural incomes that are subject to climatic conditions. Migration practically enters a calculated choice of portfolio

[2] 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.

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.

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 using individual data, have been carried out on the Maghreb countries so far.

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.

Just like Lucas and Stark (1985) for Botswana, Itzingsohn (1995) for the Carribean 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, Cracium, 2006) the relation is negative. 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 Carribean 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).

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). Our hypothesis is that 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.

Also, 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 (Gubert, 2002, Halliday, 2004, Chavez, 2004).

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. 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 (Durand *et al* 1996, Sana and Massey, 2005). The importance of non observable variables are then determinant (Funkhouser, 1995).

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.

3. DESCRIPTION OF THE DATABASES USED IN THIS PAPER

We 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[3]) 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 4.

3.1 THE "PROFILE AND TRACK OF MIGRANTS" DREES SURVEY

The Research, Study, Evaluation and Statistics Division (DREES)[4] 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 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[5].

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%).

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[3] 2MO survey for Miotti-Mouhoud-Oudinet.
[4] French Ministry of Social Affairs and Health.
[5] Annual report of the Department of Population and Migrations.

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.

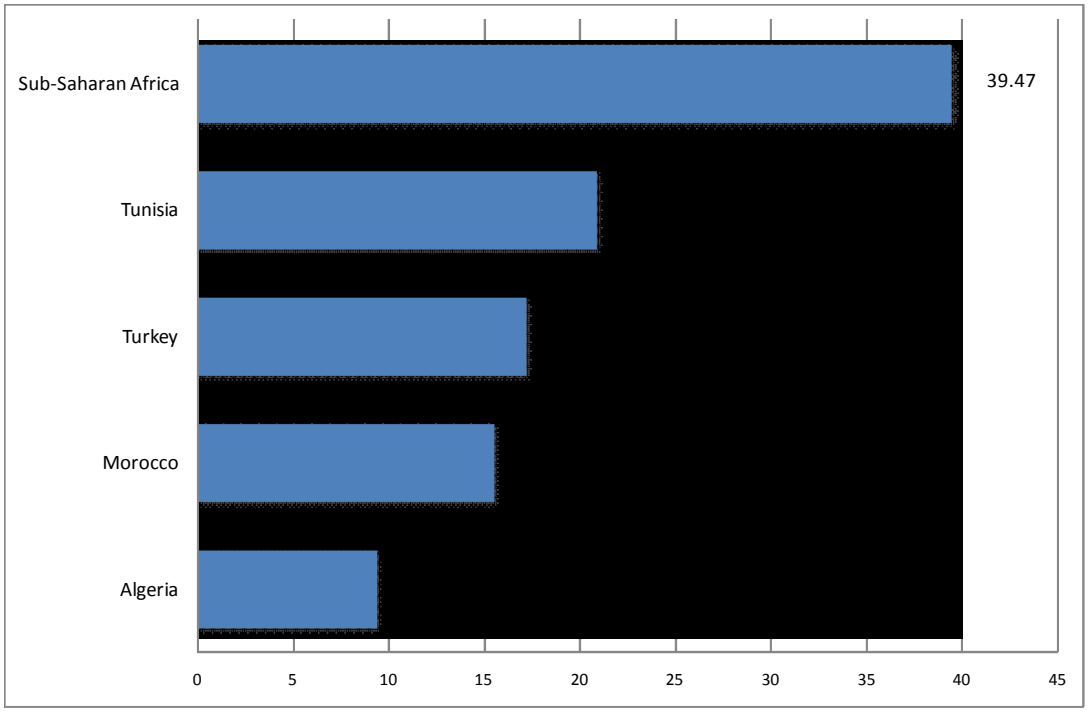
TABLE 1 SELECTED DESCRIPTIVE STATISTICS – DRESS' SURVEY

Variable	Total sample			Remittances = No			Remittances = Yes		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Algeria*	3530	0.410	0.492	2872	0.451	0.498	633	0.224	0.417
Morocco*	3530	0.224	0.417	2872	0.229	0.421	633	0.201	0.401
Tunisia*	3530	0.122	0.328	2872	0.117	0.322	633	0.147	0.354
Turkey*	3530	0.094	0.292	2872	0.093	0.290	633	0.093	0.291
Sub-Saharan Africa*	3530	0.150	0.357	2872	0.110	0.313	633	0.335	0.472
Age**	3530	31.298	9.007	2872	31.075	9.232	633	32.397	7.919
Primary education*	2603	0.092	0.289	2121	0.092	0.290	465	0.092	0.290
Secondary education*	2603	0.249	0.432	2121	0.243	0.429	465	0.282	0.450
Bac *	2603	0.479	0.500	2121	0.484	0.500	465	0.452	0.498
Universitary education Bac + 2*	2603	0.132	0.338	2121	0.135	0.342	465	0.116	0.321
Universitary Bac + 4 or more*	2603	0.048	0.215	2121	0.046	0.209	465	0.058	0.234
Income**	2443	1 460 €	1 070 €	2004	1 393 €	1 110 €	426	1 776 €	793 €
Perception standard of living home country ***	3496	3.521	1.096	2839	3.569	1.073	632	3.307	1.164
Perception standard of living host country ***	3516	3.043	0.974	2860	3.014	0.982	631	3.181	0.918
Escape poverty***	3530	0.223	0.416	2872	0.205	0.404	633	0.299	0.458
Escaping to insecurity***	3530	0.141	0.348	2872	0.126	0.332	633	0.202	0.402
Lack of future***	3530	0.139	0.346	2872	0.136	0.343	633	0.150	0.357
Fluency in coutry of origin *	3486	2.147	0.898	2833	2.117	0.888	629	2.275	0.932
Security to the country of origin*	3488	0.734	0.442	2831	0.748	0.434	632	0.672	0.470
Transmission of traditions***	3462	1.535	0.697	2814	1.539	0.702	623	1.510	0.673
Transmission of the language***	3476	1.731	0.827	2830	1.730	0.831	621	1.728	0.822
Migrant family size in the home country **	3530	0.902	0.298	2872	0.893	0.309	633	0.940	0.238
Household size in France**	3530	3.182	1.683	2872	3.253	1.710	633	2.870	1.518
French spouse *	2902	0.515	0.500	2356	0.515	0.500	523	0.509	0.500
Staying definitively in France *	3530	0.824	0.381	2872	0.830	0.376	633	0.796	0.403
Staying then returning to the home country *	3530	0.042	0.200	2872	0.036	0.186	633	0.070	0.255
Staying in France and going to another country *	3530	0.010	0.100	2872	0.009	0.093	633	0.016	0.125
Has not decided *	3530	0.124	0.330	2872	0.126	0.332	633	0.118	0.323
Duration of stay in France**	3530	2.795	4.189	2872	2.608	4.198	633	3.649	4.076

* = Dummy variable (0/1); ** = Continuous variable; *** = Licker Scale (1 to 4)

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(graph 1).

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



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

3.2. THE 2MO 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 (French Post public group), questioning 1,000 respondents who remit to Algeria, Morocco, Tunisia, Turkey and the countries of Sub-Saharan Africa.

Face-to-face interviews lasting for about fifteen minutes[6] 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[7]. 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-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

[6] 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.

[7] Complementary surveys have been conducted in other sites, such as migrants' associations and banks for Turkish migrants in order to achieve the quota.

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.

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[8]. 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 pass by the post office. Nevertheless, this bias is limited in the questionnaire since migrants are asked to assess the total amount of their remittances, whichever channel is used, inclusive of informal systems.

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[9]) 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[10] 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.

Most of the annual transfers concern amounts situated between 200 and 1,000 €. The distribution is rather orientated to the first median bracket from 200 to 500 € for transfers to Morocco and Algeria. The average amount stands at 1,187 € a year (table 2).

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 €. If we relate this amount to the income of the migrants' household, 6% of the income of households is transferred through these channels. The share is higher for the other African countries (7,5%) and for Moroccans (6,34%). 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).

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[8] For Turkish migrants, about thirty of them have been interviewed just after making a remittance through the national bank of Turkey.

[9] INSEE, annual census surveys, 2004 to 2006.

[10] 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.

TABLE 2. SELECTED DESCRIPTIVE STATISTICS – 2MO' SURVEY

Variable	Total sample			Attachment = No			Attachment = Yes		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Algeria*	1000	0.196	0.397	350	0.254	0.436	650	0.188	0.391
Morocco*	1000	0.215	0.411	350	0.186	0.389	650	0.205	0.404
Tunisia*	1000	0.197	0.398	350	0.169	0.375	650	0.212	0.409
Turkey*	1000	0.196	0.397	350	0.211	0.409	650	0.188	0.391
Sub-Saharan Africa*	1000	0.196	0.397	350	0.180	0.385	650	0.205	0.404
Age									
Less than 25 years old*	1000	0.098	0.297	350	0.154	0.362	650	0.068	0.251
Between 25 and 34 *	1000	0.320	0.467	350	0.351	0.478	650	0.303	0.460
Bandween 35 and 44 ans*	1000	0.304	0.460	350	0.283	0.451	650	0.315	0.465
Bandween 45 and 54 ans*	1000	0.165	0.371	350	0.114	0.319	650	0.192	0.394
Bandween 55 and 64 ans*	1000	0.087	0.282	350	0.077	0.267	650	0.092	0.290
More than 65 years old*	1000	0.026	0.159	350	0.020	0.140	650	0.029	0.169
Enfants									
Number of children **	995	1.815	1.626	347	1.403	1.571	648	2.035	1.613
Number of childrens born in France**	673	3.521	1.096	192	1.667	0.697	481	1.520	0.791
Income and remittances									
Monthly household income**	988	1 883 €	996 €	347	1 862 €	1 083 €	641	1 895 €	946 €
Amount remittances**	999	1 187 €	1 308 €	349	1 047 €	1 274 €	650	1 263 €	1 320 €
Education level									
No schooling *	1000	0.140	0.347	350	0.111	0.315	650	0.155	0.363
Primary education*	1000	0.172	0.378	350	0.134	0.341	650	0.192	0.394
Secondary education*	1000	0.228	0.420	350	0.206	0.405	650	0.240	0.427
Bac*	1000	0.240	0.427	350	0.294	0.456	650	0.211	0.408
Bac + 2*	1000	0.137	0.344	350	0.183	0.387	650	0.112	0.316
Bac + 4 ou more*	1000	0.083	0.276	350	0.071	0.258	650	0.089	0.285
Length of stay									
Born in France*	1000	0.281	0.450	350	0.409	0.492	650	0.212	0.409
Less than 2 years*	1000	0.013	0.113	350	0.011	0.106	650	0.014	0.117
Between 2 and 5 years*	1000	0.064	0.245	350	0.046	0.209	650	0.074	0.262
Between 5 and 10 years*	1000	0.152	0.359	350	0.146	0.353	650	0.155	0.363
Between 10 and 20 years*	1000	0.214	0.410	350	0.163	0.370	650	0.242	0.428
More than 20 years*	1000	0.276	0.447	350	0.226	0.419	650	0.303	0.460
Housing, type of expenditure and resettlement projects in the country of origin									
Home ownership in the country of origin *	999	0.431	0.496	349	0.301	0.459	650	0.502	0.500
Resettlement project in the country of origin ***	858	2.393	1.251	283	1.770	0.997	575	2.699	1.250
Purchase housing project in the country of origin *	999	0.402	0.491	349	0.275	0.447	650	0.471	0.500
Investment in the country of origin *	998	0.327	0.469	349	0.218	0.413	649	0.385	0.487
Current expenditure *	998	0.982	0.133	349	0.989	0.107	649	0.978	0.145

* = Dummy variable (0/1)
** = Continuous variable
*** = Licker Scale (1 to 4)

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.

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

First, by using the data of the DREES survey, we analyze the probability to remit or not depending on the objective characteristics of migrants and on subjective variables that cannot be directly observed. We wish to verify in particular, after controlling for objective variables (income, education age, nationality), if subjective variables like those linked to the attachment to the home country are determinant. We also wish to control the conventional wisdom that as the duration of the stay in the host country increases the remittances decrease resulting from the hypothesis positing the erosion of the migrants' ties with the home country. Methodologically, we add 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, the nationality and the migrant's perception of the institutional context in the home country (§ 4.1.).

Secondly, we study the different utilizations of the money sent by migrants, using subjective or perception variables (attachment feeling, obligation feeling, return projects) and objective ones (revenue level, education level, age, staying duration) (§ 4.2).

4.1. 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 remit.

We test a Probit in order to predict the likelihood of transferring money for migrants. The model is described by the reduced equation (1) below. The first column of table 3 indicates the estimated coefficients and the last column shows their marginal impact**.**

(equation 1)

$$T = \alpha + \sum_{i}^{n} \beta_i Orig_i + \gamma_1 R + \gamma_2 FSO + \gamma_3 FSF + \gamma_4 Age + \sum_{i}^{n} \sigma_i D_i + \gamma_5 SLHp + \delta_6 SLFp + \sum_{i}^{n} \lambda_i SUB_i + \varepsilon$$

Where,
R corresponds to the declared amount of the migrant's household income ,
Orig: migrant's nationality
Age: migrant's age
FSF = migrant's family size in the host country (number of the members of the family living with the migrant)
FSO = migrant's family size in the home country (number of brothers and sisters in the country of origin)

SLHp: the standard of living in the host country [11] as perceived by the migrant
SLFp: the poverty or wealth level of the family in the home country as perceived by the migrant[12]
D: duration of stay in the host country and variables informing about the date of arrival in France by nationality of the migrants
SUB: the vector of subjective variables englobing the following variables:

- -traditions-culture-languages transmitted by the migrant to his family (This variable is used as a proxy of 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 feeling of poverty, of insecurity and the perception of the future in the home country created from a factorial analysis, englobing questions on the conditions in the home country that have motivated the emigration[13].

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 (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[14].

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 remits, equally increases the probability to transfer, regardless of the objective income level.

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. This proxy 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[15]. The use of subjective variables has been discussed in the scientific literature

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[11] The question asked is linked to the way the respondant 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 %).

[12] 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*

[13] Because of the strong colinearity between these different variables, we have chosen to synthesize them in axe F1 with the help of a factorial analysis. This axe accounts for 66 % of proper values, which is largely enough to use it as independent variables.

[14] These proportions are close to the proportions found in the CSA survey of the Milhaud report (2006) *L'intégration économique des migrants et la valorisation de leur épargne*, Ministère de l'Intérieur et de l'Aménagement du Territoire.

[15] This is not the perception at the moment of emigrating but at the moment of being interviewed during the survey in 2006.

(Senik, 2005) and received some critics. But as it was shown, individuals are supposed to be in a better position to evaluate their financial situation (Ravaillon and Lokshin, 2002). In this case, the migrants are supposed to have a higher probability to remit when their own perception of their income in the host country is positive (altruism hypothesis) and when their perception of their family wealth in the home country is bad (insurance and altruism hypothesis).

Our results (see table 3) show that, as expected, the more negative the migrant's perception of the family's living standard, the higher is the likelihood to remit[16].

[16] We have also 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.

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

Remittances (Yes/No)	Coef.		dF/dx
Constant	-3.338	***	
	(0.838)		
Algeria	-1.124	***	-0.238
	(0.104)		
Morocco	-0.752	***	-0.133
	(0.109)		
Tunisia	-0.510	***	-0.091
	(0.117)		
Turkey	-0.665	***	-0.105
	(0.152)		
Sub-Saharan Africa	*Reference modality*		
Revenue (Ln)	0.247	***	0.055
	(0.094)		
SLHp Perception standard of living home country	-0.124	***	-0.028
	(0.032)		
SLFp Perception standard of living host country	0.218	***	0.048
	(0.043)		
Tradition-language (attachment/home country)	0.125	***	0.028
	(0.028)		
Age (Ln)	0.207		0.046
	(0.149)		
FSO migrant family size in the home country	0.243		0.048
	(0.155)		
FSF migrant family size in the host country	-0.043	*	-0.010
	(0.024)		
Staying definitively in France	0.109		0.023
	(0.107)		
Staying then returning to the home country	0.424	**	0.114
	(0.178)		
Staying in France and going to another country	0.516	*	0.145
	(0.312)		
Has not decided	*Reference modality*		
F1 (pauvreté, insécurité, manque d'avenir)	0.108	***	0.024
	(0.040)		
Staying duration and date arrival (Ln)	0.208	***	0.046
	(0.042)		
Morocco 1990-1994	1.142	***	0.383
	(0.438)		
Algeria before 1990	1.256	***	0.428
	(0.469)		
Number of obs	2387		
Wald chi² (18)	272.640		
Prob > chi²	0.000		
Log pseudolikelihood	-949.250		

Pseudo R^2	0.140

Notes: 1. Robust Standard errors are in brackets.
2. * significant at 10%; ** significant at 5%; *** significant at 1%.

The results concerning the role of the family size both in the home country (FSO) and in the host country (FSF) confirm the altruistic motivations. The coefficient is negative and significant for the variable FSF: the larger the migrant's family is in the host country the less is the probability to remit.

Lastly, we seek to test the relative importance of the period during which migrants arrived in France in their transfer behaviour. The duration of stay in the host country and variables informing about the date of arrival in France by nationality are controlled by the age of migrants. Thus, contrary to the theoretical hypothesis, the duration of stay doesn't necessary mean an erosion of the links with the home country and doesn't counter the decision to remit. In fact, it is not the absolute length of duration which matters but the relative staying duration depending on the date and the historical context of the emigration. Thus, it is very clear that, in the case of Algerians, migrants who arrived before the 1990s clearly appear to feature a markedly higher likelihood to remit compared to those who arrived after this period. 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, the arrival period does not make a significant difference in the likelihood to remit.

All in all, concerning the objective variables, 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 and the duration of stay in the host country, in compliance with our expectations.

Concerning the role of the subjective variables, we have tested the motivations linked to investment in the home country with the intent 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 forever has no impact on the likelihood to remit.

We have tested the effect of the context in the home country perceived by the migrants. The context is synthesized by a composite variable F1 which includes the perception of poverty, of insecurity and the perception of the future in the home country created from a factorial analysis, including questions on the conditions in the home country that have motivated the emigration.

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.

Among the subjective variables, the migrants' attachment to their home country plays an important role. Attachment is approximated by the will to transmit the culture, the traditions and the language of the home country to their children. We suppose that 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. One could suspect an endogeneity between attachment and remittances. This risk is limited by the fact that we use structural variables such as language and cultural transmission to the children, which are the results of long term and structural behaviour that could be close to the "habitus" *à la Bourdieu*.

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.

4.2. ANCIENT MIGRANTS REMIT AND INVEST MORE

We aim to analyse the behaviour of migrants who remit and the allocations of these remittances with the help of a second model

In this 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.

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 (2)

$$\begin{cases} Y_1^* = x_1'\beta_1 + \varepsilon_1 \\ Y_2^* = x_1'\beta_2 + \varepsilon_2 \\ Y_3^* = x_1'\beta_3 + \varepsilon_3 \end{cases}$$

$$\text{with} \begin{cases} Y_1 = 1 \; if \;\; Y_1^* > 0; \; 0 \; otherwise \\ Y_2 = 1 \; if \;\; Y_2^* > 0; \; 0 \; otherwise \\ Y_3 = 1 \; if \;\; Y_3^* > 0; \; 0 \; otherwise \end{cases}$$

X, representing the vectors of independent variables (which may be the same for each equation) and ε_j 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 ($25 > \sqrt{562}$).

The equation system (2) can be reduced by the equation 3 where we use the objective independent variables of the equation (1), that is to say the nationality of the migrant (orig), the different sociodemographic variables as migrant's age (Age), family income (R). We use also three new subjective variables as obligation to send money (oblig), attachment to the country of origin (ATT), and desire to return (INST). The significance test confirms the use of multivariate Probit model rather than three independent probits.

(Equation 3)

$$x_1^{'} = \alpha + \sum_{i}^{n} \lambda_i Orig_i + \gamma_1 R + \gamma_2 ATT + \gamma_3 Oblig + \gamma_4 Age + \gamma_5 Inst + \varepsilon$$

TABLE 4. MULTIVARIATE PROBIT IN ORDER TO PREDICT REMITTANCES TO FINANCE EXPENSES

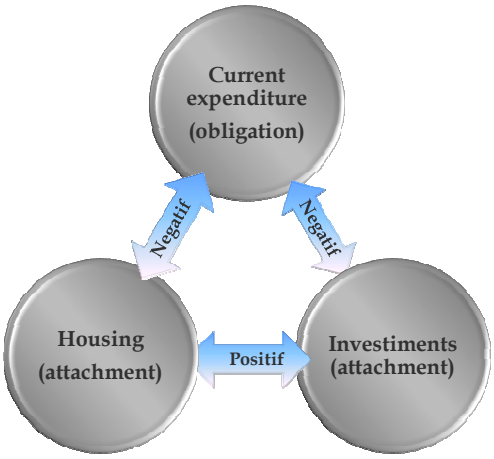
Multivariate Probit	***Housing***		***Current expenditure***		***Investments***	
(Robust Std. Err.)	Coef.		Coef.		Coef.	
Constant	-3.431	***	12.365	***	-1.443	
	(1.058)		*(3.147)*		*(1.071)*	
Algeria	-0.103		-3.589	***	-0.160	
	(0.178)		*(0.410)*		*(0.2380)*	
Morocco	0.235		-4.396	***	0.132	
	(0.197)		*(0.332)*		*(0.205)*	
Tunisia	-0.075		-3.639	***	-0.244	
	(0.182)		*(0.486)*		*(0.193)*	
Turkey	-0.199		-4.138	***	-0.034	
	(0.175)		*(0.379)*		*(0.184)*	
Income (Ln)	0.368	***	-0.231		0.035	
	(0.110)		*(0.201)*		*(0.112)*	
Age	-0.071		-1.210	**	-0.160	
	(0.221)		*(0.569)*		*(0.238)*	
Intention of returning	0.430	***	-0.067		0.433	***
	(0.090)		*(0.174)*		*(0.098)*	
Attachment	1.018	***	-0.506	*	0.297	**
	(0.120)		*(0.294)*		*(0.134)*	
Obligation to transfer money	-0.401	***	0.930	**	-0.010	
	(0.121)		*(0.401)*		*(0.133)*	
/atrho21			-0.553	***		
			(-4.530)			
/atrho31			0.310	***		
			(3.410)			
/atrho32			-0.964	***		
			(-4.820)			
rho21			-0.503	***		
			(-5.510)			
rho31			0.300	***		
			(3.630)			
rho32			-0.746	***		
			(-8.410)			

Multivariate probit (SML, # draws=25)
Condition = non possession of a house in the country of origin
Number of obs = 562
Likelihood ratio test of rho21=rho31 = rho32= 0: chi2(3) = 36.5078 Prob > chi2 = 0.000
Wald chi2(27) = 524.760
Log pseudolikelihood = -587.816
Prob > chi2 0.000

Notes: 1. Standard errors are in brackets.
2. * significant at 10%; ** significant at 5%; *** significant at 1%.

Furthermore, the way in which the different decisions are interrelated with one another can be observed (schematized in graph 2).

GRAPH 2: RELATION BETWEEN THE DIFFERENT DECISIONS



Thus, the Rho sign in table 4 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 4 and graph 2).

i) 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 4). 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 4).

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.

ii) 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 4), followed by the "*decision to resettle"* in the home country and, lastly, by the migrant's income.

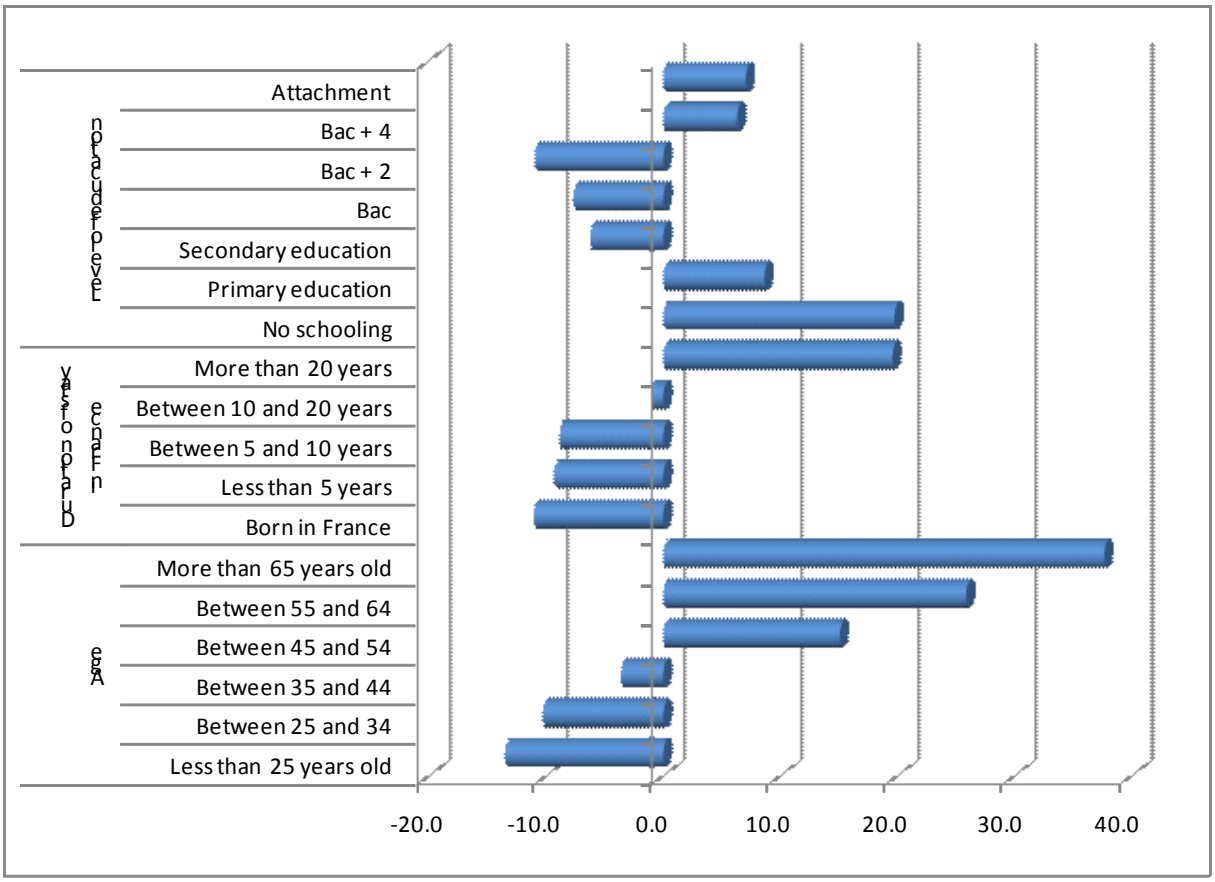
Within the framework of the family organisation of Algerians, Tunisians or Moroccans in France, the parents of the first generation (whether male or female) have already made the effort to build, to improve or to extend the existing family home before. The financial flows between adult children who were 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 3)[17]. 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 (Annex 3). Unschooled migrants are also those who have lived in France for a long time and equally feature the same type of behaviour (graph 3). 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.

[17] 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.

GRAPH. 3: POSSESSION OF A HOUSE IN THE COUNTRY OF ORIGIN



iii) 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[18].

iv) A synthesis of remittances uses

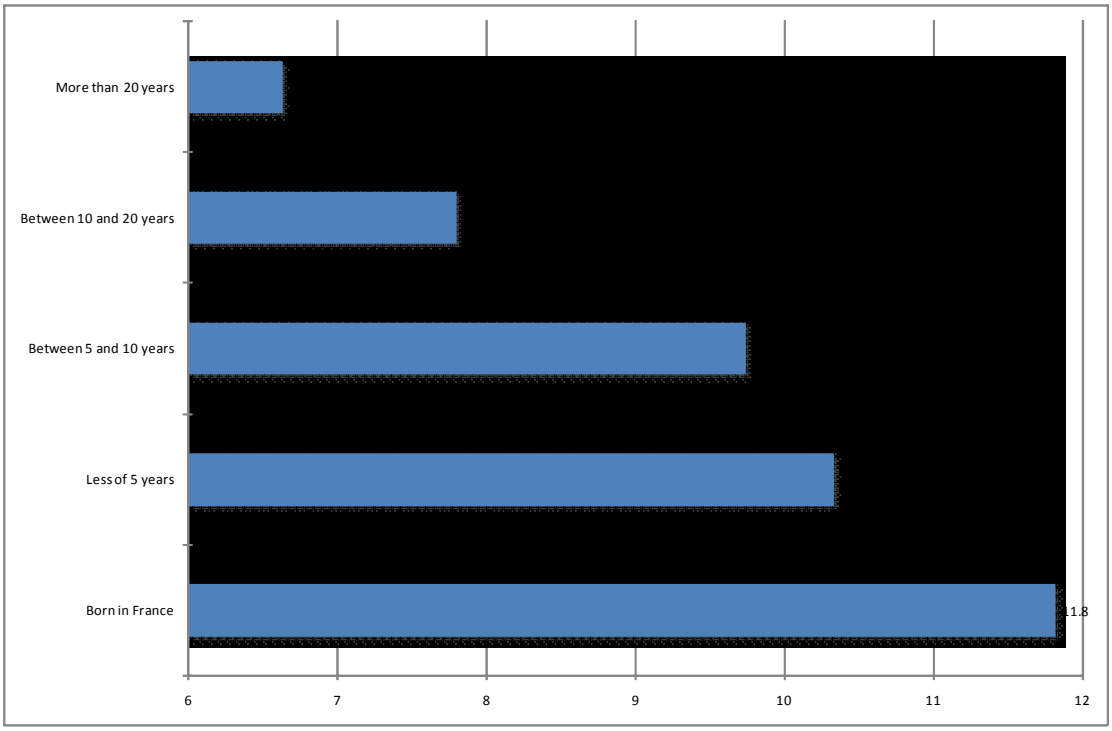
In all, it is not surprising that a marked dividing line appears in the types of behaviour linked to remittances between the motives related to current expenses and those of the investment in and the financing of a house. Young migrants from Sub-Saharan Africa seem to be more likely to fit in with this 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 uses: 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.

[18] See the foot note 16 above.

GRAPH 4: EDUCATIONAL LEVEL AND DURATION OF THE STAY IN FRANCE



Source: calculations by the authors, 2MO survey

We can specify the characteristics of the migrants belonging to different emigration waves by using a multiple component analysis (MCA) (see annex 4). We get four categories of migrants. The first category is composed of people born in France, young (less than 35 years old) with middle education levels (Bac and Bac + 2). The answerers are not attached to their country of origin and decided not to settle in the country of origin of their parents. The second category represents the old migrants, emigrated in the "*fordist* period", settled in France for a long time, with no or very low education levels. They feel attached to their country of origin and have got the highest probability to remit for investment and housing reasons[19]. The third category refers to the migrants from Sub-Saharan African countries who feel obliged to remit because they probably have been sent to France by their families in order to remit money and are constrained by family contracts or arrangements. The important characteristic in this case is the low level of income of the origin country. The last category corresponds to the new wave of migrants from Morocco and Algeria who arrived in France after the 1990's and in 2000's. Those young people seem to be not attached to the country of origin and don't want to return definitively. Their level of education is high. They have emigrated for repulsion factors *vis-à-vis* their home country.

[19] In some sociological literature they are called "chibanis"'. See for example, Sabrina Kassa, Gérard Noiriel, Zabou Carrière, 2006, *Nos ancêtres les Chibanis ! : Portraits d'Algériens arrivés en France pendant les Trente Glorieuses*, Editions Autrement , Paris).

They are different from the migrants of the category 2 whose emigration to France was internalized by the big French firms of construction, automotive, textile and mining industries.

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.

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. It confirms what the empirical literature says about the migrants behaviour from poor countries.

We have also, two original findings about the role of subjective variables on the one hand and the use of remittances on the second hand.

First, 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 shown the role of subjective variables that couldn't be directly observed in the current literature. 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.

Second result, 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 links 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. By contrast, the migrants from Sub-Saharan African countries send money for current expenditures rather than for investment. The obligation feeling seems to be the important subjective variable for remitting money.

Finally, one of the implications of our findings in terms of economic policy is linked to the question of the risk of erosion 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.

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ANNEX 1. IN 2MO SURVEY: OLDER MIGRANTS WHO SETTLED LONG AGO REMIT MORE

In this annex we analyse the differences in the behaviour of the individuals of the 2MO Survey in terms of amounts of money transferred.

It is assessed by MCOs because the variable of the transferred amount is quantitative although discrete (table A1).

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

The Edu variable has been added, for it is not collinear 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 collinear in the case of European migrants[20].

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) [21]

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 A1).

[20] This equation obviously cannot be generalised since the sample contains a selection bias that needs correcting.

[21] 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?".

GRAPH A1: INCOME AND REMITTANCE LEVELS, ACCORDING TO THE EXTENT OF THE ATTACHMENT

Source: calculations by the authors, 2MO survey

TABLE A1. MCO TO PREDICT THE AMOUNT OF REMITTANCES MADE BY MIGRANTS

Amount remittances (ln)	Equation 1		Equation 2		Equation 3		Equation 4		Equation 5	
	Coef.		Coef.		Coef.		Coef.		Coef.	
Constant	2.427	***	2.597	***	3.228	***	2.720	***	2.776	***
	(0.456)		*(0.464)*		*(0.451)*		*(0.454)*		*(0.440)*	
	African countries: modality of reference									
Turkey	-0.054		-0.063		-0.029		-0.045		-0.041	
	(0.106)		*(0.108)*		*(0.106)*		*(0.110)*		*(0.109)*	
Tunisia	0.060		0.017		0.094		0.106		0.076	
	(0.100)		*(0.103)*		*(0.102)*		*(0.101)*		*(0.101)*	
Morocco	-0.141		-0.203	*	-0.078		-0.109		-0.188	*
	(0.101)		*(0.104)*		*(0.105)*		*(0.103)*		*(0.106)*	
Algeria	-0.270	**	-0.320	**	-0.213	**	-0.252	**	-0.268	**
	(0.101)		*(0.102)*		*(0.103)*		*(0.101)*		*(0.101)*	
Income (ln)	0.434	***	0.459	***	0.438	***	0.415	***	0.406	***
	(0.062)		*(0.063)*		*(0.060)*		*(0.062)*		*(0.06)*	
Age	0.133	***	0.145	***						
	(0.031)		*(0.032)*							
French Children Number	-0.072	*	-0.088	**						
	(0.037)		*(0.038)*							
Born in France					-0.527	***				
					(0.072)					
No schooling							0.232	**	0.148	*
							(0.105)		*(0.105)*	
Primary Education							0.171	*	0.118	
							(0.093)		*(0.094)*	
Secondary Education							0.054		0.050	
							(0.087)		*(0.086)*	
Bac + 2					Modality of reference					
Bac + 4							0.274	**	0.227	*
							(0.116)		*(0.117)*	
Obligation	0.289	***	0.314	***	0.267	***	0.314	***	0.308	***
	(0.069)		*(0.069)*		*(0.069)*		*(0.070)*		*(0.069)*	
Project to Return	0.265	***					0.274	***	0.241	***
	(0.044)						*(0.046)*		*(0.045)*	
Attachment			0.235	***	0.171	**				
			(0.069)		*(0.069)*					
Possession of housing									0.304	***
									(0.069)	
Number of obs	986		986		988		988		988	
R-squared	0.166		0.144		0.165		0.155		0.173	

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[22].

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.

[22] 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*".

ANNEX 2.

PROBIT TO PREDICT THE POSSESSION OF A HOUSE IN THE COUNTRY OF ORIGIN

Possession of a house in the country of origin (1/0)		Equation 1 Coef.		Equation 2 Coef.		Equation 3 Coef.	
Constant		-1.643	**	-1.308	**	-1.932	***
		(0.612)		(0.606)		(0.605)	
Country of origin	Turkey	0.022		0.048		-0.024	
		(0.138)		(0.136)		(0.138)	
	Tunisia	0.144		0.150		0.242	*
		(0.135)		(0.135)		(0.135)	
	Morocco	0.607	***	0.583	***	0.678	***
		(0.137)		(0.137)		(0.134)	
	Algeria	0.117		0.103		0.171	
		(0.138)		(0.139)		(0.136)	
	African countries	Modality of reference					
Attachment		0.371	***	0.372	***	0.376	***
		(0.094)		(0.093)		(0.093)	
LN Income		0.040		-0.002		0.085	
		(0.081)		(0.08)		(0.079)	
Project to Return		0.235	***	0.248	***	0.232	***
		(0.06)		(0.06)		(0.059)	
Age	Less than 34 years old	0.034					
		(0.161)					
	Betwenn 35 and-44	0.193					
		(0.163)					
	Between 45 and 54	0.645	***				
		(0.177)					
	Between 55 and 64	0.891	***				
		(0.205)					
	More than 65 years old	1.346	***				
		(0.333)					
Duration of the stay in France	Less than 5 years			-0.002			
				(0.183)			
	Between 5 and 10 years			0.029			
				(0.138)			
	Between 10 and 20 years			0.195			
				(0.125)			
	More than 20 years			0.689	***		
				(0.115)			
Level of education	No schooling					0.724	***
						(0.133)	
	Primary Education					0.420	***
						(0.12)	
	Secondary Education					0.003	
						(0.113)	
	Bac + 4					0.361	**
						(0.166)	

Number of obs	988	988	988
Wald chi^2 (12)	126.28	121.17	109.88
Prob > chi^2	0.000	0.000	0.000
Log pseudolikelihood	-601.56	-609.16	-613.16
Pseudo R^2	0.1094	0.0981	0.0922

ANNEX 3.

To finalize our results, we specified the characteristics of our migrants attached to their country of origin, by means of a Multiple Correspondences Analysis (MCA) based on the objective descriptive variables (country of origin of the migrants, age, staying duration in France and level of education). Every variable was divided into slices or modalities. Every modality was treated as a dichotomous variable. We obtain a typology from the coordinates of the individuals on the first five factorial axes treated as new synthetic variables. Finally, an analysis of correlation allows us to clarify the composition of the typological groups and their association with the variable indicating the attachment to the country of origin.

Table A3-1 shows the slowness of the first five axes of the ACM and the table 7 summarizes the characteristics of the obtained classes. Four classes turn out to be balanced in terms of number of individuals.

TABLE A3-1: VALEURS PROPRES ET POURCENTAGES D'INERTIE

	F1	F2	F3	F4	F5
Eigenvalue	0.126	0.093	0.075	0.067	0.063
Inertia (%)	12.573	9.301	7.533	6.673	6.251
Cumulative%	12.573	21.873	29.406	36.079	42.330
Inertia adjusted	0.007	0.002	0.001	0.000	0.000
Inertia adjusted (%)	32.445	11.385	4.494	2.278	1.464
Cumulative%	32.445	43.831	48.324	50.603	52.067

TABLE A3-2: RÉSULTS BY CLASSES

Classe	Classe 1	Classe 2	Classe 3	Classe 4
Number of observations	238	241	312	209
Intra-class variance	0.177	0.229	0.217	0.208
Minimum distance to the barycenter	0.240	0.127	0.201	0.075
Mean distance from centroid	0.410	0.459	0.447	0.435
Maximum distance to the barycenter	0.684	0.880	0.880	0.821

Table A3-3 shows the correlations between the typological classes and the modalities with which they are built. The tests of Khi^2 and Monte Carlo led on the association between the variable "memberships in a class" and “attachment to home country” converges towards the acceptance of a significant and positive association for Classes 2 and 3, negative for Class 1 and not significant for Class 4.

Besides, we can see the correlations between the classes and the variable of attachment to the country of origin and the one who describes the desire of reinstalment in the in the home country.

Class 1 which we could call the "second generation ", consists mainly of persons born in France mostly from Moroccan origin, young (of less than 35 years old) and having a medium level of education (High School Diploma). This class presents a negative and significant correlation with the variable which translates the attachment in the country of origin. Also, obviously, this "second generation” is not inclined to settle down in the country of origin of the family.

Class 2, that of "Chibanis[23]", that is the old migrants of the “fordist period” (in the 1960-1970’s) consists mostly of Algerians and Moroccan, older, more present in France for more than 20 years and very weakly, even in no way schooled. This class presents a positive and significant correlation with the variable of attachment and with the variable "intention of reinstalment" in their country of origin.

Class 3, which we can qualify as "appointed migrants" (sent abroad by families to the objective to receive transfers) consists of migrants native of sub-Saharan Africa, between 34 and 54 years old, the duration of stay in France is included between five and 20 years and has a primary and secondary educational level. These migrants who transfer for obligation reasons (current expenses) remain nevertheless attached to the country of origin and declare to want to return.

Class 4 corresponds to the "new waves of migrants", qualified sometimes by themselves as "Harragas"[24], and consists rather by young Algerians, whose duration of the stay in France is below ten years, with higher levels of education. The individuals belonging to this class do not seem to be attached to their country of origin. They do not either declare to wish to return back home. Their emigration can be explained more by an effect of aversion towards their country of origin unlike "Chibanis", the immigration of which had been organized by the French companies belonging to the sectors of the *fordist* period.

[23] Chibanis, "white hair " in dialectal Arabic, they are the old immigrants from the Maghreb. Arrived in France during the period of growth which are sometimes called the “Thirty Glorious”, while the country needed arm. They all experienced a situation leading them of the exile to the implanting in the French society, without giving up their identities, their values in their past. (Sabrina Kassa, Gérard Noiriel, Zabou Carrière, (2006), Nos ancêtres les Chibanis ! Portraits d'Algériens arrivés en France pendant les Trente Glorieuses, Editions Autrement, Paris).

[24] Word native of Arabic from Maghreb which is translated by "whom burn» or “Burners of borders (papers, in reference to the documents of identity).

TABLEAU A3-3: MATRICE DE CORRELATION (PEARSON)

	Class-1		**Class-2**		**Class-3**		**Class-4**	
	" The second generation"		***"The Chibanis"***		***"The appointed migrant "***		***"The Harragas"***	
				Country of origin				
African countries	-0.128	***	-0.119	***	0.184	***	0.050	ns
Turkey	-0.063	**	-0.090	***	0.157	***	-0.018	ns
Tunisia	-0.029	ns	-0.015	ns	0.008	ns	0.036	ns
Morocco	0.216	***	0.115	***	-0.190	***	-0.131	***
Algeria	-0.004	ns	0.105	***	-0.153	***	0.068	**
				Age				
Less than 25 years old	0.527	***	-0.186	***	-0.200	***	-0.128	***
Between 25 and 34	0.160	***	-0.372	***	-0.365	***	0.639	***
Between 35 and 44	-0.196	***	-0.169	***	0.587	***	-0.286	***
Between 45 and 54	-0.210	***	0.298	***	0.090	**	-0.195	***
Between 55 and 64	-0.173	***	0.531	***	-0.200	***	-0.150	***
More than 65 years old	-0.091	**	0.290	***	-0.110	***	-0.084	**
				Duration of the stay in France				
Born in France	0.795	***	-0.331	***	-0.349	***	-0.086	**
Less than 5 years	-0.144	***	-0.163	***	-0.105	***	0.442	***
Between 5 and 10 years	-0.224	***	-0.239	***	0.118	***	0.351	***
Between 10 and 20 years	-0.234	***	-0.271	***	0.680	***	-0.244	***
More than 20 years	-0.319	***	0.871	***	-0.305	***	-0.235	***
				Level of education				
No schooling	-0.219	***	0.325	***	-0.004	**	-0.108	***
Primary Education	-0.248	***	0.208	***	0.162	***	-0.143	***
Secondary Education	-0.203	***	-0.050	**	0.169	***	0.072	**
Bac	0.335	***	-0.202	***	-0.065	**	-0.064	**
Bac + 2	0.419	***	-0.184	***	-0.187	***	-0.033	**
Bac + 4 or more	-0.117	***	-0.076	**	-0.140	***	0.362	***
Project to Return	-0.210	***	0.069	**	0.115	***	0.016	ns
Attachment	-0.195	***	0.075	**	0.100	**	0.011	ns