MICROECONOMIC DETERMINANTS OF TURKISH WORKERS REMITTANCES: SURVEY RESULTS FOR FRANCE-TURKEY

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1. Introduction

International migrant remittances constitute the largest source of external financing with Foreign Direct Investment (FDI) to the developing countries. Their actual amount is more than official development aid and private capital transfers. According to World Bank estimates, officially recorded remittances were about USD 167 billion in 2005, nearly two times bigger than their level in 2000 (World Bank, 2006). A very large increase in officially recorded remittances is observed especially in the last decade. Because of their increasing volume and their potential impact on the development of remittance receiving countries, they are an important topic of interest for policy makers at national and international level.

Determinants of remittances, as well as their impacts, can be microeconomic and macroeconomic. Main microeconomic determinants of remittances can be considered as migrant's income, family situation, duration of stay, education level etc. Macroeconomic determinants are more general and mainly influenced by the economic conditions of sending and receiving countries. On the other hand, economic impacts of remittances depend largely on their use in the home countries (investment, consumption, health, education etc.). In the theoretical literature, migrants are supposed to remit for individual reasons or within family arrangements. Main individual motives are altruism and pure self interest. On the other hand, within the "*Tempered Altruism (Enlightened Self-Interest"* context, (Lucas and Stark (1985)) main motivations are insurance, investment and exchange. Macroeconomic data analysis can give us the possibility to distinguish between individual motives of remittances but to have a better understanding of the subject; analysis should be complemented with individual level data.

In a previous work, Mouhoud, Oudinet, Unan (2007), using macroeconomic level data, find that intra-familial arrangements are an important motivation of remittances for the South and East Mediterranean Countries (SEMC). Compared to other Mediterranean countries, at macroeconomic level, Turkish case is different. Turkey considered remittances as an important foreign funding since the beginning but recently they are regarded as any other foreign financial inflow and Turkey is loosing its official concern about remittances (Icduygu 2006). Although a decreasing trend can be observed in the importance of remittances since 1998, remittances have always been important for Turkey since the first emigration wave to Western Europe in 1960s. Actually, remittances' part in the GDP of Turkey and their significance compared to other flows of foreign exchange is small.

The aim of this paper is to analyze the main microeconomic motivations of remittances of Turkish migrants in France. This paper tries to answer two main questions: What are the main motivations of Turkish migrant remittances and although Turkish case represents differences at macroeconomic level, are the individual motivations of Turkish migrants are also different compared to other countries?

To answer these questions this paper uses a new dataset obtained by a large survey realized in France. This dataset is composed of individual survey results realized in the post offices in France with migrants realizing transfers (Western Union, Mandat Postal, etc.) to Algeria, Tunisia, Morocco, Turkey and Sub-Saharan Africa. The paper proposes individual level econometric analysis of the survey results for four Mediterranean countries (excluding Sub-Saharan Africa from the sample) in two steps: first only for Turkey and second to four Mediterranean countries of the sample. This methodology gives us the possibility to compare the results obtained only for Turkey to the results obtained for all four countries. We think that Maghrebian countries constitute a good sample to compare the remittance motivations of Turkish migrants. Except for colonial links between France and Maghrebian countries, migration waves are similar for all these countries because the main destinations of both Turkish and Maghrebian migrants are European countries.

The outline of this paper is the following: The second section gives a brief summary of stylized facts on international migration and remittance dynamics of Turkey. The third section analysis the survey results. The fourth section presents a summary of theoretical literature on motivations of remittances, the estimation methodology and results. The last section concludes.

2. International Migration and Remittance Dynamics of Turkey

2.1. Turkish workers migration: Historical facts

Turkey's "official" emigration starts in the late 50s. In 1956, Turkey has sent a limited number of engineers to Germany. But the real emigration from Turkey is in 1961 as a result of the bilateral migration agreement signed between Germany and Turkey. This date also marked the beginning of the emigration history of Turkey. Starting from 1960s, we can distinguish four main emigration waves from Turkey (Icduygu et al. 2001)

First one is the 1961-1974 periods. This period can be summarized as the period of massive labor migration to Western Europe. These flows were mainly officially supported by the Turkish government. They were serving in two ways to the Turkish economy[1]. First, they were reducing unemployment pressures in the country[2] and second, Turkey was receiving remittances which, at that time, were an important source of foreign exchange for the country. As noted above, first bilateral labor recruitment agreement was signed with Germany in 1961, followed by others[3]. This first wave of emigration from Turkey to Germany was at the beginning temporary migration for two years. However, in 1962, Germany decided to cancel this duration of stay limitation and between 1967 and 1974, Turkish immigration in Germany transformed to permanent migration[4]. 30% of these migrants were qualified workers. This was supported by the Turkish government because they were counting on the return of these qualified temporary workers and considering this period as a professional formation (Gursel et al. 2007).

The second period started in 1974 and continued until 1980. The beginning of this period is the oil crisis which had two consequences on Turkish migration outflows. First one is the economic stagnation in Western Europe and the cessation of labor migration policies and second one is the start of temporary labor migration to oil exporting Gulf countries. Although Western Europe ended its immigration policies, Turkish migration didn't end. However, main

[1] This official support finds its origins in the first Five-year Development Plan (1962-1967) of Turkey

[2] We can also add to this the diminution of social tensions which were mainly caused by rural exodus, underemployment in agriculture and unequal development between regions (Gursel et al. 2007)

[3] United Kingdom (1961), Austria, the Netherlands, and Belgium (1964), France (1966), Sweden and Australia (1967), Switzerland (1971), Denmark (1973), Norway (1981)

[4] This had many consequences on the Turkish population in Germany, especially on the second generation. For long time, they were considered as temporary workers by German government. German government didn't pay enough attention to the integration of these migrants as well as to the education of their children. That's why today, the number of second generation Turkish population who has no education and who doesn't speak German is non negligible. This fact also has a direct impact on the insertion of Turkish migrants to the job market.

migration motive was no longer work but other things such as refugee movement or family reunification[5].

As mentioned above, the second period was also the start of labor migration towards Arab Countries. This movement is intensified in the 1980s, which can be considered as the third period. Compared to Western European countries, the impact of the oil crises was the inverse in oil exporting Arabic Countries. These countries were richer with the increasing oil prices and looking for workers in big infrastructure projects. This demand of the Gulf countries corresponded very well to the searches of Turkey for new immigration countries. This period ended in mid-1990s for two main reasons: first the completion of projects and second the Gulf War. Another important "push factor" of 1980 for Turkey was the coup d'état. After the coup d'état, the number of political refugees increased largely especially in the European countries.

The last period started in early 1990s with labor migration toward ex-USSR (Union of Soviet Socialist Republics) countries. After the dissolution of USSR in 1991, Turkish firms largely involved in reconstruction programs in ex-USSR countries in both public and private construction. As a result of this, there has been a large movement of qualified and non-qualified workers to these states, mainly working in Turkish firms installed in the region. This movement is still going on. This last migration wave has largely absorbed the migratory pressures in Turkey especially for low qualified construction workers. Although construction remains a labor scarce sector in most Western European countries, after the new enlargement of European Union, in European job market, non-qualified Turkish workers are in competition with workers coming from new member states for whom having a working permit is much easier. That's why the existing Turkish firms in ex-USSR states offer more accessible jobs than the European firms and absorbing an important part of the migratory pressures. We should also note that this last emigration wave is mainly temporary and masculine for the moment.

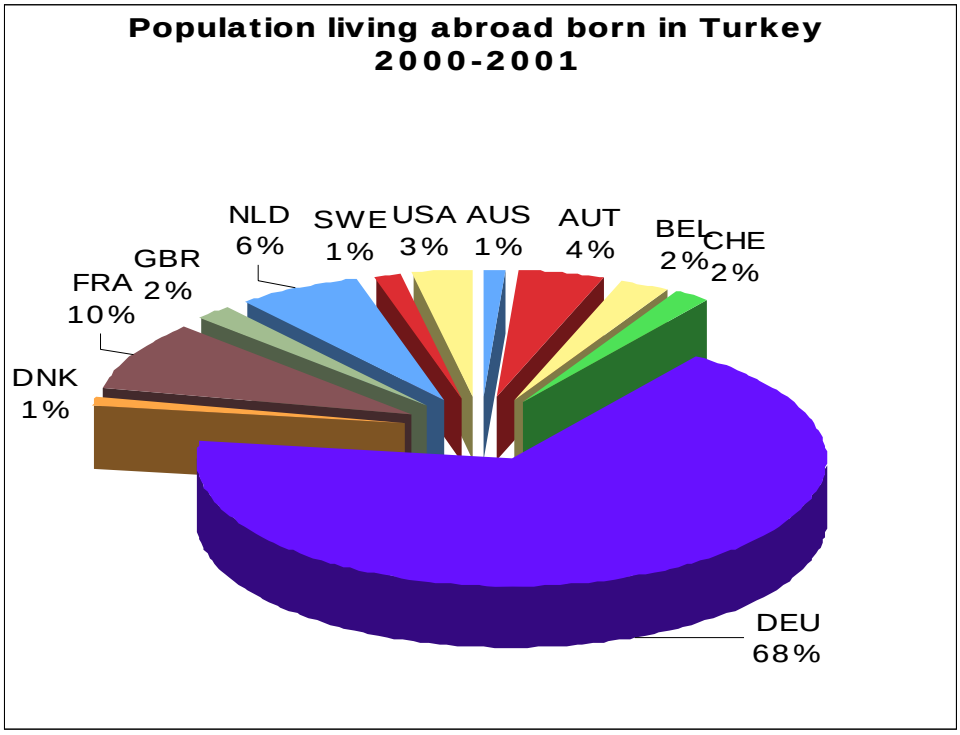
In the late 1960s, as mentioned above, emigration was officially supported in Turkey especially in order to decrease unemployment pressures. However, when we analyze the four periods together, emigration continued to play this role and still continues. In each period, there exist labor importing destination countries for Turkish migrants in their region. International conjuncture also lets this possible. Just after the cessation of labor migration politics in Europe, Gulf countries started to import labor from the region. After the Gulf War and the end of infrastructure projects in Gulf countries, the dissolution of ex-USSR countries

[5] This doesn't mean that migrants coming for family reunification or as asylum seekers don't work in their host countries after they have their working permits. However, the motivation at departure is different.

opened new migration opportunities for Turkish workers. Voluntary or involuntary, we can say emigration has always been a compensation for unemployment pressures in Turkey.

In spite of these recent evolutions of Turkish migration, Western Europe is still the main destination country for Turkish migrants (See Graphic 1[6]). Family migration, network effects and the permanent character of migration in Western Europe (compared to the migration to Gulf countries and ex-USSR states) explain largely this fact. Most of the recent emigration from Turkey to Europe is in the form of family reunification. This has many economic and social consequences on the Turkish population living abroad which will be discussed more detailed below. More than half of the Turkish migrants living abroad are living in Germany. They represent around 68% of Turkish migrants. Second biggest host country for Turkish migrants is France with 10% of the migrant population. France is followed by Holland and Austria.

Graphic 1: Migrant stocks in the main receiving countries



Source: Mouhoud, Oudinet, Unan (2007)

[6] Ex-USSR and Arab countries are not represented in this graphic. Another source for destination countries is the last estimations of University of Sussex and World Bank (Parson et al. 2007). In their estimates, ex-USSR states and Arab countries are listed. However, their part is negligible and the numbers are far behind the numbers cited in Gursel et al. (2007) : 130 000 in Saudi Arabia, 120 000 in Russian Federation and main Turkish-speaking ex-USSR states (Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan and Kyrgyzstan), 30 000 in Israel.

OECD (2006) reports that the stock of Turkish nationals abroad decreased by 2% to just over 3.5 million people in 2004. The main reason for this is naturalizations in host countries and the return of expatriates. There is also an important decrease in family reunion, which is a significant part of Turkish emigration to Western Europe. They were about 100 000 people per by mid-1990s and are only the half of that level in the early 2000s.

Although economic factors are determinant in the push factors, network effect can be considered as the main pull factor for Turkish migrants. Migrants, especially originating from Turkey, pay more attention to networks rather than the economic conditions of the destination country. (Gursel et al. 2007) Each destination in Europe is more or less is linked with an emigration region in Turkey. For example migrants originating from Posof (a village of Ardahan) represent 95% of the Turkish migrant population in Bordeaux. Most of the migrants from Emirdag (Afyonkarahisar) live in Brussels or migrants originating from Yalvac (Isparta) in South-West of France. (De Tapia 2007)

Another important point is the region Turkish migrants are originating. As discussed also in international migration literature, concerning the relationship between migration and economic development, we can assume that the poorest and the richest countries have low expatriation rates. They are the middle income countries which have high expatriation rates (Cogneau and Gubert 2005). This argument can also be considered at the regional level within a country. Icduygu et al. (2001) makes an analysis of socio-economic development and international migration at district level in Turkey. They use 1995 District-level Socio-economic Development index of Turkey and the 1990 Turkish census. They mainly find that emigration level increases as the socio-economic development level decreases. However, emigration level is higher for the less poor areas of the most underdeveloped regions. Most developed districts also have high emigration rates but they explain this by the fact that these districts have probably been transit migration areas because they provide many opportunities to facilitate emigration.

In 1970s, host countries and immigration regions have diversified. The first emigration wave of 1960s was relatively from urban areas and more qualified. Compared to this wave of emigration, migrants migrated in 1970s were coming more from less developed regions of East Anatolia. This can be explained by the fact that migrants of 1960s were first immigrating to big cities in Turkey, and then going to Europe. However, in 1970s, these cities were saturated and direct emigration started. (Gursel et al. 2007)

2.2. Turkish migrants in France

The recruitment treaty between France and Turkey was signed in 1966. Workers who want to work abroad were appliying to the Turkish Employment Office and were allocated in available jobs. First workers who came to France were the ones who applied in order to go to Germany. After the saturation of the German market, opportunity to go to France was given to some Turkish applicants. (Kaya and Kentel 2005). After the termination of the recruitement process in France, Turkish migration to France continued by family reunification and illegal overstay of tourists.

Table.1 shows the 2007 population census estimates of INSEE (Institut National de la Statistique et des Etudes Economiques) on Turkish population living in France (people living in France and born in a foreign country). There are around 222 000 Turkish immigrants living in France. About half of the population is between 20-39 years old who are originating from a relatively recent migration. 27% of this population has the French nationality obtained by naturalization.

Table 1: Main characteristics of Turkish migrants living in France

Male	54%
Female	46%
Actif population	61%
male	*42%*
female	*19%*
0-19 years	9%
20-39 years	53%
40-64 years	34%
65 years and more	4%
Part of naturalization	27%

Source: INSEE (2007)

There isn't a big difference between the levels of male and female populations; however, male population is much more active than the female population. Only 19% of the population is active female population. This can mainly be explained by the fact that recent emigration to Europe and to France from Turkey is mainly family reunification (see Graphic 2). Most of the female population arrives to France to join their husbands and are generally not working[7]. The part of the female population increases in total number of Turkish migrants and this has a negative impact on total active population originating from Turkey.

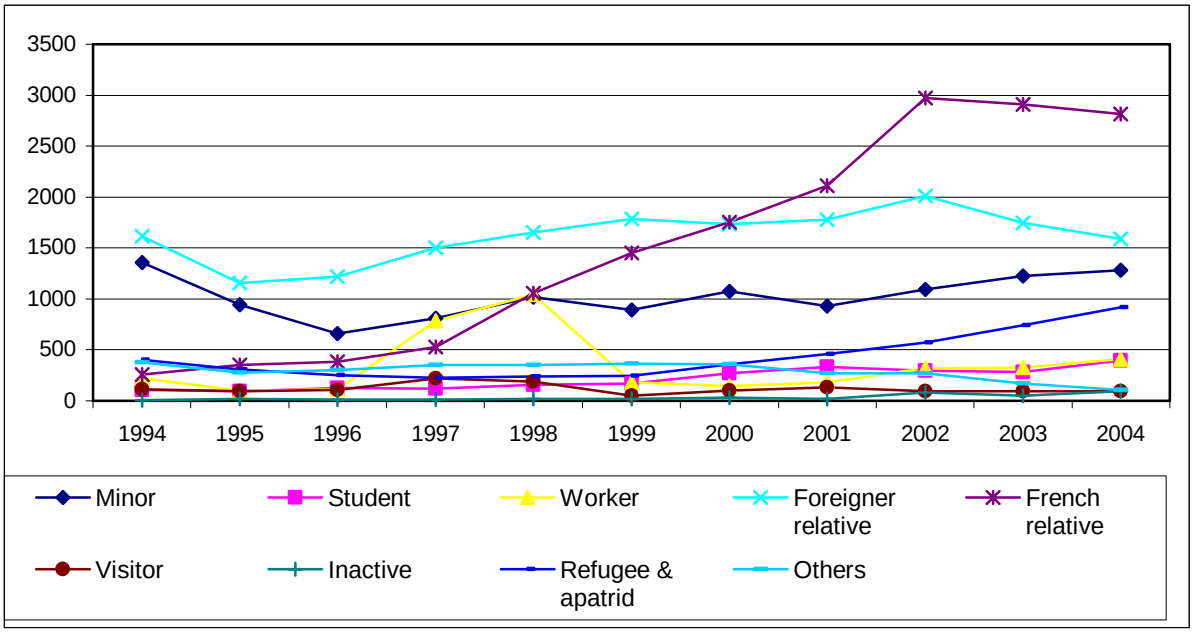
[7] One of the reasons for the non-employment of women can be sociologic. In our survey analysis, which will be discussed more detailed in the next section, we ask to migrants if their wives are working or not. The most common reaction was "Of course not!". As most of the migrants have low qualification, it's possible that they don't let their wives work or simply, they weren't working when they were in Turkey either.

Most of this population is not highly qualified. In 2002, LFS statistics for immigrants living in France (who were also in France the year before) show that around 85% of these migrants had low qualification against 12 % with medium qualification. The part of the high qualified immigrants is only 2%. However, for the new arrivals (who were in another country in 2001), the statistics are more optimistic. About 17% declares to have a high qualification against 13% with medium qualification. The part of the low qualified immigrants decreases to 68%.

In 1999, Turkish migrants were mainly present in industry (27%) and construction (24%). Construction sector shows certain stability in time. Among Turkish migrants, part of the construction sector in employment in 1982 was around 22%. However, this is not the case for industry. The part of employment in industry has decreased. In 1982, around 54% of the Turkish migrants were employed in industry. Part of the Turkish migrants in agriculture was very low, around 4%. This can be explained by the fact that employment opportunities in agriculture are low in France and it is easier to find Turkish employers in construction or services. (Gursel et al. 2007)

Graphic 2 shows flows of Turkish migrants in France by admission motive between 1994-2004. As discussed above, the main motive of immigration for Turkish migrants is family unification. We can distinguish three categories of family reunification which are also the most important immigration motives. First two are being relative of a French citizen or a regular migrant in France and the third one is minors from family reunification or children of refugee mothers. The first two categories show very important differences when we take into account sex composition of migrants (see Annex 1). Between 1994 and 2004, around 70% of migrants who entered France with family reunification with a French citizen motive are male migrants. On the other hand, their part is around 40% when we consider family reunification with a foreigner in France. Workers constitute the fifth category just after refugees and are quite inferior to first three categories. On the other hand, we should interpret these statistics very carefully. These statistics only show the motive of immigration for the year of admission for a regular stay and illustrate that the main channel of emigration to France is the family reunification. However, once migrants enter France with a family reunification visa, they have the right to work. These statistics doesn't mean that only the migrants entering with working visa are working. In this case, the unemployment of Turkish migrants would be around 95%.

Graphic 2: Immigration by admission motive and sex Turkey-France



Source: Author's calculations from CARIM

2.3. Migrant remittances: Turkey as a receiving country

As mentioned above, for the Turkish government, emigration was not only a part of its employment policy but also an important source of foreign exchange. Emigration has a direct impact of reducing unemployment pressures in a country. It can also have an indirect impact on unemployment and economic growth as the country receives remittances. Increase in foreign exchange has a positive impact on the import capacity of a country. This, in turn, can have a positive effect on investments especially in countries like Turkey whose main importations consist of intermediate goods and equipments. On the other hand, these funds can also directly be used in investment activities. In both cases, we can expect some employment creation in the country[8]. (Gursel et al. 2007).

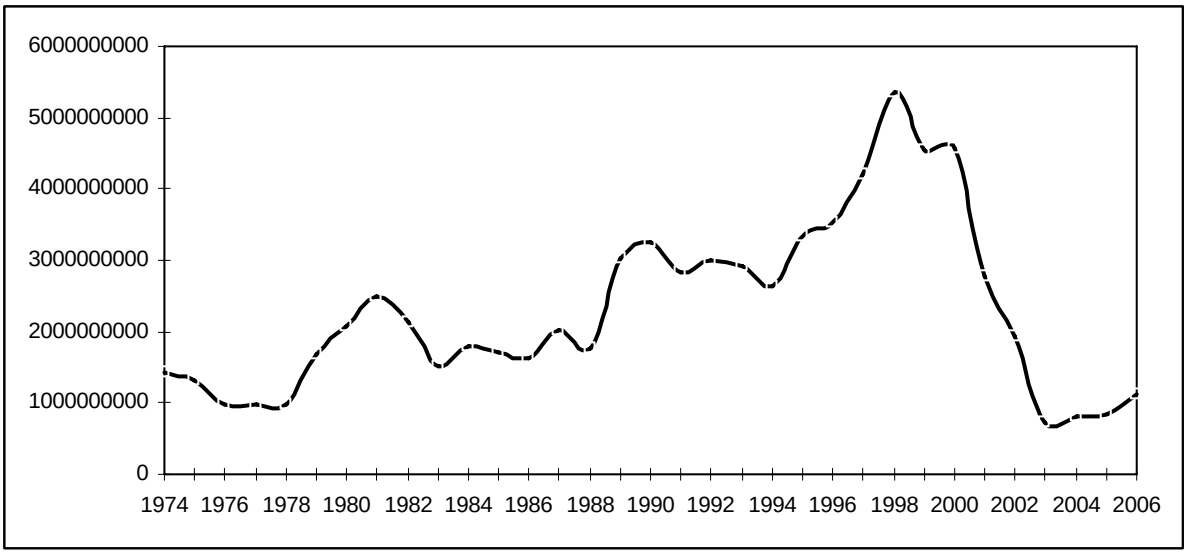
In this respect, Turkish government supported creation of migrant owned enterprises or production cooperatives to channel these transfers into investment (Turkish Workers Corporations) since the beginning of the emigration from Turkey. Unfortunately, these investment projects were not successful. Central Bank of Turkey also provides foreign

[8] However, as discussed in the remittances literature, we can also observe negative macroeconomic impacts of these transfers. They can increase inflation or can have Dutch Disease effects. (Bourdet and Falck 2006)

exchange accounts in Turkey for migrant workers with preferential interest rates[9] (Foreign Currency Deposit Accounts and Super FX Accounts). In 2004, total remittance deposits were around 14 billions euros in the Central Bank of Turkey (Icduygu 2006).

Since the mid-60s until recently, migrant remittances have always been an important source of foreign exchange for Turkish economy (see Graphic 3). Although remittances are fluctuating from one period to another, they have an increasing trend in the long-term. It's since 1998 that remittances to Turkey are in relative decline with a slow increase since 2004.

Graphic 3: Worker Remittances Receipts



Source: WDI

The decline in remittance flows shows many characteristics. First of all, the part of the second and third generation is increasing in Turkish migrant population especially in the first immigration countries like Germany (which is also the main remittance sending country). We can suppose that the attachment to the home country in the total number of migrants is also decreasing and as a result of this, remittances are decreasing.

Second, we can assume that remittances to Turkey are sensible to economic/financial situation of the country. Especially the increasing trend in remittances after 1989 can be explained by the financial liberalization of Turkey. However, after this period, remittances became much more sensible to the economic crises. This can recently be observed by the

[9] However, Central Bank of Turkey is considering removing these bank accounts. On this fact, Icduygu (2006) reports that " As long as the long-term perspectives of the Central bank is concerned, the very unique operation on remittances is seen as a costly way of accumulating and something outside the principal duty of the Bank, and therefore it is viewed as an element which will be removed from the liabilities of the bank in the long-term". For the 14 billions euro, there exists also a solid concern on the question of what to do with them.

decrease in1994 and the decrease with the financial crises of 2000 and 2001. Contrary to the expected altruistic behavior, remittance flows were adversely affected by weak economic conditions and Turkish migrants do not increase their transfers in the periods of financial difficulty in their home country. However, our survey results show that around 87% of the surveyed population makes transfers for the current expenditures of the families left behind. Another explication to this behavior can be the unofficialization of transfers. The data we have only reports officially recorded remittances which means that the decrease is only for remittances sent using official channels. In the periods of economic crises and instability, economic agents loose their confidence in the economy and in its institutions10. In this case, migrants can prefer to remit using unofficial channels. To conclude that altruistic motivations are less important, we should also be able to calculate unofficial remittances. (Mouhoud et al. 2007). We can find another analysis on this issue in Aydas et al. (2005). The decrease in the flow of remittances in 1999 coincides with the great earthquake disaster in Turkey. They think that this shows the dominance of investment motive as the main motivation, rather than contributing to the consumption of the families left behind.

Another decreasing period of these transfers was 1976-1978 periods. One possible explanation to this is the high inflation observed in these years. In this period, Turkey had a fixed exchange rate regime. With the increase in inflation, Turkish lira appreciated and had a negative impact on remittances. When altruistic motivations are determinant in the remitting decision, we can expect an increase in remittances when the home country currency appreciates. To ensure the same amount of income in national currency for the left behind, migrants can prefer to remit more. Especially in the case of Turkey in 1976-1978 periods, households also lost a part of their purchasing power because of the inflation. However, migrants preferred to remit less[11]. Another reason for this can be the dominance of housing investment in the remitting behavior because the cost of construction shows a relative increase in foreign currency. After the two devaluations of 1978 and 1980, remittances started to increase.

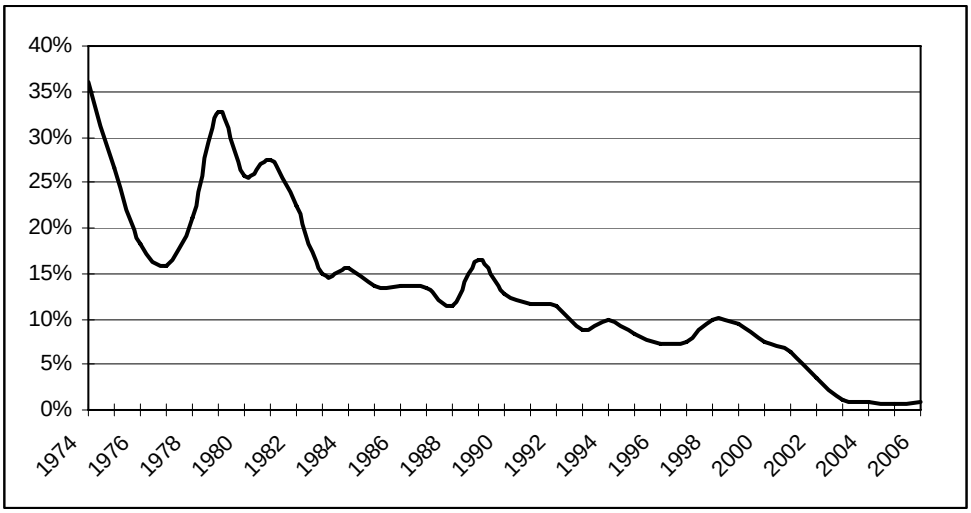
After the financial crises of 2000-2001, Turkish economy has been restructuring and having a relatively good performance. However, remittances are still decreasing. This should be mainly due to the new classification of the worker remittances by the Central Bank of Turkey since 2003. Before the new method, operations of foreign exchange remittances converted into

[10] We should also note here that in 2001, Turkey experienced a serious crisis in its banking system.
[11] The migrant can also prefer to remit later to offset the impact of the appreciation of the local currency (because he must send more money in the foreign currency).

Turkish Lira, Turkish lira conversion from their foreign exchange accounts and money spent during their visit in Turkey of the migrants were qualified as remittances. Since the new classification, Turkish lira conversion from foreign exchange accounts and money spent during the visits are considered as tourism revenues. (FEMIP 2006)

Remittances have been much more than FDI in Turkey. Only since 2003, their part is less than 100% of net foreign direct investment[12]. This is mainly due to the low performance of Turkey as a FDI receiving country. This trend is also the same for private capital transfers until 1991 and in a less extend after 1992s (Due to the capital liberalization in Turkey). As mentioned before, remittances have always been an important source of foreign funding for Turkey. Their part in the importations of Turkey has been between 15- 35% from 1974 until 1984s[13] (see Graphic 4).

Graphic 4: Part of the Remittances in Importations of Turkey (Current USD)



Source: WDI

Table 2. shows the bilateral remittances estimates calculated by Ratha and Shaw (2007). They propose 3 allocation rules to estimate bilateral remittances using the database on migration developed by University of Sussex. In this paper, we have chosen their second method which takes in to account both migrant stocks in different destination countries and host-country incomes to construct weights. Main migrant receiving country for Turkey, Germany, is also the main remittance sending country. France is the second remittance sending country followed by Netherlands and Australia but the difference is high compared to Germany. One important limit of this database is that Russian Federation is not included. As mentioned above, around 120 000 Turkish migrants were working in Russian Federation and

[12] Except 98% in 2001
[13] From 1965 to 1980s, remittances represented around 51% of the commercial deficit of Turkey.

main Turkish-speaking ex-USSR states. These migrants are mainly temporary male migrants[14] and are expected to remit more.

Table 2. Bilateral Remittance Estimates for Turkey (millions of US$)

Remittance-sending country	in volume	in %
Germany	545	68,42%
France	40	5,01%
Netherlands	38	4,74%
Austria	32	3,97%
United States	22	2,72%
Saudi Arabia	15	1,90%
Switzerland	14	1,81%
Bulgaria	13	1,62%
United Kingdom	12	1,56%
Greece	12	1,46%
Belgium	9	1,18%
Sweden	7	0,94%
Denmark	7	0,90%
Israel	7	0,89%
Australia	6	0,74%
Kazakhstan	4	0,52%
Canada	4	0,47%
Italy	3	0,32%
Macedonia, FYR	2	0,28%
Norway	2	0,26%
Georgia	1	0,12%
Kyrgyz Republic	1	0,11%
Finland	1	0,07%

Source: Calculations from Ratha and Shaw (2007) database

[14] Salaries of some of these migrants are directly versed to their bank accounts in Turkey.

3. An analysis of survey results on remittances from France to Turkey

3.1. The approach: Questionnaire and the realization of survey

In this section, we are going to introduce the database 2MO[15] on the nature, determinants and uses of remittances from France to four Mediterranean countries (Turkey, Morocco, Tunisia and Algeria) and to Sub-Saharan Africa. This database is obtained from individual surveys conducted in the Post Offices in France with migrants realizing transfers to their home countries.

In the existing remittances literature, despite the increasing importance given to determinants and uses of remittances, very little attention is paid to individual surveys. In the context of the large debate on the remittances from developed countries to the developing world, we are not aware of any large survey studies on the subject especially in France. As a result of the lack of individual level data on the transfers, many questions are not answered or have ambiguous answers.

This survey is realized in post offices while migrants are realizing transfers to their home countries. There are two main types of transfers in post offices in France. First one is the postal transfers and the second one is the transfers via Western Union. This survey started in mid-October and still continuing. This period also refers to the peak period of transfers in terms of volume.

The target population of this survey is the ones realizing transfers to: Algeria, Tunisia, Morocco and Turkey. However, Sub-Saharan countries are also added to the analysis because of their high presence in the post offices. The quota for each destination country is 170 surveys (Sub-Saharan African countries are considered as one destination). 20 post offices have been chosen for the survey which have normal comportments (ex: Paris Nord) concerning transfers. The outliers are not included in the 20 post offices (ex: Paris Clignancourt)

Especially Turkish migrants weren't very present in post offices. One of the main reasons for this is the existence of a Turkish Bank "Is Bankasi" in Paris. This bank is very present in Turkey with around 900 branches. Transfer costs of this bank are less than Western Union and all of its employees are speaking Turkish. The bank realizes around 200 operations per day to

[15] Enquete 2MO for Mouhoud, Miotti, Oudinet. This survey is financed by Caisse des dépôts et Consignations and Mission Recherche de la Poste

Turkey. A part of this survey is realized in front of this Bank. Like in the case of Western Union, senders or recipients of transfers are not obliged to have a bank account; they can send or receive money with a simple identity card. However, this bank has two disadvantages compared to Western Union. First, they have only one branch and it is in Paris[16], and second, recipients can only receive money in New Turkish Lira (YTL). In spite of the transfer cost, they also pay an additional cost during the conversion of money from Euro to YTL.

3.2. Survey results and distribution of remittances

In this section, we are going to analyze the survey results for migrants transferring to Turkey. Our main questions of interest consist of the main characteristics of this population and their remitting behavior.

Table 3 gives the main characteristics of the surveyed population by remittance receiving country[17]. 196 migrants transferring to Turkey are surveyed, 73% of them are male and only 27% are female. Compared to the statistics of INSEE (54% male and 46% female) on the Turkish population living in France, women are underestimated. This can be explained by the fact that in Turkish migrant families, transfers are mainly done by the husband for whom activity rate is also much higher.

Around 63% of the migrants are between 25-44 years old and 24% are between 45-64 years old. The smallest group is the oldest age group for 65 years old and above. Like the age statistics, marital status statistics are also very close for men and women. Married migrants constitute the biggest group with 71%, followed by the single migrants (21%). Cohabitating is very marginal between Turkish population which can be explained by cultural and sociological factors. Marriage is generally the first condition of cohabiting in Turkish society. About half of the surveyed population has between 1 and 3 children. Only 14% have more than 3 children.

Education level of the surveyed population is quite low. Only 13% have higher level education. The biggest group is the migrants without any education (24%) followed by primary and junior high school. As discussed above, Turkish migrants are in general low qualified. About 25% of the surveyed population is working in construction and about 12% is in catering or working in restaurants, two sectors which do not demand much qualification compared to

[16] The exclusive agreement between Western Union and La Poste gives Western Union the possibility of being the most frequently used transfer institution, which is also their most important comparative advantage.
[17] Although our main interest is transfers to Turkey, we also present the statistics on the main characteristics of migrants transferring to other countries in our sample.

other sectors. Salaried workers are the biggest group for both male and female population at around 68%. For male population, second biggest group is the own account workers, however, for female population, it is the not employed ones. Employment level is higher for our surveyed population compared to INSEE statistics (see Table 1). One of the main determinants of the remittances is the income level of the migrants. It is supposed that remittances increase as the revenue of the migrants increase. This can also explain the fact that employment rate is higher in our surveyed population compared to the total Turkish population in France because these are only the migrants who are sending money to their home countries.

Table 3: Main characteristics of surveyed population by transfer receiving country:

	Turkey		Algeria		Morocco		Tunisia	
	In Volume	in %	In Volume	in %	In Volume	in %	In Volume	in %
Age								
Less Than 25	21	11%	14	7%	35	16%	11	6%
25-44	123	63%	125	64%	116	54%	135	69%
45-64	48	24%	50	26%	59	27%	46	23%
65 and above	4	2%	7	4%	6	3%	4	2%
Marital Status								
Single	41	21%	52	27%	55	26%	46	23%
Cohabitating	3	2%	8	4%	7	3%	4	2%
Married	138	71%	120	62%	131	61%	121	62%
Divorced	12	6%	11	6%	21	10%	24	12%
Widow	2	1%	3	2%	1	0%	1	1%
Number of Children								
None	62	31%	71	37%	82	38%	57	29%
1 to 3	107	54%	92	47%	84	39%	125	64%
4 and more	27	14%	31	16%	49	23%	14	7%
Education Level								
No Education	48	24%	22	11%	32	15%	10	5%
Primary Education	41	21%	29	15%	28	13%	33	17%
Junior High School	43	22%	42	21%	45	21%	57	29%
High School	40	20%	44	22%	60	28%	55	28%
University degree: 2 years	17	9%	28	14%	39	18%	28	14%
University degree: 4 years and more	7	4%	31	16%	12	6%	13	7%
Employment Status								
Not employed	32	16%	11	6%	8	4%	26	13%
Employee	133	68%	141	72%	122	56%	140	71%
Employer or own account worker	31	16%	44	22%	86	40%	30	15%

There aren't very big differences between the main characteristics of surveyed migrants in function of the remittance receiving country. Compared to other surveyed nations, the main difference of Turkish migrants is their education level. Turkish migrants constitute the less qualified group with 24% with no education and 21% with only primary education.

Another important statistic of our survey, which is not reported in Table 3, is the employment status of the wives of Turkish migrants. As discussed above, recent emigration from Turkey to Europe and to France is mainly family reunification and an important part of

this migration is female. This female population who joins their husband in France is generally not working. Our results also confirm this fact. 80% of the surveyed married male population declared that their wives are not working and around 93% of this "not working" female population has no professional activity.

The surveyed population can be considered representative compared to the Turkish population living in France in two main aspects: Age groups percentages of our surveyed population is very close to the statistics of INSEE and education level statistics are close to the LFS statistics.

Table 4 shows the relationship between the monthly income and the amount of transfers of migrants. The most frequent transfer interval is 500 to 1000 euros with 25% of migrants. This is followed by 200 to 500 euros and 1000 to 2000 euros per year. If the transfers were independent from the income level, we could expect to have the same percentages for all income levels (for example 13% of the each income level group would send less than 200 euros per year). However, this is not the case. It is expected that transfers increase with the available income of migrants. In this case, we would expect that percentages above the average of each transfer interval constitute a diagonal. Although we do not have a perfect diagonal, we can observe that there exists a slight increase with the increase in the income level.

Table 4: Monthly income and transfers

		Total transfers in one year					
		Less than 200 €	**200 to 500 €**	**500 to 1000€**	**1000 to 2000 €**	**2000 to 3000€**	**more than 3000€**
monthly income	**Less than 1000 €**	2	2	3	1	1	2
	in %	*18%*	*18%*	*27%*	*9%*	*9%*	*18%*
	Between 1000€ - 2000€	16	25	27	21	5	12
	in %	*15%*	*24%*	*25%*	*20%*	*5%*	*11%*
	Between 2000€ - 3000€	5	15	14	12	8	4
	in %	*8%*	*21%*	*25%*	*22%*	*16%*	*8%*
	3000€ and more	2	1	5	5	5	4
	in %	*9%*	*5%*	*23%*	*23%*	*23%*	*18%*
	TOTAL	**25**	**43**	**49**	**39**	**19**	**22**
	in %	***13%***	***22%***	***25%***	***20%***	***10%***	***11%***

Another discussion in the existing literature consists of the relationship between qualification level and transfers. We can assume that more qualified workers' families have medium or high income levels and qualified workers can integrate easier than the low qualified

workers to their host countries. As a result of these two factors, they are expected to transfer less. However, in a loan repayment context, if the migrant is paying back to his family the investment they have made for his education, remittances can be more important. Another point is the income level. If altruistic motivations are determinant, qualified workers would tend to remit more because they earn more. On the other hand, in the exchange motive case, remittances would be less because more educated migrants have lower propensities to return. (Rapoport and Docquier 2006) Table 5 shows the relationship between education level and amount of remittances is ambiguous. Mouhoud, Miotti and Oudinet (2008) uses the same dataset for the whole sample and find that the transfers are high for the less and most educated migrants and low for the others. High level of transfers for qualified workers can be explained by repayment of loans hypothesis which we will test in the next section.

Table5: Education level and transfers

		Total transfers in one year					
		Less than 200 €	**200 to 500 €**	**500 to 1000€**	**1000 to 2000 €**	**2000 to 3000€**	**more than 3000€**
Education level	**No education**	3	14	13	11	4	3
	in %	*6%*	*29%*	*27%*	*23%*	*8%*	*6%*
	Primary education	4	5	12	10	4	7
	in %	*10%*	*12%*	*29%*	*24%*	*10%*	*17%*
	Junior high school	5	8	11	8	6	5
	in %	*12%*	*19%*	*26%*	*19%*	*14%*	*12%*
	High school	5	9	8	8	4	6
	in %	*13%*	*23%*	*20%*	*20%*	*10%*	*15%*
	University degree: 2 to 4years	8	7	5	2	1	1
	in %	*33%*	*29%*	*21%*	*8%*	*4%*	*4%*
	TOTAL	**25**	**43**	**49**	**39**	**19**	**22**
	in %	***13%***	***22%***	***25%***	***20%***	***10%***	***11%***

Concerning the duration of stay of migrants, we have only 158 responses among 197 surveys. 15% are in France since les than 5 years, 23% since 5 to 10 years, 34% since 10 to 20 years and 26% are in France since more than 20 years. Table7 shows the relationship between duration of stay and remittances. As the duration of stay is long, we can suppose that the migrant has his/her family in his host country and is much more integrated. In this case a negative relationship between these two variables can be expected. However, we do not see this relationship clearly from Table 6. Mouhoud, Miotti and Oudinet (2008) explain this by the historical context of migration to west European countries. They argue that the important determinant is the wave of migration. Migrants belonging to the first migration wave of 1960s are less educated and much more attached to their home countries. Most of them are home

owners in their origin countries. However, later migration waves include more qualified workers who come to Europe to install. These migrants are less attached and privilege investments in their host country. However, family arrangements represent still an important motivation which is also confirmed by our estimation results.

Table6: Duration of stay and transfers

		Total transfers in one year					
		Less than 200 €	**200 to 500 €**	**500 to 1000€**	**1000 to 2000 €**	**2000 to 3000€**	**more than 3000€**
Duration of stay	**between 0-5 years**	4	5	5	5		6
	in %	*16%*	*20%*	*20%*	*20%*	*0%*	*24%*
	Between 5-10 years	2	5	10	7	3	10
	in %	*5%*	*14%*	*27%*	*19%*	*8%*	*27%*
	Between 10-20 years	5	9	12	14	10	4
	in %	*9%*	*17%*	*22%*	*26%*	*19%*	*7%*
	More than 20 years	4	9	12	9	6	2
	in %	*10%*	*21%*	*29%*	*21%*	*14%*	*5%*
	TOTAL	**15**	**28**	**39**	**35**	**19**	**22**
	in %	***9%***	***18%***	***25%***	***22%***	***12%***	***14%***

Concerning the determinants of remittances in Turkey, Aydas et al. (2005) investigate the effect of macroeconomic variables on workers remittances flows for the 1964-1993 periods. The authors find that in the period after 1979, investment becomes an effective motive for the remittance flows in Turkey besides the consumption smoothing motive. However, our results show that the main motivation to remit is the consumption needs of the family left behind. 87% of he migrants report that they send money for the current expenditures in their home country. This motive is followed by the health expenditures. Some 72% say that they send money back home for the health expenses. Helping to the education of the children in the family is the third motivation but is far from the first two (only 29%). 15% send money to finance their estate in their home country and 10% for investment. Only 4% send for their village. Remittances can have a positive impact on economic development if they are used for investment or for local development projects. However, our survey results show that they are mainly used for consumption needs.

Although Turkish government tried to channel migrants remittances in development projects (Turkish Workers Companies that were founded with remittances etc.), as discussed above, these projects were not successful. However, remittances can also have indirect impacts on development when they contribute to health and education expenditures. They can complement social transfers which are far from being enough especially for the less promoted

populations in countries like Turkey (This discussion constitutes the object of the following section).

Table 7: Motivation of remittances

	MALE	FEMALE	N/A	TOTAL
For the current expenditures (consumption)	127	44	1	172
in %	*89%*	*83%*		*87%*
For the health expenditures	106	34	1	141
in %	*74%*	*64%*		*72%*
For education expenditures	52	5	1	58
in %	*36%*	*9%*		*29%*
For investment in the home country	14	5		19
in %	*10%*	*9%*		*10%*
To finance a house that you have in your home country	27	2		29
in %	*19%*	*4%*		*15%*
For your village	7	1		8
in %	*5%*	*2%*		*4%*
To finance a local company	1			1
in %	*1%*			*1%*
Other	17	7		24
in %	*12%*	*13%*		*12%*

Table 8 shows the determinants of the amount of remittances sent. Remittances are more sensible to the available income of the migrant rather than the income of the family. 81% of the transfers depend on the income of the migrant against 62% on the income of the family. 34% of the migrants declare that the income of the family has no impact on the amount of transfers. Economic and political variables are less important for the migrants compared to the income levels in the home and host countries. Migrants do not take in to consideration exchange rate and transfer costs either. These results also confirm the fact that consumption is the main motivation to remit. Although the transfer costs are high or the exchange rate is disadvantageous, they do not necessarily decrease their amount of remittances.

Table 8: Is the amount of your transfer depends on…….

	Not at all	Quite few	Quite a lot	Very much
Income level in the host country	12%	7%	16%	65%
Income level of the family	34%	4%	16%	46%
Inflation in home country	72%	12%	11%	5%
Economic and political situation in the home country	79%	9%	8%	4%
Transfer costs	69%	11%	10%	11%
Exchange rate	73%	10%	10%	8%
Interest rate in the home country	80%	12%	6%	3%

4. Why do migrants remit?

4.1. Theoretical background

In the microeconomic theoretical literature, migrants are supposed to remit for individual reasons or within family contracts.

From a microeconomic point of view, the most intuitive motivation to remit can be considered as altruism. Altruism motivation predicts that migrants care for their families left behind. In other words, migrants derive utility from the utility of the left behind. On the other hand, contrary to pure altruistic motivations, migrants may remit with pure self-interest purposes. These motivations can be investment in the home country, intent to return home or possibility of inheritance. Although a certain level of altruism can be determinant in these motivations, within pure self-interest motivations, migrant only tries to maximise his own utility.

However, explaining motivations of remittances simply by altruism or self interest would be inadequate and insufficient. Remitting decision is not mostly taken at the individual level, only by the migrant. It is generally part of a complex set of strategic decisions taken at family (and sometimes community) level. Remittances can also be a result of decisions previously taken by the family like the migration decision (more precisely the choice of the migration candidate among family members). The nature of this type of remittances is different. The migrant, before migrating, accepts a family contract: he is migrating to bring money back to his family who realized a sacrifice or investment for him to be able to migrate (investment in education, supporting migration costs etc.). These costs are supported for two distinct reasons: i) as an insurance against future risks which will be compensated by transfers and ii)as an investment for future incomes that migrant will pay as the repayment of the loan. In both cases, we are in a contractual context not in an individual context.

a) Individual motives

i) altruistic motivations

In the case of altruistic motives, migrants send money back home in order to contribute to the income of their families left behind. Then the utility of the migrant depends also on the income of his family in the country of origin. The amount of remittances should increase with the migrant's income, and decrease with the amount of the domestic income of the family. The duration of stay should have a negative impact on the remittances because it is supposed that the attachment to the family weakens gradually. Family unification has also the same effect as there are less people left behind to look after.

ii) pure self interest

Lucas and Stark (1985) introduce three types of pure self-interest motivations: investment in assets in home country, intend to return home and inheritance.

In the case of investment in assets in home country, migrant chooses between investing in his host country or in his home country. Here, migrant maximizes his utility in order to get the biggest rate of return to his savings. With the globalization of the financial markets, we can also consider financial investments in this category. In this case, the migrant calculates his potential return in his home country relative to his potential return in the host country. The macroeconomic stability in the home and host countries and the interest rate differentials determine the remitting decision of the migrant.

In their paper, Lucas and Stark (1985) include also "careful maintenance of these assets" to this type of investment motivation. However, as also discussed in Lucas and Stark (1985), migrant's own family is most of the time a particularly trustworthy agent in selecting and maintenance of assets. When the families take care of the assets in the home country on behalf of the migrant we think that this should be considered in the context of "exchange" motivation (which will be discussed below), an exchange of services between the migrant and his family.

Intent to return home is expected to increase remittances for many purposes in a pure self interest context (Lucas and Stark 1985). Housing occupies an important place in the remitting

behaviour of migrants. They tend to remit more for investment in fixed capital like land or house. However, intention to return home should not be considered as the only factor behind housing. Migrants can also construct a house in their home village as a secondary residence, for holidays or for their family left behind. Cultural factors are also very important.

On the other hand, migrants can also invest in public assets such as prestige or political influence and in social assets such as relationship with family and friends when they have high intentions to return. If migrants don't fulfil correctly their obligations, their reputation can be harmed. They can be excluded by the third parties in their community who are potential sources of informal credit or help. (Cox et al. (1998))

Inheritance is one of the three motivations which are introduced as "purely selfish motivations" in Lucas and Stark (1985). In case of inheritance, migrant is motivated by the aspiration to inherit and larger potential of inheritance is expected to increase the level of transfers.

Within inheritance motivation, sanction mechanism is also important. Parents can punish the children who don't accomplish their obligations and can discharge from inheritance. In this case, families with high inheritance potential have a bigger bargaining power vis-à-vis to their children and receive more remittances. (Cox et al. (1998))

However, it is hard to distinguish empirically between these three motivations. For example, "intent to return home" can have similar implications as "aspiration to inherit" in the case of remittances for social assets. In both cases, migrants will try to guarantee a good relationship with the families and relatives left in the home country and remittances will increase. On the other hand, in the case of investments in housing or land (in fixed capital), it is difficult to conclude if remittances are motivated by "intent to return home" or "investment in the assets in the home area". To distinguish clearly between these motivations, analysis should be carried at microeconomic level using individual survey results.

b) Tempered Altruism (Enlightened Self-Interest)

Lucas and Stark (1985) bring a new explanation to the motivations of remittances which is called "tempered altruism" or "enlightened self-interest". According to this explanation, remittances are "part of an intertemporal, mutually beneficial contractual arrangement between migrant and home". Remittances depend mainly on intra-familial arrangements concluded between the migrant and his family. These arrangements have two main components: risk (insurance motivation) and investment.

Insurance motive is based on Intra-familial arrangements against income volatility. It is a contractual arrangement between the migrant and his family. In the rural areas of most developing counties, where financial and assurance markets are incomplete, the revenues are subject to risks such as drought, price fluctuations etc. To diversify the risk of rural income volatility, families can decide to allocate some members to urban or foreign migration. Although urban and foreign jobs are also subject to risks, these risks are independent from the agricultural income variations. At the beginning of the contract, family pays the migration costs in exchange of future remittances. In the case of these types of family contracts, remittances can flow to the family in case of agricultural income drops and to the migrant in case of unemployment. (Rapoport and Docquier 2006, de la Brière et al. (2001), Pozo and Dorantes (2006))

These kinds of arrangements can also be seen within a village but family is the most frequent context of such arrangements. However, as we are in a contractual agreement context, bargaining strength of two parties plays a role in the amount of remittances. A high income level in the family increases its bargaining power. In the presence of altruistic motives, it is expected that lower-income households receive more remittances. Within a bargaining model, the reverse can be expected because the bargaining strength of a lower-income household would be smaller. (Lucas and Stark 1985)

Empirically, it is hard to distinguish between altruism and insurance motivations. In both cases, migrants are sensible to diminutions in the home country income and increase remittances. However, in the case of insurance motivation, we are more concerned with the risk factor in the income fluctuations. In the case of altruistic motivations, it is rather the

general utility of the left behind. On the other hand, here we have a mutual arrangement. The insurance is for parties, migrant and his family.

The second component of the family arrangements is the investment motive (family loan arrangements). As in the case of insurance motive, with imperfect credit markets, families can do some investments on some of its members in order to facilitate their migration and the migrant in turn, repays these investments plus their interest back to their families. Especially in the first period of emigration, including migration costs, job search etc., families give assistance to the migrant. In this case, intra-familial contracts aim at increasing family's income rather than reducing risks (Rapoport and Docquier (2004), Poirine (1997)).

In Lucas and Stark (1985), investment in the education of family members is analyzed in the context of investment motivation. It is well known that higher levels of education facilitate migration and job search in urban areas. Education costs prior to the migration are generally financed by the immediate family of the migrants. These migrants, in turn, are expected to remit more in order to repay the education costs initially afforded by the family.

However, one should also note that wages are higher for qualified migrants and as noted above, higher earnings are associated with higher levels of remittances within the altruistic hypothesis. From this point of view, it is hard to distinguish between altruistic and investment motivations to explain the relationship between the level of earnings and the level of remittances. Lucas and Stark (1985) propose a discriminating test for this situation. They argue that education costs of certain members of a household, like the children of the head, are more likely to have been undertaken by that household than are the costs for other members like sons-in-low or daughters-in-low. Consequently, the level of education should have a greater impact on remittances among the former group compared to the latter in the case of repayment of loans.

Another contractual agreement is the exchange motive. In the case of exchange motive, remittances are sent in order to pay the services provided by the family in the home country (ex: child care, maintenance of assets at home etc.) (Cox (1987), Cox, Eser and Jimenez (1998), Feinerman and Seiler (2001)). An increase in the migrant's income also increases remittances. However, if the household's income increases, the relationship between remittances and household income within exchange motive is ambiguous. An increase in the household income also induces an increase in the price of services. This depends on the bargaining powers of the

both parts and on the migrant's elasticity of demand. If the demand of the migrant is sufficiently elastic, the demand for services, and in turn the remittances, would decrease. If the demand is inelastic, the migrant should increase remittances in order to buy the same amount of services.

4.2. Econometric analysis of remittances

In this part, we are going to employ ordinary least squares (OLS), Ordered Logit (ologit) and Logit regression analysis to investigate the main motivations of the remittances from France to Turkey and to Maghrebian countries. As explained above, data is collected in the post offices in France with migrants realising transfers to their home countries. A potential short-coming of this dataset is that it only covers remittance sending migrants. We only have information on migrants who realize transfers and not on migrants who do not remit. However, as we are interested on the motivations of remittances, we mainly need information on the remittance sending migrants. Another possible can be the fact that all the surveys are realized in port offices with migrants mainly using Western Union. Although this seems like a problem, the surveys explicitly asks the total amount of transfers sent in last 12 months using all transfer channels which means that even informal transfers are included in our survey.

In this section, we are first going to estimate OLS and OLOGIT regressions for Turkey and for all four countries of our sample (Turkey, Algeria, Morocco and Tunisia) to investigate the principal variables influencing remittances. We will then estimate two different specifications using LOGIT regression analysis. In the first specification, we are going to analyse the determinants increasing the likelihood of sending more money than the median value of transfers. The second specification takes into account the likelihood of sending more than 15% of the annual income. We choose 15% because it corresponds to the average household saving rate in France. This specification permits us to investigate relative importance of transfers in the available income. Although remittances increase as a function of disposable income, this doesn't necessarily mean that migrants, who earn more, relatively send more. It is more probable that, although migrants increase the amount they are sending with an increase in their income, low income migrants are sending a more important part of their earnings.

Our regression model is in the following form:

$$\text{Re}mit_i = \alpha + \beta_1 Y_i + \beta_2 Age_i + \beta_3 Edu_i + \beta_4 House_i + \beta_5 Obligation_i + \beta_6 Fam_i + \beta_7 Aid_i + \beta_8 Parents_i + \beta_7 EduPar_i + \varepsilon$$

Where, $Remit_i$: total amount of remittances sent in the last 12 months; *Yi*: monthly income of the migrant's household; Age_i: migrant's age; Edu_i: education level of the migrant; $House_i$: dummy variable for owning a house in the home country; $Obligation_i$: dummy variable for being obliged to send money for unexpected needs in the home country (including income chocks, health problems etc.); Fam_i: dummy variable for having wife and/or children in the home country; Aid_i: dummy variable for being financially helped by the family in the home country for migration costs; $Parents_i$: dummy variable for parents in the home country; $EduPar_i$: an interaction dummy variable for having parents in the home country and having at least 4 years university degree (See annex for details and explanations of variables).

Table 9 shows the results of OLS and OLOGIT estimations for Turkey and for all countries[18]. Except for age and education variables, motivations are same for Turkish migrants and group of four countries. As expected, income level has a positive and significant impact on the amount of remittances for all specifications. Age is non significant for Turkish migrants but have a positive impact on the amount of transfers when we take into consideration all four countries[19]. On the other hand, education is non significant for group of four, but significant for mibrants sending remittances to Turkey. Migrants with primary education are sending relatively more compared to other education groups. Owning a house in the home country is also positive and significant for all specifications.

One of the coefficients of interest for us is the coefficient of obligation variable. This variable is used to test the presence of insurance motivation within family contracts for Turkish migrants and for the whole sample. This variable is positive and significant for all specifications and gives evidence of insurance motivation.

[18] In the Ordered Logit specification, Brant test results refused the parallel line hypothesis for $Obligation_i$ in the case of Turkey and for $Obligation_i$ and Fam_i for the case of group of four countries. We have then estimated Generalized Ordered Logit supposing non-parallel line for these variables and parallel lines for others. All the tests results and Gologit estimations can be found in the Annex 2.

[19] For group of four countries, age variable was first used as categorical variable and taking the last category as base category. All other categories had negative and significant coefficients. However, Brant test results refused parallel line hypothesis for nearly all categories. That is why we preferred to use directly age of migrants.

To test the existence of exchange motivation, we have used the family variable which is equal to 1 if the migrant has his children and/or his spouse in his home country. This variable is also positive and significant for all coefficients showing the presence of exchange motive in the remitting behaviour of migrants in our sample. Having parents in the home country is also positive and significant but its relative impact compared to spouse and children is less important. Analyzing the exchange motive, these findings should be interpreted with caution. We should note that these variables show also existence of altruistic motivation. However as discussed in Cox, Eser and Jimenez (1998) "… there are doubtless many examples in which utility interdependence is the sole reason for transfers of money or help. At the same time, however, kinship networks and families create a setting in which repeating exchange, inculcation of family loyalty and trust and altruism can help to enforce mutually beneficial exchanges". In other words, existence of altruistic motivations should not exclude the important presence of exchange motives in remitting decision of migrants[20].

To test for the repayment of loans hypothesis, we have used two variables. First we employed aid variable which is equal to 1 if migrant was financially supported by his family for his migration. In this case, we can suppose that migrant is paying back the migration cost supported by the family. The second variable is an interaction term between having family in the home country and having a 4 years or more university degree[21]. This variable is used in order to test the existence of repayment of education costs supported by the family before the migration. These variables are positive and significant for all specifications showing the existence of repayment of loan hypothesis for all specifications.

At last, we have introduced the destination country variable taking Turkey as base category. The results show that migrants transferring to Algeria are sending relatively less than migrants transferring to Turkey. The results are non significant for Morocco and Tunisia.

[20] It would be preferable to taste also the impact of family income in the home country for a better evidence of exchange motivation.

[21] This variable is only used for the group of four sample because of the very low number of migrants having 4 years or more university degree in the Turkish sample.

Table 9: OLS and OLOGIT regression analysis for the amount of transfers

	Turkey				Group of four countries (Turkey, Morocco, Algeria and Tunisia)			
	OLS		OLOGIT		OLS		OLOGIT	
Income (ln)	0,45*** (2,91)	0,42*** (2,71)	0,99*** (2,88)	0.93*** (2,73)	0,44*** (6,98)	0,43*** (6,73)	1,03*** (7,20)	0.98*** (6,64)
Age (ln)	-0,28 (-1,12)	-0,29 (-1,20)	-0,59 (-1,04)	-0,59 (-1,04)			0,84*** (3,68)	0,66** (2,42)
Age less then 25					BC	BC		
Age 25-34					0,41*** (3,88)	0,29*** (2,69)		
Age 35-44					0,51*** (4,61)	0,32*** (2,80)		
Age 45-54					0,43*** (3,46)	0,25** (1,89)		
Age 55 and More					0,54*** (4,23)	0,44*** (3,12)		
Year of schooling						0,03 (0,63)		0,13 (0,96)
No education	-0,35** (-1,99)	-0,30* (-1,65)	-0,81** (-2,11)	-0.69* (-1.77)				
Primary education	BC	BC	BC	BC				
Junior High School	-0,14 (-0,76)	-0,15 (-0,79)	-0,43 (-1,01)	-0.41 (-0.97)				
High School	-0,26 (-1,24)	-0,15 (-0,72)	-0,62 (-1,39)	-0.38 (-0.81)				
University Degree	-0,76*** (-3,19)	-0,60** (-2,41)	-1,61*** (-3,00)	-1,23** (-2.16)				
House	0,30** (2,19)	0,31** (2,30)	0,62** (2,05)	0.65** (2.13)	0,23*** (3,60)	0,24*** (3,79)	0,46*** (3,30)	0.50*** (3,56)
Obligation	0,43*** (3,20)	0,40*** (2,96)	0,83*** (2,82)	0.79*** (2.65)	0,26*** (4,41)	0,23*** (3,93)	0,61*** (4,56)	0,54*** (3,98)
Family	0,72*** (3,98)	0,70*** (3,90)	1,55*** (3,93)	1,50*** (3.81)	0,64*** (6,51)	0,65*** (6,74)	1,43*** (6,44)	1,49*** (6,70)
Aid	0,44*** (3,01)	0,42*** (2,92)	0,91*** (2,88)	0.89*** (2.82)	0,17** (2,20)	0,13* (1,70)	0,36** (2,08)	0.27 (1,56)
Parents		0,29* (1,92)		0.60* (1.74)		0,40*** (6,00)		0,95*** (6,26)
EduPar					0,34** (2,49)		0,92*** (3,03)	
Turkey							BC	BC
Algeria					-0,24*** (-2,92)	-0,19** (-2,30)	-0,51** (-2,77)	-0,39** (-2,09)
Morocco					-0,07 (-0,86)	-0,03 (-0,43)	-0,19 (-1,00)	-0,07 (-0,40)
Tunisia					0,04 (0,53)	0,009 (0,12)	0,17 (0,96)	0,08 (0,46)
Constant	3,92*** (2,99)	3,98*** (3,05)			2,48*** (5,17)	2,38*** (5,06)		
Number of observations	196	196	196	196	795	795	795	795
LR chi2 (10)			65,07	68.12			215,72	246,91
Prob>chi2			0,0000	0.0000			0,0000	0.0000
Pseudo R2			0,10	0.100			0,08	0,09
Log Likelihood			-306,31	-304.790			-1228,66	-1213,06
F	7,79	7,52			19,27	20,66		
Prob>F	0,0000	0,0000			0,0000	0,0000		
R2	0,29	0,31			0,24	0,27		

t-statistics in paranthesis, * significant at 10%, ** significant at 5%,*** significant at 1%
BC indicates Base Category

Table 10 shows the results for our LOGIT regressions for two different specifications. We have first estimated the likelihood of sending more than the median level of transfers. The results confirm our OLS and OLOGIT findings. Also for LOGIT specification, intra-familial arrangements are very present in the remitting behaviour of migrants transferring to four Mediterranean countries.

In this section, we have also wanted to test the hypothesis that remittances increase with the available income of the migrant. All of our previous results, using absolute amount of transfers, show that the amount of remittances (or the likelihood of sending more than the median amount for LOGIT specification) show that transfers increase with the available income of the migrant. However, in our last estimations, instead of using transfers directly, we have created a binary dependent variable which is equal to 1 if migrants are sending more than 15% of their available income (15% corresponds to the average rate of savings in France[22]).

The results show clearly that log likelihood of sending more than the 15% of the available income is higher for low income households compared to high income households. In other words, as the income level increases, log likelihood of sending more than 15% of the available income decreases. This finding is very important because it puts in evidence that relatively, low income migrants are more likely to sacrifice a more important part of their income to transfers and exchange motivation is determinant for these migrants.

Our results also show that although at macroeconomic level remittances are less significant for Turkey compared to Maghrebian countries, at microeconomic level, Turkish migrants are motivated by the same factors as Maghrebian migrants.

[22] It is probable that this rate is smaller for low income families and higher for high income families. However, using lower rates for low income families and higher rates for high income families would not change the sign but increase the negative impact of income. We would have more low income households sending more than their potential savings and less high income families sending more than their potential savings.

Table 10: LOGIT regression analysis for transfers

	Turkey				Group of four countries (Turkey, Morocco, Algeria and Tunisia)			
	LOGIT Remit>median amount		LOGIT Remit>15% of income		LOGIT Remit>median amount		LOGIT Remit>15% of income	
Income (ln)	1,37** (2,97)	1,31*** (2,82)	-1,43*** (-2,73)	-1,46*** (-2,74)	1,19*** (5,95)	1,19*** (5,75)	-2,11*** (-8,81)	-2,14*** (-8,73)
Age (ln)	-0,57 (-0,87)	-0,59 (-0,85)	-1,52* (-1,88)	-1,72** (-2,03)			-0,09 (-0,28)	-0,14 (-0,36)
Age less then 25					BC	BC		
Age 25-34					0,93** (2,41)	0,73* (1,82)		
Age 35-44					1,08*** (2,76)	0,76* (1,84)		
Age 45-54					0,56 (1,33)	0,28 (0,62)		
Age 55 and More					1,37*** (3,21)	1,21*** (2,59)		
Year of schooling			0,08 (0,20)	0,25 (0,60)		0,06 (0,34)		0,09 (0,42)
No education	-0,93** (-1,85)	-0,85* (-1,66)						
Primary education	BC	BC						
Junior High School	-0,43 (-0,81)	-0,46 (-0,86)						
High School	-0,44 (-0,80)	-0,29 (-0,52)						
University Degree	-1,75** (-2,33)	-1,55** (-2,00)						
House	0,48 (1,27)	0,49 (1,31)	0,63 (1,42)	0.67 (1,49)	0,49*** (2,75)	0,51*** (2,84)	0,59*** (2,60)	0,61*** (2,70)
Obligation	0,72* (1,85)	0,66* (1,69)	0,26 (0,61)	0,12 (0,28)	0,36** (2,11)	0,31* (1,77)	0,32 (1,51)	0,27 (1,30)
Family	2,14*** (3,80)	2,12*** (3,76)	1,35*** (2,64)	1,38*** (2,63)	1,69*** (6,01)	1,74*** (6,12)	1,85*** (6,42)	1,85*** (6,43)
Aid	0,98** (2,44)	0,98** (2,42)	0,76* (1,638)	0,68 (1,45)	0,62*** (2,83)	0,56** (2,55)	0,002 (0,01)	0,004 (0,01)
Parents		0,44 (1,00)		1,08** (1,96)		0,75*** (3,58)		0,35 (1,49)
EduPar					0,81** (2,05)		0,92** (2,00)	
Turkey							BC	BC
Algeria					-0,72*** (-2,92)	-0,63** (-2,49)	-0,54* (-1,67)	-0,45 (-1,35)
Morocco					-0,05 (-0,22)	0,01 (0,06)	-0,06 (-0,22)	-0,02 (-0,09)
Tunisia					-0,21 (-0,92)	-0,27 (-1,12)	0,24 (0,84)	0,23 (0,77)
Constant	-9,34** (-2,44)	-9,17** (-2,40)	13,64*** (2,98)	13,52*** (2,93)	-11,10*** (-7,12)	-11,51*** (-7,36)	13,69*** (6,66)	13,69*** (6,02)
Number of observations	196	196	196	196	795	795	795	795
LR chi2	51,89	52,91	28,14	32,51	153,23	162,46	164,90	163,50
Prob>chi2	0,0000	0,0000	0,0002	0.0001	0.0000	0.0000	0,0000	0.0000
Pseudo R2	0,19	0,20	0,14	0.17	0,15	0,16	0,21	0,21
Log Likelihood	-106,203	-105,694	-80,88	-78,69	-430,789	-426,17	-306,90	-307,60

t-statistics in paranthesis, * significant at 10%, ** significant at 5%,*** significant at 1%
BC indicates Base Category

5. Conclusions

In current years, international migrant remittances are one of the largest source of external funding to the developing world. They attract more and more attention in the public opinion because of their increasing volume and their potential impact on the development of remittance receiving countries.

The objective of this paper was to study the migrants' remittances in Turkey with a special emphasis on France-Turkey corridor. We have analyzed the historical facts on Turkish workers migration and the remittance flows. We have then introduced the results of a new survey realized in the post offices in France.

The findings of our econometric analysis show that for the case of Turkey and for the group of four countries, intra-familial arrangements have a very significant impact on the amount of remittances. Exchange motives are very present in migrants' remittance behaviors. From this point of view, the findings of this paper also confirm the findings of Mouhoud, Oudinet, Unan (2007).

In this paper, we also showed that although remittances increase with the income, when we take into consideration part of the transfers in the available income of migrants, low income migrants are more likely to send a more important part of their available income compared to high income migrants.

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Annexes:

Annex 1:

Immigration by admission motive and sex Turkey-France

	Minor*			Student			Worker			Foreigner relative			French relative			Visitor			Inactive**			Refugee & apatrid			Others***		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1994	703	656	1359	62	46	108	160	58	218	648	967	1615	201	57	258	44	67	111	3	2	5	179	226	405	174	206	380
1995	497	445	942	43	49	92	75	25	100	384	773	1157	248	104	352	34	62	96	12	4	16	140	171	311	94	181	275
1996	352	310	662	56	67	123	71	42	113	449	770	1219	268	114	382	61	45	106	7	5	12	126	125	251	117	182	299
1997	435	377	812	53	64	117	403	381	784	561	939	1500	355	170	525	77	144	221	6	4	10	111	115	226	126	228	354
1998	569	452	1021	72	88	160	613	430	1043	633	1021	1654	729	328	1057	59	131	190	9	7	16	133	104	237	175	175	350
1999	480	411	891	88	83	171	149	32	181	705	1079	1784	1038	412	1450	18	33	51	13	5	18	132	113	245	221	141	362
2000	565	507	1072	132	139	271	121	24	145	687	1048	1735	1250	501	1751	40	59	99	18	12	30	213	147	360	243	113	356
2001	509	424	933	148	182	330	159	22	181	673	1107	1780	1553	561	2114	39	90	129	10	11	21	293	163	456	214	57	271
2002	584	508	1092	142	154	296	291	28	319	721	1289	2010	2134	839	2973	35	61	96	43	36	79	417	157	574	220	51	271
2003	700	526	1226	122	159	281	302	23	325	679	1071	1750	2079	828	2907	30	65	95	36	17	53	545	194	739	151	21	172
2004	n.a.	n.a.	1281	n.a.	n.a.	394	n.a.	n.a.	410	n.a.	n.a.	1590	n.a.	n.a.	2812	n.a.	n.a.	97	n.a.	n.a.	93	n.a.	n.a.	917	n.a.	n.a.	108

Annex 2: Estimation tests and generalized ordered logit estimations

Brant Test results and Generalized Ordered LOGIT estimations for Turkey:

Brant Test of Parallel Regression Assumption

Variable	chi2	p>chi2	df
All	54.26	0.138	44
lnrevenu	3.21	0.523	4
lnage	3.10	0.542	4
pds	3.36	0.499	4
secondaire	3.19	0.527	4
bac	2.51	0.644	4
bac24	1.65	0.800	4
logement	4.46	0.347	4
obligation	12.19	0.016	4
enfcon	2.81	0.591	4
aide	5.64	0.228	4
parents	2.45	0.654	4

A significant test statistic provides evidence that the parallel regression assumption has been violated.

Generalized Ordered Logit Estimates
Number of obs = 196
Wald chi2(15) = 71.05
Prob > chi2 = 0.0000
Log likelihood = -296.89814
Pseudo R2 = 0.1238

montant_tr~e	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
1						
lnrevenu	1.026777	.3466924	2.96	0.003	.3472718	1.706281
lnage	-.7921949	.5821764	-1.36	0.174	-1.93324	.3488498
pds	-.6535867	.3907594	-1.67	0.094	-1.419461	.1122876
secondaire	-.4339841	.4270645	-1.02	0.310	-1.271015	.403047
bac	-.40997	.4715761	-0.87	0.385	-1.334242	.5143022
bac24	-1.205003	.5754852	-2.09	0.036	-2.332934	-.0770733
logement	.6841284	.3057705	2.24	0.025	.0848292	1.283428
obligation	2.12815	.5553251	3.83	0.000	1.039733	3.216567
enfcon	1.499336	.3919263	3.83	0.000	.7311744	2.267497
aide	.9038377	.3161019	2.86	0.004	.2842893	1.523386
parents	.6066434	.3483603	1.74	0.082	-.0761302	1.289417
_cons	-4.144755	2.883602	-1.44	0.151	-9.796512	1.507001

```
2           |
lnrevenu |      1.026777   .3466924     2.96   0.003     .3472718    1.706281
lnage |        -.7921949   .5821764    -1.36   0.174     -1.93324    .3488498
pds |          -.6535867   .3907594    -1.67   0.094    -1.419461    .1122876
secondaire |   -.4339841   .4270645    -1.02   0.310    -1.271015     .403047
bac |            -.40997   .4715761    -0.87   0.385    -1.334242    .5143022
bac24 |        -1.205003   .5754852    -2.09   0.036    -2.332934   -.0770733
logement |      .6841284   .3057705     2.24   0.025     .0848292    1.283428
obligation |    .5619887   .3521242     1.60   0.110     -.128162    1.252139
enfcon |       1.499336   .3919263     3.83   0.000     .7311744    2.267497
aide |         .9038377   .3161019     2.86   0.004     .2842893    1.523386
parents |      .6066434   .3483603     1.74   0.082    -.0761302    1.289417
_cons |       -5.064246   2.890304    -1.75   0.080    -10.72914    .6006455
-------------+----------------------------------------------------------------
3           |
lnrevenu |      1.026777   .3466924     2.96   0.003     .3472718    1.706281
lnage |        -.7921949   .5821764    -1.36   0.174     -1.93324    .3488498
pds |          -.6535867   .3907594    -1.67   0.094    -1.419461    .1122876
secondaire |   -.4339841   .4270645    -1.02   0.310    -1.271015     .403047
bac |            -.40997   .4715761    -0.87   0.385    -1.334242    .5143022
bac24 |        -1.205003   .5754852    -2.09   0.036    -2.332934   -.0770733
logement |      .6841284   .3057705     2.24   0.025     .0848292    1.283428
obligation |    .6345531   .3665463     1.73   0.083    -.0838643    1.352971
enfcon |       1.499336   .3919263     3.83   0.000     .7311744    2.267497
aide |         .9038377   .3161019     2.86   0.004     .2842893    1.523386
parents |      .6066434   .3483603     1.74   0.082    -.0761302    1.289417
_cons |       -6.424072   2.900965    -2.21   0.027    -12.10986   -.7382848
-------------+----------------------------------------------------------------
4           |
lnrevenu |      1.026777   .3466924     2.96   0.003     .3472718    1.706281
lnage |        -.7921949   .5821764    -1.36   0.174     -1.93324    .3488498
pds |          -.6535867   .3907594    -1.67   0.094    -1.419461    .1122876
secondaire |   -.4339841   .4270645    -1.02   0.310    -1.271015     .403047
bac |            -.40997   .4715761    -0.87   0.385    -1.334242    .5143022
bac24 |        -1.205003   .5754852    -2.09   0.036    -2.332934   -.0770733
logement |      .6841284   .3057705     2.24   0.025     .0848292    1.283428
obligation |    .6512265   .4611479     1.41   0.158    -.2526068     1.55506
enfcon |       1.499336   .3919263     3.83   0.000     .7311744    2.267497
aide |         .9038377   .3161019     2.86   0.004     .2842893    1.523386
parents |      .6066434   .3483603     1.74   0.082    -.0761302    1.289417
_cons |       -7.670932   2.911714    -2.63   0.008    -13.37779   -1.964078
-------------+----------------------------------------------------------------
5           |
lnrevenu |      1.026777   .3466924     2.96   0.003     .3472718    1.706281
lnage |        -.7921949   .5821764    -1.36   0.174     -1.93324    .3488498
pds |          -.6535867   .3907594    -1.67   0.094    -1.419461    .1122876
secondaire |   -.4339841   .4270645    -1.02   0.310    -1.271015     .403047
bac |            -.40997   .4715761    -0.87   0.385    -1.334242    .5143022
bac24 |        -1.205003   .5754852    -2.09   0.036    -2.332934   -.0770733
logement |      .6841284   .3057705     2.24   0.025     .0848292    1.283428
```

obligation	-.1361095	.5342095	-0.25	0.799	-1.183141	.910922
enfcon	1.499336	.3919263	3.83	0.000	.7311744	2.267497
aide	.9038377	.3161019	2.86	0.004	.2842893	1.523386
parents	.6066434	.3483603	1.74	0.082	-.0761302	1.289417
_cons	-7.99282	2.915274	-2.74	0.006	-13.70665	-2.278989

Heteroskedasticity tests for OLS Turkey:

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of lnmontant
chi2(1) = 2.29
Prob > chi2 = 0.1299

Brant Test results and Generalized Ordered LOGIT estimations for all four countries:

Brant Test of Parallel Regression Assumption

Variable	chi2	p>chi2	df
All	69.23	0.009	44
lnrevenu	3.05	0.549	4
lnage	4.94	0.293	4
lnscoyear	6.49	0.166	4
parents	3.15	0.533	4
logement	7.74	0.102	4
obligation	12.63	0.013	4
enfcon	12.44	0.014	4
aide	8.88	0.064	4
tunisie	4.27	0.370	4
maroc	2.45	0.653	4
algerie	4.02	0.403	4

A significant test statistic provides evidence that the parallel regression assumption has been violated.

Generalized Ordered Logit Estimates
Number of obs = 795
Wald chi2(19) = 236.68
Prob > chi2 = 0.0000
Log likelihood = -1203.1652
Pseudo R2 = 0.0998

montant_tr~e	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
1						
lnrevenu	1.008784	.1492637	6.76	0.000	.7162328	1.301336
lnage	.6552346	.2732018	2.40	0.016	.1197688	1.1907
lnscoyear	.1449611	.1440937	1.01	0.314	-.1374574	.4273796
parents	.9544814	.1534182	6.22	0.000	.6537872	1.255176
logement	.520999	.1436782	3.63	0.000	.2393949	.802603
obligation	.9481066	.2353245	4.03	0.000	.486879	1.409334
enfcon	.5682551	.459483	1.24	0.216	-.3323151	1.468825
aide	.274268	.1779051	1.54	0.123	-.0744196	.6229555
tunisie	.0848667	.1911266	0.44	0.657	-.2897345	.4594678
maroc	-.0828357	.1968075	-0.42	0.674	-.4685713	.3028999
algerie	-.4304101	.1927778	-2.23	0.026	-.8082477	-.0525725
_cons	-9.300926	1.405401	-6.62	0.000	-12.05546	-6.54639
2						
lnrevenu	1.008784	.1492637	6.76	0.000	.7162328	1.301336
lnage	.6552346	.2732018	2.40	0.016	.1197688	1.1907
lnscoyear	.1449611	.1440937	1.01	0.314	-.1374574	.4273796
parents	.9544814	.1534182	6.22	0.000	.6537872	1.255176
logement	.520999	.1436782	3.63	0.000	.2393949	.802603
obligation	.7204738	.1630041	4.42	0.000	.4009916	1.039956
enfcon	1.489406	.3425173	4.35	0.000	.8180842	2.160728
aide	.274268	.1779051	1.54	0.123	-.0744196	.6229555
tunisie	.0848667	.1911266	0.44	0.657	-.2897345	.4594678
maroc	-.0828357	.1968075	-0.42	0.674	-.4685713	.3028999
algerie	-.4304101	.1927778	-2.23	0.026	-.8082477	-.0525725
_cons	-11.07884	1.420514	-7.80	0.000	-13.863	-8.294687
3						
lnrevenu	1.008784	.1492637	6.76	0.000	.7162328	1.301336
lnage	.6552346	.2732018	2.40	0.016	.1197688	1.1907
lnscoyear	.1449611	.1440937	1.01	0.314	-.1374574	.4273796
parents	.9544814	.1534182	6.22	0.000	.6537872	1.255176
logement	.520999	.1436782	3.63	0.000	.2393949	.802603
obligation	.2964481	.1706896	1.74	0.082	-.0380973	.6309936
enfcon	1.65297	.2725394	6.07	0.000	1.118802	2.187137
aide	.274268	.1779051	1.54	0.123	-.0744196	.6229555
tunisie	.0848667	.1911266	0.44	0.657	-.2897345	.4594678
maroc	-.0828357	.1968075	-0.42	0.674	-.4685713	.3028999
algerie	-.4304101	.1927778	-2.23	0.026	-.8082477	-.0525725

```
       _cons |  -12.17583   1.430175    -8.51   0.000    -14.97892   -9.372734
-------------+----------------------------------------------------------------
4            |
    lnrevenu |   1.008784   .1492637     6.76   0.000     .7162328    1.301336
       lnage |   .6552346   .2732018     2.40   0.016     .1197688      1.1907
   lnscoyear |   .1449611   .1440937     1.01   0.314    -.1374574    .4273796
     parents |   .9544814   .1534182     6.22   0.000     .6537872    1.255176
    logement |    .520999   .1436782     3.63   0.000     .2393949     .802603
  obligation |   .1814179   .2167632     0.84   0.403    -.2434301    .6062659
      enfcon |   1.633165    .267432     6.11   0.000     1.109008    2.157322
        aide |    .274268   .1779051     1.54   0.123    -.0744196    .6229555
     tunisie |   .0848667   .1911266     0.44   0.657    -.2897345    .4594678
       maroc |  -.0828357   .1968075    -0.42   0.674    -.4685713    .3028999
     algerie |  -.4304101   .1927778    -2.23   0.026    -.8082477   -.0525725
       _cons |  -13.24945   1.444211    -9.17   0.000    -16.08005   -10.41885
-------------+----------------------------------------------------------------
5            |
    lnrevenu |   1.008784   .1492637     6.76   0.000     .7162328    1.301336
       lnage |   .6552346   .2732018     2.40   0.016     .1197688      1.1907
   lnscoyear |   .1449611   .1440937     1.01   0.314    -.1374574    .4273796
     parents |   .9544814   .1534182     6.22   0.000     .6537872    1.255176
    logement |    .520999   .1436782     3.63   0.000     .2393949     .802603
  obligation |  -.2062636   .2866481    -0.72   0.472    -.7680836    .3555563
      enfcon |   1.390345   .3296294     4.22   0.000     .7442827    2.036406
        aide |    .274268   .1779051     1.54   0.123    -.0744196    .6229555
     tunisie |   .0848667   .1911266     0.44   0.657    -.2897345    .4594678
       maroc |  -.0828357   .1968075    -0.42   0.674    -.4685713    .3028999
     algerie |  -.4304101   .1927778    -2.23   0.026    -.8082477   -.0525725
       _cons |  -13.92803   1.455163    -9.57   0.000     -16.7801   -11.07596
------------------------------------------------------------------------------
```

Heteroskedasticity tests for OLS Group of four countries:

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of lnmontant

chi2(1) = 0.00
Prob>chi2=0.9475