



HAL
open science

Migration and Remittances in South Africa: the role of political factors

Florence Arestoff, Mélanie Kuhn, El Mouhoub Mouhoud

► **To cite this version:**

Florence Arestoff, Mélanie Kuhn, El Mouhoub Mouhoud. Migration and Remittances in South Africa: the role of political factors. 60ème Congrès de l'AFSE, Sep 2011, Paris, France. pp.24. <hal-02063781>

HAL Id: hal-02063781

<https://hal.science/hal-02063781v1>

Submitted on 11 Mar 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

Migration and Remittances in South Africa: the role of political factors.

Florence Arestoff¹
Mélanie Kuhn²
El Mouhoub Mouhoud³

December 2010

(Work in progress)

Abstract: This paper looks at the determinants of international remittances in the case of South-South migrations. Using micro-economic data from a survey conducted in 2006, analysis was carried out on 639 African migrants residing in Johannesburg. Besides the traditional variables (income, household's size in the host country, age, sex, education...), political variables (regime change in the host country and conditions in the country of origin before the migration including war, and conflict) are used in the analysis. The results highlight the importance of these political variables as determinants of migrants' probability to remit. The end of the apartheid regime in South Africa impacts positively and significantly the probability of remitting money to the home country while the fact of having fled one's country of origin because of violence or conflict has the opposite effect. However, the political change in the host country has no influence on the amounts transferred. Once the decision to remit is taken, traditional variables have more of an explanatory power in predicting amounts transferred than political variables.

JEL-classification: F22, F24, O15, O55

Key words: remittance, international migration, forced migration, South Africa, political environment.

¹ 1) Université Paris-Dauphine, LEDa, 75016 Paris, France, 2) UMR 225-DIAL, 75010 Paris, France.

² Corresponding author. 1) Université Paris-Dauphine, LEDa, 75016 Paris, France, 2) UMR 225-DIAL, 75010 Paris, France. E-mail : melanie.kuhn1@yahoo.fr

³ 1) Université Paris-Dauphine, LEDa, 75016 Paris, France, 2) UMR 225-DIAL, 75010 Paris, France.

1. Introduction.

Because of their size, international remittances attract more and more the attention of researchers, international organizations and political decision-makers⁴. Despite a drop in 2009 because of the economic crisis, international remittances increased again in 2010 to reach 440 billion dollars (Mohapatra, Ratha and Silwal, 2010). The developing countries are the principal recipients: 73.9% of these private financial flows were sent in their favor in 2010, that is to say 325 billion dollars⁵. International remittances thus constitute “an essential source of incomes for many poor countries” (Ratha, 2009a). They are the second source of external financing for the developing countries after the Foreign Direct Investments (FDI) and far ahead of Official Development Assistance (ODA)⁶.

While many theoretical and empirical research works try to study, understand and explain these financial flows, the analytical framework is often limited to remittances from developed to developing countries. On the other hand, few studies deal with South-South remittances, i.e. remittances between developing countries. The lack of data and their low reliability in developing countries partly explains these gaps. However, the study of remittances between developing countries (30% of the whole of international remittances in 2005) is important for at least three reasons. First, there are many migrants in developing countries⁷. South-South migrations are higher than South-North migrations: over 43% of the migrants from developing countries are believed to be residing in other developing countries (World Bank, 2010). Like those who reside in developed countries, migrants in developing countries remit part of their income to their families in their country of origin. An analysis of their behaviour is, in this regard, interesting as well as necessary to better understand what determines remittance flows. Secondly, some of the migrants within the developing countries are different from the migrants who migrate towards the industrialized countries by the character generally forced of their displacements. The number of people forced to migrate because of armed conflicts or persecutions at the end of 2008 reached 42 million people (0.63% of the world population and around 21% of the population of international migrants). Among them 80% are in a developing country (33.6 million of people), 36.2% are refugees (15.2 million), 1.9% are asylum seekers (827 000) and 61.9% are internal displaced persons (IDPs) (26 million) (UNHCR, 2009). While the international migrants who migrate towards the industrialized countries are mainly individuals who move by choice, in particular in order to benefit from better economic opportunities in the host country. Many of the migrants moving within the developing countries do it under the constraint in order to flee armed conflicts, political instability, persecutions or natural disasters. In the first case the migration can be

⁴ Remittances are defined by the World Bank as the sum of workers' remittances, compensation of employees and migrant transfers.

⁵ In reality these figures must be higher because of informal remittances that are not taken into account in the official statistics.

⁶ FDI and ODA towards developing countries respectively reached 359 and 120 billion dollars in 2009 (World Bank, 2010).

⁷ According to the latest data available established by the United Nations, the number of international migrants residing in developing countries went from 43.15 to 86.23 million people between 1960 and 2010, i.e. 1.5 % of the population of these countries and 40.3 % of the world migrant population (UNO, 2008).

described as “volunteer” or “chosen” while the second case can be qualified of “forced” migration. The difference in nature of the migration can then lead to different behaviors as regards remittances. This field is to date little exploited. Thirdly, these research efforts are justified by the fact that remittances are not without consequences on the economy and the welfare of the population on the receiving end.

As richest country of the continent South Africa attracts many migrants in search of economic opportunities. It is also a destination of choice for migrants seeking economic or political safety. Before reaching the democracy South Africa knew a period of strong racial segregation, the apartheid, with regard to the black and migrant populations (1946-1991). From the middle of the 20th century political changes resulted in modifications of the migratory policy and composition of flows of migrants. Whereas the racist criteria dominated the migratory policy under apartheid, today it aims at satisfying the qualified labor needs of the country. As a consequence of the evolution of the migratory policy, flows of migrants changed to the detriment of white populations and in favor of black and Asian populations, refugees and illegal migrants (Wa Kabwe-Segatti and Landau (2008), Kok, Gelderblom, Oucho, J.O. and Van Zyl (2006), Maharaj (2004)). Attracting the migrants of the continent for already several decades and even more since the first democratic elections in 1994⁸, South Africa is an interesting country to study the behavior of the migrants as regards South-South remittances. Moreover this country gives us the opportunity of studying the existence or not of differences in behavior as regards remittances according to the status of the migrant (“economic” versus “forced”) and according to the political regime in the host country.

With data on 639 African migrants residing in Johannesburg this paper aims to answer the following questions. Which are the determinants of international remittances in the case of migrations between Sub-Saharan African countries and South Africa? Does the fact of having fled the country of origin under constraint impact the behavior of the migrants? Lastly does the nature of the political regime in the host country affect the behavior of the migrants as regards remittances?

Section 2 presents the theoretical and empirical literature concerning the determinants of remittances by distinguishing the differences in behavior according to the status of the migrants, forced or volunteer. Section 3 describes the survey used to inform the characteristics of the migrants and the transfers realized. Section 4 proposes an estimate of the determinants of the probability of transferring and transferred amounts. The role of the political and historical variables is identified independently of the traditional variables influencing the behavior of the migrants as regards remittances. Lastly section 5 concludes.

⁸ « It is true that despite the numerous problems that face the majority of Blacks in South Africa, for Africans from other parts of the continent, the country is perceived as being the land of increased economic opportunities and hope, especially after the 1994 elections » (Maharaj, 2004).

2. Migrations and Remittances in a South-South context: the lessons of the economic literature.

Well documented the literature relating to remittances of “economic” migrants is rich and covers a relatively broad field. On the contrary few studies deal with remittances in the case of “forced” migration (Fagen (2006), Lindley (2007b), Van Hear, Brubaker and Bessa (2009)). And to date we don’t know any study which analyzes the impact of political change in the host country on remittances.

According to the classical theory and the New Economics of Labor Migration (NELM) migration and remittances are a desired strategy of maximization or diversification of incomes. However in the typical case of forced migrations the migrants mainly leave their country to save their life and to find more safety elsewhere. But nothing prevents them to become thereafter economic migrants and to remit. It is what Lindley (2008) calls the “post-hoc strategy”. The latter is made possible by the fact that even if individuals are forced to leave their country of origin, they generally have more choice with regard to the host country. The choice can be motivated by economic, social and/or political considerations⁹. Forced migration can thus be mixed (combination of constraint and choice) (Van Hear and Al, 2009). Consequently it is very difficult to distinguish between forced and volunteer migrants.

Taking into account these difficulties of differentiation but also the potential similarities between the behavior of the economic migrants and the refugees, the motivations to remit highlighted by the literature on labor migrations seem to apply to the typical case of “forced” migrations. However these motivations can’t be applied without taking into account the specificity and the complexity of the context in which these displacements take place. Specific conditions of reception in the host country and the unstable and uncertain situation in the country of origin are likely to affect the behavior of the migrants as regards remittances.

According to the classical theory and the NELM remittances would be explained by the altruism of the migrant (pure or tempered), by his/her self interest (exchange, investment, inheritance), by the will of the family to insure itself against risks (in particular the risk of income), by the existence of an informal contract between the migrant and his/her family (refunding of a loan) or by a combination of these motivations¹⁰.

The assumption of pure altruism postulates that the migrant sends money to his family in order to help it without expecting counterpart in return. However the altruism is seldom the single reason for the transfer. It is what Lucas and Stark (1985) call the “tempered altruism”.

⁹ A study conducted by Lindley in the United Kingdom (2007a) establishes that during the crisis which affected Somalia at the end of the Eighties and in the middle of the Nineties, many movements of population resulted in priority from the will of the migrants to escape violence and insecurity. The possibilities of carrying out money transfers did not enter in a decisive way in the decision to migrate. However many of these refugees finally sent money to their family.

¹⁰ See Docquier and Rapoport (2005) and Hagen-Zanker and Siegel (2007) for a detailed review of literature of the motivations to remit

The transfers can thus rise at the same time from the altruism of the migrant but also of his personal interest. The idea is that the migrant remits in order to buy services to his family, to invest in his country of origin or in order to make safe an inheritance¹¹.

Another reason highlighted by the literature is the existence of a more or less implicit contract between the migrant and his family. It is for example the case of remittances intended to refund a loan contracted in order to finance the migration. Another example of implicit arrangement is the idea according to which the parents invest in the education of their child (the future migrant) in the hope of receiving remittances in the future. Remittances would thus constitute the refunding of a past investment in the human capital of the migrant.

Lastly remittances could be explained by the will of the family to insure itself against risks (Gubert (2002), Kaufman and Lindauer (1986), Sana and Massey (2005), Lucas and Stark (1985), Niimi, Thai Pham and Reilly (2008)). In the presence of imperfect credit and insurance markets in the countries of origin, the families can decide to send abroad some of their members with the aim of receiving transfers of funds in the event of negative and unexpected shock of income (disease or drought for example). This reason seems particularly adapted to the case of the “forced” migrations. As Lindley (2008) underlines it a conflict or a natural disaster constitute an event causing a need for insurance:

“Migration and remitting may well be seen as form of insurance for people living in crisis-ridden settings. Conflict is in itself an insurance event – a time of trouble – when families pull together. Over the course of a protracted insecurity in the country of origin, conflict-induced migrants may respond to particular crises with (extra) assistance.”

Thus the climate of insecurity in the country of origin can lead the refugees to remit to minimize or compensate the loss of means of subsistence of its family. A study conducted in Somalia shows that money transfers of the refugees constitute an important mechanism of assistance to face the risk of income and that they are answers to crises undergone by the family (Lindley, 2007a).

The political regime in the host country can also affect the transfers of the migrants. Its impact is *a priori* ambiguous. On the one hand structural barriers can restrict the possibilities of access of the refugees to the job market, to education or to the social services (Lindley (2008), Riak Akuei (2005)). Or as for the economic migrants the income constitutes a key factor in the realization of remittances. Deprived of income refugees are limited in their capacity of transferring. The political regime in the host country can thus have a negative effect on the probability and the amounts of the transfers of the “forced” migrants. This negative effect is also possible if the policy in the host country allows family gatherings and thus reducing the needs of the transfer. On the other hand and taking into account their particular status, it can be easier for the refugees - compared to economic migrants - to reach official support and to profit from a particular help to find work. Their capacities and thus their probability to

¹¹ See Brown (1994, 1997), Cox, Eser and Jimenez (1998), Hoddinott (1994) or Secondi (1997).

transfer are then reinforced. In the typical case of South Africa the question of the impact of the political regime on remittances remains open. We can think that the political and economic evolutions of the country (end of apartheid, ratification of the Convention of the United Nations relating to the Refugees, reopening of the country on outside, will to contribute to the development of the African continent, progressive opening of the permanent residence to foreign workers, law favorable to the refugees, etc) are likely to support the remittances of the migrants. But the increasing stigmatization of the foreigner, the development of xenophobe feelings and fear of the local population towards the migrants, the interventions of the police as well as the infringements of the human rights are extremely likely to negatively impact the transfers of funds of the economic and “forced” migrants.

A last factor that can impact differently the behavior of the economic migrants and refugees is uncertainty of return in the country of origin. The refugees are often unable to say when the conflicts or the political instability in their country of origin will end. According to Lindley (2008) this uncertainty can influence money transfers in two different ways. It can result in continuous transfers because of the difficult situation prevailing in the country of origin (altruistic or insurance reason)¹². But it can also result in limited remittances as the refugees do not foresee any future positive prospects in their country.

In order to answer the questions raised in the introduction and in the literature, in particular with regard to the impact of political variables on remittances, an original database is used. It is presented in the following section.

3. Description of the MNAC survey.

In order to study the determinants of remittances in the case of migrations between developing countries, an original microeconomic database is used. Entitled “*Migration and the New African City: Citizenship, Transi, and Transnationalism* » (MNAC), this survey was conducted in 2006 by the University of the Witwatersrand (Johannesburg), in association with the French Institute of South Africa (IFAS) and the Boston Tufts University¹³. Never exploited from an economic point of view, this survey is particularly interesting for the study of remittances.

Objective and subjective information is documented through a questionnaire (i) the demographic profile of the migrant (age, sex, education, marital status, country of origin...); (ii) the conditions prevailing in the country of origin before the migration (reason of the migration, networks...); (iii) living conditions of the migrant during the migration like once arrived in South Africa (transport used, duration of stay, potential employment, expenses and incomes, amount and frequency of remittances, help received on arrival in South Africa...); (iv) a series of subjective variables such as migrants’ perceptions about the country’s

¹² Lindley (2007a) finds that the recipients interviewed perceive the same or higher amounts since they have received remittances.

¹³ More specifically, the survey was conducted in South Africa between the 23rd of January and the 22nd of June.

institutions, the political environment and their insertion in South Africa. Future expectations are also documented (deciding to stay or not permanently in the host country for instance).

3.1. Characteristics of the migrants.

Among the 847 migrants of the initial sample, 77.4% are international migrants (that is to say 656 migrants) and 22.6% are South-African internal migrants. As the purpose of the paper is to study the determinants of international remittances, South-African migrants were excluded from the sample¹⁴. Thus the sample we use consists of 639 international migrants. Among them 252 come from the Democratic Republic of Congo (DRC) (i.e. 39.4% of the sample), 202 come from Mozambique (31.6%) and 185 come from Somalia (29%) (Table 1). The majority of them say they are refugees or asylum seeker (62.6%). But only 48% of them have the official status of refugees.

This sample is not representative of the migrant population present in South Africa. In addition to the problems relating to the under-representativeness of the migrants in the official census data and to the chronic insecurity in South Africa, the non representativeness of our sample is explained by the fact that this database was initially created within the framework of the African Cities Project (ACP). This last aims at studying the refugees in various cities of the African continent¹⁵. But contrary to the other studied cities, the objective in the town of Johannesburg was to inquire a given number of migrants (and not a random sample) divided into two groups: a group of 600 Somali, Mozambican and Congolese migrants and a group of control made up of 200 South-African internal migrants. The investigation was intended to support research relating to the phenomena of transit in Southern, Central and East Africa and on integration of migrants in the towns of reception in the continent. The countries were thus selected not for their potential migratory links but because of their geographical location¹⁶. These selection criteria explain why there is no Zimbabwean migrant in the sample whereas they are many in South Africa.

The migrants of the sample are mainly men (63.2%) and relatively young. Men are historically more inclined to migrate than women. The main reason is because they were the only ones officially recruited, notably in the mining sector. It appears nevertheless that the percentage of migrant women is not negligible (36.6%).

About five migrants out of ten are between 18 and 30 years old, and four migrants out of ten are between 31 and 40. The average age amounts to 31 years old. The recent arrival of the majority of the migrants explains their relatively young character. Nearly six migrants out of ten arrived to South Africa less than five years ago, i.e. since 2001. On the other hand, 27.5%

¹⁴ Fifteen people are also been excluded because they were interviewed by mistake during the survey. Another migrant is been excluded because he remitted within the host country. Lastly in order to have a homogenous sample of adults, we chose to drop the international migrant under 18 years old.

¹⁵ That is to say Johannesburg (South Africa), Maputo (capital of Mozambique), Nairobi (capital of Kenya) and Lubumbashi (second town of Democratic Republic of Congo after the capital Kinshasa).

¹⁶ Information about the migratory situation and remittances for South Africa, Democratic Republic of Congo, Mozambique and Somalia are presented in annex C.

of the migrants have been in South Africa from five to ten years, and 13.8% for more than ten years. Thus most migrants (87.17%) arrived to South Africa after 1994, year marking the advent of the democracy in this country.

Table 1: Characteristics of the migrants

| | Total | Remitting migrants |
|--|--------|--------------------|
| Congolese (%) | 39.44 | 28.72 |
| Mozambicans (%) | 31.61 | 35.64 |
| Somalis (%) | 28.95 | 35.64 |
| Men(%) | 63.22 | 72.66 |
| Mean age (years) | 31.23 | 32.35 |
| Without education (%) | 7.28 | 7.69 |
| Primary education (%) | 20.92 | 21.33 |
| Secondary education (%) | 47.39 | 48.95 |
| Tertiary education (%) | 24.41 | 22.03 |
| Married or live together (%) | 49.61 | 44.98 |
| Number of children | 1.66 | 1.87 |
| Refugee (%) | 48 | 58.38 |
| Size of the household in the host country | 3.48 | 3.28 |
| Mean income of the migrant (rands) | 24 858 | 39 397* |
| Median income of the migrant (rands) | 18 186 | 33 774* |
| Mean income of the migrant's household in the host country (rands) | 47 703 | 58 626* |
| Median income of the migrant's household in the host country (rands) | 33 774 | 49 362* |
| Still family in country of origin (%) | 94.14 | 98.27 |

Source: MNAC and calculations of the authors

*This calculation is made by only retaining migrants who remit and have a positive personal income or if necessary, who belong to households earning an income in the host country.

Nearly half of the migrants are married or live together (49.6 %), 43.7 % are single and 6.7 % are divorced or widowers / widows. Four migrants out of ten do not have children. Among the migrants who have children, 73.6% have at least three children, 22.7% have between four and seven children and only 3.7% more than seven children. The South African tend to present the same features as the fertility rate of South Africa rising on average with 2.6 children per woman in 2006¹⁷. On average, the migrants belong to households made up of three to four people (migrant included) in the host country¹⁸. In addition, 53% of the migrants result from a household of origin including at least another migrant.

¹⁷ World Bank 2010: <http://data.worldbank.org/topic/health>.

¹⁸ As comparison their household in their country of origin before the migration were composed between 8 and 9 people on average (migrant included).

In terms of educational skills, most migrants are educated, especially the Congolese migrants: 44% of Congolese migrants achieved at least the tertiary education level against only 10% of Mozambicans and 13.5% of Somalis. Only 7.3% of migrants do not have any educational skill whereas 20.9% achieved a primary education level, 47.4% achieved the secondary level of education, and 24.4% a tertiary level¹⁹. However, and despite their relatively high level of education, the majority of migrants do not have any income or earn very little: 24.4% of them do not have an income, 27.1% earn less than R500 per week (74 dollars) and 24.9% between R500 and R1 500 (between 74 and 222 dollars)²⁰. On the contrary only 1.4% earn between R1 500 and R2 000 per week and 3.2% earn at least R2 000 (295 dollars). On average, the annual income of migrants who declare an income came to R24 858²¹.

Another picture emerges when we focus on migrants' perceptions of their wealth. Despite their low income, 65% of migrants think they receive a higher income in South Africa than in their country of origin before the migration. Similarly, 89% think they will enjoy better living conditions than their parents. And two third of the migrants think that they are as rich as or richer than their neighbour in South Africa.

Concerning the attachment feeling to the country of origin, almost all migrants have family in the country of origin (93.3%), essentially siblings, parents, cousins, uncles and aunts. This objective familial link with their country of origin seems to be accompanied by a more subjective attachment feeling, as 89% of migrants said they are willing to fight to defend their country of origin and 71% said they follow the political affairs of their country.

Lastly it seems that pull and push factors explain the migration to South Africa²²: 57.5% of migrants left their country of origin because of violence, conflict or persecutions. 18.9% chose South Africa as destination country in order to avoid violence and 55.5% to benefit from economic or educational opportunities.

On the whole and at first sight, the migrants of the sample are generally men, rather young, arrived recently in South Africa and having a low level of income in spite of their relatively high level of education. They are mainly in family with a number of children lower than four. Most of them have still family in their country of origin and migrated to flee violence or conflict.

¹⁹ The sums of the percentage are not always equal to 100% because of the people who refused to answer the question or who didn't know.

²⁰ In 2006 the exchange rate was R1 for USD 0.1477 (Source: FMI).

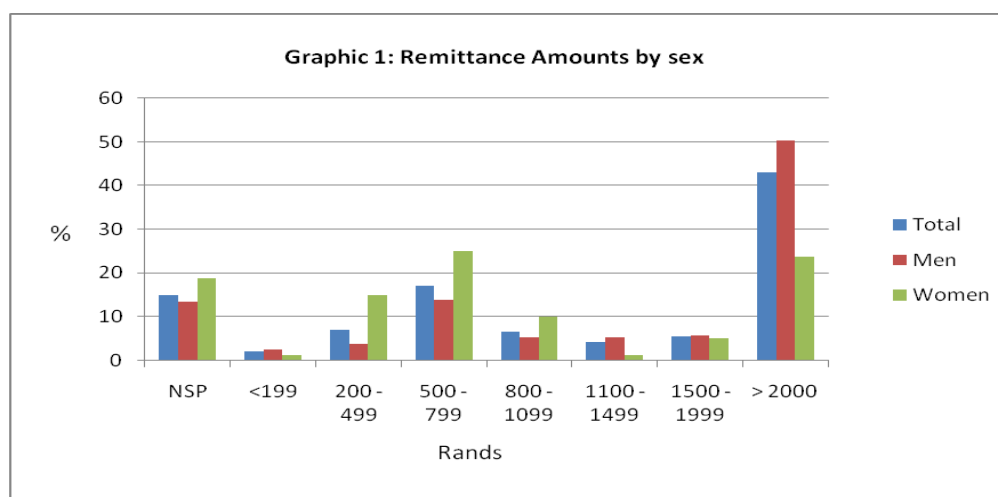
²¹ Migrants' annual income is calculated on the basis of their weekly income. In the database, weekly income was sorted out by class. We used the central value of the class to transform discrete variables into continuous variables. We then calculated his/her annual income by multiplying the weekly income by the number of weeks in a month (i.e. 4.33) and by the number of months in a year (i.e. 12). Lastly, we did the mean of all individual annual incomes to obtain the annual average income of the migrants.

²² Pull factors are the positive factors of a host country and attract migrants (e.g. dynamic economy). On the other hand, push factors refer to the country of origin of migrants. They are the negative conditions which predominate in the country and push people to emigrate (e.g. poverty or unemployment).

3.2. Characteristics of the remittances.

About half of the migrants of the sample have sent money to their country of origin. However differences appear according to the sexes: Half of the men (52.4%) of the men against only a little more than one third of the women (33.8%). And differences also appear according to the legal status. 49.2% of the “economic” migrants, i.e. who are not defined as refugees or asylum-seekers, already transferred money while among the “forced” migrants (refugee or asylum-seekers), the image is more moderate. 52.6% of the migrants who have the official status of refugees already remitted against only 34.8% of the asylum-seekers, who by definition do not have the official status of refugees.

Transferred amounts tend to be relatively high. 42.9 % of transfers amount to more than R2 000 whereas only 2 % of transfers do not exceed R199²³. Men tend to transfer higher amounts than women (Graphic 1).



Source: MNAC survey and calculations of the authors.

Migrants seem to have slightly different behaviours according to their origin. It seems that Somali migrants transfer higher amounts, i.e. more than R2000 per year, while Congolese migrants are more likely to remit between R200 and R799²⁴.

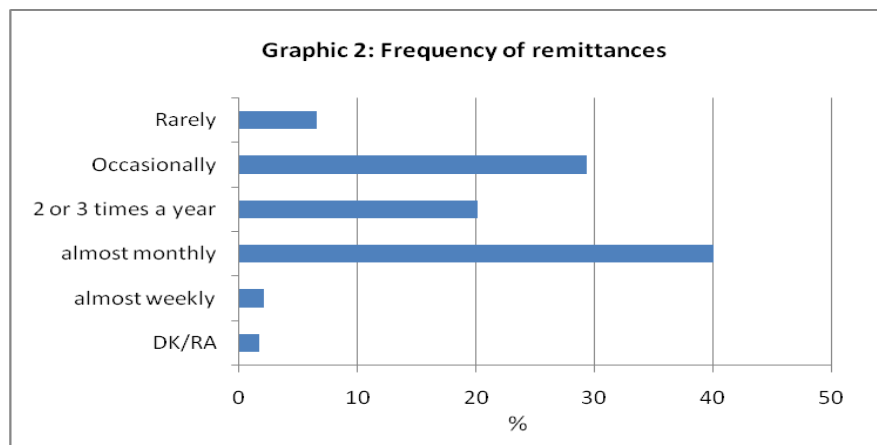
On average, migrants transfer R1556 per year, i.e. 4% of their average annual income. When considering the average annual income of a household in the host country instead of that of the migrant, the part of the remittances amounts to 2.7%²⁵.

Migrants tend to remit regularly. 40.1% of them send money almost every month, whereas only 6.6% declare to remit rarely (Graphic 2).

²³ Percentages calculations taking into account people who did not want to answer the question.

²⁴ 65% of Somali migrants remit more than R2 000 per year against 36.3% of the Mozambican and 23.8% of the Congolese migrants. But 42.9% of Congolese migrants remit between R200 and R799 against 17.6% of Mozambican and 14.6% of Somali migrants.

²⁵ These figures must be interpreted with caution because of the limits of calculation method used to estimate the percentage of transfers in migrants' income (homogenous income hypothesis by class of income, abstraction of seasonal volatility etc.).



Source: MNAC survey

Migrants remit essentially to their family. A little more than half of migrants remit to their parents and siblings still in the country of origin (56.2%).

To send money, migrants first use informal channels. Besides resorting to remittance organisations, they also remit through their friends or family members. Few of them use commercial banks or other organisations such as Western Union or Money Gram.

If these statistics give a first idea of the way in which the migrants residing in Johannesburg remit, a deeper econometric analysis is necessary to validate or not these results.

4. Who are the remitting migrants and how much do they remit?

The aim is to analyze the role of political and historical variables in the behavior of the migrants residing in South Africa as regard remittances. In which measure the end of the apartheid and the political conditions in the country of origin before the migration influence the transfers independently of the individual characteristics of the migrants?

Since not all migrants actually remit we cannot use an estimation calculated by Ordinary Least Squares (OLS). The existence of censored values would lead to biased estimations. The Heckman approach (1979) is thus used to correct a potential selection skew of the sample. In a first stage the characteristics of the migrants who remit are identified. In a second stage the reasons for which the transferred amounts differ from a migrant to another are analyzed.

4.1. The estimated model.

The form of the tested equation is the following:

$$y_i = \alpha x_i + \varepsilon_i$$

with y_i measuring the amounts transferred by the migrant i ,
 x_i , a vector of individual characteristics including political and historical variables,
 ε_i , the term of errors.

As not all the migrants remit the dependant variable is not always observed. The dependant variable for the observation i is observed if:

$$z_i\gamma + \beta_i > 0 \text{ (selection equation)}$$

$$\text{with } \varepsilon \approx N(0, \sigma)$$

$$\beta \approx N(0,1)$$

$$\text{corr}(\varepsilon, \beta) = \rho$$

When $\rho \neq 0$, the estimate of the first regression by the OLS induces skewed results as we suppose that the migrants who remit do not constitute a random sample of the whole migrants but show specific characteristics. The Heckman approach (1979) then makes it possible to obtain estimates asymptotically efficient for all the parameters of such a model.

The variables specified in the equation of selection allow determining if the dependant variable (y) is observed. The model estimated is thus:

$$y_i = \alpha x_i + \varepsilon_i$$

With the assumption that y is observed if $z_i\gamma + \beta_i > 0$, where ε and β have a correlation ρ .

In other words it means that y is observed if the probability of transferring is positive.

4.2. The results.

The model 1 (tables 2a and 2b) analyzes the impact of objective variables linked to the size of the household in the host country and to the presence or not of family in the country of origin. The traditional objective variables as income, level of education, age, sex, nationality, etc. are also taken into account. Furthermore the model explicitly introduces the impact of some political variables as the migrant's condition of leaving (war, conflict, persecutions, etc.) and the date of arrival in South Africa (before or after the political change, i.e. the end of apartheid).

The model 2 (tables 2a and 2b) focuses on the effect of subjective variables on the migrant's behavior as regard remittances by introducing his/her perception of income and their attachment feeling to his/her country of origin. Attachment is approximated by a combination of two variables: i) to follow the political affairs of the country of origin and ii) to be willing to fight to defend the country of origin.

As noted by Bertrand and Mullainathan (2001), results from a large experimental literature by and large support economists' skepticism regarding subjective questions. Indeed, in an econometric framework, these findings cast serious doubt on attempts to use subjective data as dependent variables, as the measurement error appears to be correlated with a wide array of characteristics and behaviors. This would be a rather pessimistic conclusion if limited to those

applications which would use this data as dependent variables. However, according to the same authors, this data may be useful as explanatory variables. This is the case in the present paper where attachment variables, i.e. “to follow political affairs of the country of origin”, “to be proud to be a citizen of the country of origin” are used as independent variables.

Table 2a: Transferred amounts corrected from the selection skew (Heckman approach).

| Selection : Remit (Yes/No) | Model 1 | Model 2 |
|--|-----------------|-----------------|
| Constant | -4.64*** (1.26) | -4.62*** (1.38) |
| Country of origin : | | |
| Somalia | 0.53** (0.23) | 0.70*** (0.25) |
| Mozambique | -0.31 (0.27) | -0.36 (0.29) |
| DRC | Ref | Ref |
| Ln(household’s income) | 0.35*** (0.10) | 0.28** (0.12) |
| Size of the household | -0.5** (0.22) | -0.48* (0.25) |
| Age of the migrant : | | |
| 18-31 years old | Ref | Ref |
| 31-40 years old | 0.44 *** (0.17) | 0.48*** (0.18) |
| > 40 years old | -0.07 (0.29) | -0.002 (0.32) |
| Man | 0.62*** (0.17) | 0.76*** (0.19) |
| Level of education of the migrant : | | |
| Without formal education | Ref | Ref |
| Primary education | -0.37 (0.34) | -0.43 (0.42) |
| Secondary education | -0.22 (0.33) | -0.39 (0.40) |
| Tertiary education | -0.36 (0.35) | -0.67 (0.43) |
| Arrived in South Africa after 1994 | 0.52* (0.30) | 0.61* (0.32) |
| Condition of violence before the migration | -0.51** (0.20) | -0.35* (0.21) |
| Still family members in country of origin | 1.01*** (0.31) | 0.76** (0.36) |
| Other migrant in origin household | -0.30* (0.17) | -0.21 (0.18) |
| Attachment | | -0.17 (0.18) |
| Perceptions of the wealth (Yes/No) | | |
| - Economic situation of the migrant better than this of his/her neighbors | | 0.40** (0.20) |
| - Future living conditions of the migrant better than those of his/her parents | | 0.63** (0.27) |

Source: MNAC survey and calculations of the authors.

Note: Ref = reference variable.

Threshold of significance: *** 1%, **5%, * 10%. The standard errors are given into brackets.

Table 2b: Transferred amounts corrected from the selection skew (Heckman approach).

| Transferred Amounts | Model 1 | Model 2 |
|--|--------------------|--------------------|
| Constant | -1916.74 (1716.61) | -2628.56 (1652.39) |
| Country of origin : | | |
| Somalia | 535.42*** (150.74) | 565.44*** (188.07) |
| Mozambique | 617.16*** (156.26) | 672.95*** (154.83) |
| DRC | Ref | Ref |
| Ln(household's income) | 262.38*** (99.01) | 268.48*** (88.01) |
| Size of the household | -263.11* (154.85) | -331.70** (152.89) |
| Age of the migrant : | | |
| 18-31 years old | Ref | Ref |
| 31-40 years old | -33.44 (127.21) | -46.40 (123.35) |
| > 40 years old | 380.26* (197.03) | 345.99* (197.49) |
| Man | 333.98** (161.20) | 368.26* (197.95) |
| Arrived in South Africa after 1994 | 120.19 (262.15) | 255.54 (264.27) |
| Still family members in country of origin | 233.43 (442.83) | 418.86 (390.00) |
| Other migrant in the origin household | 25.75 (116.25) | 12.23 (107.17) |
| Attachment | | 69.71 (121.53) |
| Perceptions of the wealth (Yes/No) | | |
| - Economic situation of the migrant better than this of his/her neighbors | | 211.15 (147.13) |
| - Future living conditions of the migrant better than those of his/her parents | | 27.41 (211.34) |
| Selection Ratio | -152.80 (362.18) | 18.76 (387.91) |
| Number of observations | 347 | 314 |

Source: MNAC survey and calculations of the authors.

Note: Ref = reference variable.

Threshold of significance: *** 1%, **5%, * 10%. The standard errors are given into brackets.

Contrary to Mozambicans, Somalis have a higher probability to remit than Congolese migrants (*extensive margin*) (table 2a). The descriptive statistics show that 56% of Somali migrants remit against only 33% of the Congolese. However in terms of transferred amounts (*intensive margin*) Somali and Mozambican migrants remit more than Congolese migrants (table 2b). According to Lindley (2007a and 2008) in a country characterized by a strong insecurity like Somalia, remittances made by refugees constitute an important mechanism of insurance to face the risk of loss of income or the shocks undergone by the family members still in Somalia.

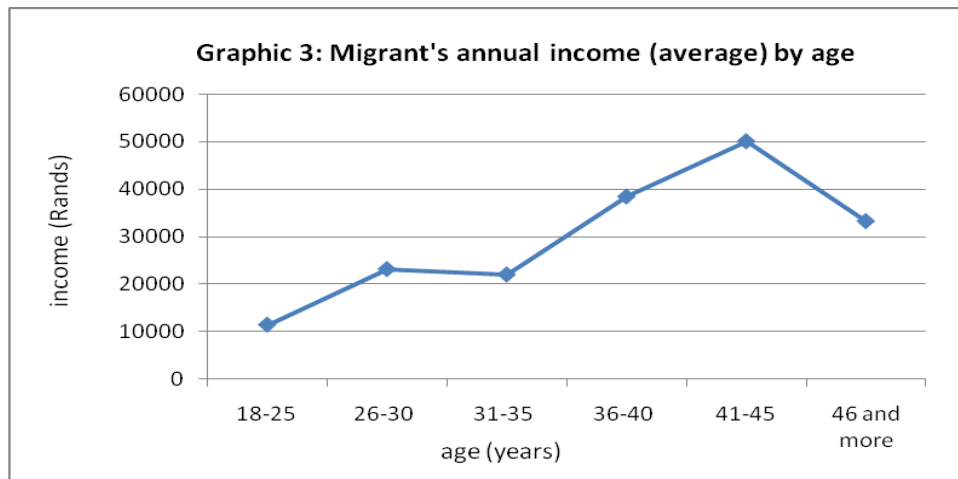
In accordance with the theoretical predictions the probability of transferring and transferred amounts increase significantly with the level of income of the migrant.

In the same way and as expected the size of the household in the host country influences negatively and significantly the probability of the transfer and the transferred amounts. Given the income of the migrant's household, the larger the household is and less the migrant will be willing to remit. A possible explication is that the migrant anticipates future expenditure, expenditure of education and health of the children for example, which leads him/her today to give up the transfer (extensive margin). Moreover the larger the household of the migrant is in the host country, the higher the daily expenditure is and thus the less the migrant can remit high amounts (intensive margin).

As the men are mainly heads of household in the sample (73% are primary wage earners against only 30% of the women) they have at the same time a stronger probability of transferring and remit higher amounts than the women.

The age variable presents differentiated results. The thirty years old migrants present a probability of sending money abroad stronger than the migrants under 31 years old (and than the migrants older than 40 years old). One can think that the thirty years old face heavier social constraints than the others. For example the migrants who had to borrow from their families to finance their migration and their installation in South Africa have to refund. This constraint can be spread out on a relatively long period. The migrants do not refund their debts immediately but wait to have an employment and an income. In fact one third of the thirty years old have migrated since five to ten years (against 21% which migrated during the two last years). The fact that their income is weaker than the income of the forty years old (graph 3) doesn't impact their probability of transferring. On the other hand the migrants old of forty and more remit significantly higher amounts because of their higher incomes.

The following graphic represents the evolution of the average income of the migrants according to their age. This income increases with the age until 45 years old and then decreases.



Source: MNAC survey and calculations of the authors.

Concerning the level of education of the migrants, the estimates show that the level of education of the migrants does not affect their probability of transferring. In fact the literature on the question is ambiguous. On the one hand and according to the human capital theory, educated migrants have a stronger probability of transferring not only because they should perceive a higher income but also because they were potentially involved in debt with their families (to finance their education), or because they have weaker probability of being clandestine and thus present a higher probability to have a bank account for example (Bollard and Al, 2009). On the other hand the most educated can be less inclined to remit for several reasons. First they can have migrated with their whole household. Second they are likely to come from relatively rich households which less needs remittances that an average household. Lastly they can be better integrated in the host country and thus they can have relatively weaker intention to return in their country than migrants less educated.

As expected, the presence of family members in the country of origin influences positively and significantly the probability of the transfer. It is in particular the fact of having children in the country of origin that impacts the decision to remit²⁶. On the other hand the fact of having family in the country of origin does not impact the transferred amounts.

The presence of at least another migrant in the household of origin has a negative and significant effect on the probability of transferring. But it does not have any influence on the transferred amounts. The negative impact on the probability of the transfer can be explained by the fact that the support for the family does not fall to only one person but is distributed between several individuals. Then the implicit obligation to transfer is less strong, which can reduce the migrant's will to remit and consequently the probability of the transfer.

²⁶ The authors carried out another estimate breaking up the family ties with the country of origin and showing this result. The estimate presented in this paper (tables 2) understands only the variable "to have family in the country of origin" which is positive and significant. This aggregate variable makes it possible to take into account all those which have family in the country of origin compared to those which do not have any at all. The taking into account of the only variable "To have children" is indeed likely to lead to the confusion of the migrants who have family other than the children with those which do not have any at all.

The traditional variables studied it is now question to verify the role of political context variables of the countries of origin and of destination before and after the migration.

According the variable “violent conditions of departure”, the migrants who left their country in violent conditions (war, conflict) have a weaker probability of transferring²⁷. Several assumptions of interpretation can be advanced. First the migrants who left their country in such a context can be seem as “forced migrants” or refugees who are likely to break the emotional links they have with their country of origin. Furthermore even if family ties are controlled this weaker probability can also be explained by the potential loss of very close relatives during the conflict in the country of origin, which would result in breaking the link with the family maintained through remittances (Lindley, 2008). Lastly, the fact of stating to have family in the country of origin does not mean that the migrants did not lose the physical contact with the family members still in their country. Young (2006) shows that the means of communication were disturbed and that it could be difficult, if not impossible, for the migrants to locate their moved family after the crisis of 2003 in Darfur.

The second political variable relates to the regime change in South Africa. The migrants who arrived after 1994 in a post apartheid context have a significant higher probability of transferring. This can be explained by the fact that the opening of the country enhanced its attractiveness to the potential migrants (growth recovery in the Nineties, accession of South Africa with the SADC (Southern Africa Development Community) in 1994) and larger possibilities of mobility of goods and people, which support the behavior of transfer (Maharaj, 2004; Crush and Williams, 2010).

Consequently and based on the above, the political context in the country of origin before the migration and in the host country after the migrant’s installation is determining. The migrants with a greater probability of transferring are also those that arrived in South Africa after the apartheid regime and that did not emigrate because of political and/or ethnic violence or conflict in their country of origin. On the other hand, the analysis of the marginal effects shows that the positive effect of being arrived in South Africa after 1994 on the probability of remitting is perfectly compensated by the negative effect of having fled the country of origin because of violence.

To complete this analysis it is necessary to introduce the role of subjective variables, i.e. the attachment of the migrants to their country of origin and their perception of their wealth, in the decision to remit. The attachment is approximated by the fact of following the political affairs of the country of origin and being ready to fight to defend the country of origin.

The income of the migrants is also measured by subjective variables. Perceptions of wealth are also used. The facts that the migrants think they are richer than their neighbors in the host

²⁷ We use the variable “violence” only in the probability of the transfer because we can think that once the decision of remitting is taken, it is more the current situation in the country of origin (capture by the dummy country of origin) than the conditions of leaving that influence the transferred amounts.

country and/or that they will have better living conditions than their parents are introduced in the model. It is a way to study the impact of the relative wealth of the migrants on the probability of transferring and on the transferred amounts.

Results are presented in the model 2, tables 2a and 2b. The variable of attachment is neither significant with regards to the probability of transferring nor to the transferred amounts. In the context of migration from unstable countries and countries inclined to violence, answers to questions aimed at gauging attachment indicate cognitive dissonance and suggest that attachment is not a discriminating variable. Indeed, 89% of the surveyed individuals say that they are willing to fight to defend their country of origin, 71% that they follow the political affairs of their country and 63% of the migrants follow the political affairs of their country and are willing to fight to defend it. These rates are high while more than half of the migrants left their country because of violence and conflict. The variable used as proxy of attachment concerns two thirds of the sample and thus, unlike political variables, doesn't discriminate the behavior of the migrants as regard remittances.

Concerning the migrant's income, the objective variable (logarithm of the income of the household of the migrant) is positive and significant in both models. Two subjective variables are added. They allow capturing the feeling of the migrants relating to their standard of living and to their relative wealth. Only the variable relating to the perception of the migrants concerning their living conditions compared to these of their parents impacts significantly and positively the probability of the transfer. Controlling for income, the more the migrants anticipate better living conditions compared to their parents, the higher their probability of transferring. On the other hand, the fact of feeling richer than the neighbors in the host country doesn't have any influence on the probability of transferring. A potential explanation is that the probability of the transfer depends more on the family's needs in the country of origin than on the feeling of relative wealth of the migrants in the host country. The migrants can thus decide to remit even if they don't feel richer than their neighbors in the host country but because they think that they will have better living conditions than their parents. This result seems to validate theoretical approaches positing altruistic motives²⁸. Lastly, none of these variables of perception influence the transferred amounts.

To sum up the thirty years old migrants, in particular the Somalis males, members of households of reduced size, with high income and which have family ties in their country of origin are more inclined to remit. Among those who transfer, the Somali and Mozambican migrants older than 40 years and whose income is relatively higher remit more important amounts. Moreover the political change in South Africa has a positive influence on the probability of transferring (but not on the transferred amounts). On the other hand, the existence of violence or conflicts in the country of origin before the migration reduces the

²⁸ To completely test the altruistic reason as determinant of remittances, it is necessary to have the income of the recipient family in the country of origin. It is not the case here. However the tested variable is of subjective nature in terms of migrant's level of wealth perception compared to this of his/her family in the country of origin.

probability of the transfer. These results can be considered as robust because most of the variables remain significant in both models.

5. Conclusion.

In this paper the emphasis is put on the impact of political variables on remittances in the case on South-South migrations. The use of an original survey conducted in South Africa and relating to African migrants (Democratic Republic of Congo, Somalia, Mozambique) residing in Johannesburg makes it possible to highlight the positive impact of the regime change in South Africa (end of the apartheid) on the probability of the transfer. On the side of the origin countries of the migrants, the result shows that political instability at the time of the departure impacts negatively and significantly the probability of transferring of the migrants. The fact of having left its country for reasons of violence or conflicts results in a negative relation to the country of origin in terms of remittances. The fact of having migrated because of violence expresses in reality the refugee status of the migrant or the forced characteristic of the migration. On the other hand, voluntary departures can integrate the objective to remit.

However the political variables don't impact the transferred amounts. They influence the type of relation that the migrants have with their country of origin through the probability of transferring or not. But since the migrants decided to remit, transferred amounts will be more determined by the traditional objective factors: income, education, duration of stay....

Among the migrants who remit and compared to the Congolese migrants, Somalis have the highest probability of transferring. The income of the migrants and the perception of a higher level of wealth compared to his/her parents in the country of origin explain this. Refugees and asylum seekers don't face the same environment than economic and legal migrants in the host country with differential consequences on their remittance behavior. A deeper analysis of the impact of the laws on the status of migrants in the host country is needed for a fuller understanding of migrants' remittance behavior.

6. Bibliography.

Bakewell, O. and de Haas, H. (2007), *African Migration: continuities, discontinuities and recent transformations*, in Patrick Chabal, Ulf Engel and Leo de Haan (eds) *African Alternatives*. Leiden: Brill: 95-118.

Bollard, A., McKenzie D., Morten, M. and Rapoport, H., (2009) *Remittances and the Brain Drain Revisited: The Microdata Show that More Educated Migrants Remit More*, Mimeo. The World Bank.

Brown, R.P.C. (1994), *Migrants' remittance, savings and investment in the South Pacific*, *International Labour Review*, Vol. 133, No. 3, pp. 347-367.

Brown, R. P. C. (1997), *Estimating Remittance Functions for Pacific Island Migrants*, *World Development*, Vol. 25, No. 4, pp. 613-626.

- Cox, D., Eser, Z. and Jimenez, E. (1998), *Motives for private transfers over the life cycle: An Analytical Framework and Evidence for Peru*, Journal of Development Economics, 55 (February), p. 57-80.
- Fagen, P. W. and Bump M.N. (2006), *Remittances in Conflict and Crises: How Remittances Sustain Livelihoods in War, Crises, and Transitions to Peace*, Policy Paper, New York: International Peace Academy, February.
- Hagen-Zanker, J. and Siegel, M. (2007), *The determinants of remittances: A review of the literature*, Maastricht Graduate School of Governance, Working Paper, MGSOG/2007/WP003, June.
- Hoddinott, J. (1994), *A model of Migration and Remittances applied to Western Kenya*, Oxford Economic Papers, Vol. 46, pp. 459-476.
- Gubert, F. (2002), *Do Migrants Insure Those who Stay Behind? Evidence from Kayes Area (Western Mali)*, Oxford Development Studies, Vol. 39, No. 3, pp. 267-287.
- Kaufmann, D. and Lindauer, D.L. (1986), *A Model of Income Transfers for the Urban Poor*, Journal of Development Economics, Vol. 22, pp. 337-350.
- Kok, P., Gelderblom, D., Ouchou, J.O. and Van Zyl, V. (2006), *Migration in South and Southern Africa: Dynamics and Determinants*, HSRC Press, www.hsrcpress.ac.za.
- Lindley, A. (2007a), *Remittances in Fragile Settings: a Somali Case Study*, HICN Working Paper No. 27, Household in Conflict Network, March.
- Lindley, A. (2007b), *Protracted displacement and remittances: the view from Eastleigh, Nairobi*, New Issues in Refugee research, UNHCR Policy Development and Evaluation Service, Research Paper No. 143, August.
- Lindley, A. (2008), *Conflict-Induced Migration and Remittances: Exploring Conceptual Frameworks*, Refugee Studies Centre, Oxford Department of International Development, Working paper series No. 47, May.
- Lucas, R. E. B. and Stark O. (1985), *Motivations to Remit: Evidence from Botswana*, Journal of Political Economy, Vol. 93, No. 5, pp. 901-918.
- Maharaj, B. (2004), *Immigration to post-apartheid South Africa*, Global Migration Perspectives, No. 1, June.
- Naudé, W. (2008), *Conflict, Disasters, and no Jobs. Reasons for International Migration from Sud-Saharan Africa*, World Institute for Development Economics Research United Nation University, Research Paper No. 2008/85, October.
- Niimi, Y., Pham Thai, H. and Reilly, B. (2008), *Determinants of Remittances: Recent Evidence Using Data on Internal Migrants in Vietnam*, World Bank, Policy Research Working Paper 4586, april.

- UNO (2008), *International Migrant Stock, The 2008 Revision*, <http://esa.un.org/migration>
- Rapoport, H. and Docquier, F. (2006), *The Economics of Migrants' Remittances*, Chapter 17 in S.C Kolm and J. Mercier Ythier (eds.), *Handbook on the Economics of Giving, Reciprocity and Altruism*, vol. 1, pp 1135-1198, Elsevier.
- Ratha, D. and Shaw, W. (2008), *South – South Migration and Remittances*, World Bank Development Prospects Group Working Paper No. 102.
- Ratha, D., Mohapatra, S. and Silwal, A. (2009), *Outlook for Remittance Flows 2009-2011: Remittances expected to fall by 7-10 percent in 2009*, Migration and Development Brief 10, World Bank, 23 July 2009.
- Riak Akuei, A. (2005), *Remittances as unforeseen burdens: the livelihoods and social obligations of Sudanese refugees*, Global Commission On International Migration (GCIM), Global Migration Perspectives, No. 18, January.
- Sana, M. and Massey, D.S. (2005), *Household Composition, Family Migration, and Community Context: Migrant Remittances in Four Countries*, *Social Science Quarterly*, Vol. 86, No. 2, pp. 509 – 528.
- Secondi, G. (1997), *Private Monetary Transfers in Rural China: Are Families Altruistic?* , *Journal of Development Studies*, 33(4), p. 487-511.
- Turton, D. (2003), *Conceptualising Forced Migration*, Refugee Studies Centre, Oxford University, Working Paper No.12, October.
- UNDP (2007), *Regional Consultation on Migration, Remittances and Development in Africa, Final Report*, 4-5 September 2007, Accra, Ghana.
- UNHCR (2009), *2008 Global Trends: Refugees, Asylum-seekers, Returnees, Internally Displaced and Stateless Persons*.
- Van Hear N., Brubaker R. and Bessa T. (2009), *Managing Mobility for Human Development: The Growing Salience of Mixed Migration*, United Nations Development Programme, Human Development Reports, Research Paper, April.
- Wa Kabwe-Segatti, A. and Landau, L. (2008), *Migration in post apartheid South Africa: Challenges and questions to policy makers*, Agence Française de développement.
- World Bank (2010),
<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contntMDK:21352016~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>
- Young, H. (2006), *Livelihoods, migration and remittances flows in times of crisis and conflict: case studies for Darfur, Sudan*, Humanitarian Policy Group, HPG Background Paper, September.

7. Annexes.

Annex A: Table connecting the dependant variables to the questions of the survey.

| Variable | Question |
|--|---|
| Somalia | |
| Mozambique | "In which country were you born?" |
| DRC | |
| Size of the household in the host country | "Including yourself, how many people are part of your household? When I say household, I mean people with whom you live and regularly share resources" |
| Household's income in the host country | "Approximately how much money does your household earn per week from all sources of income combined?" |
| Sex | "Respondent's sex" |
| Level of education | "What is the highest level of formal education you have completed?" |
| Age | "How old are you?" |
| Household's member still in country of origin | "Are there still members of your household from country of origin living in your country of origin?" |
| Date of arrival | "What year did you first arrive in South Africa?" |
| Condition of the departure | "Why did you ultimately decide to leave country/community of origin?" |
| Other migrant in the household of country of origin | "Are there members of your household from country of origin living in a country other than country of origin or South Africa?" |
| Following the political affairs of the country of origin | How often do you follow political affair in South Africa? Would you say you follow them regularly, from time to time, or never?" |
| To be willing to fight to defend the country of origin | "Would you fight to defend your Country of Origin/Community of Origin?" |
| Relative wealth in the host country | "Compared with others in the area where you live, would you say your household is poorer than average, about average, better than average or you don't know?" |
| Future living conditions compared with the parents | "Generally speaking, do you think that your life will be better or worse than you parent's lives?" |

Source: MNAC survey.

Annex B: Presentation of the variables used in the models.

| Variable | Signification | Description |
|---|---|---|
| Somalia | | Dummy equal to 1 if the migrant is a Somali, 0 otherwise |
| Mozambique | Nationality of the migrants | Dummy equal to 1 if the migrant is a Mozambican, 0 otherwise |
| DRC | | Dummy equal to 1 if the migrant is a Congolese, 0 otherwise (reference variable) |
| Size of the household in the host country | | Size of the household of the migrant in the host country |
| Household's income in the host country | Annual income of the household of the migrant in log | Continuous variable |
| Sex | Sex of the migrant | Dummy equal to 1 if the migrant is a man, 0 otherwise |
| No formal education | | Dummy equal to 1 if the migrant doesn't have any formal education, 0 otherwise (reference variable) |
| Primary education | Level of education of the migrant | Dummy equal to 1 if the migrant finish a primary level of education, 0 otherwise |
| Secondary education | | Dummy equal to 1 if the migrant finish a secondary level of education, 0 otherwise |
| Tertiary education | | Dummy equal to 1 if the migrant finish a tertiary level of education, 0 otherwise |
| 18-30 years old | Age of the migrant | Dummy equal to 1 if the migrant has between 18 and 30 years old, 0 otherwise (category of reference) |
| 31-40 years old | | Dummy equal to 1 if the migrant has between 31 and 40 years old, 0 otherwise |
| More than 40 years old | | Dummy equal to 1 if the migrant has more than 40 years old, 0 otherwise |
| Still family members in the country of origin | Still family members in the country of origin | Dummy equal to 1 if the migrant still has family in his/her country of origin, 0 otherwise |
| Date of arrival | Date of arrival in the host country | Dummy equal to 1 if the migrant arrived in Johannesburg after 1994, 0 otherwise |
| Conditions of departure | Having left its country of origin for reason of violence, war, conflict, discrimination, etc. | Dummy equal to 1 if the migrant fled his/her country because of violence, war, conflict, etc., 0 otherwise |
| Other migrant in the household of origin | The migrant belongs to an household of origin where there is at least another | Dummy equal to 1 if the migrant belongs to an origin household where there is at least another migrant, 0 otherwise |

migrant

| | | |
|--|--|--|
| Attachment | To follow the political affairs of the country of origin and to be willing to fight to defend it | Dummy equal to 1 if the migrant follows the political affairs of his/her country of origin and if he/she is willing to fight to defend it, 0 otherwise |
| Relative wealth in the host country | Perception of the level of wealth of the migrant | Dummy equal to 1 if the migrant thinks to be richer than his/her neighbors in the host country, 0 otherwise |
| Future living conditions compared to the parents | | Dummy equal to 1 if the migrant thinks that he/she will have better living conditions than his/her parents, 0 otherwise |

Source: MNAC survey and calculations of the authors.

Annex C: Migratory situation and remittances in South Africa, Democratic Republic of Congo, Mozambique and Somalia.

Source: World Bank, 2010

| | | South Africa | DRC | Mozambique | Somalia |
|--------------------------|-----------------------------|---------------------|------------|-------------------|----------------|
| Population | million (2009) | 49.3 | 66 | 22.9 | 9.1 |
| PIB | curent USD (billion) (2009) | 286 | 10.8 | 9.8 | n.a |
| Stock of immigrants | thousand (2010) | 1,862.9 | 444.7 | 450 | 22.8 |
| Part of the population | percentage (2010) | 3.7 | 0.7 | 1.9 | 0.2 |
| Refugees | percentage (2010) | 1.9 | 43.4 | 0.6 | 3.4 |
| Women | percentage (2010) | 42.7 | 53.1 | 52.1 | 45.9 |
| Stock of emigrants | thousand (2010) | 878.1 | 913.9 | 1,178.5 | 812.7 |
| Part of the population | percentage (2010) | 1.7 | 1.3 | 5 | 8.7 |
| Inward remittance flows | curent USD (billion) (2010) | 1 | n.a | 0.117 | n.a |
| Outward remittance flows | curent USD (billion) (2009) | 1,158 | n.a | 0.063 | n.a |

8. Note: DRC = Democratic Republic of Congo