MAFE Migrations between Africa and Europe

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Who comes back?
The case of Senegalese returning to Dakar

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Chaire Quetelet
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Short abstract

Policy-makers from both destination and origin countries have been highlighting the potential developmental role of return migration through transfers of savings, human capital and the establishment of social networks. Nonetheless, very little quantitative evidence exists in the African, and more particularly in the Senegalese, context to corroborate the existence, size and characteristics of return flows, the selectivity of returnees and the conditions they face back home.

This paper aims to provide a first descriptive analysis of historical and current patterns of return migration to Senegal, drawing a profile of returnees to Senegal as compared to non-migrants and current migrants, and providing evidence on the timing of return. The household-level data used in the analysis comes from the survey on "Migration between Africa and Europe" (MAFE) conducted in Senegal, and three destination countries in Europe – France, Italy and Spain in 2008.

1. Introduction and objectives

Over the past three decades, both researchers' and policy-makers' interest in the phenomenon of return migration has been steadily increasing. After the economic crisis in the 1970s, policy-makers in destination countries started stimulating the return of previously attracted labour migrants. Later on, the debate around brain drain and harming and beneficial development impacts of migration led origin country governments and international organizations to highlight the potential role of return migration in transferring savings, skills and technological know-how and in establishing social and business networks across borders. In parallel, return migration was embedded in the body of migration theory. Theoretical models explaining return in a context of persisting wage differentials by motives other than a failed migration experience emerged with the New Economics of Labour Migration literature, which broadened the notion of utility-maximisation by extending from individual to group utility and introduced market imperfections at the origin. In such a context, return may happen, for instance, after the achievement of a target-level of savings if migration was motivated by the aim of overcoming credit constraints at home (Stark, 1991; Yang, 2006), after remittance transfers enabled the origin household to diversify their income sources at origin (Stark, 1991); or if the savings in host country currency achieve a higher purchasing power at home (Stark et al., 1997). Together with a more diverse picture of the return motives, questions of selectivity (on observable and unobservable characteristics, Borjas and Bratsberg, 1996) and timing of return migration (may be jointly determined with occupation after return, Dustmann, 2003a; Dustmann and Kirchkamp, 2002; Mesnard, 2004) were integrated in the theoretical migration literature.

Applied quantitative research has been limited in its scope by the availability of appropriate data, choosing in general either the destination or the origin point of view. Analysis from the destination country's perspective emphasizes the non-random character of return migration and has primarily focused on countries such as the United States (e.g. Borjas and Bratsberg, 1996), Germany (e.g. Dustmann, 2003b; Bellemare, 2004; Constant and Massey, 2003; Constant and Zimmermann, 2003), the United Kingdom (Dustmann and Weiss, 2007), Sweden (e.g. Klinthaell, 2007; Nekby, 2006; Rooth and Saarela, 2007), and the Netherlands (e.g. Bijwaard, 2005). These studies analyse the determinants of return, and aim at establishing whether return migrants are selected from the migrant pool, influencing thus estimates on earnings assimilation or occupational integration of remaining migrants. Results indicate heterogeneity in the selection depending on the origin country, though a majority of studies suggest a negative selection into return migration based on unobservable characteristics (e.g. Borjas and Bratsberg, 1996; Bellemare, 2004; Edin et al., 2000).

Return migration analysed from the home country perspective, which reverts to data collected after the return in order to identify returnees, has covered a wider range of countries and a wider range of topics, such as individual characteristics of returnees, occupational status after return, differentials in earnings with regard to non-migrants. The Mexican Migration Project (MMP), a longitudinal survey which has been collecting retrospective data on Mexico-US migration experiences from 1982 on, was used in several studies investigating the determinants of return, the duration of migration and business formations by return migrants (e.g. Massey et al., 1987; Massey and Espinosa, 1997; Lindstrom, 1996; Reyes, 1997; Reyes, 2001; Reyes and Mameesh, 2002). Other examples include the MIREM project coordinated by the European University Institute on return migrants in the Maghreb countries, as well as work based on cross-section data sources as e.g. the Egyptian labour force sample survey and labour market survey (McCormick and Wahba, 2001; McCormick and Wahba, 2003; Wahba and Zenou, 2008), the survey on Tunisian return migrants conducted by the "Office des Travailleurs

Tunisiens à l'Etranger" (Mesnard, 2004), a survey on Pakistani return migrants conducted by the ILO and the Federal Bureau of Statistics in Pakistan (Ilahi, 1999), or the World Bank Living Standard Measurement Surveys (Kilic et al., 2007 for evidence on return to Albania).

Relatively little quantitative evidence exists in the West African region, and more particularly in the Senegalese context to corroborate the existence, size and characteristics of return flows, the selectivity of returnees and the conditions they face back home.[1] While there is growing evidence on the changing dynamics of out-migration from Senegal, characterized by changing origin regions, destination patterns and actors of migration (Ndione and Broekhuis, 2006; Robin et al., 1999), the research on returning migrants remains scarce. The data sources, such as the census from 2002 do often offer only an incomplete picture of return migration, as returnees are identified based on the question about place of residence five years before the census, without however providing information about the destination or exact dates of migration and return.[2] Several surveys conducted since the 1980s comprise, however, some information about migration experiences.

The most comprehensive insights into return migration to Senegal were provided by the DEmIS survey (Déterminants de l'émigration internationale au Sénégal), which was carried out in 1997/1998 in the framework of the project "The Push and Pull Factors of International Migration" and under the coordination of Eurostat and NIDI. It was limited to the regions of Dakar - an established centre of attraction of internal migrants and transit, and more recently developing into a departure region for people from the region itself - and Touba, where the Mouride brotherhood (a Muslim Sufi order) provides a network supporting migrations, particularly to Italy. Robin et al. (2000) suggest in the Senegalese survey report that about half of the Senegalese migrants abroad have the intention to return, without however envisaging a precise return date; and that 25 per cent are indecisive. At the same time, return migrants in Senegal are observed to maintain their contacts abroad, since the probability of a further migration increases for those with previous migration experience. Also the qualitative study on Senegalese in Italy by Bruzzone et al. (2006) suggests that most migrants intend to return, but cannot realize their intentions given the low level of earnings abroad and hence limited productive investment opportunities after their return.

Further findings from the DEmIS survey indicate that approximately 25 per cent of the households in the Dakar region have at least one return migrant, and that the proportion of return migrants in Dakar is approximately twice the proportion of current migrants. The authors argue that although worsening social and employment conditions have transformed Dakar into a departure region, the region's previously dominating characteristics as return destination and investment target still prevail in the data. Moreover, return is observed to occur predominantly from the neighbouring countries Gambia and Mauritania, and in contrast to the region around Touba, current migration from the Dakar region remains primarily directed towards African countries (63 per cent). The globally observed phenomenon of feminisation of migration cannot be supported by the findings, as the proportion of women among returnees is considerable higher than among current migrants. Women are found to return after shorter durations abroad than men, as they may tend to follow their husbands and return earlier to be replaced by a co-wife (Robin et al., 2000).

The surveys on Migration and Urbanization in West Africa (REMUAO) conducted in Burkina Faso, Ivory Coast, Guinea, Mali, Mauritania, Niger and Senegal in 1993 provide another, yet even earlier, data source for the study of return migration flows to the region and to Senegal. The survey finds that 22,200 individuals aged 15 or more migrated each year from REMUAO countries to Europe and 6,600 from Europe to REMUAO countries between 1988 and 1992 (Bocquier, 1998).

Finally, de Vreyer et al. (2008) provide a summary of return migrant characteristics and analyse labour market performance based on the so called "1-2-3 surveys"[3], which were conducted in seven major cities in the West African Economic and Monetary Union, including Dakar, between 2001 and 2002. They suggest that only 1.9 per cent of the Dakar population aged 15 or more are returnees, and that women constitute the larger share of returnees from other countries in the West African Economic and Monetary Union, while men dominate the return flows from OECD countries. Returnees to Dakar are

[1] See Ammassari (2004), Black et al. (2003) and Tiemoko (2004) for evidence on return to Ghana and the Ivory Coast; and Ammassari and Black (2001) as well as the special issue on "Transnational migration, return and development in West Africa" in *Population, Space and Place* 10, 75–83 (2004) for qualitative contributions on return to West Africa.

[2] The census identifies in this way 38,044 return migrants to Senegal over the period 1997-2002, of which 14,246 (37 per cent) returned to the region of Dakar.

[3] These surveys consisted of three phases, an individual questionnaire, a questionnaire on enterprises in the informal sector, and a household-level questionnaire on household expenditures.

at the average eight years older than non-migrants, not different in terms of the highest level of education, (except for returnees from OECD countries, who are higher educated), have higher labour market participation rates, and are overrepresented in the formal labour market.

Other authors (Diatta and Mbow, 1999; Ndione and Broekhuis, 2006) review the various policies put in place by the Senegalese and the French governments to promote return and support returnees in their reintegration back in Senegal, and conclude that institutional weaknesses have led to a very limited success. [4]

This paper aims to update and add to the evidence on return migration to Senegal provided by existing sources, using data from the recently concluded survey on "Migration between Africa and Europe" (MAFE) conducted in 2008. The objective is to gain first insights into the question of "who returns" by providing an updated profile of returnees and return migrant households at the time of the survey, and by contrasting individual and household characteristics with non-migrants and current migrants. Although the analysis is purely descriptive, it may suggest some patterns of selection into return migration. Moreover, information on the timing of the first departure and the first return is used to shed light on the link between the duration of migration and individual characteristics of the migrant. The following section provides a brief description of the data and methods, section 3 presents the results, and section 4 concludes.

2. Data and Methods

The Migration between Africa and Europe (MAFE-Senegal) survey represents a new and original data source for analysing patterns, determinants and impacts of migration flows going from Africa to Europe and from Europe to Africa. The survey was conducted in Senegal in 2008, where it provides a representative sample of the Dakar region with its four administrative departments of Dakar, Pikine, Guédiawaye and Rufisque, and in three destination countries in Europe – France, Italy and Spain.[5] In a first phase, ca. 1,200 households were sampled in the region of Dakar. The household head or in her[6] absence another knowledgeable household member responded to the household questionnaire. This means that the information about other individuals is provided by a proxy respondent, who may not know or not remember details such as exact dates, and the data must therefore be treated with a certain caution. Individuals eligible to be included in the grid comprise all current household members (who have lived for at least six months in the household, or have the intention of living there for at least six months), current migrants who are either partners of a household member or relatives of the household head or of the head's spouse, children of the household head with residence in Senegal but pertaining to a different household as well as deceased children of the household head (for certain questions only). The household questionnaire collects socio-demographic data on all individuals as well as housing characteristics as of the time of the interview. Moreover, it records also specific information on current and previous migrations and about the family linkages between household members and migrants. This information was used in a second phase to draw a sample of ca. 1,400 individuals comprising non-migrants, return migrants and partners of current migrants in Dakar. The individuals responded to comprehensive biographic questionnaires, and provided complete retrospective residential and migration histories, as well as education, work and family histories. An identical biographic questionnaire was employed to interview approx. 200 current migrants in each of the three selected destination countries, Spain, France and Italy.

[4] The return and reinsertion support program managed by the Senegalese government (Bureau d'Accueil, d'Orientation et de Suivi) has received 205 candidates in 1985; 182 in 1986; 93 in 1987; 45 in 1988; 17 in 1989 and 6 in 1990 (Bruzzone et al., 2006).

[5] The MAFE project is coordinated by INED (France), in association with the "Institut de Population, Développement et Santé de la Reproduction" of the University of Dakar (IPDSR, Senegal). It also involves the Pompeu Fabra university (UPF, Spain) and the Forum Internazionale ed Europero di Ricerche sull' imigrazione (FIERI, Italy). The survey was conducted with the support of the Agence nationale de la rercherche (ANR, France), the Ile de France Region, the Institut de recherche pour le développement (IRD, France), the Centre population et développement (CEPED, France) and the FSP programme entitled 'International Migrations, territorial reorganizations and development of the countries of the South.

[6] When references to individuals are gender-neutral, personal pronouns are used in their female form.

This first descriptive exploration is limited to data collected at the household level. Return migrants are identified through questions about the first migration experience of more than one year, and a question about the first return, again lasting more than one year. In addition, the years of first departure and first return, as well as the first country of destination are recorded. Moreover, one can identify current migrants and knows in which country they are living. One should note that the first destination indicated in the case of returnees may not always correspond to the country from where the return originated, if the migration consisted of several longer stays in different countries.

This information allows to group individuals and households into categories based on their migration status:

- Non-migrants, who were born in Senegal and never left the country;
- Current return migrants living in Senegal either in the interviewed household or outside of the household in the case of some children of the household head;
- Current migrants with at least one previous return experience;
- Current migrants with no return experience.

To restrict the analysis to the population of interest (Senegalese returnees), immigrants (individuals born outside Senegal, with or without Senegalese nationality) as well as those individuals who were born in Senegal, never migrated, and are of non-Senegalese nationality, are excluded from the analysis. The individuals with migration experience can be further classified by the date and destination region of the first migration. Since the questions are limited to the first migration experience and the current country of stay, it is not possible to ascertain if returnees experienced repeat migrations and to observe the characteristics of the last migration.

Depending on the presence of returnees and/or current migrants in the household at the time of the interview, households are categorized as

- Non-migrant households, if there are neither returnees nor current migrants;
- Return migrant households, if there is at least one return migrant present in the household;
- Migrant households, if the household indicates that at least one member or relative lives currently abroad; and
- Mixed migrant/return households if a household has at least one returnee and one current migrant.

The total sample used in this analysis consists of 11,589 individuals, out of whom 10,229 are non-migrants, 289 are current returnees and 1,071 are migrants. The 1,112 households divide themselves into 477 non-migrant households, 70 households with at least one returnee and no current migrant, 449 households with at least one current migrant and no returnee, and 112 households with both returnees and current migrants.

Looking at the individuals (Table 1), only a small share had some international migration experience.[7] Three per cent are current returnees, and 8 per cent are currently abroad, among which only a small share has already returned for at least one year to Senegal. However, the share of households affected by international migration is relatively large. Less than half of the households have neither a returnee as household member, nor a relative currently abroad. Sixteen percent of the households have at least one returnee, and 43.7 per cent of households indicate at least one international migrant. These results differ from the DEmIS survey findings from 1996/1997, where the share of returnees and households with at least one return migrant (8.1% and 27.5% respectively) exceeded the one of current migrants and migrant households (4.2% and 14.9% respectively), an indication that Dakar plays an increasingly important role as departure region. The share of households affected by current migration must also be seen in the context of the definition of the individuals recorded in the household grid: relatives of the household head, for example, are included among the migrants, even if they were not member of the household before their departure. The figure represents therefore

[7] All relative frequencies are adjusted for the sampling design by applying sampling weights at the household level. The two-stage sampling involved the following procedures: the National Census data from 2002 served as a sampling frame. In a first step, census districts were grouped into 10 strata of equal size based on the migration prevalence (number of households with at least one migrant) in the district. Six districts were drawn randomly out of each stratum. Within the districts included in the sample, households were further stratified into two strata, migrant-households and non-migrant households. Eleven households were randomly sampled in each of the strata and in each census district.

rather an upper-bound estimate of the share of households affected by current migration, compared to other sources. On the other hand, given the role of the extended family in West African societies, it may be more pertinent to start from a broad view of the migrant network than from a definition focusing exclusively on the nuclear family.[8]

The fact that almost nine per cent of households have at least one current international migrant and one returnee suggests that households revert to a strategy of migrations whereby household members' migrations overlap or are chained up. One observes that over half of the return migrant households report at least one and up to six current international migrants. At the same time, in the large majority of return migrant households only one household member is a returnee (77.15%), what could point to a pattern whereby returnees start their own household after their return, a hypothesis which is supported by the fact that almost half of the returnees are heads of household.

Table 1: Individual and household migratory status in the Dakar region

Individuals (%)		**Not born in the Dakar region (%)**	**Households (%)**	
Non-migrant	89.2	24.4	**Non-migrant HH**	49.3
Return migrant	2.5	43.5	**Return migrant HH (only)**	7.0
Migrants	8.2		**Migrant HH (only)**	34.9
Never returned	7.3		**Return & migrant HH**	8.8
Returned at least once	0.9			

While among Dakar's non-migrant population only one out of four was born outside of the Dakar region, almost half of the returnees living there in 2008 were born elsewhere in Senegal, what indicates either previous internal migration or return to Dakar while the departure originated from elsewhere. The former would support the hypothesis that internal migration often precedes international migration, while the latter would indicate the impact of return migration on the growth of the capital cities and an urban concentration of the capital brought back by the returnees. Residential histories contained in the biographic data will be needed to test these hypotheses.

The analysis reverts to descriptive statistics and Chi-Square tests to outline the individual and household characteristics of return migrants and the comparison groups of non-migrants and current migrants at the time of the interview, such as age and gender compositions, marital status, education and labour market participation. Given the low proportion of migrants who returned at least once, these are included among the "current migrants" in subsequent analyses.

Given that money-metric wealth or poverty indicators, such as income or expenditure data, are not included in the questionnaire, we use household-level questions on housing characteristics and asset ownership to construct a composite index of the household's socio-economic status (see e.g. Filmer and Pritchett, 2001; Sahn and Stifel, 2003; McKenzie, 2005). By comparing the index values according to the household's migratory status, one can obtain an indication of the association between migration and household wealth.

Asset indices follow the general form:

$$A_i = b_i a_{1i} + b_2 a_{2i} + ... + b_k a_{ki} \quad (1)$$

where A_i is the value of the asset index for household i; $a_{1i,}$ a_{2i}… a_{ki} are household i's housing characteristics and assets owned; and b_1…b_k are the weights one needs to set or estimate in order to aggregate characteristics and assets into an index (Filmer and Scott, 2008).

[8] Traditionally, the Senegalese households are based on the concept of the "extended family". According to the findings from the Second Senegalese Household survey (ESAMII; DPS, 2002), the "nuclear family" with parents and children constitutes only 60 per cent of the household members. Remaining members include, for instance, further wives, siblings, nephews, cousins and grandchildren of the household head, who may themselves be married and have children. More recently, however, the family structure seems to become more nuclear, in particular in the urban context.

A variety of aggregation methods have been proposed by the literature, such as counting the number of assets owned (Montgomery et al., 2000), or using the monetary value of the asset if the current value is reported by the households (Morris et al., 2000). The most popular methods are principal components analysis (PCA) and factor analysis (FA), using respectively the scores of the first principal component or the factor loadings of the principal factor as index weights (Filmer and Pritchett, 2001; McKenzie, 2005; Sahn and Stifel, 2003). Critiques of these approaches highlight that PCA and FA rest on the assumption of continuous and normally distributed data, while most assets and housing characteristics are of categorical nature and require thus a different treatment. As a consequence, we follow the suggestion of several authors and use Multiple Correspondence Analysis (MCA), a method which is specifically designed for categorical variables, to extract the first dimension and the corresponding coordinates (Greenacre and Blasius, 2006, Asselin, 2002; Booysen et al., 2008). Similarly to PCA and FA, MCA reduces the complexity of the data, while retaining the maximum possible variance and hence structure contained in the relationship - or correspondence - between different categorical variables. The first dimension extracted accounts for almost 80 per cent of the principal inertia (Chi2/N). A description of the variables included in the analysis and variable coordinates resulting from the extraction of the first dimension are included in the Annex.

The event of return after a period abroad can conveniently be examined in the framework of survival analysis, whereby the time origin is defined as the start of the first international migration, the first return corresponds to the failure, and individuals who died before returning are censored at time of death, individuals who did no return for the first time until the time of the survey are right-censored at the time of the survey. The questionnaire measures migration duration in units of years, therefore a discrete-time approach is most appropriate. We use the Kaplan-Meier Product Limit estimator to examine the relationship between migration duration and return (Kaplan and Meier, 1958). This simple non-parametric procedure allows estimating the survivor function of migrants, i.e. the proportion of migrants who have not returned after a certain time t, as well as the hazard rate, i.e. the instantaneous probability of returning in t, conditional on having stayed abroad until t, without imposing restrictions on the form of the duration dependence.

The estimated survivor function is defined as[9]:

$$\hat{P}(t) = \prod_{j=1}^{k} \left(n_j - \delta_j \right) / n_j \qquad (2)$$

where k is the number of distinct survival times; n_j is the risk set at time j; and δ_j are the number of failures at time j. The Kaplan-Meier method assumes that censored cases are still recorded as exposed to risk if failures and censoring occurs during the same discrete time interval. Separate survivor functions can be estimated for groups defined by time-invariant characteristics, such as gender or ethnicity, and the null hypothesis of equality in survivor functions across the defined strata can be tested.

3. Results

3.1 Choice of destination: where do migrants return from?

The comparison of destination choices of current returnees and current migrants can provide insights into distinctive patters of migration strategies and selection. Figure 1 shows the shares of returnees from Africa, Europe, and other destinations and of those migrants who are currently abroad and have so far no return experience. In addition, it distinguishes by the date of the first migration (first migration occurred until 1985; after 1985) in order to detect changes in patterns over time. Although other sources as well as the MAFE data have shown an increase in migration from Senegal to less traditional destinations, such as the U.S. and Asia, migration from the Dakar region is still largely split between African and European countries. The destination choices of those who have returned and those who are still abroad are exactly reversed. Return happened predominantly from other African countries, while around 70 per cent of current migrants prefer migration to Europe, a result that does

[9] Notation as in Kaplan and Meier (1958)

not coincide with previous findings from the DEmIS survey, according to which migration from Dakar was directed predominantly towards African countries. The phenomenon seems even to intensify over time, since return migrants who migrated at an earlier point in time show a slightly larger share of return from Europe, and a lower share from Africa than returnees who migrated after 1985. This corresponds almost exclusively to return migration from France, and the return occurred over the entire period from 1960 to 2007, and may correspond to individuals pertaining to the elite after independence, to migrants returning in the late 1970s until the early 1990s, a period characterised by a tightening of immigration laws in France and more active policies encouraging return, as well as retirement returnees.

Current migrants who have returned at least once to Senegal, and can be identified by the questionnaire as repeat migrants, are relatively similar in their last destination choice to current migrants without return experience, though slightly more present in Africa (19.6% versus 14.8%) and less in Europe (63.6% versus 72.5%). These statistics suggest that merging the group of current migrants with return experience with current migrants without return experience seems indeed more justified than treating them as return migrants.

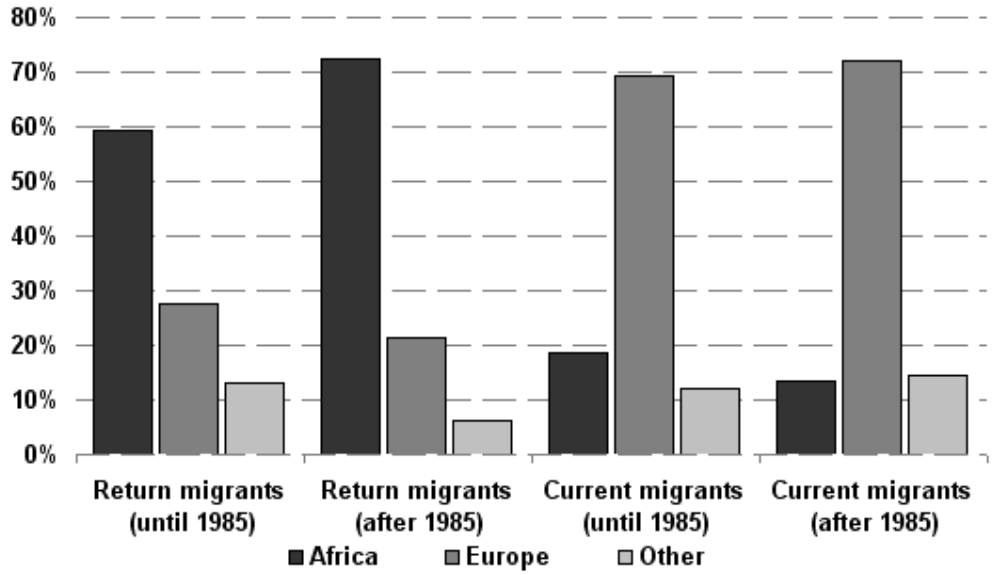

Figure 1: Destination regions

Most returnees from Africa had migrated to another West African country (70 per cent), half of which chose a country within the West African Economic and Monetary Union (WAEMU) as first destination. The list of the top five destinations of returnees and current migrants shows that destinations of returnees are more dispersed than those of current migrants, where five destinations cover almost 80 per cent of the migrations (Figure 2). Return from Europe occurred almost exclusively from France; the predominant African destinations are Mauritania, followed by the Ivory Coast, Gabon and Mali. The figure on current migration confirms the trend towards Europe, and although France still accounts for the largest stock, it is followed by the “new destinations” Italy, Spain and, outside of Europe, the United States.

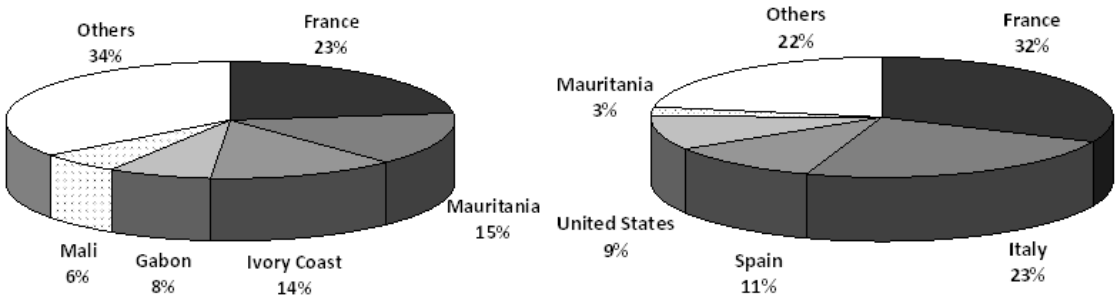

Figure 2: Five main destination countries: returnees (left) and current migrants (right)

3.2 Individual characteristics of return migrants

How do returnees compare to current migrants and non-migrants? Self-selection into migration implies that migrants differ from non-migrants with regard to both observable and unobservable characteristics (e.g. ability, motivation, values, risk aversion, access to migration networks), and that the direction of selection also depends on the destination and home country features (Borjas, 1987; Mora and Taylor, 2005). Likewise, research has to account for the potential non-randomness in return migration, which affects the migrant composition at destination and introduces heterogeneity in migrants' economic behaviour and performance in the host country before and in the home country after return. While this analysis is purely descriptive, it can provide a first idea about differences in observable characteristics between return migrants, non-migrants and current migrants, as well as returnees who had there first migration experience in Europe versus those who migrated to another country in Africa.

- *Age and gender*

The age and gender distribution of non-migrants, returnees and current migrants suggests that around one third of current migrants and returnees are women (Table 2). While the result on migrants coincides approximately with findings about the Dakar region from other sources (DEmIS 1996/97; 1-2-3 surveys 2001/2002), the results on gender shares in return migration differs. We find that the share of women returning from Europe is slightly larger than the one from other countries in Africa, while Robin et al. (2000) and De Vreyer et al. (2008) observe the opposite effect, with the share of female returnees from WAEMU countries exceeding even the one of male returnees. According to the MAFE data, return from WAEMU countries is disproportionately male (almost 80 per cent). In addition, the share of female return migrants is not significantly higher than the share of women among current migrants.

Table 2: Age and gender

	Non-migrants	Return migrants			Current migrants
		Africa	Europe	Total	
Share of men (%)	47.5	68.9	63.6	66.1	66.4
Average age	24.4	44.0	50.2	45.6	38.8

The average returnee is considerably older than individuals with a different migratory status. This is particularly the case of returnees from Europe, who are with an average age of fifty twice as old as the average non-migrant. Return migrants from Africa are at the average six years younger than those returning from Europe. Return migrants are at a later point in their life cycle than non-migrants and current migrants, and the data may also suggest that migration durations are relatively long. This view

would concord with the fact that current migrants are with an average age of almost forty years relatively old, given that the first departure occurs at a mean age of 24.[10]

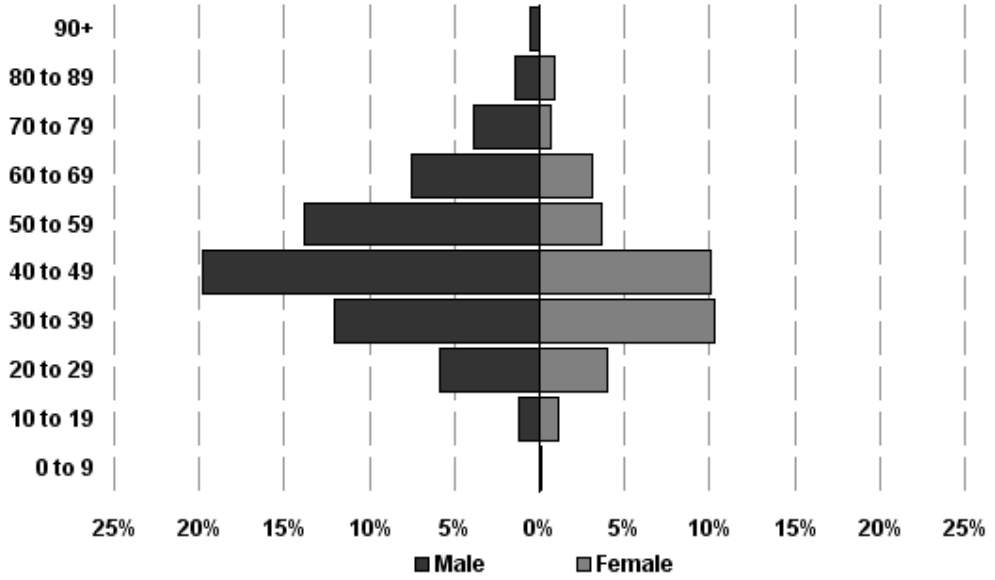

Figure 3: Age pyramid of returnees

The age pyramids provide a more dynamic view on the age and gender patterns of return and migration (Figures 3 and 4). While men's shares clearly exceed female return and migration shares in the older age groups, women almost catch up with men in the 30 to 39 years group in the case of returnees, and in the 20 to 29 years group in the case of current migrants. This finding suggests that migration may indeed be "feminising". The age pyramids of returnees and current migrants look relatively similar. Return migrants seem to be somewhat more distributed over different age groups than current migrants, who concentrate in the age groups between 30 and 50.

[10] However, migration duration may differ by other characteristics, first of all the destination region. The analysis of the timing of return in section 3.4 will provide further evidence on heterogeneity by destination choice.

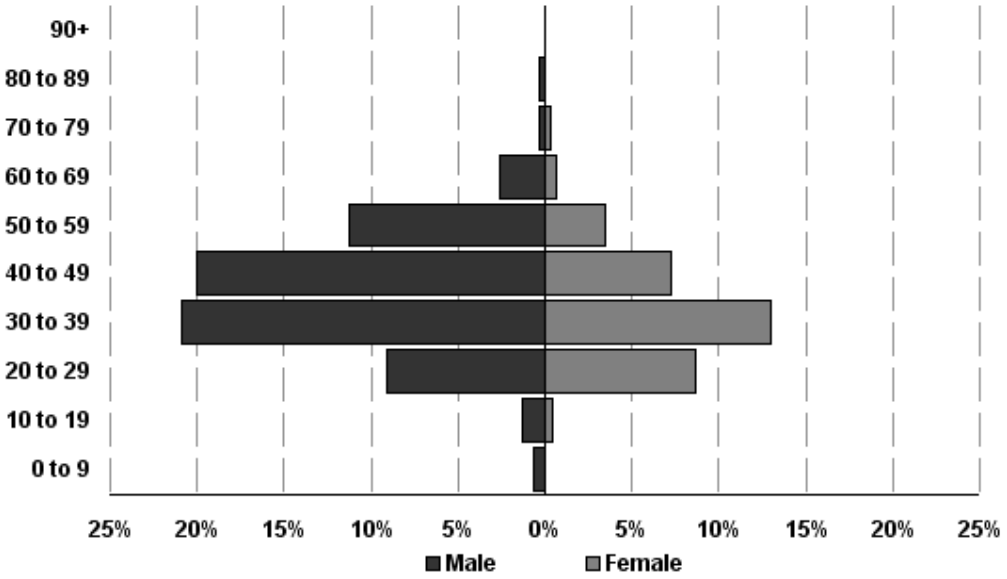

Figure 4: Age pyramid of current migrants

- *Marital status*

Comparing the marital status of returnees, current migrants and non-migrants, which is recorded for all individuals who are more than 12 years old, one observes that both returnees and current migrants are more often married than non-migrants, of which over 50 per cent are singles, an effect which is certainly at least partly due to the fact that non-migrants are at the average much younger. The share of polygamous partnerships (being polygamous in the case of male returnees, being spouse in a polygamous union in the case of female returnees) is with respectively 24 per cent and 17 per cent of all married relatively low among non-migrants as well as current migrants, the latter ones showing a very large proportion of monogamous partnerships. Among returnees, on the other hand, polygamy plays a more important role, since about a third of all married returnees are in a polygamous partnership, a share which attains almost 50 per cent in the case of returns from Europe. For the male returnees, this effect may be to some extent due to the different age distributions between non-migrants, returnees and current migrants, as well as between returnees from Africa and Europe. At the same time, being able to sustain several wives may be a sign of status in the society, and migration may represent a way to achieve the necessary level of wealth to form a polygamous household. To test in how far the stronger presence of returnees in the polygamous category is due to age and other socio-demographic characteristics we estimate the probability of being in a polygamous relationship at the time of the survey and include the migratory status as explanatory variable, controlling for age, education, gender and religion (Table 3). Returnees are twice as likely as non-migrants to be in a polygamous relationship, and the effect remains statistically significant after controlling for age as well as other socio-demographic individual characteristics.

Table 3: Odds of being in a polygamous relationship

		Odds ratio (Std. Error)
Reference group: non-migrant	Return migrant	2.046 (0.441)***
	Current migrant	1.611 (0.265)***
Reference group: no education	Religious education	1.608 (0.291)***
	Primary education	0.814 (0.131)
	Middle-/ secondary education	0.712 (0.122)**
	Higher education	0.643 (0.162)*
Reference group: Mouride	Tidiane	0.670 (0.078)***
	Other muslim	0.812 (0.146)
	Christian	0.051 (0.023)***
Reference group: female	Male	0.439 (0.048)***
	Age in years	1.059 (0.003)***

The fact that female returnees have often co-wives may point at a first glance to a migration system in which polygamous migrants bring wives "in turns" to the host country.[11] Against this hypothesis speaks that only 4 per cent of those with partners abroad are returnees, and only one individual in the sample is a female returnee in a polygamous union whose partner is abroad.

- *Education*

Education is a key variable in migration analysis, regarding both the study of the self-selection processes into migration, and the potential impacts on the country of origin, in the case of a significant loss of human capital (brain drain). If returns to education are low and difficult to reap in the home country due to limited employment possibilities and low salaries as it is the case in Senegal (DIAL, 2007; World Bank, 2007), educated individuals may consider migrating to a country where their knowledge and skills are better remunerated. At the same time, migration of the skilled may be harmful for the home country, if there are no incentive effects stimulating human capital formation in the origin country through the prospects of international migration. Another positive effect can arise from return migration if knowledge and skills are transferred back, possibly even after accumulating additional human capital abroad (see e.g. Ammassari and Black, 2001; Ammassari, 2004; Mayr and Peri, 2008). What does the educational structure of returnees look like? Limiting the sample to individuals over 22 years to ensure a better comparability with non-migrants and to reduce the potential effect of student migration, one can compare average years of formal education as well as the distribution over education categories by migration status. Returnees have on the average 2.5 years more of formal education than non-migrants, and one year less than current migrants. The differences between returnees and non-migrants seem to be particularly strong in the category of "no education" (28 per cent of non-migrants, but only 11.5 per cent of returnees) and in the highest education category with 15 or more years of formal education (4.4 per cent of non-migrants, and 18.2 per cent of returnees).

[11] See Bledsoe et al. (2007) for a discussion of marital practices in the case of migrants from Gambia.

That return migrants' education differs depending on the region they first migrated to can be seen in Figure 5.[12] Returnees from Europe are very highly educated, with almost 40 per cent in the highest education category (15 years+ of formal education). They are therefore even better educated than current migrants, in Africa, but also in Europe. This effect is lost at the average, since the share of returnees from Europe is low relative to those from Africa. The large majority of these highly-educated returnees had gained a first migration experience in France. Current migrants' education varies less by region of destination, with an equal share of highly educated in Africa and Europe.

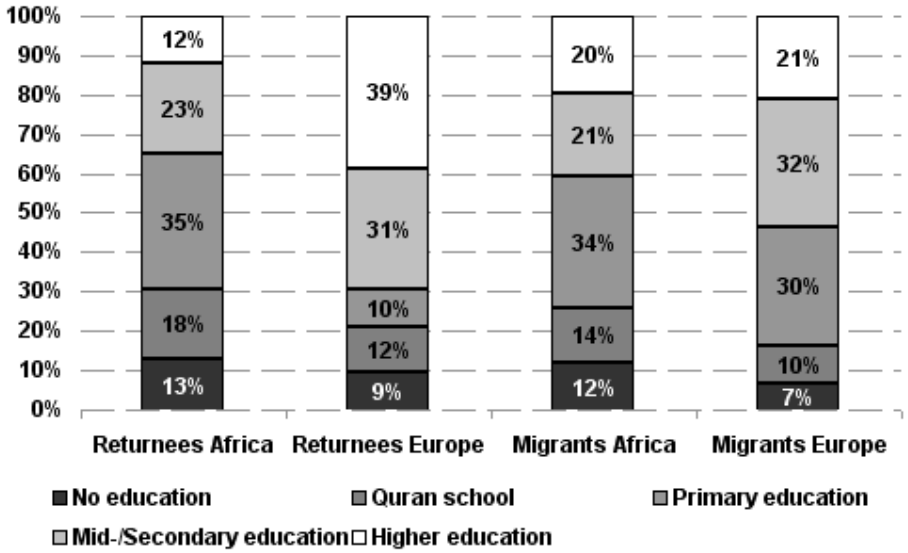

Figure 5: Education by destination choice

The positive effects of skilled return migration come especially into play if migrants had the opportunity to accumulate further human capital abroad[13], and if they are able to use their education and skills in the home country labour market after return. The data does not allow to determine exactly where education was acquired (only indirectly through the age at migration), but one can examine descriptive statistics of the labour market participation and employment situation of returnees.

- *Labour force participation and employment situation*

Compared to the non-migrant population, return migrants are found to be strongly overrepresented among the active labour force, suggesting that return migrants are in general able to enter the labour market after return, and mirrored by a much smaller share of inactive (Figure 6). However, nine per cent of returnees are found to be unemployed against only 3 per cent among the non-migrant population. Returnees may therefore face some barriers to their reintegration in the labour market, for instance weakened social network ties (DaVanzo, 1982). The analysis would require information on the duration since return to establish if the unemployed are staying out of the labour market for a longer period, or if it is a matter of a rather short adjustment period. A larger share of returnees is retired and a smaller proportion studying, which coincides with the observation that returnees are on the average considerably older than non-migrants, and may also point to the existence of some retirement return migration.

The differences between non-migrants and return migrants with regard to their participation in the labour force and the level of unemployment within each group remains even when the statistics are

[12] The "other region" category has been omitted; therefore the results on education of returnees from Africa and from Europe do not completely match with the average results presented before.

[13] The accumulation of knowledge and skills abroad would assume that there is no "brain waste", i.e. an employment at destination which is below the individual's skill level (Ozden, 2005).

limited to specific age groups in order to control to some extent for the effect that the non-migrant population is much younger. In the 20 to 39 year old group, 60 per cent of the returnees are working, against about half of non-migrants. At the same time, over 17 per cent of the returnees are unemployed, while less than 6 per cent of those without migration experience are without a job. In the older age group of 40 to 59 year old non-migrants and returnees, the difference in unemployment rates shrinks to 3 per cent (4.2 per cent vs. 7.3 per cent).

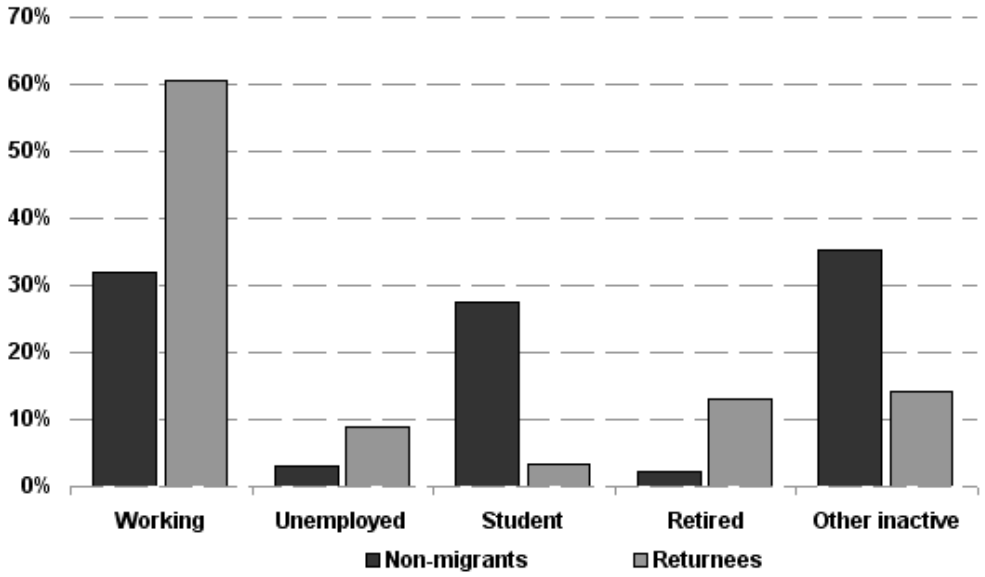

Figure 6: Labour market participation of returnees and non-migrants

The questionnaire contains also information about the socio-professional category of those who are currently participating in the labour market, distinguishing between the categories of managers or executives, skilled workers, unskilled or low-skilled workers, employers, self-employed, apprentices and family help (the latter two have been grouped together due to small cell frequencies for returnees) (Figure 7).

In accordance with descriptive statistics from a range of empirical articles on return migration to other countries, we find returnees to be over-represented in the category of the self-employed (McCormick and Wahba, 2001; Wahba and Zenou, 2008; Mesnard, 2004; Ilahi, 1999). Self-employment of returnees is often regarded as a process of productive investment and job creation. This may not be the case, as self-employment in the informal sector, for instance, is often associated with relatively precarious work and income conditions, and that is where in the poorest countries a majority of jobs are created. This is also the case of Senegal, as a recent World Bank report on the Senegalese labour market points out. Between 1995 and 2004, 97% of new jobs were generated in the informal sector, while the productivity remains 3 to 10 times below the one of the formal sector. The formal sector in turn achieved only half of the productivity levels of emerging countries such as China or Chile (World Bank, 2007). As Wahba and Zenou (2008) argue for the case of Egypt, the result regarding the returnees' preference for self-employment may be misleading if the return decision and the decision to become entrepreneur are taken simultaneously, or if unobservables drive both the fact of being returnee and being entrepreneur.

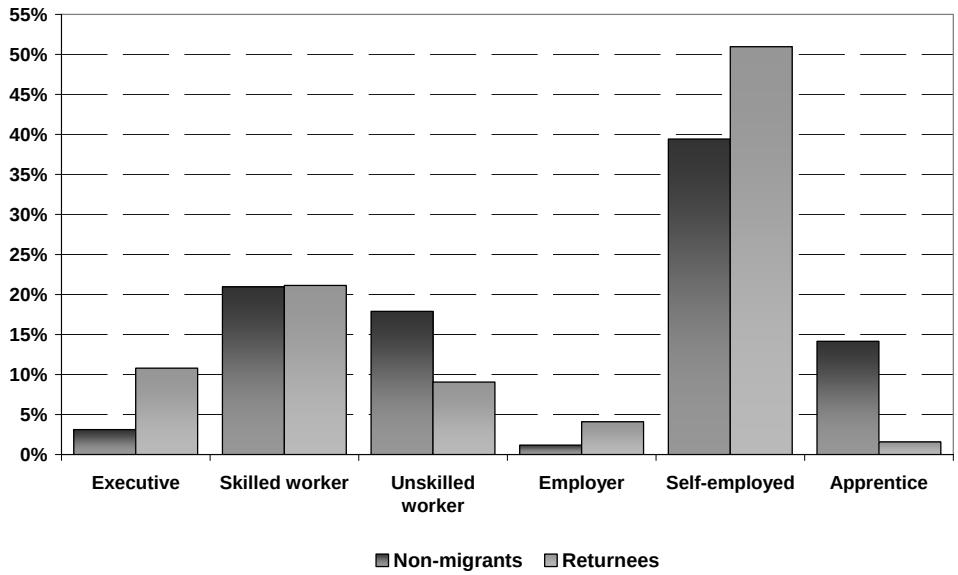

Figure 7: Socio-professional category by migratory status

Returnees differ also with regard to other socio-professional categories from non-migrants. A larger share of returnees than non-migrants obtains a highly-skilled position (i.e. university professors), and a smaller proportion of returnees work in unskilled jobs, what matches with the fact that returnees are better educated.

Once again, one has to take account of the region to which the returnee experienced her first migration to discern destination effects on the occupational attainment of returnees (Figure 8).

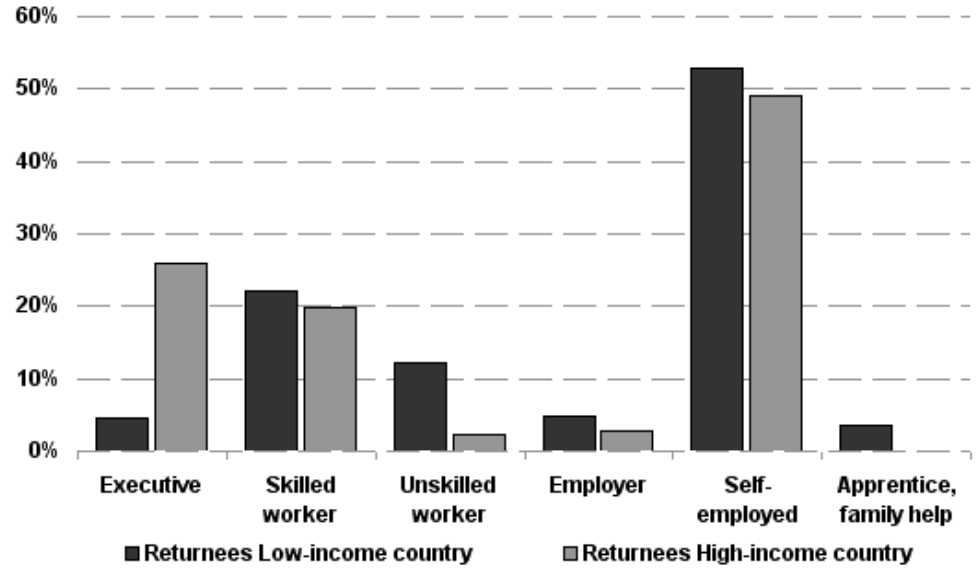

Figure 8: Socio-professional category by region of migration

Given the relatively small sample sizes, migrations outside Africa and Europe are included by grouping destinations into “low-income” and “high-income” on the basis of the Word Bank country classification. The positive association between return and a highly skilled position seems to be mainly due to return from Europe. Less than 5 per cent of returnees from low-income countries take up this type of position after their return, while this job category is the second-largest in the case of returnees who first migrated to Europe. At the same time, returnees from low-income countries seem to be more “business-oriented”, since their share among the employers and self-employed exceeds the one of returnees from Europe.

3.3 Characteristics of return migrant households

Theories explaining return migration based on utility-maximisation at the household level emphasize that the migration decision as well as the return decision and timing may be taken jointly by the household (New Economics of Labour Migration, e.g. Lucas and Stark, 1985; Stark, 1991). It is therefore interesting to examine not only individuals by their migration status, but also household characteristics. Returnees may bring savings back and provide the financing for investments at the household level, though remittance flows stop at the same time, which may affect households negatively. Returnees may also have developed tastes and preferences during their stay abroad, e.g. with regard to the ownership of certain durable assets. This section presents therefore a profile of household characteristics, focusing on the association between the households’ migratory status and their position on the composite wealth index. According to the New Economics of Labour Migration, return may be an integral part of the migration project, and takes place if and when the aims of the individual’s migration are achieved. The target aim depends on the initial motive of departure and may be to achieve a certain level of target savings (Stark, 1991; Mesnard, 2004; Yang, 2006), to allow for risk-diversifying investments by the household (Stark, 1991) or to raise the household’s wealth position relative to a reference group, such as the neighbourhood, if relative deprivation triggered the migration in the first place (Stark and Taylor, 1991a; Stark and Taylor, 1991b). While relative deprivation has been primarily analysed in the form of income deprivation, there are recent studies broadening the concept to include land, housing characteristics and ownership of durables to capture the relative deprivation of a household (Quinn, 2006). Given these hypotheses about return motivation, one would expect a positive association between household wealth and the return migrant status of households.

Table 4 : Mean characteristics at household level

	HH size	Number of rooms	Persons per room	Years of formal education (only non-migrants)
Non-migrant HH	7.4	3.23	2.7	5.5
Return migrant HH (only)	9.0	4.32	2.4	4.5
Migrant HH (only)	8.7	4.13	2.5	6.1
Mixed return-migrant HH	9.3	4.76	2.2	6.4

Looking at the average household characteristics presented in Table 4, one observes that households with at least one returnee have, at the average, more household members than non-migrant households, and are also slightly larger than households with current migrants and without returnees. While the DEmIS survey also finds that non-migrant households have the smallest household size, non-migrant households are even smaller according to the MAFE data (7.4 against 9.0). Robin et al. (2000) interpret these household size differences as a larger economic charge on households with international migration experience (DEmIS data), though one could also argue that return and migrant households are capable of supporting a larger number of household members. The figures on the average number of rooms and household members per room support this view, since return migrant households live in larger dwellings, and each household member has more space at her disposal than in non-migrant households. The average number of years of formal education in the household, which is computed only on the non-migrant members of the household, places households with at least one returnee below the other households if there are only returnees, and above non-migrant households if there are currently relatives abroad. This suggests that the migration experience of returnees shows

no positive association with the education of non-migrant members of the households. The returnee may have been the best educated from the household, and hence his migration was financed. Current migrants, on the contrary, seem to originate from generally better educated households.

To explore the ranking of households with different migratory statuses according to the composite wealth index, we split the households into three equally sized groups according to their index score. Figure 9 provides column-percentages of the classification of non-migrant households, pure return-migrant households, pure migrant households and mixed migrant-return households (referred to as "mixed households" throughout the remaining text). Most of the non-migrant households in the Dakar region pertain to the lowest wealth-tertile, while migrant households and mixed households with both returnees and current migrants are in their majority in the richest tertile. Households with return migrants, but no current migrants, situate themselves in between these two extremes. They are more wealthy than non-migrant households according to housing characteristics and asset ownership, but poorer than households who have currently relatives abroad. The mixed households, of which more than half are in the richest tertile and only around 10 per cent in the poorest third of the Dakar households, may benefit at the same time from returnees' savings and the receipt of remittances, what emphasizes the potential positive effects of chain migration. The effect may, however, partly be due to a pure number effect, since mixed households have by definition at least two individuals with migration experience (a returnee and a current migrant), while parts of the return households and migrant households have only one returnee or migrant respectively.

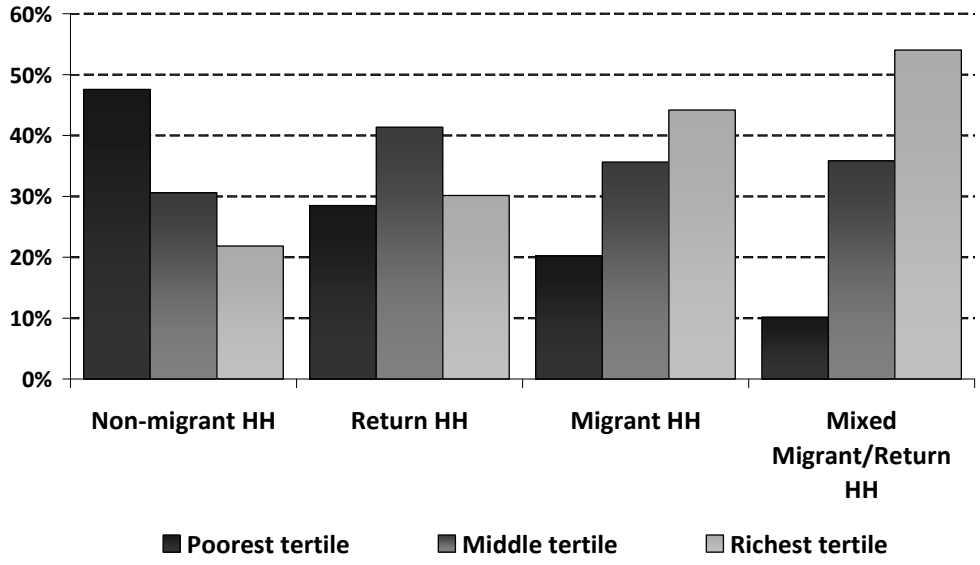

Figure 9: Distribution of households within wealth tertiles by migratory status

With larger sample sizes than in the case of MAFE, one may consider categorising households conditioned on the number of members with return versus current migration experience. At this point, we sum returnees and current migrants together as "individuals with migration experience", and classify households according to having no individual with migration experience (non-migrant households), one individual, two individuals and more than two. Figure 10 shows the distribution of the household groups into the wealth tertiles. There is a clear positive relationship between the number of individuals with migration experience in the household and the household's ranking on the wealth index.

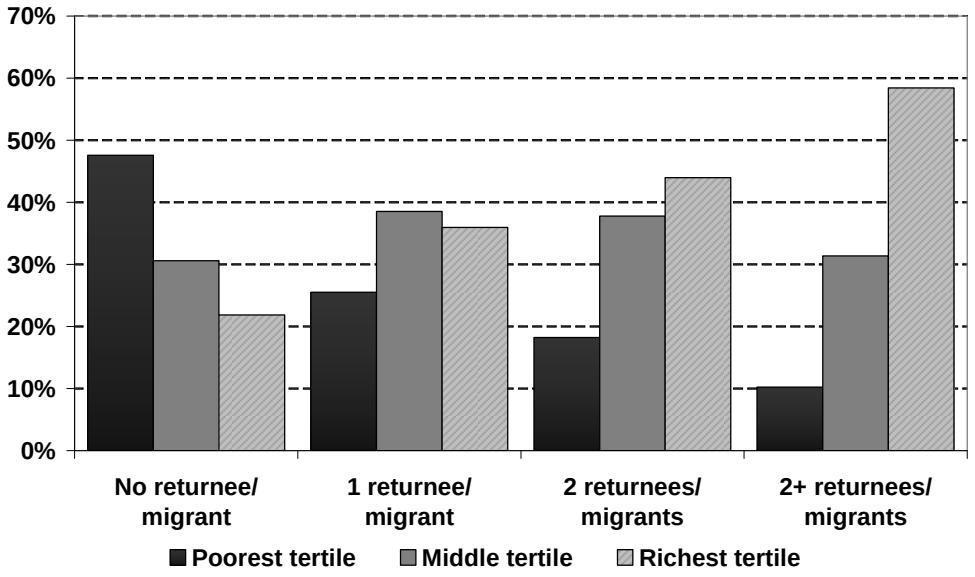

Figure 10: Wealth status by number of individuals with migration experience

Focusing now only on households with at least one returnee, one can further observe differences in wealth depending on the destination region of the first migration (Figure 11). We distinguish as before between high-income (HI) and low-income (LI) countries. The mixed category refers to cases where there are in the same household one or several returnees who departed for their first migration to a high-income country, and one or more to a low-income country.

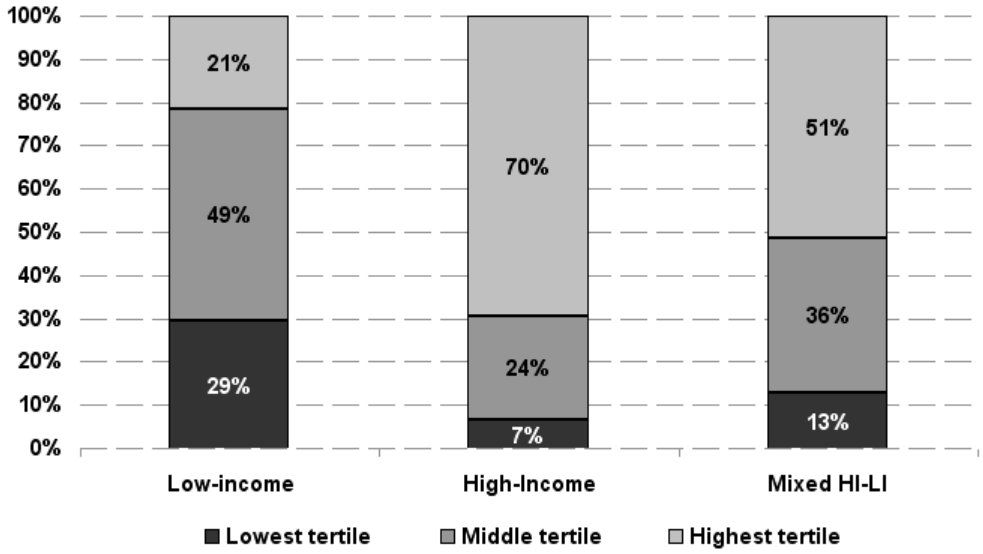

Figure 11: Return migrant households' wealth status by destination

Households with returnees who departed for their first migration to a high income country belong to a large extent to the richest group (70 per cent), while the middle group is the strongest among returnees from low-income countries. Nonetheless, if one compares the latter with non-migrant households in Figure 10 one can see that households with members who returned from low-income destinations are still wealthier than non-migrant households. The wealth index ranks households with returnees from both high- and low-income destinations in between the low-income and high-income destination returnee groups.

At this first glance, migrants returning to Dakar manage indeed to improve living conditions compared to households without migration experience, especially when the returnee had migrated to a high-income destination country. However, one has to be cautious in drawing conclusions about the direction of the association present in the data. One cannot determine if the returnee went back to the same household or founded a new household. The relatively high share of household heads among returnees suggests the latter. In the former case, however, the link between the migratory status of the household and wealth could well run the opposite way: more wealthy households are in a better position to finance migrations by household members in the first place, and are hence also wealthier after their return. Given this simultaneity between wealth and migration, one would require longitudinal data at the household level to determine the wealth status before and after migration, which are very difficult to collect, and/or good instruments to model the relationship between wealth and migration simultaneously.

3.4 When do migrants return? Findings from non-parametric survival analyses

The categorization into migrants and returnees bears the problem that migrants can be considered to be right-censored: they have so far never returned, but some may well do so in the future. For the same reason, comparing average migration durations gives only an incomplete picture, since the durations of those who never returned are not yet completed at the time of the interview. If one looks only at completed migration durations, one finds, e.g. that migration durations are with approximately seven years very similar for returns from Europe and from Africa. In order to take account of incomplete migration durations, one has to revert to duration analysis techniques. The non-parametric method of Kaplan-Meier product limit estimation can provide a first indication of the proportion of returnees after a specific duration, and one can test if the return behaviour differs between different groups.

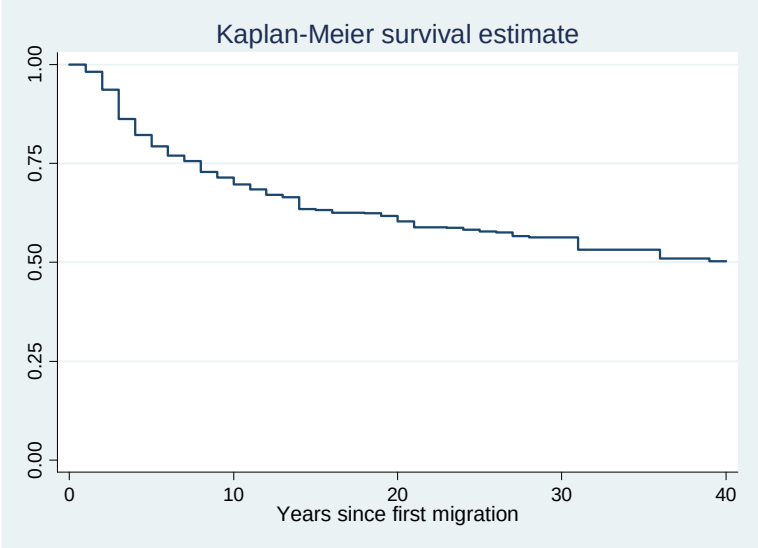

Figure 12: Duration of migration

The survival estimate depicted in Figure 12 suggests that return is characterized by negative duration experience: the change in the survival curve is the highest within the first years after migration, and declines over time. After 10 years abroad, over a quarter of migrants have returned, and half remain abroad after a spell of 40 years.

- *Destination*

Figure 13 plots estimated survival curves by the region of the first migration. Migrants choosing to migrate to another African country return relatively quickly. Half of them return to the region of Dakar after less than 10 years, and 25 years after their departure only a quarter remain abroad. Although migrants to Europe, who are depicted in the upper curve, seem to return at lower rates and more

slowly, one out of five migrants returns within the first 10 years after departure. These return rates may be underestimated since circulation with stays in Senegal of less than a year are not captured by the data. Research about Senegalese in Italy, for example, suggests that shorter returns represent a common habit among migrants involved in transnational practices, such as trading (Riccio, 2001; Riccio, 2005).

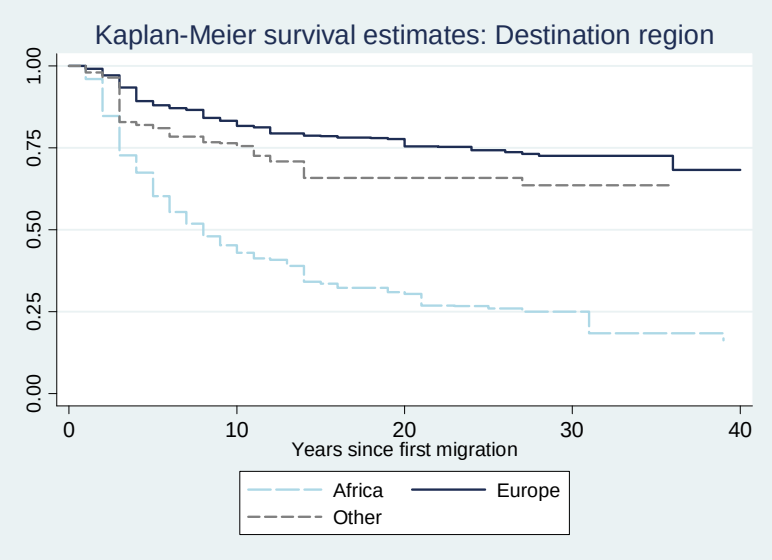

Figure 13: Relatively fast return from Africa, more slowly from Europe

A better way to classify destination countries in this context may be according to the visa, residence and work permit requirements. Relatively closed borders may discourage return to the origin country, since subsequent departures are likely to become more difficult (see Massey and Espinosa, 1997 for a discussion in the Mexican context). Official regulations may however not reflect the ease at which migrants actually travel. Therefore, information on the need for documentation provided by migrants in the biographic questionnaire for each of the countries they lived in will be used to construct a classification of destination countries. Moreover, immigration policies have been changing over time, and the speed of return may differ depending on the migrant cohort.

- *Date of departure*

The duration of migration also seems to depend on the date of departure. Figure 16 shows the survival by groups with the most distinctive survival estimates. Keeping in mind that there are relatively few individuals in the sample who migrated during the colonial period, they appear to return the quickest, and almost everyone returned over the entire period under examination. Those who migrated between 1960 and 1974 stay on the other hand comparably long abroad: approximately one out of four has returned after a period of 10 years. During this time period, migration to Europe as well as to other African countries encountered relatively low barriers: France as well as the flourishing economies in the region (particularly Ivory Coast; Ghana; Gabon) needed foreign labour and attracted Senegalese migrant workers (Robin et al., 2000). The group which migrated between 1975 and 1995 faced harsher conditions. The beginning of the period falls together with the oil shock and a global economic slowdown, triggering a change towards much more restrictive immigration policies in the main European destination France. At the same time, Senegal as well as most African destination countries experienced deep changes in their economy as Structural Adjustment Programs had to be implemented. Several conflicts affected the region during this period, which were accompanied by expulsions of foreigners, such as the conflict between Mauritania and Senegal in 1989 (Fall, 2003). In addition, Senegal suffered from a series of droughts. Some factors would hence provide an explanation for a “push” out of destination countries increasing return, while other factors may have deterred return to Senegal. The survival estimates suggest that this cohort returned slightly faster than the second one, but more slowly than the pre-independence cohort, while the last cohort lies very close to the 1960-1974 group. Further analysis that examines shorter time periods and controls for other return determinants is needed to explain the differences in survival.

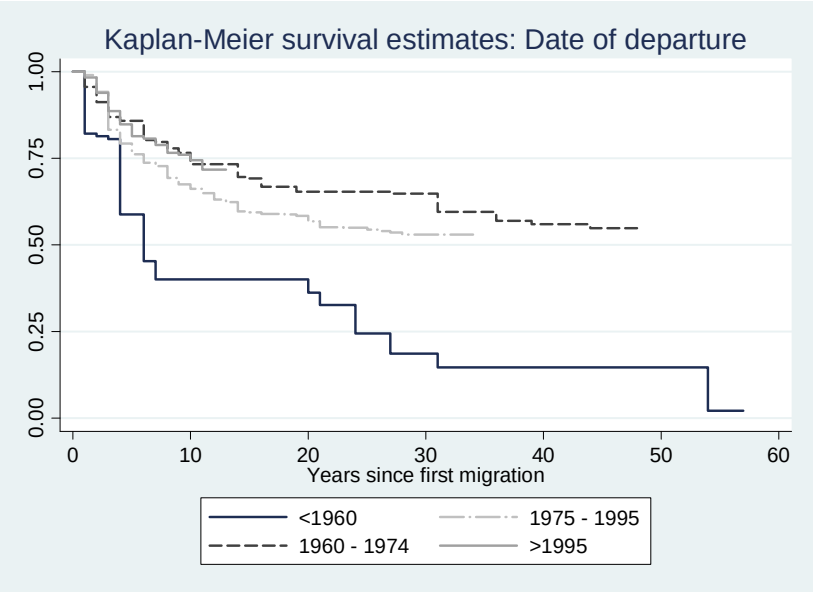

Figure 14: Migration duration by date of first departure

- *Gender*

Migration duration seems to be independent of gender (Figure 14), and the test on equality of survival curves indicates that the null hypothesis of equal survival functions for men and women cannot be rejected.

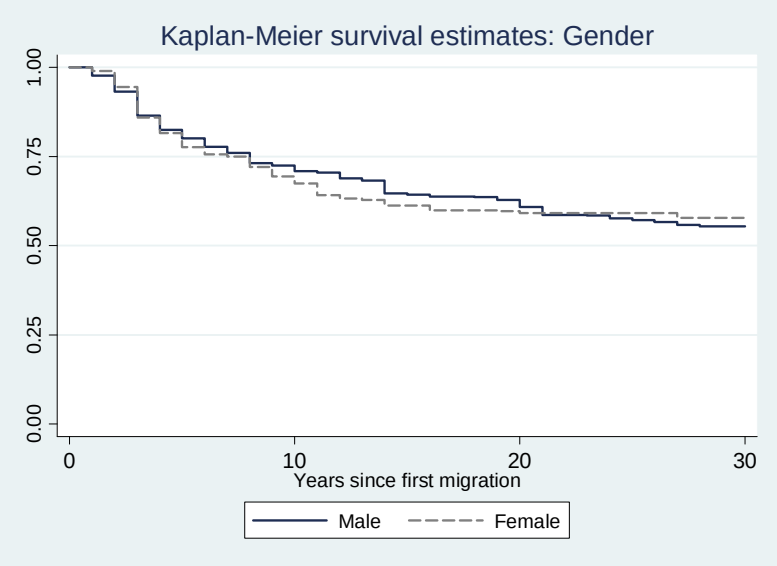

Figure 15: Similar durations for men and women

This finding does not coincide with previous results from the DEmIS survey, where women were found to have shorter migration durations than men. Without taking the censoring of observations into account, one finds also with the MAFE survey data that completed durations are by one year shorter in the case of female migrants than of male migrants (7.3 years for men, 6.2 years for women).

- *Education*

Education may influence survival if returnees are not a random sample from the migrant pool at all times during the migration experience. If education is transferable to the destination country, a hypothesis that return occurs due to failure may suggest, e.g. that the least educated return the soonest, while the target income theory rather hypothesises that the most educated return faster, since they may be able to accumulate the necessary savings in a shorter period of time. However, education acquired at origin may not be transferable to the destination country, in which case one would expect to find no statistically significant difference by education level. To compare survival by education, one must take the assumption that education has been completed before the first departure, since time-varying variables cannot be accounted for in the estimation of Kaplan-Meier survival rates. For this reason, the estimation is performed under the restriction that individuals must have left for the first time when they were older than 22. The test result indicates that the difference in survival curves is just significant at the 5 per cent level, but since survival curves lie very close together in the first five years after migration and cross frequently over the duration analysed, one cannot determine any clear pattern according to educational groups. This result suggests that there is no selection based on education into return migration, which may be due to the fact that human capital acquired in the origin country cannot be transferred easily to the host country.

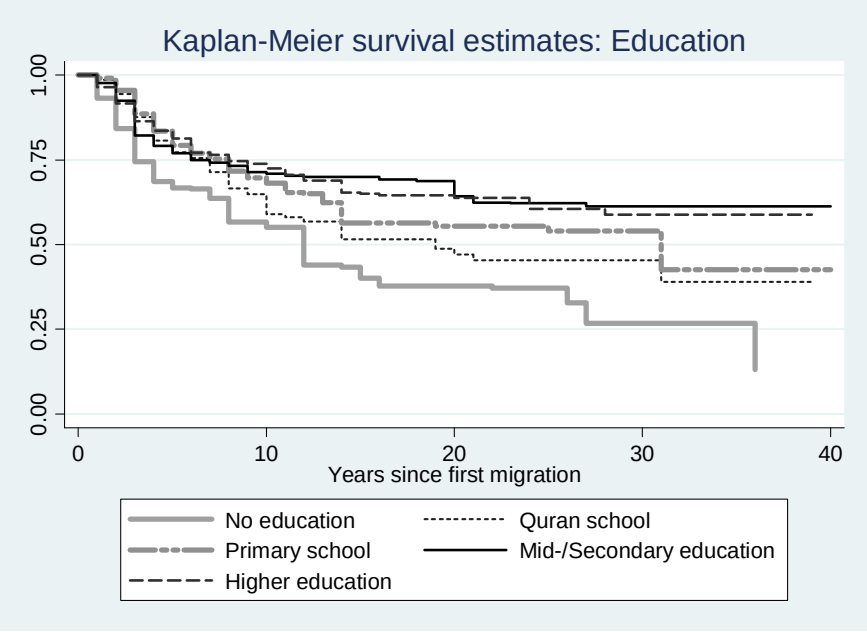

Figure 16: Less educated seem to return faster

- *Age at first departure*

The individuals' age at migration is usually regarded as another factor influencing migration duration. Young migrants have a longer time horizon over which expected migration incomes can be discounted. One would therefore expect individuals migrating at older age to return faster than those migrating relatively young (see, e.g. Reyes, 1997). At the same time, individuals who were older at their first migration may have stronger locational preferences for their home country, more problems to adjust to the host country culture and to acquire host country specific human capital, what points again in the direction that older migrants would be expected to return after a shorter duration abroad (Dustmann, 2003a).

It would be preferable to restrict the sample to those who migrated when they were old enough to take the migration and return decisions themselves, and not their parents or other caregivers, as it is the case of the 1.5 generation shown in figure 15 (departed when they were 18 or younger). Given the relative small number of failures (returns) in the sample, no age restrictions are imposed though.

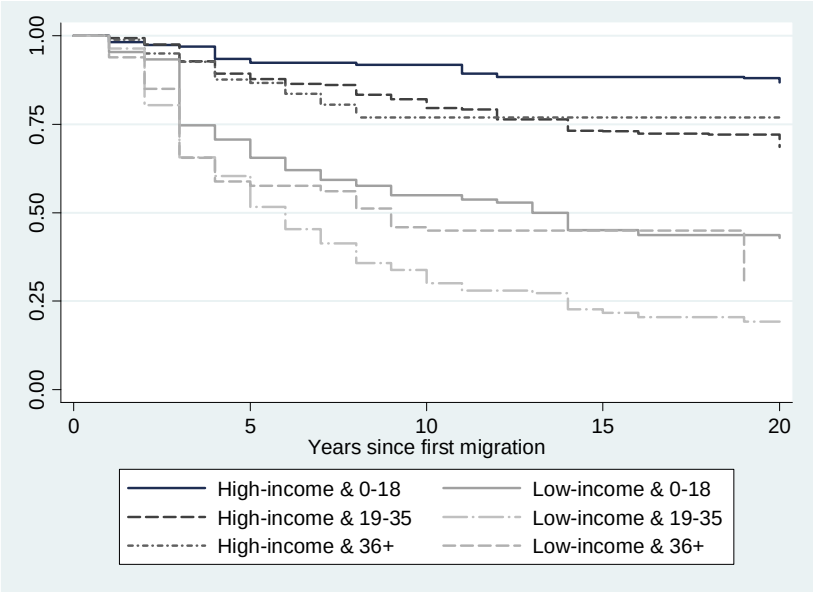

Figure 17: Migration duration by age at migration and destination

Figure 15 shows the Kaplan-Meier survival function estimates for age at migration interacted with the destination region of the first migration (high-income country or low-income country). One observes for both destination regions that those who migrated before their 19th birthday have a tendency to stay abroad longer than individuals migrating at older age, what is in agreement with the theoretical predictions. Among migrants choosing to migrate to a low-income country, it is not the oldest group who returns the fastest, but those who are between 19 and 35 at the time of migration. This could be explained by a target-saving migration motive, whereby the middle-aged group are the most likely to return to Senegal after having accumulated some savings to invest into a small business or to form a family. The descriptive statistics on age at return for completed migration spells provide a similar picture, since the average age at return falls with 27.5 years for women and around 30 years for men exactly in this age group. The high-income case is less clear, as there are not many failures and the survival curves of the 19-35 and over 35 groups cross several times.

- *Ethnicity*

With regard to the effect of pertaining to a specific ethnic group on the duration of migration, one observes that the group of the Serer has a tendency to return faster, while there is no significant difference between Wolof and Pular (Figure 17). The Serer constitute a relatively small share of returnees, and pertain rather to the older migrant cohorts towards Europe while migration by Wolof, for example, is more recent. At the same time, the largest share of the Serer migration is directed to other African countries, from where return occurs faster as shown further above. Migrants do not show significant differences in their survival when groups are defined by religion.

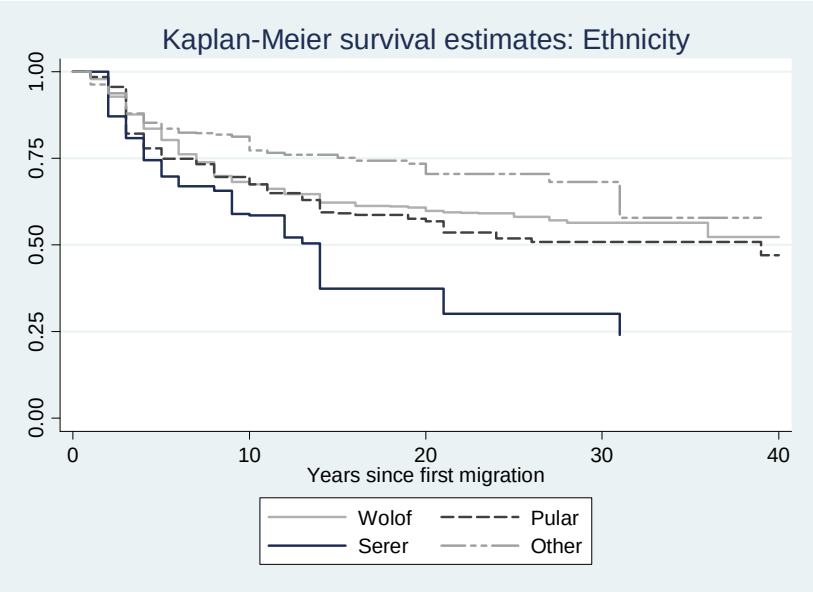

Figure 18: Migration duration by ethnicity

Other variables, which have been found to influence migration duration, such as age, marital status, household composition at home, status in the household, the occupation in the host country, the fact of remitting during the migration, the fact of being documented or undocumented etc. are either time-varying and are therefore likely to have changed between the time of departure and the moment the survey was conducted, or the information is not available for both current migrants and returnees.

4 Conclusion

This first exploratory analysis of the MAFE household data indicates that return to Senegal is dominated by return from other African and other low-income countries, but that return from Europe is still not negligible, with about one out of five migrants returning within 10 years. Migration from Senegal is thus not a one-way move, as it is often perceived in the media. Current migration from the Dakar region is to a large extent directed towards Europe. The migration patterns detected in the context of the capital region may hence differ from past migration patterns as well as migration from other regions in Senegal, as the literature suggests that migration to other West African countries plays an important role in Senegalese migration (Robin et al., 2000).

The findings suggest that observable characteristics of returnees, non-migrants and current migrants, which may indicate a selection pattern into return migration, should be analysed taking into account the migration destination, since the averages hide considerable differences. Returnees from African countries and European destinations exhibit, for example, very different education profiles. At the average, return migrants are more educated than non-migrants and less educated than current migrants, what suggests positive selection on educational levels into migration, but negative selection into return. However, there are different education selection patterns depending on the destination region. Returnees from Europe appear to be the most educated group, indicating positive selection into return from Europe, while there is no selectivity for returnees from Africa. Similarly, the results suggest differential patterns in marital statuses, with returnees from Europe favouring polygamous partnerships as compared to non-migrants, current migrants, and returnees from African destinations. For both types of returnees, the descriptive statistics suggest a greater involvement in self-employment, a result which is in accordance with descriptive statistics from a range of empirical articles on return migration to other countries (McCormick and Wahba, 2001; Wahba and Zenou, 2008; Mesnard, 2004; Ilahi, 1999). Moreover, there appears to be a positive association between return migration and household wealth as measured by a composite asset index, although return migrant households without current migrants seem to be less well off than current migrant households. Household with returnees as well as current migrants abroad achieve the highest scores. Similarly to the findings at individual level, the statistics suggest differences in household wealth depending on the destination region of the household's returnees and current migrants. As one can expect, migration

experience in high-income countries is associated with higher levels of household wealth than migration experience in low-income countries.

This preliminary analysis is limited by the information contained in the data as well as the methods which have been applied. Further research should therefore:

- Exploit other data sources and analytical methods: the retrospective individual data will provide entire histories of migration and return, activities, family formation etc. These allow for a causal analysis of return, taking into account the effect of time-varying variables, and for the study of selection biases based on unobservable characteristics, e.g. with regard to the occupational status of returnees.
- Extend the topic to include migratory movements beyond departure and return as Senegalese migration may rather be characterized by circulation. The household data also does not capture transit migration, which leads migrants through several destination countries.

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Annex

Table with absolute frequencies from HH questionnaire

			Returnee					
Variables	**Categories/statistics**	**Non-migrant**	**Africa**	**Europe**	**Other**	**Total Returnees**	**Migrant**	**Total**
Obs		10229	183	84	25	289	1071	11589
Gender	Male	4955	117	54	16	192	741	5888
	Female	5440	63	28	9	102	354	5896
Age	Mean	24,4	43	52	44	45,6	38,8	
	0 to 9	2149	1	0	0	1	2	2152
	10 to 19	2127	7	1	4	13	19	2159
	20 to 29	2371	27	3	1	31	197	2599
	30 to 39	1591	41	11	7	59	356	2006
	40 to 49	842	47	19	3	69	286	1197
	50 to 59	462	24	22	4	51	131	644
	60 to 69	294	19	12	3	34	33	361
	70 to 79	156	7	9	0	16	6	178
	80 to 89	48	4	3	1	8	2	58
	90+	14	0	0	1	1	0	15
Age at departure	mean	na	22,2	26,8	24,4	23,6	24,3	
Age at return	mean	na	27,3	32,3	28,6	29,2	na	
Education	No education	2765	23	10	3	36	74	2875
	Quran school	901	35	5	2	42	90	1033
	Primary education	3665	53	5	9	67	246	3978
	Mid-/Secondary education	2158	42	19	8	70	316	2544
	Higher education	496	19	35	1	55	206	757
Marital status	Monogamous	2340	86	32	10	129	646	3115
	Polygamous	719	38	22	5	65	129	913
	Single	3950	40	12	6	59	249	4258
	Widowed/Divorced	428	12	14	2	28	33	489
Labour market part	Working	3236	94	45	13	153	774	4163
	Unemployed	335	18	5	1	24	20	379
	Student	2819	10	4	4	19	88	2926
	Retired	208	17	20	4	41	13	262
	Other inactive	3492	37	8	2	47	73	3612
Socio-prof category	Higher-level occupation	108	5	14	0	19	47	174
	Skilled worker	639	22	9	3	35	153	827
	Unskilled worker	556	10	1	2	13	85	654
	Employer	38	6	3	0	9	5	52
	Self-employed	1322	46	18	8	72	187	1581
	Apprentice, family help	511	4	0	0	4	6	521
Ethnicity	Wolof	5159	79	42	8	130	478	5767
	Pular	2136	47	20	6	73	254	2463
	Serer	1004	21	6	2	29	59	1092
	Other	193	33	14	9	57	280	530
Religion	Mouride	3047	47	19	7	74	285	3406
	Tidiane	5309	87	40	15	142	521	5972
	Other muslim	1258	36	19	0	55	161	1474
	Christian	559	10	3	2	16	80	655

Table with relative frequencies (column percentages in case of cross-tabs) from HH questionnaire, weighted

			Returnee				
Variables	**Categories**	**Non-migrant**	**Africa**	**Europe**	**Other**	**Total returnees**	**Migrant**
Proportions		89%	65%	26%	9%	3%	8%
Gender	Male	48%	69%	64%	52%	66%	66%
	Female	52%	31%	36%	48%	34%	34%
		100%	100%	100%	100%	100%	100%
Age	0 to 9	22%	0%	0%	0%	0%	1%
	10 to 19	21%	2%	1%	5%	2%	2%
	20 to 29	24%	12%	6%	3%	10%	18%
	30 to 39	16%	23%	13%	44%	22%	34%
	40 to 49	8%	34%	25%	18%	30%	27%
	50 to 59	5%	14%	29%	5%	17%	15%
	60 to 69	3%	9%	14%	17%	11%	3%
	70 to 79	1%	3%	9%	0%	5%	1%
	80 to 89	0%	2%	3%	1%	2%	0%
	90+	0%	0%	0%	6%	1%	0%
		100%	100%	100%	100%	100%	100%
Education	No education	28%	13%	9%	6%	12%	7%
	Quran school	9%	17%	11%	7%	15%	10%
	Primary education	38%	35%	9%	53%	30%	29%
	Mid-/Secondary education	21%	23%	32%	28%	26%	31%
	Higher education	4%	12%	38%	6%	18%	22%
		100%	100%	100%	100%	100%	100%
Marital status	Monogamous	32%	55%	36%	42%	49%	63%
	Polygamous	10%	23%	32%	5%	24%	13%
	Single	52%	16%	19%	26%	18%	22%
	Widowed/Divorced	6%	6%	13%	26%	9%	3%
		100%	100%	100%	100%	100%	100%
Labour market part	Working	32%	62%	59%	54%	61%	80%
	Unemployed	3%	9%	6%	13%	9%	2%
	Student	27%	3%	4%	5%	3%	8%
	Retired	2%	8%	23%	22%	13%	2%
	Other inactive	35%	18%	8%	7%	14%	9%
		100%	100%	100%	100%	100%	100%
Socio-prof category	Higher-level occupation	3%	5%	29%	0%	11%	9%
	Skilled worker	21%	23%	17%	22%	21%	33%
	Unskilled worker	18%	12%	1%	11%	9%	16%
	Employer	1%	5%	3%	0%	4%	1%
	Self-employed	40%	51%	50%	68%	52%	40%
	Apprentice, family help	16%	4%	0%	0%	2%	1%
		100%	100%	100%	100%	100%	100%
Ethnicity	Wolof	46%	41%	52%	35%	43%	42%
	Pular	21%	26%	20%	43%	26%	23%
	Serer	11%	18%	8%	2%	14%	6%
	Other	22%	15%	20%	20%	17%	29%
		100%	100%	100%	100%	100%	100%
Religion	Mouride	29%	25%	33%	22%	27%	26%
	Tidiane	49%	52%	41%	68%	50%	49%
	Other muslim	14%	18%	19%	0%	17%	15%
	Christian	7%	5%	7%	9%	6%	10%
		100%	100%	100%	100%	100%	100%

C. Number of migrants in return migrant households

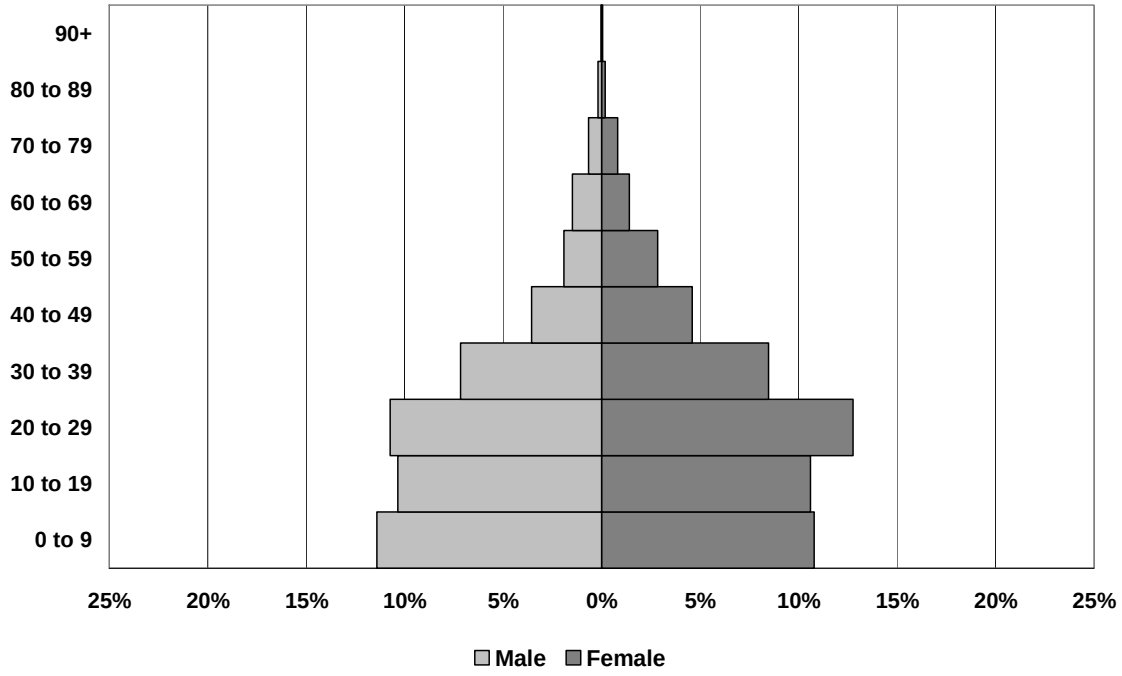
0	44,34%	No current migrants	44,34%
1	27,93%		
2	16,36%		
3	6,37%		

4	1,45%		
5	1,77%		
6	1,78%	At least one migrant	55,66%

D. Number of returnees in return migrant households

1	77,15%
2	13,66%
3	4,71%
4	2,80%
5	0,97%
7	0,71%

E. Age pyramid non-migrants



F. Multiple Correspondence Analysis for wealth index: variables and coordinates

Variables	Categories	Coordinates
Housing characteristics		
Dwelling type	Multi-storey dwelling	1.291
	Appartment	0.797
	Single-storey dwelling	- 0.218
	Room	- 1.019
	Other	- 3.554
Lavatory	Flush toilet linked to sewerage	1.352
	Flush toilet with pit	- 0.274
	Latrines	- 0.922
	Other (nature, public toilets, etc.)	- 2.364
Electricity	Yes	0.262
	No	- 4.267

Number of rooms	1	- 2.236
	2 or 3	- 0.517
	4	0.621
	5	0.752
	>5	1.179
Number of persons per room	<1	1.225
	>=1 & <2	0.674
	>=2 & <3	0.388
	>=3 & <4	- 0.935
	>=4	- 1.775
Durable assets		
Refrigerator, freezer	Yes	1.264
	No	- 1.653
Gas stove	Yes	0.280
	No	-0.737
Sewing machine	Yes	1.782
	No	-0.180
Radio/ Hi-fi system	Yes	0.491
	No	- 1.564
TV	Yes	0.581
	No	- 3.186
Cable or satellite	Yes	2.176
	No	- 0.475
Video or DVD player	Yes	1.429
	No	- 1.277
Phone (fixed or mobile)	Yes	0.506
	No	- 2.487
Computer	Yes	2.713
	No	- 0.450
Internet	Yes	3.805
	No	- 0.210
Fan	Yes	0.885
	No	- 1.933
Air conditioning	Yes	3.365
	No	- 0.196
None	Yes	- 5.783
	No	0.108
Car	Yes	2.489
	No	- 0.460
Motorcycle	Yes	0.928
	No	- 0.066
Animals	Yes	0.580
	No	- 0.204