Testing the remittance decay hypothesis with appropriate data: transnational family arrangements and remitting behavior among Senegalese migrants in Europe.

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Introduction

In 2010, the World Bank estimated that almost five percent of the Senegalese population was living abroad (The World Bank 2012), a big share that only accounts for international migration stocks by excluding illegal border crossings and internal migratory movements. In the same year, the top five destination countries of Senegalese migrants were The Gambia, France, Italy, Mauritania and Spain. Considering these figures, it is not surprising the importance of the remittances sent by the Senegalese abroad have for the Senegalese economy: Senegal is the third Sub-Saharan country, after Nigeria and Kenya, in volume of received remittances; and fourth, after Lesotho, Cape Vert and Guinea Bissau, according to the percentage that remittances represent over the country GDP (Gupta, Pattillo et Wagh, 2007). Remittances received by Senegal clearly increased in the early 2000s, probably in relation to the increasing migration to Europe and the US and economic boom experienced by many of the Senegalese migrants' main destinations (remittances went up from 152 million FCFA in 2000 to 397 in 2005, according to BCEAO, 2005).

In spite of the growing importance of remittances from Senegalese migrants abroad for the country's economy and development, we still know very little about the dynamics underlying the remittance patterns of these migrants. Senegalese migration to Europe have gone through substantial transformation since the mid-eighties: imposition of visa restrictions in France, the traditional destination of Senegalese, along with economic boom in Southern European countries, contributed to the emergence of Italy and Spain as new attractive destinations for Senegalese international migrants. In addition to the diversification of destinations, the migration project and the profile of migrants also substantially altered: more women migrate independently now than before, the average educational level of migrants to new destinations seem to be lower than that of the initial migration to France, circulation between origin and destination reduced because of policy restrictions but, at the same time, family transnational arrangements seem to be very common, etc.

All the aforementioned transformations are likely to have had an impact on the remitting behavior of Senegalese abroad, with relevant implications for theory testing. In particular, the importance of transnational family arrangements, which allow to prolong stays abroad without breaking the implicit contract between the migrant and the left-behinds, is likely to alter the temporal pattern of remittances. However, data on remittances that allow to disentangle the simultaneous effect of length of residence at destination, period of arrival and the process of family separation-reunification, are extremely rare.

In this paper, we take advantage of the longitudinal and multisited structure of biographical micro-data collected by the MAFE (Migrations between Africa and Europe) Project in Senegal, Spain, Italy and France, to precisely distinguish the role of each of these factors on variations of remitting behavior over time. Our results indicate substantial differences in remitting behavior by gender, which are clearly related to the different social norms governing migration in the context of extended and multilocal households in Senegal. And confirm the general point made by Carling (2008) that differences in the migration dynamics, the nature of families and households, and the norms and values relating to migration and remittances, demand well-contextualized analyses of remitting behavior instead of general explanations of remittance motives.

Previous Studies

The theoretical reasoning applied to explain remitting behavior of international migrants have largely based on the work of Lucas and Stark (1985), which analyzed remittances in the context of internal urban-rural migration in Bostwana. The extent to which long distances, restrictions to circulation imposed by immigration policies and transnational family arrangements modify the applicability of the New Economics of Labour Migration to explain the remitting behavior of international migrants has been hardly questioned. Sana and Massey (2005), for instance, show that the assumptions of the new economics of labour migration are generally applicable to Mexico, where temporary, short-term migration and traditional, patriarchal families dominate, but not to the Dominican Republic, where conjugal relations are more unstable and male attachment to families is relatively low. However, the theoretical implications of these findings have not been properly developed so far.

The possible negative trend in remittances over time is known as 'the remittance decay hypothesis', and many empirical studies have sought to confirm or reject it. But conclusions have been disparate.

In micro-level analyses of the determinants of remittances, coefficients for the migrant's length of stay abroad indicate the degree of remittance decay. Some studies that have included time since migration as a single independent variable have found it to have a negative effect (Menjivar *et al.*, 1998; Fairchild and Simpson, 2004; Holst and Schrooten, 2006; Vargas-Silva, 2006). Others, however, have found it to be insignificant (Merkle and Zimmermann,1992; Goza and Marteleto, 1998). In fact, remittance-sending often follows an inverted U-curve over time (Lucas and Stark, 1985; Amery and Anderson, 1995; de la Briere *et al.*, 1997; Cai, 2003; Liu and Reilly, 2004; Craciun, 2006). As Carling (1998) pointed out, if migrants' social ties with the community of origin wane over time, this could be counterbalanced by an increase in available resources. Consequently, the principal remitters could be those who have resided long enough to be well-established and have a stable income, but not so long that they have lost contact with potential receivers.

The interpretation of the time effect depends heavily on the other variables in the analysis, in particular the family separation-reunification process. Omitting variables that capture this process is likely to cofound the estimated effects for time of residence abroad. There are few available studies on this aspect, and they conclude that controlling for the separation or coresidence of close family members, studies of remittance decay have found that 'time itself' does not significantly affect remittance behaviour (Brown, 1998; Grieco, 2003).

Apart from the interpretation given to the time effect on remitting behavior, the relationship between migration length, family separation-reunification and intentions to return and has been poorly explored. Massey and Constant (2002) concluded for the experience of guestworkers in Germany that remitting migrants were more likely to return, and interpreted this finding as supporting the hypothesis of the New Economics of Labour Migration, and its image of the target-earner migrant. However, recent analyses for the Sub-Saharan context (Senegal, DR Congo and Ghana) have shown that remittances (and visits to the country of origin) are systematically associated lower likelihood to return (González-Ferrer et al. 2014), which clearly claim for a better discussion of the meaning and role of remittances in long-distance international migration.

Data and methods

The MAFE project collected individual biographical retrospective data in the three selected African countries and also in some of their main European destinations. In this paper, we will restrict to the

Senegalese part of the surveys, which includes complete retrospective biographical data for 662 migrants in Spain, Italy and France, interviewed in 2007 in both origin and destination countries.

The great advantage of these data is that they allow for dynamic discrete time analyses that utilize information on complete life-histories, which is not only a snapshot of the information on the migrant's life. For the particular goal of this paper, the dataset offers information on whether the migrant remitted regularly or not to Senegal year by year, for each year of the life of the individuals. Accordingly, our dependent variable is a dichotomical one that distinguishes whether in a particular year of his/her life abroad, a migrant remitted regularly to Senegal or not. In addition, the MAFE data includes information on the country of residence of parents, children, partners and more distant relatives for the entire life of the individual, which permits to reconstruct the family separation-reunification process in a very precise manner. Obviously, apart from these two major pieces of information, the dataset also contains complete information on the migration and labour history of the surveyed migrants, their reasons for initial migration to each European country, time-varying information on his/her legal status, etc. All these factors will be, thus, duly controlled for in our multivariate event history analysis.

Preliminary results

	(1)	(2)	(3)
	All	Male	Female
(ref. less than 3 years of residence)			
3-5 ysm	1.80^{***}	1.90***	2.10***
6-9 ysm	2.04***	1.70***	3.56***
10 and more ysm	2.29***	1.85***	2.41***
(ref. before 1987)			
After 1986	1.13	0.78	1.90***
(ref. destination: France)			
Italy	0.70***	0.71**	0.45***
Spain	0.83	0.74*	0.88
Tertiary education (ref. less)	1.02	1.07	1.07
HH had suf. to cover basic needs (ref. no)	1.26**	1.33**	1.18
Employed (ref. no)	4.69***	5.53***	3.70***
Legal status (ref. no)	1.25**	1.10	1.39**

 Table 1. Discrete-time logit exponentiated coefficients of likelihood of remitting from Europe to Senegal among Senegalese migrants, by sex.

Nopartner (ref. partner in EU) partnerOR partnerOT	0.82* 1.61*** 0.82	1.41** 2.26*** 1.18	0.68** 0.82 0.56*	
Nochild (ref. child in EU) childOR childOT	1.39** 1.59*** 2.15	0.49*** 0.76	2.17*** 2.26*** 0.46	
Other relat & fiends in EU (ref. no)	1.28**	1.63***	0.71**	
Ever visited origin country	3.33***	5.07***	1.81***	
Ec. reasons (ref. family) Study reasons	0.97 0.42***	2.54*** 0.88	0.50*** 0.43***	
Other reasons	0.98	2.59***	0.50***	
N	7335	4255	3064	
Exponentiated coefficients $* n < 0.10$ $** n < 0.05$ $*** n < 0.001$				

Exponentiated coefficients. * p < 0.10, ** p < 0.05, *** p < 0.001

Our preliminary results suggest four major findings:

1) Gender: Substantial differences in remitting patterns and determinants by gender exist, and they clearly reflect distinct social norms with regard international migration and family responsibilities in Senegalese extended and multilocal households.

2) Time-related effects: Senegalese men do not significantly reduce their propensity to remit once the initial installation period in Europe is finished. In contrast, the female temporal pattern of remittances clearly fit the inverted U-form previously found by other studies.

3) Crucial role of family structure and separation-reunification process in explaining gender patterns of remittances: the location of close family members (partners and children) but also more distant relatives, have completely opposite effects on the remitting behavior of men and women. In addition, it seems important to highlight that the effect of length of residence does not disappear after controlling for the effect of the family formation, separation, reunification process in the model.

4) Unexpected differences in remitting behavior according to reasons for migration. Future developments of this proposal will explore also the role of return intentions in relation to reasons for initial migration to Europe.