Ties that bind?
Networks and Gender in International Migration
The case of Senegal

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Abstract

Ties that bind? Networks and Gender in International Migration

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This thesis examines the roles of migrant networks in the migration and subsequent economic integration of Senegalese men and women in France, Italy and Spain. It challenges the assumption that networks are invariably sources of assistance in the migration process and examines the factors responsible for variations in their influence. In doing so, it uses quantitative methods and analyzes recently collected longitudinal data within the framework of the Migration between Africa and Europe (MAFE) project. Migrant networks -– members of the respondent's personal circle that have international migration experience – are conceptualized as a form of individual-level social capital that may or may not shape specific outcomes. The thesis contributes to the literature by adopting a longitudinal view of the migration process and considering both migration behaviour and migrants' labour market trajectories at destination. In doing so, it bridges two areas of research that have mostly developed separately. Second, the intersections between migrant networks and gender, insufficiently studied so far, are here examined in detail. Furthermore, the role of networks in different forms of female mobility – often confounded in previous work - are here analysed separately. Last but not least, the thesis makes a methodological contribution by operationalizing migrant networks in a more dynamic way than previous work.

Findings suggest that migrant social capital has a large influence on migration behaviour, while playing a lower and more ambivalent role in migrants' labour market outcomes at destination. Furthermore, several dimensions are found to shape the extent and channels of networks' influence. First, men and women do not rely on the same ties in their migration process. Also, women migrating independently of a partner make a different (and greater) use of their migrant connections than those joining their spouse abroad. Migrant social capital is found to work along gender lines: only access to male migrant networks increases the migration likelihood or the job prospects at destination for prospective male migrants. On the other hand, female networks play a crucial role in independent women's migration process. However, while they greatly increase women's likelihood of moving to Europe on their own, they also lead them to lower-status jobs. Last, the context of destination was found to shape the operation of migrant networks. In France, where a socio-economically diverse Senegalese community has long been established, pre-migration ties at destination lead to better economic opportunities. In contrast, migrant networks in Italy or Spain appear to channel male migrants into street-selling activities. Thus, bonding social capital in the form of migrant networks appears to reproduce the ethnic niches developed at destination and the gender-segmented nature of the labour market.

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Chapter I

Introduction

International migration and the integration of immigrants are often at the forefront of discussion in Europe and their drivers have been the focus of extensive academic, as well as political, attention. Wage differentials between countries are only partly able to explain the magnitude, the direction or the selectivity of migration flows, just as human capital differences cannot wholly account for the lower economic outcomes of immigrants in the host countries. The importance of social networks in the migration process is an old and widely embraced idea in the field of migration studies (Thomas and Znaniecki 1920; MacDonald and MacDonald 1964; Choldin 1973). Interpersonal bonds connecting migrants, former migrants and non-migrants – which have been termed "migrant networks" – are argued to facilitate international mobility and to help newcomers integrate into the host society (Boyd 1989; Massey et al. 1993). By reducing the costs and risks of migration and increasing the expected benefits, migrant networks have been theorised to lead to a phenomenon of cumulative causation of migration (Massey 1998). The attractiveness of this idea lies also in its potential for providing a "missing" link between the micro-level of individual agency and the macro-levels of political and socio-economic structures (Faist 1997, 2000).

While rich, the literature investigating the role of migrant networks suffers from several limitations. Below, I briefly discuss these shortcomings as well as the ways in which this thesis attempts to address them.

First, research has generally assumed that networks are invariably sources of help, leading to ever more migration from origin communities. This overly optimistic view of migrant networks has been challenged on both theoretical and empirical grounds, in the latter case mostly through qualitative work. Böcker (1994) showed that settled migrants do not always serve as "bridgeheads" for prospective migrants, but may often act as "gatekeepers", by discouraging the migration and settlement of co-nationals at their destination (1994: p. 165). The assumption that prior migrants willingly provide

assistance – as much as possible, whenever possible – to prospective migrants in the home country and to newcomers has been further refuted in subsequent work (Menjivar 1995; Engbersen 1999; Collyer 2005; Paul forthcoming). Some quantitative findings also suggest that co-ethnic ties have no influence on immigrants' access to the destination labour market, and that they lead to lower-quality jobs (Lancee 2010; Sanders et al. 2002; Kalter and Kogan 2011).

So far, few studies have attempted a *systematic* inquiry into the conditions under which migrant networks work *or fail* to work in the migration process (Böcker 1994; de Haas 2010). Despite an early call by MacDonald and MacDonald (1964) to also observe instances when network chains do not operate, most work has uncritically focused on successful cases: "If we study chain migration, we must also study its logical opposite, that is, when chains do not operate" (1964: p.90). A similar positive bias has been criticised in the general social capital literature. Among others, Flap and Völker (2004) argued that scholars should abandon their underlying assumptions that social capital is a cure to every problem and instead start asking questions such as: under which circumstances and which parts of social capital are productive for which goals? In other words, scholars should investigate the factors responsible for the variation in the occurrences and explanatory power of social capital.

A similar task is undertaken in this thesis. Much of the previous quantitative work on migrant networks is particularly responsible for emphasizing the invariably positive role of social ties in the migration process. This is partly due, as Boswell (2008) argues, to the assumption in most economic models that individuals seek to maximise their personal utility. When incorporated in such models, networks are envisaged as a tool that individuals can instrumentalise in order to achieve pre-defined goals, such as migration. This exclusively instrumental take on the role of networks makes it hard to envisage, or indeed to investigate, the possibility that networks do not conform to this expectation – i.e., that they do not *facilitate* migration. Furthermore, the universalistic conception of individual preferences and goals implies there are few reasons to assume that networks have *different* effects in different cultures or for different groups of people. It is only when recognizing that the content of ties is *culturally embedded* and that networks take an active part in the shaping of aspirations and shared beliefs that one can go further in investigating and understanding the heterogeneity of their influences. This, of course, does not mean that rational-action models are wrong and that they should be abandoned. Rather, they need to be expanded with an understanding of the

specificities of the cultural contexts within which networks are embedded. Finally, many quantitative studies still treat networks as an *undifferentiated resource*, and do not investigate whether different types of tie may have different influences in the migration process. Although progress has been made in this direction in recent work (Winters et al. 2001; Curran et al. 2005; Garip 2008), methodological problems that will be discussed in chapter three limit their findings.

The first way in which this thesis contributes to the literature is by attempting a systematic investigation of the heterogeneity of effects that migrant networks have in the migration process. In doing so, it draws on previous qualitative work on the role of migrant networks and on the intersection between migration, networks and gender in Senegal. Adopting a similar methodology to that proposed by Boswell (2008), this work transposes findings from qualitative research into more formal hypotheses about the roles of networks in the migration process, which it then proceeds to test using quantitative methods.

A second limitation of previous research is the insufficient attention paid to the interactions between gender and networks in the migration process. This is all the more unfortunate, since studying these interactions would provide a privileged, fruitful ground for illustrating the culturally embedded influence of migrant networks, as per the first limitation. So far, not much work has answered Boyd's (1989) early appeal for "bringing in gender" to the network literature: "[*most previous work*] assumes that women migrate as part of family migration. As a consequence, little systematic attention is paid to gender in the development and persistence of networks across time and space" (Boyd 1989: p.656). A long line of research, developing during the last 20 years, has uncovered significant differences between men and women in terms of motivations for moving to another country and in their settlement patterns at destination. The extent to which migration is a socially accepted option for women further depends on the context of origin. However, as noted by Curran and Saguy (2001), research integrating both social networks and gender issues in the analysis of migration processes has remained scarce. The influence of networks has been assumed to be the same for men and women. Yet, as the authors argue, gender identity shapes the kind of ties individuals use and the ways in which they use them; networks, in their turn, influence cultural expectations about gender (Curran and Saguy 2001). Studying the interaction between gender and networks in the migration process would help unveil some of these processes. Whereas qualitative research has taken important steps in this

direction (Hondagneu-Sotelo 1994; Hagan 1998), quantitative work lags behind, though there are some notable exceptions (Kanaiaupuni 2000; Davis and Winters 2000; Curran and Rivero-Fuentes 2003; Curran et al. 2005; Stecklov et al. 2010).

Third, and following from the previous point, research has not really taken up the question of the interactions of various types of social tie in shaping migration. More specifically, a lack of attention to gender and a focus on labour migration have led to a neglect of the role of social capital in other forms of migration, such as family reunification. In their seminal work, MacDonald and MacDonald (1964) distinguished the case of "delayed family migration" - where the wives joined their spouses already established abroad - from other forms of chain migration, such as the help that lone males offered each other or the *padrone* system. Yet, and quite surprisingly, most[1] of the quantitative literature does not follow their approach and does not distinguish the specific role of the migrant spouse from other household ties in the migration process. Besides potentially overestimating network effects, this limits our understanding of the mechanisms through which family networks exert their influence, as ties carrying different expectations and obligations are lumped together. Moreover, given that most developed countries acknowledge the right to spousal reunification of migrants, the legal means of assistance for migrant spouses are more generous than those of other family members. Finally, in many patriarchal contexts family reunification is the main channel for female mobility, while it is less frequent for men to follow after their wives. Not distinguishing the case of spousal reunification carries different implications for men and for women, thus introducing a systematic gender bias in the analysis. This thesis will overcome this limitation by separately accounting for the presence abroad of the partner, which will be shown to strongly alter the results. Furthermore, it will investigate interactions between other forms of social networks and the (family) context of women's migration.

Fourth, the literatures on the role of migrant networks in international migration, on the one hand, and in the subsequent economic integration of immigrants on the other, are quite distinct and relatively segregated from one another. Whereas in the "migration

[1] To my knowledge, no quantitative work has been able to analyse separately the influence of the migrant spouse. To give only a few examples: Winters et al. 2001; Davis et al. 2002; Curran et al. 2005; Garip 2008. A notable exception is Cerrutti and Massey's (2001) work, which analyses the influence of social networks in the migration of wives separately from that of daughters. However, this work encounters other limitations, as will be discussed in chapter six.

literature" migrants are compared to non-migrants, the relevant comparison in the "integration" literature is between migrants and natives. To my knowledge, few studies examine migration as a process and follow migrants from the migration decision-making stage along their labour market trajectories at destination. Data limitations are partly responsible for this situation. Studying both aspects requires, first, a multi-sited research where detailed information is collected on both migrants and non-migrants. Second, examining both migration and subsequent economic integration (not to mention subsequent re-migration or return) calls for longitudinal data. This thesis extends previous research by adopting a diachronic perspective on the migration process and simultaneously investigating the roles of migrant networks in migration and labour market trajectories.

Last, previous research on the role of migrant networks in international mobility is quite limited in its geographic scope. Quantitative work in particular has focused mainly on Mexican migration to the USA, owing to the richness of the data documenting this flow.[2] Extensions to other settings have rarely been undertaken: more recent studies investigate, for example, flows from other Latin American countries to the USA, internal migration in Thailand, or Polish migration to Germany. Migration flows from Sub-Saharan Africa have so far been understudied. The present thesis fills this gap by focusing on Senegalese migration, thus extending the application of the network theory to a new setting. Furthermore, most previous flows studied were unidirectional and migrants were observed at a unique destination (e.g. the USA for Mexican migration). Senegalese migration, although historically directed towards France and neighbouring African countries, has strongly diversified since the 1980s. This work is thus able to test the relevance of network theory in the context of a multiple-destination migration flow. Finally, owing to the research design of the survey that is used here, this thesis is able to explore the ways in which the destination context shapes the functioning of networks.

1.1 Research objectives

The objective of this thesis is to provide a more systematic analysis of the conditions under which networks influence migration propensity and economic integration, and the

[2] The Mexican Migration project, coordinated by Douglas Massey and his colleagues, started in 1982 and since then has accumulated an impressive data set. More recently, several other national surveys (the ejido survey) have also covered the topic of international migration in Mexico. Chapter three will discuss previous large-scale surveys approaching the role of migrant networks in more detail.

ways in which they operate. In doing so, it focuses on distinguishing the impact of three dimensions in shaping the influences of migrant networks: the gender of prospective migrants, the composition of networks, and the (proxied) level of resources embedded in them.

The analysis is situated at an *individual level* in that it investigates individual outcomes, such as migration behaviour. Nonetheless, it locates the explanation of these phenomena in the interaction between the micro-level of personal characteristics and the meso-level of the social networks in which individuals are embedded. While the effects of various broader structural factors (such as immigration policies, labour market structure, and economic development) in the migration process are well documented, they are not the focus of this thesis. There are only two ways in which I am able to consider their influence in this analysis. First, cultural values, gender relations and meanings of migration in the Senegalese context are discussed, as they are expected to impact on the substance and strength of interpersonal bonds (Boswell 2008). Second, as mentioned above, the role of the destination context in shaping the role of networks in migrants' economic integration is considered. While I interpret the observed differences as being due to differences in the resourcefulness of the larger Senegalese community at destination, I am not able to disentangle precisely which aspects of this context are responsible for the findings.

Thus, the general question overarching this thesis is:

To what extent and through which mechanisms do migrant networks shape Senegalese men's and women's migration choices and labour market outcomes?

In order to answer this question, several sub-questions have been formulated:

- In what ways does the influence of networks vary with the gender of the potential migrant?
- To what extent do networks play different roles in independent female migration and in spousal reunification mobility?
- To what extent does the composition of networks matter in the migration process? Do different types of tie have different influences?
- To what extent does the level of resources embedded in migrant networks condition their effect? How does the country of destination shape the role of networks in migrants' economic integration?

1.2 Structure of the thesis

The thesis is structured as follows. Chapter 2 reviews previous theoretical literature on the role of networks, outlining its limitations in more detail. The chapter concludes by proposing a framework systematizing the dimensions that influence the effect of migrant social capital. Chapter 3 describes the data used in this thesis, which comes from the Migration between Africa and Europe (MAFE) project, focusing on its advantages and limitations for the aims of this thesis. The chapter also provides a discussion of the ways in which the migrant network is operationalized in this thesis and how the data collection methods differ from previous research. Chapter 4 describes aspects of the Senegalese context that are relevant to the analysis. In particular, the chapter discusses the history of migration flows and the role of religious networks, norms surrounding gender relations and the different modes of incorporation of Senegalese migrants in the three European countries studied. It also sheds some light, using the MAFE data, on the extent to which Senegalese migration flows have become more feminized over the last 30 years.

The following four chapters provide the core of the empirical analysis for this thesis. Chapter 5 investigates gender differences in the role of migrant networks in migration to Europe. Chapter 6 takes into account the heterogeneity of women's moves, and investigates the influence of social ties in independent mobility compared to spousal reunification. The next two chapters examine the extent to which pre-migration ties influence migrants' access to the labour market and the type of jobs they find. Owing to their different economic incorporation and to the fact that networks are expected to play different roles, men and women are analysed in two separate chapters (chapters seven and eight, respectively). Chapter 9 is the concluding chapter: it offers a different reading of the empirical findings, linking them to the ideas outlined in the theoretical framework, and emphasises the contributions of this thesis.

Chapter II

Theoretical background: migrant networks in the international migration process

The emergence of migration as an important phenomenon across the world has attracted considerable scholarly attention and has led to the development of a somewhat fragmented (Arango 2000) set of theories and analytical models explaining it. An extensive review of these can be found elsewhere (Massey et al. 1998) and is beyond the scope of this thesis. Instead, this chapter will focus on discussing in more detail the theoretical underpinnings and the weaknesses of one particular framework, also known as the migrant network theory, as well as some empirical findings stemming from it. The chapter will start with a succinct review of two other theoretical models of migration, since network theory has partly developed in reaction to them. These are the neo-classical economics and the new economics of labour migration frameworks. Second, the chapter will discuss previous research on the role of migrant networks from the perspective of the level of analysis adopted, and clarify the approach taken in this thesis. Third, the migrant theory of migration draws heavily on the social capital literature, as developed by Bourdieu and Lin among others. Thus, a brief detour in this literature was necessary to better specify the ways in which migrant networks can be understood as a form of social capital. Fourth, the chapter discusses the mechanisms through which migrant networks have been theorised and have been expected to influence the migration process. This allows me to emphasise the positive bias affecting this literature: the lack of attention and insufficient conceptualisation of instances where networks do not facilitate further migration or the economic integration of migrants. Last, I argue that Portes' (1998) distinction between three dimensions of social capital provides an appropriate framework for a more systematic analysis of the heterogeneous effects of migrant social capital. I conclude by summing up the approach taken in this thesis.

2.1 Explaining migration decision-making: from autonomous actor to networked agent

Several macro-level theories have been formulated to explain the occurrence of international migration. The uneven geographic distribution of labour and capital, and hence of wage rates, is identified as the origin of migration by macro-level neo-classical approaches (Todaro 1976); dependency theory sees migration as one more product of the domination exerted by core countries over peripheral areas; the segmented labour market theory as advanced by Piore (1979) argues that labour migration is caused by a permanent demand for unskilled foreign labour in advanced industrial societies; immigration and emigration policies are clearly major factors in shaping migration flows, though the relationships have been less worked out theoretically (Arango 2000; Czaika and de Haas 2011). This thesis acknowledges the importance of social, economic and political macro-level structures in explaining the migration phenomenon; they are viewed here as the broader and historically determined opportunity structures which constrain (or enable) human agency (Bakewell 2010). However, they are not the focus of this work, which adopts a more micro-level perspective and uses the individual as the unit of analysis. Therefore, I do not provide here a longer discussion of the above-mentioned theories, as this has been done extensively elsewhere (Massey et al. 1998; Castles and Miller 2003; de Haas 2011). Instead, I discuss three migration decision-making models situated at the micro and meso levels.

2.1.1 The neo-classical and the new economics of labour migration frameworks

In the micro level *neo-classical economics* (NE) perspective, migration is viewed as the result of rational cost-benefit calculations that individuals make within the context of broad geographic wage disparities. Aiming to maximise their income, prospective migrants try to determine the location where they will be most productive, given their skill levels and financial resources (Sjaastad 1962; Todaro 1969, 1976). Individuals weigh whether to move, where to move to, and migrate if expected benefits exceed expected costs (Todaro 1976). Migration is therefore seen as an *individual*, autonomous

and voluntary[1] act, which rests on the comparison between the present situation of the actor and the expected net gain of moving (Arango 2000).

The *new economics of labour migration* (NELM) theory partially corrects the neo-classical assumption that individuals act in a social void by situating their actions in the larger context of their households. The NELM approach sees migration as a collective household strategy where the members are aiming not so much to maximise income as to *minimise risks*. As most developing countries are characterised by insurance and credit market imperfections or failures, migration can be a strategy for households to diversify their sources of income by scattering their members (Stark and Taylor 1989). The remittances that migrants send home to the family members left behind reflect the moral contract concluded between the household and the individual migrant (Lucas and Stark 1985). Quantitative studies have shown remittances to be positively correlated with the risk incurred by the household: they are highest in those periods where risk is most acute, such as when droughts occur (Lucas and Stark 1985; Azam and Gubert 2005). Qualitative studies in Senegal and elsewhere have also stressed the fact that migration is not an individual business but a decision taken within the household, from its initiation to the carefully regulated allocation of its revenues (Fieloux 1985; Dia 2009, 2010; Randall and Mondain 2010).

Although the new economics of labour migration approach extends the neo-classical migration theory by recognising that individuals are enmeshed in larger social structures such as households, it is in its turn limited in at least two respects. First, the NELM model assumes households to be altruistic entities acting in full harmony, whose members have equivalent status and powers. However, the literature on intra-household decision-making suggests that the assumption of a unitary household utility function is inappropriate (Haddad et al. 1997), which draws attention to the complex structure of power relations within the family. According to Hondagneu-Sotelo (1994: p.94), "opening the black box of the household exposes a highly charged political arena where husbands and wives and parents and children may simultaneously express and pursue divergent interests and competing agendas". Besides ignoring the vested interests within the family, the NELM perspective is further limited in that it does not consider the

[1] As de Haas (2011) observes, neoclassical theory has a reductionist, mechanistic conception of agency: it assumes that the individual merely *reacts* to a range of pushes and pulls and that his or her actions, assuming a rational agent, are entirely a function of macro-level factors.

larger social structures in which households are, in their turn, enmeshed and which are highly influential in the migration processes, according to the tenets of the *migrant networks approach*.

The network theory of migration, building upon social network theory (Granovetter 1973), stresses the importance of direct and indirect relationships in the migration process (Boyd 1989). In his book *The Volume and Dynamics of International Migration and Transnational Social Spaces*, Thomas Faist raises an interesting puzzle "Why are there so few migrants from so many places and so many from so few?" (2000: p.3). More precisely, he asks why, although about half the world's population would have both the economic motivation and the ability to migrate, international migrants make up only about 2% of the population. At the same time, most migrants come from a few, selected number of places: while some communities are almost deserted, with extremely high rates of out-migration, others in the same economic situation have very few migrants. According to Faist (2000), economic disparities are not a sufficient explanation and cannot account for these patterns alone. Whereas opportunity differentials may explain the initiation of migration, other dynamics are responsible for the *perpetuation* of the flows and their *concentration* along specific geographic corridors. One element of these internal dynamics of the migration process is the development of migration networks. With each individual migration, an increasingly dense web of contacts between sending and receiving regions is developed, which in its turn increases the likelihood of additional movement by lowering the costs and raising the expected net returns to migration (Massey et al. 1993; Arango 2000). "Over time migratory behaviour spreads outward to encompass broader segments of the sending society" (Massey 1993: p.449). A "culture of migration" gradually develops in origin communities, as migration becomes the norm, and it transforms local behaviours, attitudes and aspirations (Cohen 2004).

These ideas are far from new: as early as the 1920s, sociologists recognised the influence of social networks in promoting international movement and ensuring migrants' incorporation into different structures at destination (Thomas and Znaniecki 1918 – 20). Later on, MacDonald and MacDonald (1964) described "chain migration" as "that movement in which prospective migrants learn of opportunities, are provided with transportation, and have initial accommodation and employment arranged by means of primary social relationships with previous migrants*"* (1964: p.82). Tilly and Brown (1967) referred to these ties as the "auspices" of migration and emphasised that

human migration is necessarily embedded in larger social structures: households, kinship groups, friendship networks and communities of residence or origin. Ritchey (1976) similarly observes that, by drawing on social ties to relatives and friends who have migrated before, non-migrants gain access to knowledge, assistance, and other resources that facilitate both their movement and the process of adapting to conditions in the destination country.

Douglas Massey and his colleagues are responsible for the recent rekindling of interest in the concept and have extensively laid out the case for the migration network concept, first in *Return to Aztlan* (1987) and then in later publications (1993, 1998). They defined migration networks as "sets of interpersonal ties that connect migrants, former migrants and non-migrants to one another through relations of kinship, friendship and shared community origin" (1993: p.448). The obligations implicit in such ties ensure that candidates for migration may draw upon them to gain access to assistance with migration and employment at destination. Every new migrant expands the network and reduces the risks of movement for those to whom he or she is related. Migration thus becomes a self-perpetuating phenomenon, increasingly independent of the factors that originally caused it. This self-sustaining process has been called cumulative causation: "Causation is cumulative in that each act of migration alters the social context within which subsequent migration decisions are made, typically in ways that make additional movement more likely" (Massey et al. 1993: p.451). Migrant networks are just one aspect of the social, economic and cultural changes that fuel the migration process. Other contextual internal dynamics[2] have been summarised by the authors, such as increase in relative deprivation, changes in values and cultural conceptions, displacement of agrarian labour, depletion of human capital in sending regions and a social reinforcement of the structural demand[3] for immigrants in destination countries. Both the migrant networks and the cumulative causation arguments build upon the

[2] De Haas (2010) proposes to distinguish between first order and second order (or contextual) internal dynamics of the migration process. Migrant networks are the most studied among the first order dynamics. Second order effects are more indirect and transform the broader social, cultural and economic contexts in sending and receiving communities. This distinction parallels that exposed by Manski (2000) between endogenous and contextual effects.

[3] Massey et al. refer to the dual labour market theory first advanced by Piore (1979), which argues that the segmentation of labour markets in Western countries has created a permanent demand for unskilled flexible immigrant labour in the bottom, secondary sector to occupy jobs that local workers shun because they confer low status and prestige and promise scant upward mobility.

earlier migration system approach advanced by Mabogunje (1970).[4] As will be discussed later in this chapter, the literature on the internal dynamics of migration has mostly stressed their *self-sustaining* role, and paid little attention to instances where networks *fail* to operate (Böcker 1994) or to contextual dynamics which *undermine* further migration (de Haas 2010).

2.1.2 Complementary but also potentially confounding approaches

The neo-classical economics, new economics of labour migration, migration networks and cumulative causation are all partial theories and as such, not mutually exclusive[5] (Massey et al. 1993; Arango 2000; Garip 2007). Research on social networks was originally intended to mitigate a lack of concern with the social element of the migration process in theories which prioritised economic accounts of migration. However, the existence of networks can, to some extent, be factored in the cost-benefit equation solved by the rational actor in order to decide whether to undertake migration or not. As Epstein argues "economics *can* model the effects of social ties" (2008: p.568) and, indeed, neo-classical models have been enriched with a series of "social" factors (Bauer et al. 2002; Munshi 2003; Radu 2008). Yet, according to Boswell (2008), the underlying assumption in most econometric models of individuals as maximising personal utility and acting in accordance with pre-defined goals only leaves place for the incorporation of a simplified version of social interactions. In particular, it does not acknowledge the cultural embeddedness of social ties and hence the cultural variation in their effects. Furthermore, it tends to emphasise the instrumental and facilitating role of migrant networks, to the detriment of more ambiguous and even discouraging influences of such ties.

The network approach can also be conciliated with the NELM perspective since the member of the household who is chosen to migrate may be the one having most connections with prior migrants.[6]Also, it has been argued that migrant networks linking

[4] For a longer discussion on these similarities, see de Haas 2010. Cumulative causation theory is analogous to migration systems theory in the sense that it links the process of migration to the dynamics in the local and community context at both origin and destination.

[5] Furthermore, as discussed, they are only *some* of the theoretical frameworks that have been proposed to explain the initiation and the perpetuation of international migration flows.

[6] The literature on migrant networks uses the term "prior migrants" - which will also be adopted in this thesis - to refer to both current and former migrants. The term should be understood from the perspective of the potential migrant (or the migrant newly arrived at destination) and refers to all members of his or her network that have migrated beforehand.

origin and destination ensure that the migrant fulfils his or her obligations towards the household of origin, by threatening to exclude those who do not conform to this norm (Guilmoto and Sandron 2000; Chort et al. 2012).

While the networks approach is theoretically complementary to the neo-classical and the NELM models, network effects may be confounded with mechanisms theorised under these latter two approaches. First, as Palloni and Massey (2001) argue, the correlation of migratory behaviour among people belonging to the same social group may not be the result of a mutual influence but of unobserved characteristics and constraints which they all share, and which affect their costs and benefits calculations. Furthermore, due to the often-observed phenomenon of social homophily, friendship networks are likely to be formed of similar people. Such selection effects and unobserved heterogeneity can offer alternative explanations to network effects. Under both of these mechanisms, social relations do not have an explanatory value in themselves; rather, the observed association between the migration propensities of related individuals is due to underlying processes.[7]

Second, a close association between the mobility events of household members is not only hypothesised under the network theory, but may also be the result of a jointly formulated household strategy, as the NELM model predicts. Furthermore, under the NELM perspective, the diversification of risks implies that at least some of the household members remain at origin and engage in local activities. Thus, the correlation between the migration behaviour of household members may become negative at some point. Given the criticisms directed at the assumption that households act as unified actors stemming from previous qualitative work, it would be naïve to assume that the decision to migrate is entirely dictated by household-level goals. Furthermore, even if that were the case, the migration of the first household member may transform previously adopted strategies as those left-behind may challenge the household decision; moreover, it can further facilitate (or discourage) the mobility of the other members, through newly acquired information and direct assistance. Thus, it is reasonable to assume that correlations between the migration behaviour of different household members will reflect a mixture of collective decision making and influence of social ties. In this thesis migration is analysed as an individual outcome of a decision-making process potentially involving others, such as household members, extended

[7] What Manski (2000) calls " correlated effects "

family or friends. Furthermore, an attempt will be made to distinguish the extent to which social ties, and in particular migrant connections, are involved in individuals' migration decision-making.

2.1.3 Spousal reunification: distinguishing the influence of the migrant spouse

A particular type of household strategy, which the NELM model does not directly address but which is important to distinguish, is the case of *spousal reunification*[8] at destination. Whereas the geographical separation of the couple may reflect a risk diversification strategy, the reunification at destination of the left-behind spouse does not make much sense under the NELM framework, which regards migration as temporary and intent on advancing the household's situation at origin (Constant and Massey 2003; Baizan et al. 2011). The literature has mostly considered reunited spouses – generally women – as passive migrants, not seeking employment at destination. But if the second partner also works in the host country this may increase the couple's gains and ensure either a permanent settlement (under the NE model) or a quicker return to the home country (under the NELM framework).

In their seminal article on Italian chain migration to the USA, MacDonald and MacDonald (1964) distinguish the case of "delayed family migration" - where the wives joined their spouses already established abroad - from other forms of chain migration, such as the help that brothers and other lone males offered each other or the *padrone* system. Quantitative work on the influence of migrant networks in the migration process has not distinguished the role of the migrant spouse from other household or family networks. Instead, some authors circumvented the problem by limiting their study to a specific population, such as unmarried young adults (Curran and Rivero-Fuentes 2003; Stecklov et al. 2010) or restricting their focus to specific household ties, such as sibling or parent networks (Palloni et al. 2001; Fussel and Massey 2004), but without controlling for the partner. Not distinguishing the spouse from other household members may lead to overestimating the role of these ties in migration, and potentially conflates different mechanisms of influence. First, the migrant spouse may have a larger role in the migration decision-making process of left-behind spouses than other family members. However, as qualitative work has shown (Hondagneu-Sotelo 1994), it is not

[8] A different category of spousal reunification is marriage migration, when a migrant chooses to marry a co-national from the origin country. This case will be discussed in more detail in chapter eight.

always appropriate to call this process a "household" decision-making process, since in traditional patriarchal contexts the decision is often taken unilaterally by the migrant husband. Second, migrant spouses have greater means of assistance at their disposal than other relatives or friends, since they can legally sponsor the arrival of their partner (as well as of minor children), a right granted through several International Conventions[9]. Furthermore, not distinguishing the case of spousal reunification assumes that social ties (other than the spouse) have similar influences in independent migration as they do in migration for reunification purposes. In other words, it hides an important layer of heterogeneity among prospective migrants and ignores interactions between various types of social ties. Last, all these considerations probably affect male and female mobility to a different extent. In many contexts, such as Mexico and Senegal, women are more likely to be left behind and thus to migrate under the auspices of couple reunification. Thus, results will potentially be affected by a systematic gender bias[10] if not taking into account the separate role of the partner. Taking advantage of a dataset that allows the reconstruction of both the family formation and the migration trajectories of individuals, this thesis will analyse the effect of these different ties separately, and systematically distinguish the case of spousal reunification.

Overall, the explanatory power of the various theoretical models of migration introduced arguably depends on the economic, political and cultural contexts in which migration takes place, as work by Garip (2007) and Massey and Espinosa (1997) showed. Unlike these studies, the present work does not aim to evaluate the relative importance of different theories in explaining migration flows; nor does it aim for a mono-causal explanation of the migration process through the influence of networks. As much as possible, alternative explanations are taken into account and discussed in order to correctly evaluate the influence of migrant networks. Instead, this thesis aims to contribute to the literature on the roles of migrant networks in the migration process, by examining the different mechanisms through which they exert their influence and the factors behind their variegated effects. Therefore, this review turns to a more detailed

[9] Family reunification rights have been recognized in Europe under the European Convention for the Protection of Human Rights and Fundamental Freedoms of 1950; worldwide, the 1989 UN Convention on the Rights of the Child and the 1990 International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families. The family members that can be reunited are spouses and children under the age of 18 (including adopted children). In some cases, parents over the age of 65 who are entirely dependent on the migrant can also be reunited.

[10] As will be discussed later on in this thesis, conflating the spouse and other household migrant networks may lead to erroneous conclusions that family ties play a larger role in women's migration.

discussion of the migrant networks literature, its assumptions, strengths and weaknesses.

2.2 Networks and levels of analysis: migrant versus migration networks

2.2.1 The epistemological position of the social networks approach

The focus on migrant networks comes from the application of a social networks perspective to the phenomenon of migration. The networks "paradigm" developed in the 1970s in reaction to the structural-functional trend and emphasises the relational, interactionist properties rather than the stable characteristics attached to more institutionalised social forms (Boissevain 1972). Its focus is on the *connections between individuals*, on the ways in which relationships develop between separate elements; it is thus situated at the level of human interactions. Social, cultural and economic institutions form the context within which individuals interact and contribute to shaping these interactions. In this way, the social networks perspective offers a more dynamic, fluid and less deterministic reading of social phenomena than an approach centred on social structure (Potot 2008). Situated at an intermediate level, it makes a larger place for human agency while still accommodating the influence of the macro-structure. According to Colonomos (1995), through the web of social relations they form, individuals acquire a certain autonomy vis-à-vis the larger system while still being subjected to certain socio-economic structures. Network analysis aims to understand the concrete ways in which "macro structure constrains behaviour while emerging out of interactions" (Degenne and Forsé 1994: p.7)

Translating this perspective to the study of migration, Tilly and others argue that the explanation for the migrant phenomenon should be sought in the structure and content of the ties between people and the resources inherent in them: "By and large, the effective units of migration were (and are) neither individuals nor households but sets of people linked by acquaintance, kinship, and work experience who somehow incorporated American destinations into the mobility alternatives they considered when they reached critical decision points in their individual or collective lives" (Tilly 1990: p.84). The social networks perspective thus proposes a relational approach, situated on a "crucial meso-level" (Faist 1997) which neither denies individual agency, nor disregards macro structures, but allows linking the two levels: "a relational or meso-link perspective means that individual actors are not characterised by solipsistic existence

and that the decisions of individuals or household are contingent upon their respective location or position within broader networks of persons or groups" (Faist 1997: p.98)

2.2.2 Individuals vs. networks as units of analysis

Migration research has worked out the theoretical implications of this (relational) perspective at *two levels of analysis*, generating two directions of research. At the micro-level of individual actions, it is argued that the decisions of potential migrants to stay or go have to be considered within the context of their ties. Their actions are influenced by the information and resources circulated through their social networks. Formulated at an individual level, the network hypothesis predicts that people who are socially related to current or former migrants are more likely to migrate in their turn. Studies situated at this level of analysis draw extensively upon the social capital literature: Massey and his colleagues were the first to identify migrant networks specifically as a form of social capital that "people can draw upon to gain access to foreign employment" (Massey et al. 1993: p.448). The focus is thus on the implications of social capital for *individual outcomes*. However, whereas the social capital literature increasingly acknowledges that not all ties are similarly influential, most research still assumes migrant networks to be invariably sources of help and treats them as an undifferentiated resource (see section 2.4.3).

A second line of research takes networks as units of analysis and examines their emergence, evolution, structure and mechanisms of functioning. At this meso-level, since all ties are assumed to be equally helpful for everyone, the network hypothesis predicts that each new migrant increases the likelihood to migrate for a whole set of friends and kin, thus expanding networks exponentially. This implies that once a critical number of network connections is reached, migrant networks will grow *ad infinitum* (Massey et al. 1998; de Haas 2010). In-depth qualitative research has shown this is not necessarily the case. Following a network of migrants from a small town in Romania over five years, Swanie Potot (2003) shows how the network started declining with the disappearance of the ethnic niche occupied by its members in Nice. Whilst some members moved on to Madrid, migration to this destination never took off, as the pioneers of that move occupied a marginal position in the network. Instead, the network reoriented itself towards London without, however, generating a large expansion in its base.

The author delivers an in-depth and subtle analysis of the form of social organisation characterising the network, the norms governing the actors' behaviour, as well as the abilities and skills on which the individuals' status within the network are based. She shows that while the network is characterised by bounded solidarity, it is also the medium of market exchanges. Other qualitative studies have analysed transnational networks bounded by criteria other than common geographic origin. In the Senegalese context, work focused on religious networks such as the closely-knit transnational Murid networks studied by Bava (2003) and Riccio (2001), or trading migrant networks such as those formed by the diamond-traders followed by Bredeloup (2007). Such networks only partly overlap with the hometown networks and are governed by specific membership criteria, norms and dynamics. Furthermore, Krissman (2005) has criticised the "Massey model" for omitting key actors of migration networks, such as employers, smugglers, state agencies and other entrepreneurs specialising in providing services to would-be migrants, actors described elsewhere as the "migration industry" (Castles and Miller 1998).

In order to differentiate between these two approaches, this work draws upon the useful distinction proposed by Elrick and Ciobanu (2009) between migrant and migration networks. A *migrant* network is understood as the personal network (ego-network) of a (prospective) migrant: in other words, the individual social relations that she or he develops and that may turn out helpful in the process of migration. These migrant networks extend beyond a given community: they transcend geographical locations as well as social spaces such as communities, families or friendships. By contrast, they regard a *migration* network as the "aggregate of the various personal migrant networks available to a specific group of people, such as members of a particular community" (2009: p.102). This parallels the distinction, in the social networks literature, between "personal networks" and "whole networks"[11] (Molina et al. 2011).

An advantage of the personal networks perspective is that it can take into account an individual's membership of a multitude of networks: such as transnational religious networks, family networks, broader hometown affiliations and occupation-specific connections. By contrast, a whole network analysis demands specifying a boundary and

[11] Data on social networks may be gathered for all ties linking elements of a closed population ("complete"/ whole network data) or for the sets of ties surrounding sampled individual units ("ego-centric" network data) (Marsden 1990)

looking at the patterns of relationship between the actors of a defined group.[12] The two lines of research have so far overlapped with a methodological divide between quantitative and qualitative studies. There have been few studies adopting a "whole network" perspective with quantitative methods, for the simple reason that such data is extremely difficult to collect. Research using the Mexican Migration Project data has extrapolated migration networks from the information on migrant networks collected from a selection of its community members. However, unlike the qualitative studies, such a measure gives only a very partial view of these networks and no information on their internal structure. Furthermore, whereas collecting information on migrant networks may be feasible in the context of Mexican – US migration, which means situating the research in two countries, this becomes highly difficult in the context of multiple destination flows, such as the flows from Senegal.

This doctoral thesis contributes to the first line of research and takes the individual as its unit of analysis; it extends the literature by examining richer information on individuals' migrant networks. This allows carrying out a more detailed investigation of the ways in which the social context of ties[13] in which the individual is embedded influences his or her migration process, starting from the decision to move abroad and following migrants in their economic incorporation in the host society.

As such, this thesis focuses on the meso-micro link. As will be discussed later, it also tries to address some of the ways in which broader structures (such as the larger immigrant community at destination) influence the functioning of migrant networks, though the nature of the data used limits efforts in this direction. Studying which ties are influencing which particular outcomes can nonetheless inform us about the evolution of migration networks and the cumulative migration patterns at a higher level of aggregation, thus also contributing to the second line of research (Garip 2008). The two perspectives are considered complementary and they are both useful for a thorough investigation of the roles of social networks in migration processes.

[12] The issue of boundary specification is arguably the most challenging in network analysis. Whole networks are generally defined as social groups where most members would see themselves as forming a group.

[13] It should also be added that this thesis only looks at individuals' direct social ties to other migrants and not to specialized agents.

2.3 Migrant networks as individual-level social capital

As mentioned above, studies investigating the roles of migrant networks situated at an individual level have used a social capital framework for conceptualising their influences.[14] The following section provides a brief detour into the literature on the social capital concept and its mechanisms. These were mostly developed outside the international migration field, but they are highly relevant to understanding the role of networks in the migration process.

Behind the concept of social capital lies the simple and intuitive idea that our lives are influenced not only by how much we know and what we possess, but also by whom we know (Lin et al. 2001). This is to say that the nature of our social relations with others has significant impacts on the type of lives we live (Kazemipur 2006). A consensual definition is that social capital refers to "expected returns to social relationships": relationships can help us achieve goals that we might not otherwise have been able to achieve. Whereas several terms have been coined in the literature to express these ideas,[15] social capital became the most established. However, besides this broad view, a lot of fuzziness surrounds the concept, which has accumulated multiple definitions and generated a large amount of disagreement surrounding its measurement.

2.3.1 Who owns social capital? Individual and collective social capital

A first source of confusion stems from the fact that some researchers conceptualise social capital as a collective good, whereas others see it as an additional resource available to individuals[16] (van der Gaag 2005). Among the former, Coleman (1988), Putnam (2000) and others view social capital as a collectively produced and owned quality of populations from which *all* members may benefit. The focus is on the ways in which groups develop and maintain social capital, and the role of collective norms and trust in these processes. The second perspective, situated at an individual level, envisages social capital as resources embedded in individuals' social networks which they may draw upon to gain returns in instrumental actions (such as finding better jobs)

[14] The recent rekindling of interest in the topic of migrant networks is also linked to the rising popularity of the concept of social capital, as manifested in the burgeoning literature on it.
[15] Granovetter's (1990) concept of social embeddedness suggests that the web of social relations in which an individual is nested provides the *means and meanings* of social actions.
[16] The two perspectives disagree with respect to the level at which return or profit is conceived: whether the profit is accrued for the group or for the individuals (Lin 1999).

or to maintain expressive gains (representative works: Bourdieu 1980, 1986; Lin 1999, 2001; De Graaf and Flap 1988). Ted Mouw (2006) refers to this concept as "network" social capital.

It is on this second conceptualisation of social capital that most socio-demographic research studying the influence of migrant networks on individual behaviour, including Massey's and his colleagues', draws upon. It is also the perspective on social capital taken in this thesis. Consequently, most of the theory that will be discussed next is representative of this perspective.

Pierre Bourdieu was the first to analyse social capital systematically. He defined it as "the aggregate of the actual or potential resources that are linked to the possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition" (1980: p.118). His treatment of the concept is instrumental: he does not consider social networks as a natural given, but emphasises the deliberate construction of sociability for the purpose of creating benefits. Actors knowingly invest in social relationships in an attempt to gain access to different kinds of capital: economic, cultural or institutional. Parallel to Bourdieu's treatment of the concept, Coleman developed a refined analysis of the same process. He defines social capital as a "variety of entities with two elements in common: they all consist of some aspect of social structures, and they facilitate action of actors – whether persons or corporate actors – within the structure" (1990: p.302).

But if both sociologists conceptualise social capital as inherent in the structure of relationships, Coleman's definition is more ambiguous and potentially tautological (Portes 1998). His definition seems to imply that social capital can only be identified when it successfully leads to the attainment of the specific goal coveted by the individual. Such a "functional" view of social capital implies, according to Lin (1999), defining the causal factor by the effect factor and making social capital indistinguishable from its *outcomes.*

In the definition developed in his "network theory of social capital", Lin (1999) clearly distinguishes between the *resources* accessed and the expected *returns*:[17] "social capital is investment in social relations by individuals through which they gain access to

[17] In fact, Lin distinguishes between three stages of action: the creation (through investment) of social capital, its mobilization, and the harvest of returns from mobilized social capital.

embedded resources to enhance expected returns of instrumental or expressive actions" (1999: p. 39). Whether or not social capital – the socially embedded resources – enhances returns is thus entirely an empirical question. Most studies have focused on determining the influence of social capital on a range of instrumental outcomes such as the attainment of better education (e.g. Coleman 1988; Carbonaro 2003), the attainment of general status (see overview in Lin 1999), or finding a (better) job (e.g. Granovetter 1973; Bian 1997; De Graaf and Flap 1988; Mouw 2003).

2.3.2 Networks and resources

Another important distinction pointed out by Lin is that between networks and resources: "social capital is more than mere social relations and networks; it evokes the *resources* embedded and accessed" (1999: p.37). A similar idea is expressed by Bourdieu, for whom the volume of social capital depends on the size of the network connections and the volume of (economic, cultural or symbolic) capital possessed by each of those to whom the individual is connected. On the other hand, Granovetter (1973), Burt (2001) and others argue that the source of social capital lies in the *structure of the network*, and that certain positions lead to better returns. The "strength of weak ties" argument developed by Granovetter postulates that weak ties give people more important advantages in the pursuit of goals than strong ties, as they extend beyond their immediate social circle. Acting as bridges to other groups, they are the channels through which non-redundant and socially distant ideas, influences or information may reach the individual.[18]

In order to reconcile the structural and the resource perspective on social capital, Lin (1999) argues that network locations should be analysed as an exogenous factor to social capital, as potential facilitators of access to better-embedded resources. Furthermore, the type of network location which is most useful will depend on the type

[18] Building on this idea, Burt (2001, 2002) argues that the absence of ties, not their overabundance which generates social capital. While dense networks only convey redundant information, "structural holes" in the web of relationships between people are a source of competitive advantage since they offer an opportunity to broker the flow of information and resources between otherwise disconnected segments of the network. Coleman (1988), on the other hand, identifies "network closure" as a source of social capital. Closure means the existence of sufficient ties between a certain number of people, or, in other words, of a dense enough network of relationships to guarantee the observance of norms inhibiting malfeasance and thus facilitating transactions between its members. In sum, researchers agree that the patterns of connections between network members have an additional influence on the availability and content of social capital (Flap 2004), although their views diverge with respect to which network configurations are the most useful.

of goals sought by the actors: dense networks may be more useful in preserving resources already possessed by the individual (like mental health), whereas weak ties and bridges may be more instrumental in gaining access to new resources (such as obtaining a better job and achieving occupational mobility). Although the structural qualities of the networks are most likely influential, this thesis, like most research on migrant networks, does not take this aspect into consideration given the difficulty in collecting appropriate data.[19]

2.3.3 The mobilisation of social capital

Flap (2004) draws attention to another element of social capital that should be taken into account: the *willingness* of network members to share their resources. Having access to social capital does not guarantee its mobilisation, as Lin also argues: "Not all persons accessed with rich social capital are expected to take advantage of or be able to mobilise social capital for the purpose of obtaining better socioeconomic status" (2001: p. 92). He proposes to distinguish between two forms of social capital: accessed and mobilised.[20] Focusing on the former requires collecting information on an individual's "stock" of social ties at a given moment. Focusing on mobilised social capital would lead one to investigate what people have actually achieved with the help of their network members (Van der Gaag and Snijders 2004: p.6). Recent research has pointed out that social capital activation is a contingent and differentiated process, influenced by a variety of factors (Smith 2007). Thus, social capital refers to the resources which *may* become available to the individual by virtue of his or her membership in social networks.

In this thesis, I mostly focus on *access to social capital* for several reasons. First, it may be argued that it is not only the resources one actually uses that are essential, but also the ones that are *potentially* available. One may enjoy the benefits of social capital without actively mobilising it. For example, according to Lin (2001), or Marsden and Gorman (2001), embeddedness in resource-rich networks is associated with a routine

[19] Operationalizing network structure would require collecting information about relationships between all actors included in the sample or between all alters of ego-centred networks. Some recent efforts in this direction should be acknowledged (McCarthy, Molina and Lubbers' 2004 survey of the personal networks of immigrants in the US and Spain; Chavez et al.'s Network Survey of Immigration and Transnationalism, on-going).

[20] Also, as will be discussed in section 2.5.1, individuals with higher levels of personal resources may choose not to use their social capital in attaining goals.

flow of useful information without anyone having to specifically ask for it – the "invisible hand of social capital" (Lin 2001: p.792). Furthermore, measures of activated social capital - such as whether one found a job through social networks - often ignore more diffuse forms of assistance. The respondent may not count more indirect influences received from kin or friends - like help with applications, providing references or putting one in contact with specialised agents - which leads to underestimating the extent of social capital influences.

Second, I am interested in explaining to what extent a person's social capital can be related to particular outcomes – such as a higher probability to migrate and labour market outcomes – and not merely whether individuals migrated or found a job through their migrant network. The latter would involve studying only migrants or employed persons, and thus selecting on the dependent variable. Third, investigating access to social capital permits the study of the factors which affect the extent to which the available social capital is mobilised. Such differences would not become clear if one only measured the mobilised social capital itself. Ideally, both access and use measures would be present, but few surveys collect both types of information. Although this thesis mainly uses measures of *access* to migrant networks, some use measures are also available in the data, allowing us to study particular mechanisms of network influence.

2.3.4 Social capital is not a cure for every problem

Research on this topic has been criticised for over-emphasising the positive aspects of social capital and neglecting unproductive, constraining and even negative effects of social relationships. Social capital is not a cure for every problem (Flap 2004, van der Gaag 2005) and there are life domains and contexts where it can even have a negative impact. Fischer (1982) drew attention relatively early to the "double-edged nature" of social capital: people are both beneficiaries and donors, and viewed from the perspective of the latter, social ties sometimes carry burdensome obligations. Social ties may also turn "sour" and refuse the expected help, or individuals may even cheat others, to their own personal benefit (Völker and Flap 2001). Finally, positive social capital may have its negative effects: workers fail to work hard because they spend too much time being social (Völker and Flap 2001). Thus, according to van der Gaag (2005), social capital research should overcome this positive bias and focus on questions such as "under which circumstances social capital is productive for which goals" (2005: p. 11).

2.3.5 Definition of migrant social capital

Based on this brief review of the literature and the choices of approach, social capital embedded in migrant networks – which is often referred to in the literature as "migrant social capital" (Massey et al. 1998; Curran and Rivero-Fuentes 2003; Garip 2008), a term that will also be used in this thesis - is defined here as:

the collection of resources that individuals may access through their ties to prior migrants and which may or may not facilitate their international mobility and access to foreign employment.

This definition emphasises the fact that prior migrants do not necessarily share their resources, and also that social capital is not always productive or may only be so for specific goals. This definition excludes the patterns of relationships between members of an individual's social circle – the *structure* of the network – due to the limitations of the data used in this study. Furthermore, individuals may be embedded in other social networks and thus have access to other sources of social capital. While the role of ties to non-migrants will also be briefly addressed, the present work focuses mainly on the social capital embodied in migrant networks.

2.4 Mechanisms of influence of migrant networks in the migration process

Empirical evidence has generally supported the importance of migrant social capital in the migration process. However, there has been less research on the actual mechanisms through which networks operate (Dolfin and Genicot 2006; Espinosa and Massey 1998). Quantitative work is particularly limited in the ways in which it conceives the role played by migrant networks in the migration process. The more or less implicit assumption of rational-choice models incorporating migrant networks, as discussed in section 2.1.2, is that networks facilitate individuals' attainment of pre-defined objectives (Boswell 2008; Radu 2008). This is problematic in at least three ways. First, the positive influence of networks is over-emphasised, and there is little space left for investigating the possibility that networks have no influence or actually discourage migration behaviour and limit occupational attainment. Second, a subtler, but also more fundamental, role of networks is ignored: their role in shaping aspirations to migrate and, more generally, values and beliefs about desirable life-styles. Third, the cultural embeddedness of networks is insufficiently taken into account (Boswell 2008; Ciobanu and Boswell 2009). The shared norms and obligations underlying social ties affect the

potential for mobilising migrant social capital, and this may lead to variations in how ties are used and the extent of their influence between cultures or groups of people.

The conceptualisation of migration proposed by de Haas (2010) allows a better treatment of the multiple channels of influence of migrant networks. He argues that each form of migration may be treated as a function of *aspirations* and *capabilities*: people will only migrate if they perceive better opportunities elsewhere and have the capabilities to move (2010: p.16). Granovetter's (1990) earlier concept of social embeddedness suggests that the web of social relations in which an individual is nested provides the *means* and *meanings* of social actions. In a similar way, it can be argued that migrant networks may influence both people's aspirations and their ability to migrate. This section reviews research documenting these two main channels of influence of migrant social capital, before turning to a discussion of its more ignored downsides.

2.4.1 Migrant networks and the culture of migration: shaping migration aspirations

Along with other factors, migrant networks have been argued to shape ideals of a "good life" and sought-after lifestyles, and raise people's awareness about opportunities elsewhere. They are the channels through which "social remittances" (Levitt 1998) – defined as ideas, behaviours, identities – travel between destination and origin regions. As Mabogunje (1970) emphasised, with respect to rural-to-urban migration, new ideas and exposure to urban life styles transmitted back by migrants increase aspirations to migrate. Success stories of returning migrants accentuate dissatisfactions with opportunities and conditions at home (Hugo 1981; Goodman 1981). Material goods – such as fancy clothes, cars and mobile phones – displayed by migrants in their periodical visits become desired objects in home communities, and the ostentatious villas that "migradollars" build raise feelings of relative deprivation. Through the expansion of migrant networks in origin communities, a "culture of migration" (Cohen 2004; Kandel and Massey 2002) is gradually installed, celebrating a livelihood based on migration over locally oriented, sedentary lifestyles and aspirations (like farming or schooling). In some contexts, migration comes to be seen as a kind of rite of passage, a necessary step on the path to independence, maturity and adult manhood (Ali 2007; Jónsson 2008).

Ray (2006) argued that aspirations are socially grounded and that "an individual draws her aspirations from the lives, achievements, or ideals of those who exist in her aspirations window, people from her zone of 'similar', 'attainable' individuals" (2006: p.410). Conceiving aspirations in a similar way, Kandel and Massey (2002) consider that the culture of migration is a product of direct links to migrants: "non-migrants observe migrants to whom they are socially connected and seek to emulate their migratory behaviour" (2002: 983). People learn to migrate and learn to aspire to migrate through their social interactions (Ali 2007). Whereas the norm of migration may spread out to the entire community, Kandel and Massey find that one's aspirations are positively influenced only by having direct links to migrants[21] and not by the prevalence of migration in the community. Paul (2011) argues that migrant networks are not only shaping aspirations to migrate, but also the type of migration trajectory envisioned: all her Filipino interviewees considering step-wise[22] migration had forged these aspirations through social interactions with kin, friends or acquaintances who had engaged in similar multistage trajectories.

2.4.2 The instrumental role of migrant networks

Embeddedness in migrant networks does not only enhance aspirations to migrate but has been argued also to increase actors' ability actually to do so, by lowering its costs and increasing the expected benefits, such as income at destination.

2.4.2.1 Reducing the cost of migration

First, migrant networks may reduce the costs of migration. The first basic cost is the expense of reaching a destination, which, in the case of international migration, is generally high. The costs for securing a visa or a job for a particular country have been shown to vary according to the legal barriers and obstacles to entry and the wage rates that immigrants may hope to obtain at destination (Paul 2011). The costs of a clandestine journey also vary, according to whether migrants employ the services of a

[21] They compare the influence of the number of migrants in one's family and that of the migration prevalence within the community. The second factor does not significantly affect aspirations to live and work in the US.

[22] Paul defines stepwise international migration as "a pattern of multistage international labour migration involving stints of substantive duration working in intermediate countries as an intentional strategy adopted by low-capital migrants unable to gain immediate entry into their preferred destination countries" (2011: p.1843).

smuggler or a coyote, which has been shown to significantly lower the odds of arrest of Mexican migrants crossing the border to the US (Singer and Massey 1998). Social ties to prior migrants can be used by potential migrants to find out about cheaper ways to obtain a visa, to locate and pay a reliable coyote, to bargain on the price, and extract guarantees for services rendered. Alternatively, prior migrants may accompany the new migrant on the journey, thus reducing travel expenses even more (Lindstrom 1997).

Very little research has quantitatively evaluated the impact of migrant networks on migration costs and the conclusions mostly relate to Mexican migration to the US. Analysing undocumented migration in this context, Dolfin and Genicot (2006) find that family networks increase coyote use and are thus not substitutes for coyote services. Having a parent migrant also increases the chances of crossing the border with relatives or friends among undocumented Mexican migrants (Singer and Massey 1998). Also with respect to Mexican migration flows, Neuman and Massey (1994) found that having ties to current and past migrants has very little effect on the various costs, such as travel expenses and food and rent bills at destination. It is mostly by accumulating *personal* migration experience through repeated trips that migrants manage to lower these costs, especially coyote expenses, which are unresponsive to other factors.

2.4.2.2 Migrant networks as sources of credit

Furthermore, migrant networks may provide direct financial assistance towards meeting these costs. They may advance, in the form of a gift or a loan, (part of) the costs for making the journey abroad; they may also offer food and lodging to the newly-arrived migrant at destination for a more or less limited period of time, while the newcomer is looking for a job. Dolfin and Genicot's (2006) findings that family networks have a smaller impact for asset holders may suggest that networks substitute for personal wealth in providing a source of credit. Studying a different migrant population – Filipino female domestic workers in Singapore and Hong Kong – Paul (forthcoming) reports that one out of every five of her respondents received financial assistance from other migrants to help pay their recruitment agency fees.

2.4.2.3 Migrant networks as facilitating access to foreign employment

Lastly, migrant networks are heralded as raising the expected benefits of migration by facilitating the newcomers' access to the labour market and to better-paid jobs. Lin (1999) has discussed three ways in which social ties may enhance economic benefits,

which can also be applied to migrant networks. First, in imperfect market situations, experienced migrants are valuable sources of information on employment opportunities for newcomers with very little knowledge on the workings of the host country labour market. Second, they may influence others (e.g. recruiters, supervisors) who play a critical role in decisions (e.g. hiring) involving the actors. They may "put in a word" and refer the newly arrived migrant to local employers. Third, in a more symbolic way, they may act as social credentials and "stand behind" the individuals, thus reassuring potential employers that the individual can provide "added" resources beyond his or her personal capital.

As Waldinger (1994) has shown, a worker who has been recommended by a relative or friend is more motivated to do the job well as an obligation towards the person who referred them. Thus, network recruitment is profitable to employers, and they often encourage this practice. Furthermore, given the significant share of ethnic businesses in destination countries, experienced migrants may often be in a position to recruit workers themselves and directly offer a job to newcomers they are related to.

Research on the impact of social capital in migrants' economic integration at destination has rarely considered the specific influence of individuals' migrant networks, i.e. the pre-established ties migrants had in a particular location (for exceptions see: Munshi 2003; Neuman and Massey 1994; Kalter and Kogan 2011). Rather, the literature focuses on general effects of embeddedness in co-ethnic networks. Nonetheless, it is likely that people with ties to pre-established migrants can get more easily access to the wider "ethnic networks" and the ethnic community (Lancee 2010).

These have been conceptualised as bonding social capital (Putnam 2000; Lancee 2010) because of the high degree of "closure" (Coleman 1988) and "bounded solidarity" (Portes 1998) characterising them. There is some evidence that, for immigrants, the main source of information on jobs is through relatives and friends, particularly those of the same ethnic origin (Elliott 2001; Zhou 1992; Waldinger 1994). Co-ethnic networks are likely to provide access to the ethnic economy (Light and Gold 2000) and are responsible for the formation and perpetuation of ethnic niches (Waldinger 1994). Chapters seven and eight will further discuss the literature on bonding social capital and labour market outcomes for men and women.

The mechanisms through which migrant networks have been argued to exert their influence on the migration process suggest that they mostly constitute a *location-specific* form of social capital. Prior migrants can only provide trustworthy information

on the safest ways of entry and on the employment conditions for the countries to which they themselves have migrated. Furthermore, they can only provide material assistance such as lodging, food and help with the job search in the destinations where they are located. The specificity of their resources explains the channelling effect that networks have on migration, leading migrants from a particular origin to choose a particular destination.

There are nonetheless two other mechanisms of networks influence which do not necessarily have this effect. In shaping aspirations to migrate, migrant networks may increase individuals' probability of moving anywhere, not necessarily to a specific location. Similarly, their financial contribution towards the cost of migration can be used, in theory, to settle anywhere.[23] Furthermore, Collyer (2005) argues that the tightening of migration restrictions changed the functioning of networks and increased the geographical diversification: "migrant networks no longer operate to encourage simple geographical attraction" (2005: p.8). This does not mean that networks have lost their relevance, but that they function differently, serving mostly to transfer information and remittances (Kane 2002). Similarly, Koser (1997) finds that Iranian migrants to the Netherlands rarely migrated to the same location as their friends and family, but were nonetheless assisted by the latter in various ways.

Overall, most research assumes that migrant networks increase the likelihood to migrate, at least partly by connecting migrants to jobs at destination – hence, by increasing their (expected) economic outcomes. Yet few studies have investigated this assumption directly. Taking advantage of a longitudinal (retrospective) dataset, this thesis is able to directly investigate the role of migrant networks in both migration decision-making and migrants' labour market outcomes at destination. Moreover, the contribution of migrant networks to the decision to migrate and to the financing of the trip will be explored descriptively. Unfortunately, the survey does not collect information on migration or life aspirations, which limits the potential for studying networks' role in shaping aspirations.

[23] Having said this, it may be less likely that one's network of migrants from an African country can support, even partially, the costs of migration to a European country.

2.4.3 The positive bias in migrant network research

That migrant networks play a pivotal role in the migration process has become an undisputed fact. Perhaps because it is such an undisputed fact, research has not often pushed the analysis further and has paid little attention to the instances where networks do not have the expected returns. Just as in the general social capital literature, migrant networks have been perceived as a "cure for every problem". Prior migrants have been assumed to willingly provide as much assistance as they can, whenever possible, and to facilitate the migration of anyone related to them. Just as the NELM theory assumes households to be unified and altruistic units, so does the migrant network theory assume networks to act as common goal-seeking, altruistic entities, equally sharing their resources among their members and within the community of origin.

More recent, and mostly qualitative, research has shown that this is not necessarily the case. Studying Salvadoran migrants in the US, Menjivar (2000) shows that in many cases migrant networks failed to provide the expected assistance to the newcomers at destination, as social relations became conflictive, exploitative or broke down altogether. Her findings corroborate Hondagneu-Sotelo's (1994) study of networks among Mexican domestic workers in the Bay area, which shows that newcomers are often exploited by their more seasoned counterparts.[24] Similarly, Paul (forthcoming) reports how prior migrants to Singapore and Hong Kong do not often offer assistance, or only very low-risk forms, to fellow Filipinos considering international migration: settled migrants "might not always agree to provide help when asked, and even when they do, they might not provide as much help as they are capable of providing" (forthcoming: p.2).

Quantitative studies on the immigrants' integration in the labour market similarly suggest that ties to co-ethnics do not facilitate their economic advancement (Lancee 2010; 2012) or that they do so in more nuanced ways (Sanders et al. 2002; Kogan and Kalter 2011). Similarly, in its comparison of international migrants originating from Turkey, Morocco, Egypt, Ghana and Senegal, the Push-Pull project finds that there is a

[24] Menjivar's and Hondagneu-Sotelo's examples point to another negative consequence of social capital, beyond those enumerated by Portes (1998), and which could be said to be the opposite of free-riding. In this case, the members in a position of power exploit the weakness of the newcomers, a mechanism which does not, contrary to the free-riding one, have a levelling consequence, but leads instead to an increasing inequality within the immigrant community.

gap between what help migrants expected from their networks in the destination country and what they actually received, a gap which is greatest for Senegalese migrants living in Spain (Schoorl et al. 2000).

Portes and Sensenbrenner (1993), and later Portes (1998), were among the first to theorise the downsides of social capital, too often ignored in most of the literature, which tends to idealise the consequences of sociability and community networks. Four such effects are distinguished: exclusion of outsiders, excess claims on group members, restrictions on individual freedoms and downward levelling norms. With respect to the first of these, most research assumes that access to migration networks is evenly distributed among community dwellers (Massey et al. 1998; Davis and Winters 2001). This disregards the structure of networks *within* communities, often internally differentiated by clan, lineage or ethnic and religious belonging. Engelbrektson's (1978, cited in Faist 2000) and de Haas's (2006) studies of rural communities in Turkey and Morocco illustrate how migrant social capital tended to remain concentrated within certain lineages, excluding members of the other clans or families.

The second mechanism conceptualised by Portes refers to circumstances where more successful members of close-knit networks are compelled to meet all sorts of financial and material demands by fellow kinsmen, creating thus a huge free-riding problem. Such a case was observed by Geertz (1963) in his widely cited study of the rise of commercial enterprises in Bali. He documented how successful entrepreneurs were constantly assaulted by job- and loan-seeking kinsmen that they could not refuse without breaking the strong norms of mutual assistance. The qualitative findings reported by Menjivar (2000), Mahler (1995) or Paul (forthcoming) cited above all illustrate that more established migrants increasingly feel overburdened by the newcomers' claims of assistance, but unlike in Geertz's study, those authors found that this assistance can often be refused or withdrawn.

The last two cases of negative effects are more difficult to distinguish as they both involve a homogenising force within the community or network, demanding conformity and restricting individual freedom and (material) success. As will be discussed in chapter four, providing for one's parents and family is regarded as a moral duty by the Senegalese as well as other West Africans, something which ensures that a large part of their gains abroad is remitted back to their families. However, this diverts resources from the migrants' personal economic advancement at destination. Empirical work focusing on Senegalese migrants suggests that close-knit migration networks operate a

form of social control, ensuring that the "moral contract" (Stark 1991) with the home community is respected and that the migrants fulfil their financial obligations towards the family left behind (Elia 2006; Dia 2009; Chort et al. 2012).

Another study, in the Senegalese context, suggests that community networks may restrict individual freedom by preventing women from engaging in economic activities in an attempt to reinforce the maintenance of traditional gender roles and the gender division of labour existing in the communities of origin (Diop 1987). Other drawbacks of embeddedness in co-ethnic networks with respect to migrants' economic incorporation at destination will be discussed in chapters seven and eight.

2.5 A framework for analysing differentiated returns to migrant social capital

In summary, recent (mostly qualitative) research on the role of migrant networks has started investigating when and why networks fail to provide the expected assistance or what influences the level and type of support they receive. However, their findings remain fragmented and lack a common framework. I propose that the distinction advanced by Portes (1998) and imported to the migration context by Garip (2008) may offer a way to systematically investigate the variations in the type and extent of influence that migrant networks have in the migration process.

In his seminal paper on the origins and applications of the social capital concept, Portes (1998) distinguishes between three dimensions[25], each conditioning its mobilisation and impact: a) the possessors of social capital (those making claims), b) the sources of social capital (those agreeing (or not) to these demands), and c) the embedded resources. A further element is worth distinguishing: the context of destination, which may affect, in its turn, the functioning of social capital. These dimensions provide an analytical framework with which the literature on migrant networks may be reviewed to see how migrant social capital has been used by (prospective) migrants and how their economic well-being at destination has been affected.

[25] As Garip also mentions, the characteristics of recipients or the nature of their ties to sources are not constitutive elements of social capital, which is mostly seen here as embedded resources. Distinguishing these dimensions is useful, however, as they shape how resources affect the outcomes of interest (Garip 2008).

2.5.1 Recipients of migrant social capital

As discussed above, migrant networks have generally been assumed to have similar (beneficial) returns for everyone. Few studies consider how the attributes of potential migrants may affect their access to and mobilisation of migrant social capital.[26] There are several reasons why we may expect differential returns to social capital depending on the beneficiaries' characteristics.

First, individuals who possess lower levels of other forms of capital (human, financial) may be *more dependent* on social capital in order to attain their goals. This may lead them to mobilise their social capital more often, which will appear more influential in their goal attainment.[27] The few studies that distinguished the influence of migrant networks according to the gender of the potential migrant found that social ties are more influential in women's migration, as they are assumed to have lower levels of human capital (Curran and Rivero-Fuentes 2003; Kanaiaupuni 2000). Furthermore, networks are more useful for individuals who migrate for the first time; in other words, having accumulated personal migration experience substitutes for migrant social capital (Déléchat 2001). Finally, social networks are assumed to be more useful in access to employment for migrants lacking formal qualifications and the language skills of the host country, though empirical findings have not completely supported this (Sanders et al. 2002).

On the other hand, due to mechanisms of social and gender homophily, higher status individuals are likely to have more ties to powerful and influential people and thus a more valuable collection of embedded resources at their disposal (Wright and Cho 1992; Lin 2000).[28] Social capital thus contributes to the reproduction of inequality within societies and is one of the mechanisms enabling the dominant class to maintain its position, as was originally conceptualised by Bourdieu (1977, 1980). Consequently, despite a lower demand for assistance, higher status individuals may enjoy greater returns when they mobilise their social capital. Studies of social stratification have found that higher educated people enjoyed higher benefits from their social ties in terms

[26] This is also the case for general studies in social capital, according to Lin: "few studies provide direct data to assess relative returns of social capital for males and females or for different racial and ethnic groups" (Lin 2000: p.789).
[27] Though not necessarily in a positive way, as will be discussed later.
[28] Wright and Cho (1992) studied how easily people of various class backgrounds permeated class boundaries to build friendship ties, and concluded that class boundaries are relatively impermeable.

of earnings and occupational mobility (Granovetter 1973). Such an argument has been put forward to explain that access to migrant networks is less beneficial to women's occupational status and earnings at destination than to men's, since they mostly have access to less-resourceful female networks (Hagan 1998; Livingston 2006). This last finding is not specific to migrant populations, as other studies have shown (Hanson and Pratt 1991; Green et al. 1999).

Furthermore, migrants who are more vulnerable, and more dependent on their social ties to migrate and to find employment at destination, also represent a larger burden on their networks, which are consequently less willing to extend their support (Collyer 2005). Undocumented migrants are those most likely to experience this position, as Engbersen et al. (2000) argue: "The socio-economic and legal position of illegal immigrants makes it very difficult for them to adhere to instrumental norms of reciprocity. This can result in their exclusion from social networks" (2000: p.3). Thus, whereas they may still have *access* to social capital, illegal migrants may be less likely to be able to *mobilise* it in order to attain their goals.

So far I have discussed how the level of personal resources possessed by (prospective) migrants conditions the impact of migrant networks. To some extent, this aspect can be included in the rational-choice economic models and interacted with the network factor, though this has rarely been done in migration research. But there are further ways in which the identity of prospective migrants affects the functioning of networks. Exploring this requires taking into account the *symbolic* aspect of ties, as Faist (2000) argues: the inherently cultural shared beliefs and values that define collective identities, based on religious belief, language, ethnic or national group. The scope of the obligation and reciprocity norms inherent in social ties is conditioned by the shared identities defined by symbolic ties. In other words, notions of insiders and outsiders, defined by the symbolic content of ties, underlie and orient the operation of migration networks. It is only when taking these concepts into account that we can understand and study the exclusionary dynamics of migrant social capital, such as those reported by Engelbrektson (1978) and de Haas (2006) and cited above. The social relevance of clan- and kinship- based identities limits the sharing of resources embedded in migration networks among all community members, and explains the concentration of migration social capital within certain lineages and clans.

Gender identities are another form of culturally defined collective identity. As such, they too may be expected to affect the scope of migrant social capital. Qualitative work

in patriarchal settings such as Senegal or Mexico has documented cases of exclusionary gender dynamics, where male networks actively prevent women from migrating (Lambert 2002; Foucher 2005) or simply refuse to share resources with them (Hondagneu-Sotelo 1994; Hagan 1998). As Curran and Saguy (2001) also argue, normative expectations regarding gender influence the types of networks, i.e. male or female, kin or non-kin, in which men and women respectively participate. In examining how the attributes of beneficiaries condition the effect of migrant social capital, this thesis mainly focuses on gender. It investigates the extent to which, and the ways in which, migrant networks are differently mobilised and have different effects for Senegalese men and women. The differential level of personal resources possessed by men and women is taken into account. Furthermore, an understanding of gender dynamics in the Senegalese context is necessary, and the intersections of gender, migration and networks in Senegal will be discussed in chapter 4.

2.5.2 Nature of the ties to sources

There is a general consensus in the social capital literature that the benefits of networks depend on the *nature of the relationships between the sources and the recipients*. The proximity of the ties can first of all affect others' *willingness* to share their resources. Stronger ties[29] may be more inclined to mutualise their resources with the individual than weaker connections. They are also considered more reliable and trustworthy. The nature of the tie can however also affect, according to Granovetter, the *quality of the embedded resources* in at least one respect: as they are linking ego to socially distant alters, weaker ties give access to non-redundant and broader information than stronger ties do. It should be stressed that the "strength of weak ties" argument refers to a specific type of resource: the spread of information. One might be happy to tell casual acquaintances about employment opportunities, but unwilling to loan them money or put them up for a week. Moreover, even information may not be broadly circulated if rare enough to be considered a valuable asset (such as job information in a context of scarce employment).

Although empirical studies have emphasised the importance of migrant networks in the migration decision and in migrants' incorporation at destination, data limitations have

[29] The strength of a tie is defined by Granovetter (1973) as the combination of the amount of time, emotional intensity, intimacy and reciprocal services that characterize it.

led many researchers to ignore details about the composition of networks. Yet, one could sensibly argue that "whether the network is made of strong ties to family or weak ties to community members matters in terms of the value of information and assistance provided to the potential migrant" (Davis et al. 2002: p. 293). Lacking direct measures of emotional closeness, recent studies distinguished between ties to family members and ties to non-family community members and explored whether they influenced the migration process to a different extent. It should be acknowledged, however, that this distinction only partially overlaps with that between strong and weak ties, as not all kin relationships are strong (Völker and Flap 1997) while some friendship ties with community members may be.

These studies have demonstrated that using aggregated migrant networks as an explanatory variable can lead to drawing incorrect conclusions about their role. However, the empirical evidence has not been conclusive[30] as to whether strong or weak ties are more influential in the migration process. Some find community migrant networks to have a stronger effect than household ones, either on international (Massey and Garcia Espana 1987; Kanaiaupuni 2000) or on internal migration propensities (Curran et al. 2006; Garip 2008), while others find a greater role for stronger ties (Dolfin and Genicot 2006; Neuman and Massey 1994; Davis et al. 2002). Qualitative work has also found that prior migrants are more likely to help potential migrants if these are close family members (Waldinger 1994; Paul forthcoming).

It could also be the case that ties to family or community members fulfil different functions in the migration process. For example, strong kin ties may be more likely to provide the financial and material support necessary for making the trip abroad and help with accommodation at destination, whereas weaker ties may be more useful in the employment search abroad. The quantitative literature has only carried out indirect tests for the complementarity of the two types of ties in Mexican migration and argued they serve similar purposes[31] (Davis et al. 2002). No direct investigation has been done on which forms of assistance the various networks give access to. This thesis will take into account the composition of migrant networks and distinguish the influence of the

[30] Also, these studies do not distinguish the migrant spouse from other household ties.
[31] The authors test for this by introducing an interaction term between family and community ties, which is significant and negative, suggesting that the effect of family networks is lower in the presence of community networks and vice-versa. Conversely, Palloni et al. (2001) do not find that a high prevalence of migration within the community diminishes the effect of having migrant siblings.

spouse, of other close family members, and of extended kin or friends. It will also distinguish ties according to their gender (male networks vs. female networks). Furthermore, it will examine the extent to which these various ties participate in the migration decision-making and the financing of the trip, as well as the ways in which they influence migration propensity and migrants' subsequent economic integration.

2.5.3 Embedded resources

As emphasised in section 2.3.2, social capital is more than networks: it consists of the resources embedded in these networks. The "volume of economic, cultural and symbolic capital" (Bourdieu 1980) or "the amount and variety of wealth, power and status" (Lin 1999) possessed by one's social circle defines the quantity and quality of social capital. In an analysis of the role of social capital in immigrants' outcomes, Li (2004) similarly argues that the effectiveness of social capital depends on the resources it taps into, more specifically the class-based resources and advantages of the networks: "Social capital cannot replace other forms of capital to produce unrealistic outcomes beyond the material limits of its contextual boundaries" (2004: p. 146).

Most studies of migrant networks to date do not have direct measures[32] of the resources embedded in them. Empirical research has considered that the amount of experience that network members have abroad may be a good proxy for their level of resources. As their period of settlement at destination increases, settled migrants may become more knowledgeable and offer more accurate information about employment conditions to prospective migrants. Since economic assimilation is generally found to increase with time spent abroad, they should also possess a higher level of financial and material resources and thus be able to offer more extensive assistance to migration candidates. Empirical work has generally found support for a positive role of experience at destination by network members, though alternative explanations cannot be discounted. For example, Garip (2008) shows that, as the number of trips by village or household members increases, so does the internal migration propensity of other community dwellers. However, whereas the number of trips may be a proxy for the accumulated experience, it also reflects a higher frequency of return visits, and thus more opportunity

[32] A commonly used measure of social resources is access to influential people, operationalized as the presence in one's network of individuals with specific (high) socio-economic positions, occupations or education level.

for the exchange of information or help, as the author acknowledges (2008: p. 8). Furthermore, since the measure is not proportional to the number of migrants in the community networks, it may just reflect the size of the network. Munshi (2001) finds that the presence of long-term migrants increases employment chances of Mexican migrants in the US.

The *size* of the migrant network has also been considered as potentially affecting the amount of resources available. Davis, Stecklov and Winters (2002) find that increases in network size also increase the probability of migrating, but that the return to each additional migrant in the network decreases. The *geographical dispersion* of the network may also suggest a higher level of resources. However, Garip (2008) finds that individuals are less likely to migrate if their network spans several destinations, suggesting that migrants may prefer more trustworthy information on a specific location that can be verified by several separate sources.

Several studies have also investigated whether ties to *current* migrants have a higher influence on migration propensities than ties to *returnees*, as the former may offer fresher and more up-to-date information. The literature has not always been supportive of this hypothesis. For example, Davis, Stecklov and Winters (2002) find that both current and previous family networks are influential. It may be that the physical proximity of return migrants creates more opportunities for sharing the information. Counter-intuitively, Neuman and Massey (1994) find that previous migrants are more influential than current ones in the number of hours and the wages of Mexican migrants, but do not discuss this finding further.

As most previous research, this thesis is limited in the extent to which it can actually operationalize the level of resources embedded in migrant networks.[33] All the above-mentioned measures – the cumulative migration experience of network members, size of the network, geographic dispersion, and current vs. returnee networks – will be used as *indirect proxies* for resources.

[33] As such, I measure social *ties* and only indirectly measuring social *capital*.

2.5.4 Migrant networks, the immigrant community and the context of destination

The resourcefulness of individuals' migrant networks may be further shaped by the collective social capital available at the level of the immigrant community in which they are embedded. According to Li (2004), the more resources an immigrant community has at its disposal – in other terms, the higher the class positions of its members – the greater the level of social capital stemming from it: "the effectiveness of ethnic attachment is constrained by the level of resources of such communities. In other words, the marginal status of minority communities affects their resourcefulness, which in turn constrains the effectiveness of social relations developed in such contexts" (2004: p. 179).

A similar idea is expressed by Borjas (1992) when he defines "ethnic capital" as the average quality of the ethnic environment, or the average human capital stock of the ethnic group in the parents' generation. Borjas argues that ethnic capital plays an independent role in the intergenerational transmission process and is positively related to the economic outcomes of ethnic members; he explains his findings with reference to the social capital concept. Following Borjas' reasoning, it can be said that ethnic capital represents (some of) the resources embedded in the immigrant community which are potentially available to its members. The level of ethnic capital is expected to increase with the duration of settlement. Immigrant groups that have been established in a particular destination for longer are assumed to be more diverse and to command more resources compared to recently arrived groups.

Furthermore, the degree of "social closure" (Coleman 1988) of the immigrant network – the extent to which it is composed of strong and dense ties – may also influence its effectiveness. A high degree of closure provides more reliable communication channels and possibilities of "enforceable trust" (Portes 1998) which guarantee that the donor will be repaid. In her study of Filipino domestic workers, Paul (forthcoming) argues that the social isolation characterised by these occupations limits the networks' social closure and may explain the reluctance of migrants to help their contacts find work overseas (forthcoming: p.35).[34] Possibilities for "social closure" may be shaped by the geographical dispersion of the migrant community within the country of destination.

[34] She thus confirms earlier findings by Hagan (1998) of the Mayan immigrant community in the U.S.

We can expect that a high geographical concentration (both residential and occupational) would facilitate the flow of assistance and information within the immigrant community and migrant networks.

Last, the resourcefulness of the immigrant community is further affected by the political and economic context of the destination. Looking at recent immigration into Europe, Collyer (2005), Engbersen (1995) and Staring (1998) suggest that the strengthening of migration restrictions has increased the burden that newcomers represent for their family and friends at destination. Consequently, settled migrants are now more reluctant to extend their support. A significant share of Algerians chose to migrate to the UK despite having networks in France, as the latter refused to help them settle in France (Collyer 2005). This research argues that the scarcity of job openings and restrictive government policies towards immigrants at destination negatively affect the potential for assistance-sharing between network members.

In her rich comparative study of Salvadoran, Vietnamese and Mexicans in the US, Menjivar (2000) disentangles the factors responsible for the breakdown of social networks among Salvadorans upon arrival in the US. According to Menjivar, three major interrelated forces shape the structure of opportunity that immigrants encounter at destination: the state's reception of migrants, local labour market opportunities, and the receiving community. The Vietnamese, due to their status as political refugees, enjoy greater state assistance upon arrival, which helps them economically and also reinforces the strong kinship ties that bind the community. The Mexicans, although not enjoying any special privileges from the state, benefit from a long immigration history to the USA during which the community has gained access to material resources and control over economic niches, which makes it able to impart resources to newcomers. In contrast to these groups, Salvadorans have neither state support nor a well-established and resourceful community in the USA, as their migration is more recent. Lack of material resources in the ethnic community, combined with worsening economic times and absence of any state support, places a considerable strain on kinship networks, weakening their effectiveness over time or leading them to break down altogether (Menjivar 2000). Thus, the host country's policies and local economy can directly influence the "viability of immigrant social networks" (2000: p. 116).

This thesis attempts to address the influence of the context of destination on the functioning of migrant networks. Besides interviewing non-migrants in Senegal, the survey on which this thesis is based samples Senegalese migrants in three European

destinations: France, Italy and Spain. The role of networks in migrants' labour market outcomes is compared between these three countries, which are characterised, among other things, by a different history, composition and mode of economic incorporation of the Senegalese population.

2.6 Conclusion

By emphasising the influence of individuals' social context, the migrant networks perspective has advanced our understanding of the migration process. A first line of research, qualitative for the most part, studied the emergence and functioning of networks at the meso-level of the bounded group. Another line of work examined the influence of access to migrant networks on individual outcomes, such as migration propensity and economic integration at destination. Embeddedness in migrant networks is expected to shape aspirations to migrate, reduce the costs of the journey and of settlement at destination, and facilitate access to better employment opportunities.

This thesis belongs to the second line of research and has the individual as its unit of analysis. It identifies access to migrant networks as a form of migration-specific social capital, which may help the individual attain specific goals. However, it distances itself from a large part of the research stemming from this perspective, which assumes networks to be undifferentiated resources, invariably providing assistance to all their members. Recent qualitative findings questioning this assumption showed that, in many instances, access to migrant networks does not have the expected positive returns. Consequently, the definition of migrant social capital should stress its non-mechanistic nature: through their ties to prior migrants, prospective migrants *may* have access to resources, which *could* facilitate but also constrain their migration and economic integration at destination.

The objective of this thesis is to provide a more systematic analysis of the factors which condition the effects of migrant social capital. In doing so, it adopts a framework suggested by Portes (1998), who distinguishes three dimensions - the attributes of the recipients, the nature of their ties to sources and the volume of embedded resources - which each influence the returns to social capital. Moreover, the larger immigrant community and the political and economic context of the destination have been shown to influence the viability of migrant networks.

However, these dimensions do not exert influence independently of each other. Instead, the effects of migrant social capital result from their interaction. For example,

depending on the attributes of the (prospective) migrant, certain social ties and types of resources will be more or less useful in the migration and adaptation process (e.g. strong ties may be more influential in women's migration but not necessarily in men's). Having provided this general, theoretical context of analysis, each of the empirical chapters will elaborate specific hypotheses for the particular case of Senegalese migration to Europe.

Chapter III

Data and methods

This thesis uses quantitative data collected between 2008 and 2011 within the framework of a project on Sub-Saharan migration, the Migration between Africa and Europe (MAFE) project. Whereas extensive qualitative research has been carried out on Senegalese migration (Dia 2009, 2011; Riccio 2005; Bava 2003; Mondain 2009; Bâ and Bredeloup 1997; Bredeloup 2007; Dianka 2011), there is a dearth of quantitative work on this population, and more generally on African migration flows. Since all empirical chapters use the same dataset and a similar operationalization of the independent variables, it was decided to describe these in a single chapter in order to avoid repetitions. However, brief reminders and relevant details will be discussed in the following chapters.

The chapter starts with a description of the MAFE survey, the sampling methods used and the nature of the data collected. It emphasizes the advantages as well as the limitations that the adopted research design entail for the study of the migration process. It then describes in more detail the main dependent variables analysed, which refer to two main outcomes: the likelihood to migrate and labour market outcomes at destination. Third, the chapter turns to the operationalization of migrant networks, briefly reviewing the measures that have been mostly used in previous quantitative research. The information on networks collected in the MAFE survey is a way forward in many respects, but it also suffers from several drawbacks, as will be discussed below. Finally, the chapter concludes by giving some details on the way the network variables as well as other controls used in the analyses are actually constructed based on the collected data.

3.1 The MAFE data

3.1.1 A transnational sample

The data for this DPhil thesis come from the Migration between Africa and Europe (MAFE) project [1], a recent survey on Sub-Saharan international migration. Acknowledging the lack of quantitative data on African migrations (Lucas 2006), the project fills this gap by collecting data in several countries of origin and of destination. Between 2008 and 2009, data were collected from Senegal (among non-migrants and return migrants) and among Senegalese migrants in France, Italy and Spain. These three destinations accounted for 45% of international Senegalese migrations at the time of the last available census in Senegal (2002). The project was then replicated in two other African countries (DR Congo and Ghana) and in three European destinations (Belgium, the Netherlands and the United Kingdom), between 2009 and 2011, using the same methodology. The choice of the destination countries was guided by the aim of including both traditional receiving countries (such as France, Belgium and the UK) and more recent destinations (Italy, Spain, and the Netherlands). Figure III-1 summarizes the transnational design of the survey.

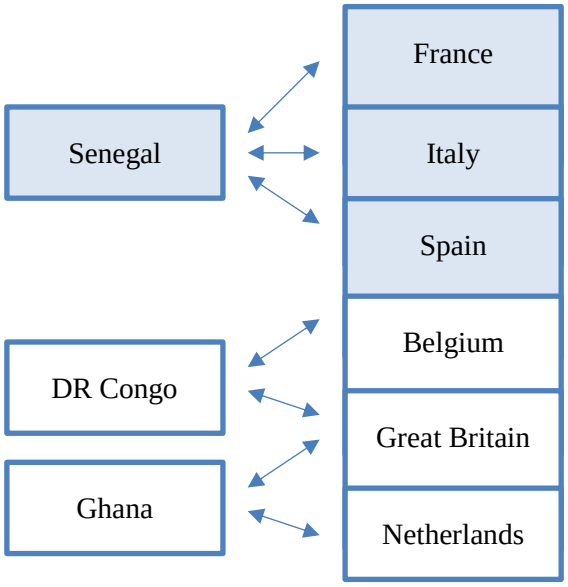
This thesis will only use the data from the MAFE-Senegal survey, collected in Senegal and in Europe[2]. Thanks to a Marie Curie Research Training Network Fellowship for Early Stage Researchers, I was hosted at the Italian partner of the project, FIERI, for a one-year period. As the survey was well under way at my arrival, I only participated in the cleaning and preparation of the databases, in cooperation with the other partners. However, I was involved in the final stages of the questionnaire development and translation as well as survey implementation for the second phase of the project, involving the Congolese and Ghanaian flows. The entire dataset will be made available for comparative analyses at the end of 2012.

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[1] Institutions involved in the MAFE project are the following: Institut National d'Etudes Démographiques (INED, France), Institut de Population, Développement et Santé de la Reproduction (IPDSR, Senegal), Pompeu Fabra University (Spain), Forum Internazionale ed Europero di Ricerche sull' imigrazione (FIERI, Italy), Université Catholique de Louvain-la-Neuve (UCL, Belgium), Maastricht University (Netherlands), Université de Kinshasa (Congo), Centre for Migration Studies (Ghana) and Sussex Centre for Migration Studies (UK). The MAFE project received funding from the European Community's Seventh Framework Programme under grant agreement 217206. For more details, see: http://www.mafeproject.com

[2] For the sake of simplicity in writing and reading, the term "Europe" refers in the rest of the text only to the three European countries involved in the MAFE-Senegal project (France, Spain, and Italy).

Figure III-1 Countries surveyed in the MAFE project



3.1.2 Collecting life-histories of migrants and non-migrants

The survey had two stages and two main methodological tools. First, a household questionnaire was administered among a sample of households at origin. Cross-sectional socio-demographic information was collected on all the current members of the household, but also on international migrants declared by the household respondent[3] as well as on all the children of the household head, irrespective of their current location[4]. Further information for each current or former migrant of the household (such as the dates of their first and last trips, of returns and the frequency of contact) was collected in a separate module.

Second, drawing its inspiration from the Mexican Migration Project[5] which promoted the method of the ethno-survey (Massey 1987), an individual questionnaire was used to collect life histories of the migrants interviewed in Europe, and of non-migrants and return migrants from the households surveyed in Senegal[6]. Through this biographic questionnaire, retrospective information was collected on various aspects of the

[3] The head's children, the spouses of any member of the household, as well as other relatives of the head or of his spouse who had maintained regular contact with the household in the last 12 months
[4] Whether abroad or in another household in Senegal
[5] Most studies on Mexican migration to the United States are based on the Mexican Migration Project, which is innovative in many ways, among which its multi-sited research design and the method of the ethno-survey. It was initiated by Jorge Durand and Douglas Massey in 1982.
[6] The questionnaire was identical for all populations, the respondents were to skip a module if it didn't concern them (such as the international migration module if they never left the country of origin)

respondent's life: family formation (unions, marriages, and births), education, work and housing histories. A specific module collected information on the respondents' international migration experience, detailing their migration trajectory (dates and countries of destinations for all trips) and including information on attempts to migrate, return trips to Senegal, transit migration as well as residency status. Further information was collected on the migration trajectories of the respondents' personal circle; section 3.3.2 will discuss this into more detail.

3.1.3 Sampling strategies at origin and at destination

In the countries of origin, for financial reasons, the sample was limited to the greater areas of the capital cities; in the Senegalese survey, it is representative of the population of the region of Dakar[7]. A three-stage probabilistic sampling design was applied, using the 2002 Population Census as a sampling frame and oversampling migrant households. At the first stage, census districts, which include about 100 households in Senegalese urban areas, were randomly selected with varying probabilities. At the second stage, households were selected randomly in each of the selected primary sampling units, oversampling households with migrants. At the third stage, individuals were selected within the households, oversampling return migrants and spouses of migrants. More details on the sampling strategies are given in the Appendix A (see also Schoumaker and Diagne 2010; Beauchemin et al. 2010; Razafindratsima et al. 2011). The final sample in the Dakar area consists of 1,143 households out of which 1,067 individuals were interviewed. The response rates[8] are 87% for households and 77% for individuals and are corrected for in the weights.

In addition, 603 Senegalese migrants were interviewed in France, Italy and Spain (200 in each country). While the origin country sample is representative of the population living in the area of the capital at the moment of the survey, the migrant samples have generally not been achieved through random means, as is often the case when surveying immigrants (Bilsborrow et al. 2007; McKenzie and Mistiaen 2009). Rather, a mix of sampling strategies was employed, aiming to find the best option in each country and to

[7] According to the 2002 Population census, the Dakar larger area concentrates around a quarter of the population and is the region of origin of 31% of international migrants declared in 2001-2002 by Senegalese households in the ESAM-II survey.

[8] Most of the non-responses at the household level are refusals (89% of the 13%), while at the individual level they are mostly due to not being able to get hold of the person (57% of the 23%).

diversify the sources and directions of potential biases (Beauchemin and Gonzalez-Ferrer 2011). First, contacts of current migrants were collected from households in Senegal, in an attempt to match the two samples, as the Mexican Migration Project does. However, this method gave poor results[9] while it also seems to entail serious biases and potentially overestimates the role of migrant networks (Beauchemin and Gonzalez-Ferrer 2011). Consequently, additional samples were constituted in each country. In Spain, where a sampling frame including both documented and undocumented migrants exists – the *Padrón* Municipal Population Register – a random sample of people born in Senegal could be achieved. In France and Italy no recent sampling frame was available and national censuses were used to construct quotas defined by gender, age, occupation and region of residency[10]. A variety of channels of recruitment were employed (intercept points, public places (subway, hairdressers'), contacts from Senegalese migrants' associations, snowballing techniques) in an attempt to limit biases. The eligibility criteria were the same in all countries: in order to fill the individual questionnaire, respondents had to be older than 25 (to have long enough life histories) and younger than 75, born in Senegal (to exclude second generation) and of Senegalese nationality (to exclude immigrants in Senegal). Figure A-1 summarizes the sampling methods and final samples in each country.

Weights have been developed by the statistical service at the Institut National d'Etudes Démographiques to account for the sampling design as well as for differential rates of non-response. Different methods of computation[11] of weights are necessary for the origin and destination samples (more details in Razafindratsima et al. 2011). Weights

[9] An average of 13% of the sample only was obtained in this way, though results varied slightly by country, owing mostly to the difficulty to trace the migrants at destination. However, as Beauchemin and Gonzalez-Ferrer (2011) show, this method contains serious selection biases and tends to overestimate the importance of social networks in the migration process. Hence, for the objectives of this thesis such a sampling strategy would not have been ideal.

[10] Whereas Senegalese immigrant populations in Europe are mostly male, as will be discussed further, the project was interested in carrying out analyses on women as well. Therefore, the samples were stratified by gender and it was attempted to interview as many women as men in each country. For budgetary reasons, in each destination country specific regions were selected to interview immigrants; nevertheless, in each case, the selected regions contained more than two thirds of the Senegalese population. At least one region with a lower concentration of Senegalese (e.g. Campania in Italy) was included in an attempt to capture as diverse a population as possible.

[11] The computation of sampling weights relies on computing sampling probabilities at each stage. The product of sampling probabilities at each stage gives the overall sampling probability. Taking the inverse of the sampling probability gives the inflation factor. These factors are adjusted (taking into account non-response, trimming, and adjusting for population size). They are normalized, so that their sum is equal to the sample size. In addition, weights take into account the over-representation of certain categories of migrants in Europe (women and those over 40) with respect to an estimation of the eligible population.

have been used for both descriptive and multivariate analyses, as recommended. All analyses have however been run without weights as well, giving altogether similar results. For the present analysis, only the biographic survey and the total Senegalese samples (1,670 Senegalese) are used, including both migrants - current and returnees - and non-migrants.

3.1.4 Advantages and limitations of the MAFE data

This thesis is interested in examining the roles of migrant networks in the international migration process, from the enactment of the migration decision to the economic integration of migrants at destination. For these purposes, the MAFE data offer clear advantages, but also have some limitations.

3.1.4.1 Multi-sited design: representativeness issues

Studying the drivers of migration at a micro level requires comparing movers and stayers (Bilsborrow et al. 1997; Kalter and Kogan 2011). The most common and cost-effective approach for achieving this is to conduct surveys in the countries of origin and to ask information on migrants abroad from other members of their households left behind. An important advantage of this design is that a representative sample is easier to achieve. However, this raises important methodological issues, as the information on migrants will be collected through proxy respondents, who may not have accurate knowledge of the migrants' trajectories or may not be willing to divulge such information. The extent of information one may collect is also limited, since proxy respondents cannot be assumed to be able to report on the *life histories* of migrants[12]. This is especially problematic if one wants to study the economic integration of migrants at destination, where more detailed information on the labour market trajectories of immigrants is needed. Qualitative research in Senegal has found that family members in the origin country have very little knowledge of the migrants' economic activities at destination; furthermore, migrants may voluntarily mislead their families and exaggerate their difficulties in finding a job in order to diminish the burdensome financial contributions they are expected to make (Dia 2009). Lastly, when

[12] Nevertheless, the Mexican Migration Project did collect full life histories on migrants through non migrants left-behind in Mexico. No methodological assessment has however been conducted of the quality of the data conducted in this way (Beauchemin 2011)

studying the role of migrant networks in this type of design, one is limited to household networks, since it cannot be reasonably expected from a family member left behind to know of the migrants' friends, acquaintances or more extended kin who may have played a role in their migration.

Another potential issue in this research design is related to the rules of inclusion of current migrants in the survey. Households are commonly defined as "a domestic unit consisting of members of a family who live together along with nonrelatives such as servants", a definition which automatically excludes current migrants (Beauchemin 2011). Thus, researchers conducting surveys on migration at origin have to define *a priori* on whom information is sought and which current migrants are to be considered members of the household. As Beauchemin (2011) argues, the definition of boundaries is rarely addressed in surveys and there is currently no standard practice, leaving place to arbitrary decisions potentially impacting the results[13].

The MAFE survey chose another approach for studying these processes, which is becoming increasingly adopted despite the fact that it is much more costly: to conduct multi-sited surveys[14]. This means interviewing non-migrants and returnees at origin and current migrants at destination, and obtaining first-hand information from all these populations. Such a strategy is necessary if one wants to also analyse the labour market integration of migrants at destination, which is one of the aims of this thesis. Furthermore, it allows also capturing migrants who moved with their entire household, which origin-based samples do not. On the other hand, an obvious first limitation of such a design is that one cannot trace migrants to all potential destinations, as it would mean carrying out a survey in a great number of countries[15]. The MAFE survey chose to focus on specific regions of origin – the Dakar area in the Senegalese survey – and on a

[13] Some surveys refer to commitments and expectations: the Push-Pull project collects information on "those who are presently residing elsewhere but whose principal commitments and obligations are to that household and who are expected to return to that household in the future or whose family will joint hem in the future". Other surveys define temporal criteria of residence: individuals who lived in the household during at least 3 months and who emigrated abroad since at least 6 months (Bocquier 2003). The MAFE household survey asks information from the left behind on a) all children of the household head, wherever they are located b) spouses or parents of any member of the household that are currently living abroad c) other persons currently living abroad who are relatives of the household head or of her/his spouse and who have been in regular contact with the household of the previous 12 months.

[14] Examples of multi-sited quantitative surveys include the Mexican Migration Project; the Push-Pull survey (Schoorl et al. 2000), the Nang Rong survey on internal migration in Thailand, etc.

[15] Where a large part of the flows from a particular destination are concentrated in a specific destination – as is the case for Mexican migration to the US – this is less problematic.

limited number of destinations - which nonetheless together attract almost half of Senegalese international migrants. As such, the sample is not representative of the Senegalese population around the world. Second, the lack of sampling frames for the target population at destination further limits the representativeness of the sample. Third, while the origin samples are representative of the Dakar area, some of the migrants interviewed at destination may not have previously lived in this region. In the final samples, however, this was the case for only a fifth of the migrants, on average.

In all, the main advantage offered by the MAFE data for the study of drivers of international migration (and the role of networks in particular) is the collection of first-hand information on both non-migrants and migrants while the main issues with this type of design are related to the representativeness of the sample. Thus, the findings from this work cannot be generalized to the entire Senegalese population, either at origin or abroad.

The MAFE data has a further advantage with respect to analyses of the economic outcomes of migrants at destination. While studies of international migration are usually based on origin country samples, analyses on the economic integration of immigrants use destination-country surveys, either carried out specifically on migrant groups or on the whole population, including native citizens. These surveys do not however capture returnees, who may be a selected population. If migrants choose to return or to re-migrate to another destination due to difficulties of integrating in the host country's labour market, then analyses omitting this population will overestimate their economic assimilation. Several studies have found that selective patterns of return migration and settlement yield sample biases (Borjas 1989; Lindstrom and Massey 1994). Having interviewed return migrants in their origin countries and migrants in several destinations, the MAFE data may offer a more accurate picture of Senegalese migration to Europe in this respect. However, it should also be added that migrants returning to other regions than the Dakar area in Senegal are not included in the survey.

3.1.4.2 The retrospective nature of the survey: recall bias

Cross-sectional surveys still dominate the international migration field, despite the increasing recognition of the need to conceptualize migration as a process and not as a one-time event. First, this is because migration trajectories are increasingly complex, step-wise journeys composed of stays in several countries for more or less long periods of time. Second, this is also because family, employment and mobility decisions cannot

be separated but are part of a unitary life-course project (Wingens et al. 2011). For the research questions that this thesis asks, it was imperative to have time-specific data[16].

Given the difficulty of carrying out prospective, panel studies on highly mobile populations, researchers have increasingly integrated a retrospective approach in their surveys and collected standardized life-histories of both migrants and non-migrants. However, retrospective approaches suffer from two main biases: first, substantial selection bias arises due to prior mortality, since estimates are only representative for the survivors. Second, memory bias leads to inaccurate reporting, either from memory lapses or due to a "conscious misrepresentation of the past" (Powers et al. 1978; Manzoni et al. 2011)

Collecting biographic information is difficult both for the respondents, who have to recall many events in their lives, and for the interviewer, who has to verify the coherence of this information during the interview. In order to facilitate these efforts, a special questionnaire is used in the MAFE survey (as in previous biographic surveys), consisting of two parts. A biographic grid (or life history calendar) records, in separate columns, the dates of different events (by year and age of respondent), while a questionnaire composed of several modules collects more detailed information on each type of events recorded in the grid. All questionnaires can be found on the MAFE project website[17].

In order to minimize recall bias, the life history calendar (LHC) that the MAFE survey also uses has become a widely used tool and its reliability has been validated by several studies (Massey 1987; Freedman et al. 1988; Antoine et al. 1987). It offers several advantages for collecting biographical data. First, the grid format – similar to a calendar – makes the recording of the durations of many different types of events easier and less time-consuming. Second, it can improve the quality of the data by helping the respondent relate, both visually and mentally, the timing of several kinds of events (Freedman et al. 1988). As some of the events – such as marriages, births or changes of residence – are more easily remembered they provide important reference points for recalling less salient events such as details of employment and living arrangements.

[16] To avoid reverse causality in assessing the influence of migrant networks on the likelihood of migration as well as to be able to examine their role in the economic integration of migrants both at arrival and later on in their settlement trajectory.
[17] http://mafeproject.site.ined.fr/fr/methodo/methodo/

Moreover, in order to ensure a high-quality data, a lot of resources (human and financial) and time were dedicated to a rigorous week-long training of the interviewers and several pilots were carried out before the large-scale collection of the data (see Beauchemin 2011).

While the LHC can minimize recall bias, it certainly does not eliminate it. The extent to which this bias affects the collected data depends on several factors. According to studies in cognitive psychology, rare events are more easily remembered than frequent ones, and their perceived salience also increases the probability of accurate recall (Eisenhower 1991, Beckett et al. 2001). In this respect, migration events are likely to be more accurately reported than work related ones. Analysing the accuracy of reporting internal migration events in Malaysia, Smith and Thomas (1997) find it to be relatively high and to increase with the distance of the move[18]. While no studies have assessed the quality of retrospective data on international migration events, this should be even higher. On the other hand, several studies investigated retrospective bias in collecting data on employment careers, and found that respondents find it more difficult to recall widely fluctuating event patterns, such as short employment spells. Also, unemployment spells are generally underreported (Manzoni et al. 2011).

Another factor expected to matter is the length of the recall period: asking people about events that took place a long time before will probably lead to more recall errors. Yet, studies do not find a linear relationship between the duration since the event and the accuracy of recollection. Mostly focusing on memory bias in the reporting of employment trajectories, studies found either no effect of time since the event (Reimer 2004) or at most a curvilinear relationship: "recall seems best for very short time distances, then worsens, but stays very stable as time distance goes on" (Mayer 2007).

Last, some personal characteristics of respondents may influence recollection abilities. In a study on retrospective data on infant feeding, Haaga (1988) finds that lower educated and older respondents are less likely to accurately report past events, but other studies on different type of events do not replicate these findings and find no association between demographic or behavioural factors and accuracy of recall (Bowman et al. 1997).

[18] They also found that respondents are likely to remember events linked with other major events, such as the start of a marriage or a move, which seems to support the methodology of the LHC.

Overall, assessments of the quality of retrospectively collected data are rather optimistic, even when long histories are collected (Beckett et al. 2001). However, the quality is likely to vary according to the type of event considered, and is probably higher with respect to migration than to employment trajectories. It is also probably higher for younger respondents than for older ones. A following section discusses in more detail the biases potentially affecting the reporting of migrant networks (section 3.3.2).

3.2 Dependent variables

As discussed in the previous chapter, studies of international migration have privileged analyses of separate segments of individual's migration process. Partly due to data limitations – and particularly to the fact that most surveys are carried out *either* at origin or at destination-, the migration decision-making process and the subsequent economic integration of migrants at destination have generally been considered in isolation.

A diachronic approach is however necessary in order to gain a fuller understanding of the ways in which migrant networks influence international mobility. Furthermore, it allows replacing the migration event within the broader life-course and social mobility trajectory of the individual. This thesis thus adopts a comprehensive and longitudinal perspective on the migration process and investigates both of these aspects; the following sections describe their operationalization.

3.2.1 First adult migrations to France, Italy or Spain

The first outcome considered is the likelihood to migrate from Senegal to Europe. More precisely, chapters five and six estimate the probability to undertake a first adult migration to France, Italy or Spain. Generally, international migration is defined as a long-term change of residence from one country to another[19] and most of the debate revolves around what "long term" is. The MAFE survey collects information on all international moves, be they shorter or longer than a year, which is the general cut-off point. First, the calendar records the dates and countries of destination of all trips, including for tourism and business visits.

[19] The ILO and the UN also accept this definition.

However, additional questions are only asked for moves longer than a year or, if shorter, only for those trips which were for transit purposes or with the intention of settlement. For these trips, respondents are asked, among other things, their reasons for moving abroad and for their choice of destination, their intended period of stay, the means of transport and travel companions, the persons who participated in their decision-making process and in the funding of the trip (if any).

Since all other histories – family, educational, employment, migration of the personal circle – are recorded on a yearly basis, only migrations lasting 12 months or more are analysed here[20]. Furthermore, this thesis is interested in the role of migrant networks in adult migrations, excluding thus from the analysis child migrations (for analyses on the reunification of children, see Gonzalez-Ferrer et al. 2012). It was decided to consider only migrations undertaken from the age of 18 upwards[21], which is the age from which children can no longer join their parents abroad through family reunification programs.

A final choice regarding the first outcome that was taken is with respect to the destinations considered. As explained above, the MAFE survey interviewed Senegalese in their origin countries and in France, Italy and Spain. Yet, in the final sample are also individuals who had migrated for over a year to another African country or to other destinations. This was mostly the case for returnees interviewed in Senegal[22], but some migrants interviewed in Europe had also previously spent over a year in another destination. It was however decided not to analyse migrations to other countries than France, Italy or Spain since only a selected sample of these migrations was surveyed: namely those who left the respective destinations, either to return to Senegal or to move to another country.

Thus, the outcome of interest in the first part of the thesis is the likelihood to undertake a first migration to France, Italy or Spain as an adult. This outcome is analysed in an event-history framework, observing individuals from the age 18 up to their first migration or to the time of the survey. More details on the estimation strategies are given in chapters 5 and 6.

[20] Other work on the MAFE data investigated the mobility trajectories of Senegalese migrants and the sequencing of short, transit moves and longer-term stays (Castagnone 2011)
[21] Analyses were also run with a lower entering age (16 or more) but results were not affected.
[22] A study using the same data found that the propensity to return is higher for intra-African migrants than for European ones (Flahaux et al. 2011)

3.2.2 Labour market outcomes

Migrants' labour market outcomes in France, Italy and Spain are the second set of outcomes considered in this thesis. Two approaches can be distinguished in research on migrants' economic wellbeing in host countries. On the one hand, many studies focus on the extent to which migrants are economically integrated in the destination countries by comparing them to native residents on a series of indicators (Van Tubergen et al. 2004; Heath and Cheung 2007; Haberfeld et al. 2011; Kogan 2011). This is not the approach taken in this thesis.

Whereas such a perspective is of great relevance, it does not allow studying the influence of migration-specific factors, such as migrant networks. Another line of research is concerned with explaining the heterogeneity in labour market performance among immigrants only and asks, for example, what makes certain more successful than others (Lancee 2012). This is also the perspective adopted here.

Two main aspects of migrants' labour market outcomes in Europe are analysed: their access to the labour market and their occupational status. A third outcome was initially also considered as the information is available in the questionnaires: income. However, given that the survey is both retrospective and cross-national, the measurement error of the variable was judged too high.

The questionnaire first records the sequencing of all activity spells since the respondent was 6 years old, using the yearly calendar. The respondent is asked to report changes in his or her main activity status over time[23]; six states are distinguished: the individual can be at school, actively employed, unemployed, inactive, in military service or retired. In a second stage, more details are asked for each job that the individual held[24]. The exact occupation is collected in an open-ended format and is also coded at the three-digit level using a classification that has been adapted to local specificities based on the International Standard Classification of Occupations (ISCO-08). The employment status (wage-earner, self-employed, family help) is also recorded. Given that the data is based on self-reported activity, informal work should also be recorded.

[23] With each residential move it is assumed that the respondent started a new activity spell and the information is collected on a separate line. Thus, during the year of each migration, the activity at destination is recorded.

[24] The respondent may have held two jobs during the respective year: this is recorded, but information is only collected on the job that the respondent deems to be the main or primary occupation.

3.2.2.1 Labour force status

The first dependent variable considered in the second part of the thesis is respondents' labour force status. Access to the labour market is operationalized as a binary variable, distinguishing those who have a job of some kind from those who do not. This distinction has the advantage of avoiding the complicated boundary between unemployment and inactivity. However, this comes at the price of having a more heterogeneous reference category: even if students are excluded in most of the analyses, and age boundaries (between 18 and 65) *de facto* exclude the retired[25], individuals not intending to find employment are also included.

While for men these cases are very rare, they make up the largest share of the non-working category among women. It can be argued, following Lancee (2012) that this is exactly what one tries to predict: which type of ties increase chances of having a job, regardless of one's situation. Given that the dependent variable is binary, logistic regression is used to examine the influence of migrant networks and other factors on migrants' access to the labour market.

3.2.2.2 Occupational status

A second dependent variable, for those who have a job, refers to occupational status. Status, or socio-economic attainment, reflects someone's position on a societal ladder and summarizes the associated power, income and required educational achievement (Sorensen 2001; Lin 1999). Given the specificities of Senegalese men and women's economic incorporation in Europe, this thesis uses two different measures of occupational status.

As discussed in chapter 4, an important share of Senegalese men migrants engages in small trade activities on a self-employed basis. However, these activities are highly precarious and those who undertake them run the risk of being deported while also diminishing their chances of being regularized. By comparison, the unskilled occupations exercised with some form of contract – such as unskilled work in a factory – are sometimes perceived by migrants as a form of upward mobility (Van Nieuwenhuyze 2009; Bava 2003; Schmidt di Friedberg 1994). It is further important to distinguish small trade activities (mostly street-selling) as they represent an ethnic niche

[25] The very few cases of military services among men were also excluded

created by the Senegalese, mainly in Italy and Spain. Migrant networks are expected to play a big role in leading to such activities.

Based on these considerations, in order to measure occupational status for men, chapter seven uses a categorical class variable which incorporates information on the employment status and socio-economic attainment. Three categories are distinguished: 1) skilled and semi-skilled wage-employment (this includes managers and professionals but also semi-skilled employees and workers); 2) unskilled wage-employment, and 3) self-employment. Given the small share of higher-status professionals among the Senegalese in our sample, which is also consistent with previous work on this group, the upper category includes lower levels of skill such as technicians, administrative clerks or skilled factory workers.

In order to test the robustness of the results, several specifications of this variable were constructed, giving similar results. The first way consisted in recoding the self-declared class category of the job reported by the respondent, which also distinguished the employment status[26]. However, since some inconsistencies were found when comparing the self-declared status with the open-ended profession, another way of creating the variable was also tried. The socio-economic status of the job as measured by the International Socio-Economic Index was crossed with the employment status. The International Socio-Economic Status (ISEI) developed by Ganzeboom, De Graaf and Treiman (1992) and Ganzeboom and Treiman (2003) is a continuous scale of occupations derived from the ISCO scale and consists of the weighted sum of the average education and income of occupation groups. Together with the respondent, the interviewer had to apply a code to the open-ended profession declared by the interviewee. This code was matched onto the ISEI scale by the statistical team at the INED. Several cut-off points in the ISEI[27] were tried in order to distinguish the semi-/skilled from the unskilled wage-earners. Irrespective of the ISEI, the self-employed

[26] More specifically, 6 categories were distinguished: 1) higher-level occupation, 2) skilled employee or worker, 3) unskilled employee, worker, labourer 4) employer; 5) self-employed without employee 6) apprentice/trainee, intern. The first two were grouped to constitute skilled and semi-skilled wage-earners, the third and the sixth together represented unskilled wage-earner, while the fifth category of self-employed without employees was considered apart. The special case of employers was either added to semi- or semi-skilled work or excluded, but, since few individuals were in that case, results were not affected.

[27] Those with an ISEI higher than 30, 35 or 40 were considered semi-/skilled in three different measures.

without employees[28] were considered a distinct, third category. Results were robust to the specification of the occupational status variable. In order to maintain the coherence with the analyses on women, the second way of constructing the variable (based on the ISEI of the job) is presented in chapter seven.

It was considered less important to distinguish the case of self-employed activities in the analysis of women since a lower share of them are self-employed[29] and since in many cases the status of the job is quite similar irrespective of whether it is practiced as an independent or as an employee. Thus, to measure women's occupational status, the ISEI was used. Besides being internationally comparable, its advantage is of allowing a continuous approach and thus an unlimited distinction between occupational groups. A further advantage of a continuous approach is that it is more suitable for empirical analysis of quantitative data (Ganzeboom et al. 1992). Given the low sample sizes for women, and the fact that the employment status is less of a determinant distinction in their economic incorporation at destination, the ISEI was preferred as the main measure of occupational status in chapter eight. Ordinary least squares methods were applied to estimate the influence of migrant networks. However, analyses were also run with the categorical variable used in the analyses of men and show similar results.

3.2.2.3 A longitudinal perspective on employment outcomes: advances and limitations

It is important to draw attention to the limits of an analysis of migrants' economic outcomes at destination using the MAFE data, some of which were already stressed earlier this chapter. First, the retrospective ambition of the survey, which aims to collect information on individuals' life-long histories, inevitably limits its capacity to collect fine-grained details on a particular trajectory. Thus, a time-unit finer than the year was considered impossible for collecting the proposed biographic information (Beauchemin 2011). Yet, this is arguably a gross unit when examining the employment trajectories that migrants have at destination, especially in their first years of settlement when they probably have a series of short-term jobs interspersed with periods of unemployment. Collecting annual information may be smoothing out some of the short-term mobility

[28] As in the first way of creating the variable, the employers were either included in the skilled category or dropped from the analysis. The average ISEI for the self-employed category was lower than 30.
[29] 15% in women's case compared to 33% for men (with respect to their first jobs). Furthermore, only few of them declare exercising commercial activities, such as street peddling.

and underestimate unemployment. Also, if the respondent held several jobs in a given year, he or she will presumably declare the best one[30]. However, what the survey lacks in detail, it compensates in time scope as the data gives the possibility to reconstruct the labour market trajectories of migrants over the span of the migration episode.

While the nature of the data prevents an in-depth analysis[31] of migrants' labour market trajectories at destination – for which monthly data would have been better-suited – they still allow a more thorough examination of the roles of migrant networks than in previous studies. For its most part, previous quantitative research on this topic has used cross-sectional data and has thus been unable to adopt a longitudinal perspective on the influence of networks in migrants' economic outcomes.

This thesis attempts to examine both short-term and longer-term effects of ties to pre-established migrants. Given that most migrants find a job in their first year upon arrival at destination, an event-history analysis of time until first employment was discarded due to the low variance. Instead, an analysis at two points in migrants' labour market trajectories was preferred. This also fitted with a theoretical question with respect to migrant networks' influence, since several studies suggest that these have larger effects for newcomers than for migrants who have been abroad longer (Hagan 1998). Thus, the analyses examined the factors influencing migrants' labour force and occupational status at arrival as well at the time of the survey. A small share of the sample (13% for men and 11% for women) were no longer in the country of their first migration to Europe at the time of the survey, either for having returned to Senegal or for having moved to another survey country. For these migrants, the analysis focuses on the last year of their migration spell[32].

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[30] Two activity spells (or employment spells) can be recorded for each year. However, most respondents who worked only declared one. This could be a 'true response and reflect the reality, or could be a consequence of a very long and demanding questionnaire.

[31] Researchers of employment careers use sequence analysis and optimal matching techniques, among others, to investigate not only whether an event occurs, but also the sequencing of states that make up labour market trajectories. Furthermore, typologies of careers can be constructed (see Robette and Thibault 2009 for a clear description of different methods). While such an analysis was also considered for this data, its potential is limited by the small sample sizes and the fact that spells of migration vary greatly in length (such methods generally require equal spell length), leading to not very robust results. Work outside this thesis is planned in order to carry such an analysis on the pooled dataset (including the Senegalese, Ghanaians and Congolese in Europe) when the data becomes available.

[32] A control was introduced for this situation, which may be argued to reflect a difficulty of economic integration. However, since this variable was not found to have an effect, it was not introduced in the final models.

The analysis of the last occupational status raises another issue. A large part of the migrants (53% among men and 63% among women) had not changed their job by the time of the survey. Since the sample size was too small to carry out a specific analysis on those experiencing occupational mobility, the last dependent variable, measured at the time of the survey (or the last year for those having left) distinguishes three cases: those who have not changed their first job, those who moved into a semi-skilled or skilled job, and those who moved into an unskilled or self-employed occupation. It thus introduces a measure of the extent of occupational mobility migrants experienced abroad. In analysing both outcomes – first occupational status and last occupational transition - multinomial logistic regression models[33] are estimated, given the categorical nature of the dependent variables.

3.3 Operationalizing migrant networks: a veritable challenge

Chapter two discussed the conceptual approach of migrant networks that this thesis adopts. As a reminder, access to migrant networks is seen as a form of individual-level social capital which may or may not influence the different dimensions of the migration process. The influence of migrant social capital is likely to depend on several dimensions (Portes 1998; Garip 2008): the attributes of the beneficiaries, the nature of their ties to prior migrants and the resources that these prior migrants can command. The following section starts by discussing how these various elements have been operationalized in previous studies, before turning into more detail to the advantages and limitations of the measures that can be developed based on the MAFE data.

3.3.1 Measures of migrant networks in previous quantitative research

Most quantitative work on the influence of migrant networks in international migration has been based on data from the Mexican Migration Project, while more recently other large-scale surveys have been used such as the Mexican *ejido* dataset, the Mexican Family Life Survey or the Nang Rong panel survey on internal migration in Thailand. A key contribution of the MMP has been to bring quantitative evidence in support of the theoretical argument that migration is a social process in which social networks play a

[33] While it could be argued that the dependent variable is to some extend ordinal, with self-employed at the bottom of the occupational ladder and the skilled at the top, ordered logistic models are not appropriate because there is nothing to indicate that the distance between the categories is the same. Furthermore, the proportional odds assumption that the *ologit* makes is not respected in this case.

key role. Douglass Massey and colleagues have shown that individuals with links to prior migrants can draw on their assistance in order to cross the border and locate jobs abroad.

The two measures they have pioneered – and that have since been extensively used – are the "household migration network" and the "community migration network". The "household migration network" is constructed based on a household questionnaire, filled in by the household head, identifying *members of the household with previous migration experience*. For each individual, a count variable gives the number of household members who migrated before the date of the survey, which can be further broken down by gender and in some cases by family role (parents, siblings, and children).

The measure is vulnerable to both internal and external criticism. First, it does not capture the same type of ties for everyone, depending on gender or relationship to the household head. For example, given that the information is only collected from the household head, the measure will not capture the migrant household members of non-co-resident sons and daughters of the household head. Furthermore, in many societies the composition of extended households will depend on gender: Senegal, as Mexico, is dominated by the practice of virilocality, where the wife joins her husband's household upon marriage. It is furthermore common practice for several brothers across two or three generations to live together in a larger compound. Thus, the household network will comprise siblings and patrilineal relations for men, but not for married women.

Moreover, the measure operates under the implicit assumption of the household model: that all resources, including the social ones, are shared equally among household members irrespective of their position within the household. This assumption has been disproved by several qualitative studies (Lindstrom 1997; Hondagneu-Sotelo 1994). For example, Hondagneu-Sotelo (1994) shows that married women do not automatically benefit from their husbands' social resources and expertise and that men and women in the same family use different network resources, sometimes at cross-purposes. Third, by focusing only on the co-residential component of kinship, the measure does not capture the broader network of kin nor the system of friendship and other social relationships. According to Collyer (2005) in his study on Algerian refugees, the current context of tightening of restrictions on migration has put increasing pressure on strong bonds between immediate family members, driving (potential) migrants to seek support from weaker ties. It is thus important to try to capture other ties as well.

The second measure can be described as an *area-based measure* which tries to get at these latter, non kin ties. The **"**community migration network" is a simple count of other people who have already migrated from the community and is usually divided to the total population, obtaining thus the migration prevalence at the community level. Since none of the surveys so far collected exhaustive information on the entire population of the community, these networks are often extrapolated from the sampled population (a part of the community, sometimes quite small). They thus equal the aggregate of all household migration networks.

The main weakness of this measure is that it assumes that social relationships actually exist between the members of the community, which may be more or less the case according to the context. Fussel and Massey (2004) have shown that this way of constructing community networks gives no result in an urban setting. Furthermore, as Palloni et al. (2001) admit, analyses that include community networks run the risk of finding spurious correlations between network variables and migration. That is, community networks may be found to significantly influence migration not because they serve a function in the migration decision, but because they represent common unobservable community characteristics such as community development or organization, or proximity to the border[34].

Finally, both these measures are static: they miss, on the one hand, the inevitable variation that exists in the community and the household over time. For example, constructing the household network based on the composition of the household at the moment of the survey may not accurately reflect such a network at the moment when the migration of the individual took place. On the other hand, it misses out the potentially complex spatial and temporal migration trajectories of the network members[35]. Qualitative work on Filipino migration (Paul 2011) argues that one cannot understand the factors leading some Filipinos to adopt step-wise migration paths without studying the influence of their network members' equally complex trajectories in their decision-making process.

[34] Studies therefore try to control for as many community-level factors as they have data on, but these are usually rather crude.

[35] Only the dates of household members' first and last trips are generally known, and only for those migrating to the United States, or, more recently, to Canada.

The distinction between household and community networks has been used to investigate the extent to which the *nature of the ties* shapes their influence in the migration process from a strong versus weak ties analytical perspective. It was argued above that this is problematic because community networks are probably not capturing the effect of direct social ties, but of more diffuse contextual factors. The role of non-co-resident kin and friendship ties in the migration process has been less investigated in the quantitative literature[36]. As discussed in chapter 2, the existing data do not allow directly measuring the *resources* embedded in individuals' migrant networks. In an attempt to capture this element of migrant social capital, researchers have constructed indirect proxies such as the cumulated migration experience and the size of the migrant networks; this thesis follows a similar approach, as will be described below.

The two measures described above have mostly been used to analyse the roles of migrant networks in triggering out-migration. Whereas most studies assume pre-established migrant networks to influence the economic outcomes of the newly arrived at destination, little work has so far directly tested this link, with findings not always supporting this assumption (Munshi 2003, Espinosa and Massey 1997; Amuedo-Dorantes and Mundra 2007; Kalter and Kogan 2011). There is however a larger literature exploring the influence of broader[37] co-ethnic ties in immigrants' labour market outcomes at destination, where other types of measures are used; these approaches will be discussed in more detail in chapters seven and eight.

3.3.2 Migrant networks in the MAFE survey: advantages and limitations

The way information on migrant networks is collected in the MAFE survey differs in two major ways from previous measures: through the ego-centric measurement of networks and the gathering of longitudinal information on respondents' migrant networks.

First, the multi-country design of the survey enables the collection of information on ego's social ties to migrants *directly* from the respondents. This is possible because the sample includes both migrants and non-migrants. Interviewees are first asked, through specific questions for each, whether any of their parents, siblings, children or partners

[36] Some information is collected in the Mexican Migration Projects on friends with migration experience, but only for the household heads, limiting the analyses in terms of their sample population

[37] Broader in the sense of not exclusively focusing on persons that the respondent knew before migrating.

have a previous or current international migration experience. In addition, they are asked whether anyone else from their more extended family or friendship circle has also had a migration experience and to whom they might have turned or might turn for help with migrating. The questionnaire suggests a limit of 20 persons, though one respondent named 21 persons. The total constitutes ego's migrant network. A second way in which the MAFE data distances itself from previous surveys is by collecting *longitudinal* information on the migration trajectory of each member named by the respondent. After the name-generator questions and with the help of the Life History Calendar, the international migration trajectories (including years and destinations of each international move) are recorded for each member of the network. In addition, the relationship to ego, the gender, the year of acquaintance (if spouse or friend) for each member are also recorded. An excerpt from the biographic grid is included in the Appendix (Figure A-2) to illustrate the collection method.

Thus, it is apparent that the MAFE data introduces a different measure of migrant networks, since the information is directly collected at an individual level. While the intensity of the relationship between ego and each of his or her network members is not recorded[38], it is actual (and not supposed) relationships that the data is measuring. Also, detailed information is collected on all the moves of the members of the individual's migrant entourage, thus introducing a much more dynamic measure of networks. The composition and location of the network may change with time as (more) members of the respondent's family and friends migrate abroad, change their location or return to Senegal.

Though innovative, this measure is also subject to a series of limitations. While information is collected on all immediate family members with migration experience, irrespective of whether or not they are part of the respondent's household (parents, siblings, children, and partners), a compromise had to be reached to limit the name-generating potential of the question enquiring about extended kin or friends with migration experience. Given the time constraints imposed by face-to-face interview and that the role of migrant networks was not the main focus of the survey, the question solicits those members on whom Ego could have counted or could count on for

[38] We do know however the year when ego met the respective network member, if he or she is a spouse or a friend

migration help, whether or not they actually provided any help[39]. This is not theoretically ideal for examining the role of different types of ties since it conflates measures of access to social capital with measures of potential use (see discussion in chapter 2, section 2.3.3). It is not, however, clear in which direction the bias would run, but it could underestimate the role of these ties[40].

The retrospective nature of the survey introduces further limits to the study of migrant networks. First, relationships which survived and which the individual maintained up to the time of the survey, perhaps because they were most helpful, are more likely to be declared, which may lead to overestimating the effect of networks. Psychological mechanisms aimed at reducing cognitive dissonance are likely to lead to forgetting or omitting to recall sour experiences and broken friendships. A panel data would have been necessary in order to avoid this bias but such a research design has not yet been attempted in a multi-country survey of migration. Second, the recall effort placed on the respondent who needs to retrace the migration trajectories of his or her kin and friends is arguably high and may lead to inaccurate measurement of these trajectories. This bias may however not be that large with respect to network members' migrations to Europe, which are still exceptional in the Senegalese context, and which is what this thesis is focused on. Furthermore, the measures I construct rely less on the exact dates of members' moves then on the chronology of these moves compared to the respondent's: what matters in the estimation strategy is whether someone migrated before or after the respondent[41], and not so much the exact year of that person's migration. Thus, even if not entirely accurate, this measure is still a step forward compared to previous ones.

The measures are subject to further limitations that generally affect attempts of estimating the causal influence of social capital. As Palloni et al. (2001) argue, there is a process of selection into friendship networks as people are not randomly developing ties between themselves. Instead, as the principle of social homophily implies, they tend to choose others who are similar to them as friends (Mouw 2006). The characteristics on

[39] Interviewers were trained to make clear the latter point, which was especially relevant in the case of migrants. And indeed, descriptive statistics that will be presented in chapters five and six show that a small share of these extended ties actually provided direct assistance, despite being reported by the respondent.

[40] Migrants may list fewer members in this category, as they probably have a clearer idea of who are the persons they could rely on, whereas non-migrants may enthusiastically cite a larger number. In this case, the effect of these ties on migration should be biased down.

[41] The respondent is more likely to remember whether someone was already abroad when he or she migrated, and the interviewers were instructed to ask this when problems of recall arose.

which they are similar may equally influence their propensity to migrate, reflecting thus not a proper causal effect of networks but selection effects. With longitudinal data, one can partially account for correlated unobservables (unobserved heterogeneity) by running random effects models; this is what was done here as well, but the rho test showed no evidence of significant correlation of the error terms. A second potential problem, which affects a large part of the previous literature (see Munshi 2003; Mouw 2006), is that of reverse causality[42]: whether the migration of one's kin or friends' influenced ego's migration or vice-versa. Given that the MAFE data allows establishing, with a reasonable amount of confidence, the chronology of network members' moves vis-à-vis the respondent, this is of less concern here. Furthermore, all empirical models used lagged outcomes of the network variable, ensuring the antecedence of network members' migrations.

There is yet another alternative explanation to migrant network effects that should be considered: observing a correlation between two siblings' migration behaviour does not necessarily reflect a true social network effect (the first to migrate later helped the second) but a concerted household strategy to diversify risks (new economics of labour migration) or maximize income (neoclassical economic model), as discussed in chapter two (see also Palloni et al. 2001). This should particularly concern the influence of immediate family networks (parents and siblings). While these two channels of influence cannot be distinguished in the models, chapters five and six will bring some direct evidence as to the extent to which individual migration is a collectively decided strategy. Finally, as the information on the migration trajectories of all previous and current partners, both formal and informal, is recorded specifically, the data allows me to separately examine the influence of the partner in all models, and thus avoid confounding spousal reunification and network effects.

Furthermore, while the MAFE data collects rich information on some aspects of respondents' social networks, it leaves out other which may also play a role in the migration process. First, while the *composition* of the migrant networks according to several characteristics can be assessed, there is no information on the *structure* of the ties linking its members (ties between alters). Thus, as previous surveys on international migration and "networks", this thesis cannot consider the structural elements of social capital, which were nonetheless showed to be important in individuals' economic

[42] In cross-sectional data, instrumental variables can be used to statistically address this problem.

outcomes[43]. Second, other ties not captured in our measure may play an important part in the mobility decisions and outcomes of the respondents. At origin, non-migrant family members and friends can also shape aspirations and capabilities to migrate. Through a list of direct questions that are analysed in the first two empirical chapters, their involvement is descriptively explored. Second, co-ethnic as well as native persons met once at destination may greatly affect the migrants' subsequent labour market trajectories (Lancee 2010; Kanas et al. 2009). None of these two portions of individuals' social networks are captured in the MAFE data, although it can be argued that they are part of the larger migration networks shaping the dynamics of the migration flows between two localities (Krissman 2005). Future surveys should attempt to extend the concept of migrant networks to include these potentially key actors, as well as measuring the structure of the networks.

One last distinction that needs to be briefly addressed is that between access and use of social capital. The measures discussed so far, both in what concerns previous studies and the MAFE survey, operationalize *access* to social capital. These will be the main focus of this thesis, which investigates the extent to which access to migrant networks influences the likelihood to migrate and migrants' economic outcomes at destination. However, they will be supplemented with the few available measures of *use* of migrant social capital, giving thus an idea of the extent to which one's social capital is actually mobilized. Measures of use are based on two questions addressed to migrants only, asking about the involvement of members of the respondent's personal circle in the migration decision-making as well as in the financing of the respondent's trip. While not only social ties to migrants are considered, those who are part of the migrant network are identified through a specific code. More details will be given in chapter five where these variables are exploited.

3.3.3 Constructing the time-varying migrant network variables

It is not entirely straightforward to pass from the complex and rich information collected in the questionnaire to variables that allow evaluating the influence of the network. Information from several nested levels had to be synthesized: the respondent's trajectory, the members of his/her network and the several migration trips of each of

[43] In light of this limitation, the term "network" itself is somewhat misleading, yet it is adopted here since used in the relevant literature, despite the fact that its structural component is not measured.

these network members. Furthermore, these aspects vary over time. Using the STATA statistical software, this information was coded in a series of time-varying variables. First, the data was arranged in a person-year (or long) format. Second, it was possible to construct, for each point in time, count variables giving the number of women, men, family members, friends, etc., that were in Europe/abroad/at destination that year. Since the same (or very similar) measures are used across all four empirical chapters, it was decided to present the variables once in this section, in order to avoid repetitions.

In order to examine the various research hypotheses, several specifications of the migrant network are tested successively in a series of models. All variables are time-varying and measured annually. In the analyses of the propensity to migrate (chapters five and six), the following variables are included:

Access to current migrant network. The simplest definition of the migrant network consists in a dummy variable taking the value 0 if the respondent has no one abroad that year, 1 if they have at least one person.

Access to and size of the current migrant network in Europe/Africa. The location of the network members is then taken into account, distinguishing between those situated in Europe and those that are in Africa. These variables are introduced both in a continuous form (the number of network members in each location per year) and as a dummy (0 if no member in Western countries/ Africa)

In light of the findings, all subsequent variables (related to the composition, experience and concentration of the network) include only network members situated in Europe. In terms of composition, several aspects are measured.

Migrant partner. A dummy variable takes the value 1 if the respondents' current partner is in Europe that year.

Gender composition. Second, two continuous variables give the number of males and the number of females (other than the partner) located in Europe each year.

Type of ties other than the partner. Third, to investigate the influence of ties in terms of the relationship to ego, the analysis distinguishes between other close family members - such as parents, siblings or children[44] - on the one hand, and extended kin[45] and

[44] Children are not always included in this variable. When excluded, it is mentioned in the analysis.
[45] Cousins, uncles, aunts, grandparents, nieces, nephews, brothers and sisters-in-law are included among extended kin. While aware of the somewhat Euro-centrist distinction between cousins and brothers, these

friends[46], on the other hand. Two continuous variables count the number of network members in each of the two categories and who are located in a European country each year. The distinction between the two categories is not assumed to overlap with the one between strong and weak ties and there are no measures of the proximity of the relationship (intensity, frequency) available to examine to which extent there is an overlap. Nonetheless, it is likely that ties to immediate family members are, on average, characterized by stronger expectations of reciprocity and help than those to more extended kin and friends. Thus, if the strong *vs.* weak ties distinction is sometimes taken up, it refers to a stronger vs. weaker level of obligation. Finally, given the lack of theoretical expectations of a varying degree of influence between sub-categories (siblings, parents, friends) and low number of cases in each of these, most analyses only distinguish between close family ties and ties to extended kin and friends. Where a notable difference exists *within* the categories (e.g. between cousins and friends), this is mentioned in the text.

The MAFE data, as previous surveys[47], contain no direct measure of the *level of resources* embedded in the networks. The level of education or the occupation of the network members is unfortunately not recorded. This thesis follows previous studies in choosing some measures that could proxy this aspect.

Size of the network. A first measure, as already mentioned, is the size of the network that is located each year in a Western country, operationalized in a continuous variable. Furthermore, a categorical variable distinguishing between 3 values (no network, a one or two person network, more than three people abroad) is also introduced.

Cumulated migration experience. Second, assimilation theory predicts that as their time spent at destination increases, migrants are better off economically. This is indeed what most empirical studies show and while not the focus of this thesis, findings from the last two empirical chapters also go in this direction. Thus, I follow previous work (Curran et al. 2005; Garip 2008) and assume that the longer the settlement duration, the higher the level of resources network members could provide. However, I do not use the same

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had to be assigned to different categories due to the different nature of the questions asking about each of them.

[46] For the analysis of friends and partners, only the years after the date when the respondent reported having met the network member are taken into account in the analysis.

[47] The Nang Rong survey on internal migration in Thailand does contain some information on the occupations of prior migrants

measure as Garip (2008), who calculates the average number of months spent by all network members abroad, because an average could often be misleading as to the real distribution within the network. Taking advantage of the more detailed information on network members' trajectory that the MAFE data offers, I distinguish between recent migrants (who have spent 3 years or less abroad), experienced (between 4 and 10 years abroad) and long term migrants (over 10 years abroad). In chapter seven and eight a different coding is used: migrants having spent 4 years or less are distinguished between those having spent five years or more. These three (two) variables are introduced as continuous variables (number of recent migrants, etc.) or as dummies (has at least one recent migrant) in chapters seven and eight.

Returnees. Another hypothesis in the previous literature (Massey and Espinosa 1997; Davis et al. 2002) is that current migrants possess higher level of resources than returnees. I measure this by including a continuous variable on the number of returnees from a Western country at each point in time.

Geographical concentration. Finally, it can be argued that if the network members are highly concentrated in a particular country, the potential migrant to that destination may benefit from a larger level of resources. To measure the extent to which the network is concentrated in a particular country or otherwise dispersed over several locations, I calculate a ratio dividing the maximum number of network members in the same country to the total number of migrants in the network that were abroad at any time[48]. This is the only variable not lagged[49] since the location of the network is important at the time of migration. The ratio is recoded into several categories, considering that a network is dispersed when less than half of the members are in a same destination (2), that it is concentrated when half or more members share the same location (3) and that it is extremely concentrated when all members are in a single country (4). The case of networks made up of a single person is distinguished, and the reference category is no network in a Western country.

For the analysis of migrants' economic outcomes in chapter seven and eight, similar variables are used (and aspects of the network investigated), with two exceptions. First, are considered only the members of the network *at destination*, and all the

[48] For example, if a respondent has, at time t, 3 network members in France, 2 in Spain and 1 in Italy, the geographical concentration will be 3/6 =0.5 : half of the network members are in the same country.
[49] Introducing the lagged term of the variable does not produce different results, however.

specifications only include them (size, gender, etc.). This is not the case for the analyses of migration propensity, where network members could be anywhere in Europe. Second, only persons that had been *at destination for at least a year* when the respondent arrives are taken into account. Focusing on previously established networks ensures that the bias of reverse causality is avoided.

To sum up, the variables describe different aspects of the respondent's migrant entourage, measured annually. All migrant network variables are thus time varying. In the analyses of migration propensity, they are lagged by one year (i.e. they are measured in the prior year), in order to ensure a chronological anteriority between the network members' migration and the respondents' potential migration. While continuous variables are preferred because they control for the size of the network at the same time, a dummy specification of each variable was also tested and results are robust. In chapters seven and eight, focusing on the network present at destination, dummy variables were preferred as the size of the networks was not too big. A description of the variables can be found in Table A-1 in the Appendix.

3.3.4 Control variables

Several other factors that have been shown to influence migration propensity and economic integration are taken account into the analyses. Only those variables which are introduced in the analyses in several chapters are discussed below.

Age. This is introduced as a time-varying variable in a continuous specification. In some analyses a squared term is also introduced to take into account non-linearity.

Educational level. The Senegalese national education system closely resembles the French system. Information on the educational level of the respondent is collected in two ways in the questionnaire. First, the highest class attained and the highest degree obtained by the time of the survey are recorded. Second, in the activity module, all periods of education (dates only) are collected. However, an important limit of this variable is that the module does not record information on which degree or educational level was attained after each spell. In other words, whereas the number of years spent in education are known at each point in the respondent's trajectory, the exact level attained is not. Given the frequency of "white years" at the university level in Senegal – where because of riots or other events classes are stopped and degrees not awarded that year – a Bachelor's degree is not necessarily obtained in four years. Furthermore, Senegalese pupils often take longer to complete primary or secondary cycles, especially in rural

areas where their labour force is needed by the families and drop-out (but also re-registrations) is frequent. Bearing in mind these limitations, several ways of matching[50] the information on the number of years and the level of educational attainment were tried in order to achieve a time-varying measure of the level of education attained. In practice, however, results were robust to the different specifications. A categorical variable was calculated: 1) no formal educational qualification; 2) primary level degree; 3) secondary level degree; 4) tertiary level degree. In many analyses, the latter two values are merged due to the low number of cases.

Family situation. The respondent's family formation trajectory is comprehensively recorded, including the dates of all unions, both formal and informal, and the birth dates of all children. Based on this information, several time-varying dummy variables were calculated, informing on whether:

Union status. The individual was in a union the respective year

Children under 6 years old. The individual had children under 6 years old the respective year (the number of children under 6 was also used).

Type of union. Whether the union was polygamous or monogamous.

Legal status at destination. A different module collects time-varying information on the type of documents held (if any), for all years when the respondent was abroad. Five categories are distinguished: undocumented, short-term visa, residence permit (of at least a year) and no need for residence documents. The last category was especially frequent for intra-African migrations (within the CEDEAO area) or for early migrations to European countries, before visas were introduced (1984 for Senegalese citizens in France).

Religious belonging. In Senegal, an almost entirely Muslim country (94.5% of the population), the relevant distinction is between the particular Muslim Sufi brotherhoods the individual identifies with (see chapter 4 for further details). Here, the two main brotherhoods can be analysed separately: the Muridyya and the Tijaniyyah, while the rest are grouped in a category "Other Muslim"; the Christian minority can further be

[50] The minimum number of years required to attain a particular level of education were computed, based on the information on the structure of the Senegalese education system. A more generous estimation was then applied, allowing one or two more years for each level. Three different variables were thus calculated.

distinguished. In the analyses of economic integration, only the Murids will be distinguished from the rest.

Historical time period. To account for the period of migration, a categorical variable is introduced distinguishing three periods: before 1990, during the 1990s, after 2000. Due to the reduced number of cases in the first category, it was not possible to distinguish this even further, although, arguably migration dynamics to Europe before 1974 were very different than in later periods.

Chapter IV

Migration, gender and networks in the Senegalese context

In order to situate the thesis, this chapter gives an overview of international migration in the Senegalese context, paying particular attention to the role of gender relations as well as of migrant networks in the shaping of these flows. It then reviews some findings from other studies on the differences in economic integration of Senegalese migrants in France, Italy and Spain, the destination countries which are the focus of this study.

4.1 International migration from Senegal

4.1.1 Persistent economic crisis since the 1970s

Senegal, a French colony until 1960, is considered to be a success story in terms of democracy in Africa (Cruise O'Brien 1978; UNDP 2009) and, compared to other countries in the region, has enjoyed a remarkable political stability since its independence. The picture is less optimistic in terms of economic prospects.

The first two decades following the independence were a period of economic growth fuelled mostly by Senegal's groundnut and other agricultural production (coffee and cocoa). But a combination of a persistent cycle of droughts and the oil shocks of the 1970s, together with the fall of market prices for agricultural products [1] and the devaluation of the national currency in 1994 have marked several profound economic crises (Fall et al. 2010). These have intensified in the 1990s, and between 1990 and 1999 the gross domestic product per head sank by 28% (Gerdes 2007). In the 2007/2008 the country's Human Development Index was at 0.499 placing it 156th out of 177, signifying for the most part stagnation in human development despite moderate economic growth. Growth rates over the last decade have hovered at around 5%, but were largely cancelled out by high population growth – Senegal's population quadrupled since 1960, leading to limited effects in poverty reduction (BTI 2012).

The country is still one of the least educated in Sub-Saharan Africa. Beginning 1990s, the rate of primary schooling in 1997 is 58% in Senegal (79% in Sub-Saharan Africa), while the combined rate of primary, secondary & tertiary education is 35% (44% in Sub-Saharan Africa) (Robin et al. 2000). Unemployment[2] has been growing, and is especially affecting the young, whose numbers are increasing as the population is getting younger (Tall 2002; Gerdes 2007). Following a series of structural adjustment programs, employment in the civil service has gone down substantially, while the private sector is too weak to sustain the labour market. This led to the informal sector being the most important provider of jobs and the first source of revenue of the

[1] In the global downturn of the 1970s, Senegal's increased specialization in groundnut production turned from a driver of growth to one of the main factors underlying its decline (Robin et al. 2000).

[2] The unemployment rates in countries with a large informal and subsistence sectors as well as significant underemployment are not particularly meaningful (Gerdes 2007). For example, the CIA World Factbook 2006 places the unemployment rate of Senegal at 48%. Gerdes (2007) argues that statistics on small incomes are more relevant. The Population Reference Bureau (2006) report puts the income per head at USD 4.85 per day and finds that 64% of the population live on less than two dollars a day.

Senegalese population: more than one Senegalese out of two has an informal activity, with the sector especially attracting women and children (Fall 2010). As a result of these economic and demographic transformations since the 1980s, an ever-larger number of young people with poor professional prospects enter the labour market each year (Gerdes 2007) and view international migration as the only way to get ahead.

4.1.2 History of migration flows

These economic transformations have shaped the nature of migration flows to and from Senegal. Up to the 1970s, Senegal was mostly a country of immigration, its groundnut production attracting workers from neighbouring countries[3]. Also, to begin with, migration to and from Senegal[4] has mostly been in connection with other African countries (Gerdes 2007). It is mostly from the 1980s onwards that Senegal increasingly became a country of emigration and that flows towards Western destinations took off.

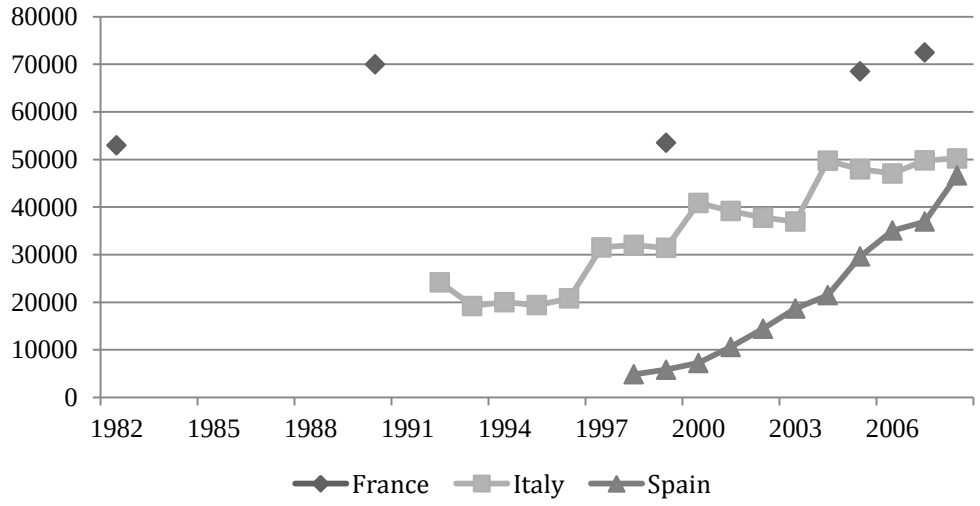
Senegalese migration abroad has a relatively long history and while there are many studies documenting it, they are mostly qualitative and focus on specific regions or populations. The first wave of migration to Europe can be traced back to the First World War when many Senegalese served in France as marines and infantrymen (*tirailleurs sénégalais*) and often settled there after the war (Robin et al. 2000). But the flows became more important after Independence, oriented towards a couple of African countries experiencing an economic boom in various sectors, such as the Ivory Coast and Ghana, where the cocoa, coffee and wood cultures were peaking, Gabon, where the building sector was expanding or the two Congos, for the diamond industry (Robin 1996). On the other hand, the flows towards France also picked up, responding to the needs of the expanding automobile industry which was actively recruiting workers to fill the domestic labour shortage (Pison et al. 1997). Both regions adopted policies of freedom of circulation of persons[5].

[3] The migration of French and Lebanese settlers to Senegal during colonization should also be mentioned (Gerdes 2007).
[4] Senegal has also a rich and complex history of internal migration flows - such as the "navétanes" of the groundnut basin or the sailors (see Robin et al. 2000) – for which there is no space here.
[5] The Protocol on Free Movement of Persons, the Right of Residence and Establishment was signed in 1979 by the members of the Economic Community of West African States (ECOWAS).

4.1.2.1 Diverging dynamics: France versus Italy and Spain

From the 1980s onwards, two major tendencies stand out: the diversification of destinations and the intensification of Senegalese migration flows, especially towards Western destinations (Robin et al. 2000; Ndione and Broekhuis 2006; Fall 2010). The end of the *Trente Glorieuses* sees France closing its borders to labour migration in 1975[6]; at the same time, the classical African destinations start losing their attraction for a number of economic and political reasons[7] (Tall 2002), leading the Senegalese to progressively turn towards new destinations in the North without any colonial or linguistic links to Senegal, such as Italy, Spain and the United States (Ma Mung 1996; Ndione and Broekhuis 2006). The former two became particularly attractive due to their expanding agricultural, construction and tourist sectors and their flexible entry legislations and frequent regularization campaigns, as will be discussed in section 1.4.

Figure IV-1 The evolution of Senegalese migrant stocks in France, Italy and Spain



Sources: France 1982, 1990 (United Nations Global Migration Database), 1999, 2005, 2007 (INSEE); Italy 1992-2008 (ISTAT); Spain 1996-2008 (Ministerio de Trabajo e Inmigración)

[6] The bill of the 5th of July 1974 announces the end of immigration and the closing of borders. It however reforms its policies on family migration, which becomes the main channel of immigration.

[7] The Ivory Coast and Gabon start experiencing economic downturns. Furthermore, they begin promoting the "national preference" (*ivoirité*, *gabonisation*), making it harder and harder for foreigners to legally reside and exert economic activities on their territory.

Several surveys confirm that African countries attract a lower share of recent migrants, whereas migration towards Europe and North American countries increases (DEmIS[8] 2000; ESAM II 2004). Together, France, Italy and Spain are attracting 42% of all Senegalese migrants having left between 1997-2002; this share is slightly higher among the residents of Dakar (54%), according to the population census (ANSD 2008).

Figure IV-1 compares the evolution of stocks of Senegalese migrants between the three destinations which are the focus of this study. Data from the National Statistics Institutes for the available years are used. Whereas the Spanish data also captures part of the illegal migration, the Italian and French stocks are based on those holding a residence permit. A clear upward trend can be observed in both Italy and Spain, whereas the number of Senegalese in France seems to stagnate at an altogether higher level of around 60-70000 migrants.

4.1.2.2 The increasingly central role of the Dakar region

Finally, while up to the 1980s, most of the international migrants were coming from the Senegal River Valley, later periods saw a diversification of departure points. The Dakar area became the first origin of emigrants and the groundnut basin regions are increasingly sending migrants abroad. It is interesting to briefly consider the case of the Dakar region. The desertification process affecting the North of the country accelerated the rhythm of rural exodus and steered a large part of the population towards Dakar, which by 2008 concentrated almost a quarter of the country's 11.3 million inhabitants. The capital's primary role in migration has traditionally been a redistributive one. A trampoline for international migration, Dakar has been hosting candidates to emigration for longer or shorter time periods, as they sought to accumulate the necessary financial and social capital for undertaking a European migration (Jettinger 2011). Furthermore, return migrants often choose to invest their savings in the Dakar real-estate market (Tall 2002, 2009), even if they go back to live in their rural communities of origin.

However, more recently, due to increasing levels of urban poverty and unemployment, the city generates its own candidates for migration. The largest share (a quarter) of emigrants having left Senegal between 1988 and 1993 came from households established in the region of Dakar (Robin et al. 2000). Furthermore, the capital area is

[8] Determinants of International Emigration in Senegal, 2000, coordinated by IRD, NIDI and Eurostat.

experiencing a high and increasing prevalence of migration, with surveys finding that 40% (DEmIS 2000) to 50% (MAFE 2008) of the households have at least one family member abroad. In all, research finds that the Dakar area associates an older emigration, product of the rural exodus from the Senegalese River Valley or Casamance, and a more recent migration reflecting of the urban crisis (Robin et al. 2000)

4.1.3 A pervasive and self-reinforcing "culture of migration"

International migration has become a central feature of Senegalese identity and the standard model of social advancement. Whether in a village of the Senegal River Valley or in Dakar, the international migrant has emerged as the new figure of economic and social success (Dia 2009, 2010) replacing the state functionary as a symbol of individual achievement. The *modou-modou*[9] (Ndiaye 1998), as they are referred to in colloquial terms, are celebrated in Senegalese pop songs as modern heroes, leading Riccio (2005) to conclude that a reversal of traditional hierarchies has taken place in Senegal. "It is the unskilled and sometimes illiterate who is traveling globally without losing touch with the beloved homeland whereas the white collar or the graduate seems bogged down in what seems a failed path of social mobility" (Riccio 2005: p.100). Accordingly, young people's "career planning" is increasingly directed towards the international labour market (Gerdes 2007).

The success of returnees and of migrants – signalled by their big houses, fancy clothes or their beautiful wives – stimulates emulation. A testimony collected by Fall (2007) is eloquent in this respect: "the cars, the women, the houses… all that's beautiful is reserved to the *Modou-Modou*. Us, we're as dead. The sea has no branches, we know it, but we have no other choice". In Senegal, social cleavages are increasingly expressed in terms of access to emigration, and the ensuing feelings of relative deprivation feed aspirations to migrate among the young population (Riccio 2005).

Migrants have often been blamed for reinforcing such aspirations by giving out a false and idealistic vision of "Paradise Europe" and hiding their true living conditions. Making them responsible for perpetuating migration masks however a great deal of complexity. Returning and visiting migrants are themselves caught in a web of expectations and social duties requiring an ostentatious display of success. They are

[9] A Wolof and Murid international migrant, abbreviation from Mamadou Mamadou

subject to their families' expectation of support and to social obligations of sharing their wealth widely. A teacher in a small town interviewed by Riccio (2005) explains : "When he comes back the migrant is fleeced by his large family, or even by the district or the town where everybody is expecting something, and by the need to show off the success with expenses of prestige and afterwards he is obliged to leave again" (2005: 112). Any complaints on the part of the migrants or efforts at dissuading younger generations from following the same path are considered self-pity and deemed socially unacceptable (Gerdes 2007). As a result, families and non-migrants have a very unclear image of the working and living conditions that migrants face in Europe.

4.2 Migration: a masculine activity

Most researchers agree that a culture of migration has developed in Senegal and that migration has imposed itself as an almost inevitable step in the life-course of young men (Mondain and Diagne 2010). However, the same cannot be said about women. In a strongly patriarchal context, Senegalese women are still restricted in their geographical and economic autonomy. Gender inequality characterizes most domains of social life in Senegal. This section discusses briefly the prevailing gender relations in Senegal, before attempting to evaluate the extent to which the participation of women to migration flows has evolved over the past 30 years.

4.2.1 Gender roles in Senegal

In many societies, gender is a critical factor when it comes to determining life prospects. In Senegal, this is the case to a larger extent than in most others. Senegalese women are traditionally subordinated to male authority, the positions of social and economic responsibility undeniably falling on the men (Pilon and Vignikin 1996). Studying the (rare) practice of divorce in Dakar, Dial (2008) argues: "In Senegal, tradition and then the Muslim culture have perpetuated a system of inequality and sexual domination which are justified by "nature", tradition and religion" (2008 : p.15). The traditional conjugal contract dictates a division of labour that places women outside of public life and subjects them to the authority of their husband, who is the head of the household. Women are expected to perform the majority of household and family tasks in return for food, which is provided by their husbands (Diop 1981, 1985). They are not expected to work outside the house or earn money, and those who transgress this traditional division of labour are frequently labelled with negative stereotypes (Jettinger 2009). Women do

not have property rights over land, but can be assigned a small piece of land for use by the husband's family (Dianka 2007).

Women's inferior position is reinforced by patrilocal norms requiring that the wife joins her husband's home, often co-residing with her family-in-law and co-wives[10]. Moreover, polygamy - a practice institutionalized through Islam allowing men to marry up to four wives - has been argued to further reinforce these norms. Senegal has one of the highest rates of polygamy in Sub-Saharan Africa: 25% of all marriages are polygamous (Vasquez Silva 2010).

Most of the studies cited above focus on Wolof or Haal Pulaar ethnic groups, which form the majority; ethnographic work among the Jola of Casamance suggest that gender relations are more egalitarian and that women enjoy considerable power and autonomy from men among this ethnic group[11] (Lambert 2002, 2007). Furthermore, traditional gender roles have a stronger hold in villages than in cities[12] but they still govern the organisation of social and economic life in Dakar.

These gender relations translate into persistent inequalities with respect to access to education and employment. According to the 2006 Demographic and Health Survey[13], the share of women without any formal education is of 60%, compared to 43% among men. These percentages vary greatly between rural and urban areas, but in each setting men are substantially more likely to access formal education. Furthermore, on average, men are twice more likely than women to attain secondary level education or more (30% compared to 15%). Being less educated than men, women are also less present on the labour market, where they generally occupy more precarious jobs. In 2006, only 38% of the women were working in Senegal, compared to 66% of the men[14]. When they work, women are more likely to engage in informal activities such as small-scale commerce or service jobs. In Dakar, according to the Labour Force Survey 2002, this concerns three quarters of women (Adjamagbo and Antoine 2009). Gender gaps with respect to labour force participation appear to be higher in Senegal than in other Sub-

[10] Extended families are the basic social unit in Senegal, where the average household included nine persons according to the latest census (2002).
[11] Which only makes up 5,5% of the total population, see section 3 below.
[12] In some villages it is forbidden for men and women to eat from the same bowls, whereas in Dakar this practice has been abandoned (Jettinger 2009).
[13] The Demographic and Health Surveys are nationally representative surveys on health and population conducted in developing countries within the Measure DHS international project.
[14] Among the Dakarois, these shares were 46% (women) and 65% (men).

Saharan African countries where the DHS survey was conducted in the same year (such as Mali, where women are as likely to work as men, the DR Congo or Togo). This is partly reflected in Senegal's rank on the gender-related development index (GDI): 140th of 155 countries with a score of 0.457 (UNDP 2009: p. 183).

The economic crisis affecting many Sub-Saharan countries since the 1990s has affected men's ability to provide for the entire family and increased women's presence on the labour market. Yet, women in Dakar find it more difficult to reconcile economic activities and norms about womanhood than those in Lomé[15], as a recent comparative research has found (Adjamagbo and Antoine 2009). Whereas Togolese women consider working to be an important aspect of a woman's identity, for the Dakarois having an activity outside of the domestic sphere clashes with the strict separation of roles between spouses and with the ideal of financial dependency of wives on their husbands (2009: p.7). If a woman does work, the revenues she draws from her activity are often used for her own consumption – in clothes or finery – as it is hardly conceivable for a woman to provide for the family and to challenge thus the husband's economic role.

To summarize, traditional views about gender roles appear to preserve a strong hold in Senegal and seem to represent a veritable obstacle to Senegalese women's economic participation. It is within this context that the extent and modes of participation of women in international migration flows should be placed.

4.2.2 Barriers to female mobility

Whereas the migration of men represents a symbol of success and is socially encouraged within the Senegalese society, women face considerably more barriers in their migration (Kane 2002). For different reasons, both the migration of wives for reunification purposes and independent female migration have traditionally been opposed by the family and the community, although the latter form has encountered the strongest oppositions. Given the culturally shaped gender roles described above, it is not surprising that the international migration of unaccompanied women is stigmatized and often associated with prostitution (Bâ 1995; Dia and Colin Nogues 1982; Evers Rosanders 2002). Those who undertake it have to reconcile their desire to make a living with the risk of challenging the social order and being marginalized. Since women

[15] The capital of Togo

should move from the authority of a father to that of a husband, going abroad independently is often viewed as an unacceptable form of emancipation. In this respect, there are certain similarities between the situation of independent migrants in Senegal and in Mexico. By moving abroad, women avoid the social control that they are usually subjected to, leaving their kin worried that they would engage in behaviour that would affect the family's honour (Hondagneu-Sotelo 1992).

Women's migration is deemed socially acceptable only when it takes place within the family context and especially when women move in order to reunite with their husbands (Comoe 2005). Yet, even this form of mobility has encountered opposition, both at origin and at destination. Even if their husband is abroad, women come under the authority of their in-laws, are expected to live with them and to take care of the household chores. Furthermore, the remittances sent by the husband are generally managed by his parents, and not by the wife(s) [16] (Dia 2009). These forms of organization help to explain the opposition of the husband's family to the departure of their son's wife that was observed by several researchers (Barou 2001; Dia 2009; Vazquez-Silva 2010). Besides the loss in everyday help, parents are afraid they will receive less in remittances from their sons (Gonzalez-Ferrer et al. 2012).

Furthermore, the emancipation of wives settled in Europe, as reflected by an increase in divorces asked by women, has led Senegalese male migrants to reconsider the strategy of family reunification, which they had largely embraced in the 1970s (Barou 2001). The extent of family reunification was further affected by migration policies at destination. The relatively flexible conditions for bringing over spouses were gradually tightened in France after the middle of the 1980s in reaction to the condemned practice of polygamy and to the housing problems experienced by large African families.

Despite the barriers encountered by women in their mobility, researchers have argued that Senegalese migration flows are increasingly feminized. In particular, the autonomous migration of women for economic or study purposes was argued to have intensified in recent periods (Bâ 2008; Sakho et al. 2011). Following Murid women in New York, Bâ (2008) argues that the migration of her interviewees is entirely driven by

[16] The situation is more complicated in villages where several nuclear households live together in a larger "maisonnée" counting more migrants. In such a case, several transfers are directed at the origin household, some received individually (the wives) and some in the name of the household by its head (usually the father or the older brother of the migrants) (Dia 2010).

economic objectives. Through their economic and professional success, they actively transform gender norms at origin by setting new examples. The international circulation of Senegalese "businesswomen" between global cities such as Beijing, New York, Paris, and Dubai for commercial purposes has also received some attention in the literature (Fall et al. 2010).

According to Castles and Miller (1998), the phenomenon of feminisation of migration flows is among the five major trends of the new "age of migration": "women are playing an increasing role in all regions and in all types of migration" (1998: p. 37). Senegal has been argued to follow this broader trend (Ba 2008; Fall 2010; Sakho et al. 2011). The problem, however, is that there is very little quantitative data available that would allow evaluating the extent to which this is the case. According to the Senegalese census carried out in 2002, women represented 18% of migrants who left between 1997 and 2001 and were still abroad in 2002. Their share was higher among migrants that left from Dakar (25%). Longitudinal data is however needed to examine the evolution of the flows.

4.2.3 Feminization of Senegalese migration flows?

To what extent do we observe a feminization of Senegalese migration flows? The MAFE *household* data allows examining the evolution of migration trends from the Dakar area. As discussed in chapter 3, information is recorded on all spouses and children of the household head irrespective of their current location. This is not the case for other family ties such as siblings of the household head[17]. Thus, the study population for this analysis only includes the household head, his or her spouse(s) and his or her children[18]. This provides the necessary information for calculating the number of *potential* as well as *actual* migrants[19]. Moreover, the household questionnaire collects

[17] Only a selected population of the latter would appear in the survey: those who live with the household head or who used to live in the household but are currently abroad *and* they have frequent contacts with the household.

[18] This definition was also used in recent work using the same database for estimating the evolution of migration trends and of return probabilities (Flahaux et al. 2010). However, their analyses are not distinguished by gender. Similar analyses were carried out in Vause and Toma (2011) for Congolese migration flows.

[19] Nonetheless, several selection biases are affecting this sample: mortality rates are higher in the older cohorts; cases where the entire households migrate at the same time are by definition excluded, since there is no one left to report the migration, thus underestimating the extent of migrations. The number of children reported may depend on whether the household head is a woman or a man, and children living in polygamous households may be under-reported.

information on the dates and destinations of the first and last trips abroad for all those with an international migration experience (both current and return migrants). Only the *first* migration trips undertaken are analysed here, since it is not so much the number of trips as the probability of ever migrating that is of interest. Furthermore, only adult migrations – undertaken when the individual was 18 or more – are considered.

Unfortunately, the household data do not allow distinguishing between spousal reunification and independent migration. Chapter 6 will attempt to complement this analysis with one on the evolution of different forms of female mobility, based on the MAFE *biographic* data.

Table IV-1 Total number of cases by gender and migration status

	Men	Women
Total migrants[20]	405	224
out of which: to Africa	151	77
to Western countries	254	147
Non-migrants	3117	3424
Total	3522	3648

Source: MAFE-Senegal household data (2008).

A first way to examine whether an increased feminization of Senegalese migration flows can be observed is to compare men's and women's migration propensities across several cohorts. This can be done by estimating Kaplan-Meier survival curves, which illustrate cumulative probabilities of survival and also take into account right-censored observations[21]. In other words, they represent the distribution over time (here, function of age) of the probability *of not having experienced a migration*, by gender and cohort. Three cohorts are distinguished: those aged 50 or more in 2008 (born between 1915 and 1959), those aged between 30 and 49 (born between 1960-1979) and those aged 18 to 29 (born between 1980-1991). The latter are only observed during 10 years. Initially, all 18 year olds are in Senegal. The probability to remain in Senegal diminishes with age or, in other words, the probability to move abroad increases.

Figure IV-2 distinguishes migrations towards African countries and those towards Western destinations. First, a decrease in intra-continental flows can be observed. Men

[20] The few migration events towards Asian or Middle East countries were excluded from this analysis.
[21] If an individual in the survey is interviewed when 25 years old and has not yet migrated, this does not mean that s/he may not migrate in the future. S/he will appear as right-censored and will no longer be counted as being "at risk" of experiencing the event after 25 years.

belonging to the oldest cohort were significantly more likely to migrate to another African country and to start their migration at a lower age than those belonging to younger cohorts. 12% of men born between 1915 and 1959 had migrated to another African country by the time they turned 32, whereas this was the case for only 5% of those born between 1960 and 1979. This has also led to a diminishing of gender gaps between subsequent generations, despite the fact that intra-continental migration propensities among women did not change significantly.

A different picture emerges with respect to migrations towards Europe and North America. Both men and women aged 30 to 49 are significantly more likely to have migrated to a Western country before turning 40 than those over 50. Furthermore, although the difference is only significant for men, the calendar of these migrations seems to have accelerated between generations, as the Senegalese increasingly migrate at a younger age. Finally, there is no shrinking of the gender gap between the cohorts.

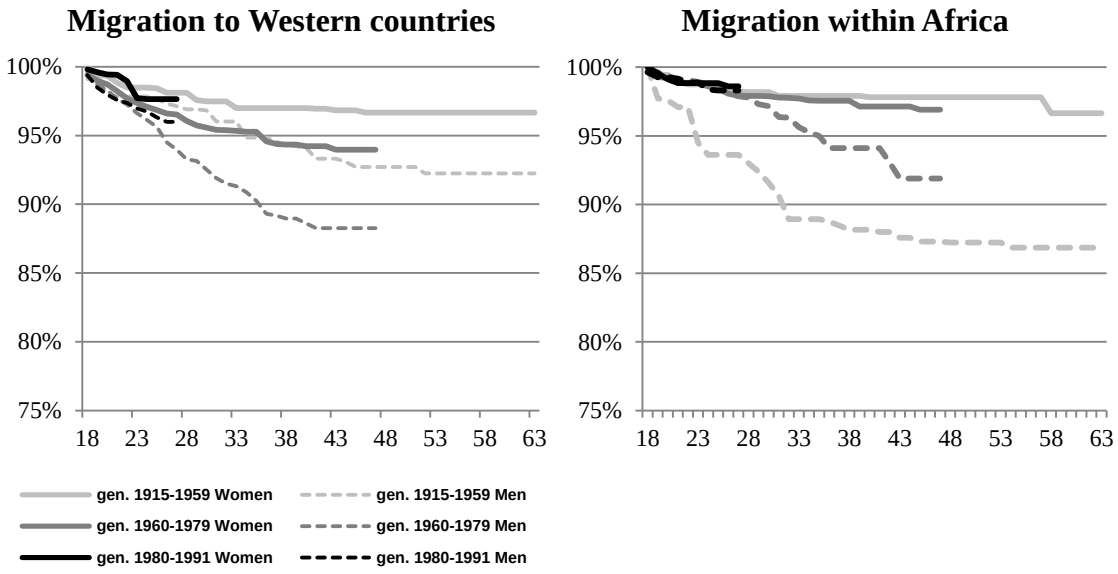
A second way to look at these trends is to follow their evolution over (historical) time. A discrete-time logistic regression model allows estimating migration odds separately by gender while taking into account age and period effects. These odds are transformed in risks of undertaking at least one international migration between the ages of 18 and 65 ("lifetime risks"). The evolution of these migration probabilities from 1975 to 2008 is presented in Figure IV-3. As expected, these confirm the broad trends observed with the cohort-based survival functions. Intra-continental male migrations from Senegal have been decreasing in the past decades[22]; the gaps between men and women are not very large and also seem to fade away after 2000. By contrast, trends towards Western destinations show a moderate increase for both men and women, albeit to a smaller degree for the latter. Thus, gender differences persist across the period.

Overall, the findings tell a nuanced story with respect to the feminization of Senegalese migration flows. On the one hand, migrations risks appear to be on the rise for Senegalese women with respect to Western countries, but the same can be said for their male counterparts. Thus, this increase is not accompanied by a reduction in gender gaps. On the other hand, diminishing gender differences can be observed in the case of intra-continental migrations, but this should be placed in the context of a decrease in likelihood to migrate towards these destinations, especially for men. Therefore, if by

[22] The probability to migrate to another African country for men decreases from around 18% between 1975-1979, to 10% between 1985-1987 and finally 6% after 2000.

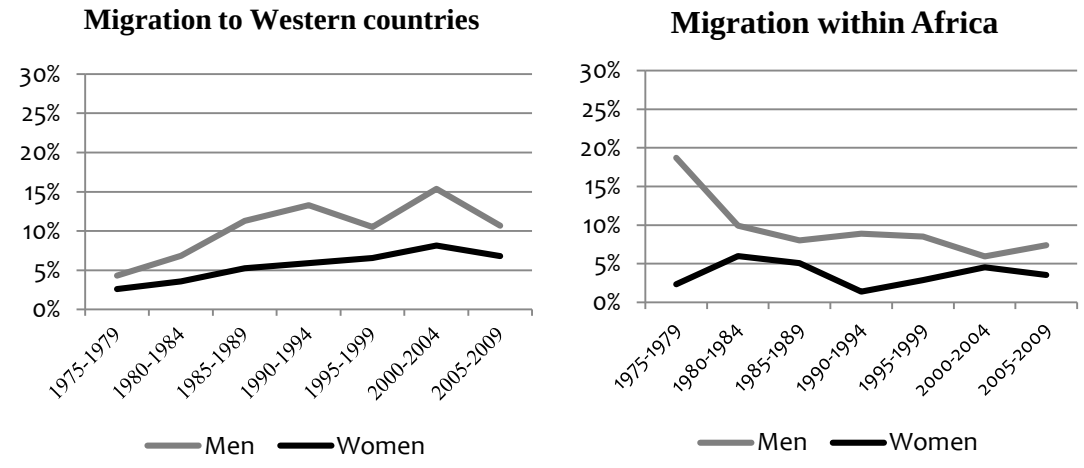
feminization we understand *both* an intensification of flows and a decrease in gender gaps, we cannot say that Senegalese migration flows are so far displaying such a trend.

Figure IV-2 Kaplan Meier survival functions of time until first migration, by destination, gender and cohort.



Source: MAFE-Senegal household data (2008).

Figure IV-3 Evolution of life-time risks of undertaking a migration between 18-65 years old, by destination and gender.



Source: MAFE-Senegal household data (2008).

4.3 The role of kinship and religious networks

Contemporary Senegal is characterized by a fragile although enduring equilibrium of different crosscutting cleavages: religion, ethnicity, caste (although less relevant nowadays) and class (Diop 2002). These separations shape a complex society from which various migratory trajectories developed at different stages.

There are a number of different religions and ethnic groups in Senegal. The main ethnic groups are Wolof (44%), Hal Pulaar (Peul, Toucouleur, and Laobé 23%), Sereer (15%), Diola (5.5%), Mandinka (4.5%) and other ethnic groups (8%) (Diouf 1998). Around 96% are Muslims, mainly affiliated to a Sufi order (tariqa "way or path") or brotherhood. The four largest brotherhoods are the *Tidjaniyya, Mouridiyya, Quadriyya* and the *Layenne*. In general, brotherhoods are composed of people from different ethnic groups, but the majority of people who are affiliated with the second largest brotherhood (Murid) are Wolof (Jettinger 2005).

The various migration waves had different ethnic and religious groups as their main actors. Those leaving for France in the 1950s-1970s in response to the active recruitment calls of the automobile industry were mostly men from the drought-hit Senegalese River Valley, belonging to the Soninke or Haal Pulaar ethnic groups and migrating alone, their families remaining in the villages of origin (Condé and Diagne 1986; Timera 1996). An important share[23] of the migrants were not staying more than a couple of years abroad, before handing over to their younger brothers or sons, whose trip they usually financed, and resuming their responsibilities in the village (a turnover system called "*noria*"). This system was abandoned with the closing of the borders, while family reunification opportunities led to a more durable settlement of Senegalese in France and to a feminization of the immigrant community (Tall 2002; Barou 2001).

Qualitative work has studied the intense associational life developed by Sub-Saharan African migrants at destination. The Senegalese conform to this general trend, and their associationism has been studied in France and in Italy. There is no space here to review this literature, but one fact may be of relevance in this thesis: Senegalese migrants' associational activities are strictly divided into male and female associations (Daum

[23] The numerical importance of the *noria* system and of return migration cannot be evaluated, due to the lack of quantitative data on the phenomenon. However, qualitative studies reported such practices to have been rather common.

1998; Quiminal 2000). Male associations work primarily for their village of origin, which reflects the fact that "the village belongs to men" (Quiminal 2000: p. 9). Female associations, on the other hand, are frequently multi-ethnic and multi-national and direct their interest primarily towards issues concerning integration in France. By anchoring[24] their associations in the local context of destination, and not in the village or neighbourhood of origin as men do, women attempt to renegotiate the power relations they are traditionally subjected to (Quiminal 2000).

With more regions in Senegal increasingly engaged in international migration – following the crisis of the Groundnut basin and the rise of urban unemployment, among others – the ethnic and religious make-up of Senegalese flows diversified. In particular, researchers have noted an increasing participation of the Wolof ethnic group and of the Murid Sufi brotherhood members. Whereas in the beginning of the 1970s Murids represented only around 10% of Senegalese migrants towards Western countries (Lalou 1996), the DEmIS survey puts their share at 41% of recent migrants in 2000 (Robin et al. 2000).

The Murid brotherhood has been argued to play a key role in recent migration dynamics and to explain to a certain extent the diversification of destinations among the Senegalese. Its members pioneered new destinations such as Italy, the US and Spain and adopted transnational circulatory migration forms (Riccio 2001). Although Murids are more numerous in these locations, and especially in Italy, they are not absent in France while, conversely, members of other Muslim brotherhoods and ethnic groups can also be found in these more recent destinations.

Organized in dahiras[25] ("circle"), the *taalibé-s* (Murid disciples) are mainly engaged in trade activities at all levels, "from selling on the streets to organizing a flourishing international electronic trade" (Ebin 1996: p.96). The religious and the economic dimensions are intimately linked within the Muridisme and reinforce each other, as several scholars of the Senegalese trading diaspora in France, Italy or the US observed (Schmidt di Friedberg 1994; Ebin 1996; Bava 2003). Ethnographic work has argued that both the structure of the ties and the ethos underlying the Murid brotherhood explain the

[24] The names given to the associations by men and women illustrate the difference: whereas men's associations are often called "Ressortissants (residents) from village X", women's associations are "African women's association in Y (neighbourhood at destination)".
[25] A *dahira* is an association grouping Murid disciples based on either their allegiance to a marabout or on the place where they are located (Bava 2003)

success and strength of these transnational commercial networks. The vertical ties (marabout-talibe) provide advice and guiding, while the horizontal ties among members are characterized by strong reciprocal solidarity (Riccio 2001). Most studies document how newly arrived migrants are incorporated into a system of selling that is already in place at destination: they receive free accommodation in a larger Senegalese apartment as well as a loan to buy products for the first month, after which they are expected to pay it back and contribute to rent and food. Furthermore, more experienced sellers teach the newcomers the strategies and tricks of peddling. On the other hand, Schmidt di Friedberg (1994) argues that the ethos of hard work and mobility shared by Murids is more important in explaining the self-sustaining nature of these networks than their direct involvement in migrants' pathways.

It was also found that Murid commercial networks are not closed systems excluding non-Murids and non-traders: instead, members of the Tidjane brotherhood, students or those with white-collar jobs relied on such trade networks to supplement their income (Ebin 1996; Riccio 2001). However, other aspects of the operation of such networks are illustrative of the downsides of social capital. First, whereas such cohesive networks enable the creation and maintenance of a strong collective and highly transnational identity, this comes at a price in terms of individual freedom. Potentially deviant behaviour from the Murid norms of solidarity and morality is controlled and reprimanded. A fragment of an interview reported by Riccio (2001) is suggestive in this respect: "With me, for instance, it was very important in preventing me from doing bad things even if they would have brought a lot of money" (2001: p.594). Second, the density and strength of these networks – their high degree of closure to speak in Coleman's (1988) terms – make them a self-sufficient and relatively closed community, avoiding interactions with the receiving contexts and the native population. Riccio's (2001) study is subtle in this regard as he emphasizes the internal heterogeneity of the Murid community in Italy. He underlines the attempts of a part of this community - the more educated, white-collar Senegalese – to break the isolation and reach out to Italians and local Italian institutions and trade unions.

The gender dimension of these networks has so far been little studied. Work adopting a sending-side perspective has argued that these religious networks contribute to the reproduction of inequalities between men and women and between elder and younger children. According to Mondain and Diagne (2011), "norms linked to the social organization and the kinship structure, reproduced within highly-structured religious

networks, represent an important factor in understanding the implementation of migration projects. In particular, the patriarchal and patrilocal norms underlying the functioning of such networks contribute in affecting the mobility potential according to gender and position within the family[26]" (2010: p.16).

4.4 Socio-economic incorporation of Senegalese migrants in France, Italy and Spain

Migration from Sub-Saharan Africa to Europe has continually increased in the last twenty years but its share remains modest with respect to North African, East European and Latin American migration flows (Castles and Miller 2003; Lessault and Beauchemin 2009; Ndiaye and Robin 2010). Mostly, it has enjoyed an unwarranted media and political attention, with recurrent images of boats crossing the Mediterranean Sea becoming the symbol of an "African invasion" (de Haas 2008). The largest share of Senegalese migrations to Western countries is directed to Italy, France and Spain, which are also the countries surveyed in the MAFE-Senegal project. As discussed in section 4.1.2.1, the history of Senegalese flows towards these destinations differs: France, ex-colonizer of Senegal and the classical immigration country, was overtaken by Italy as the main European destination, while migration to Spain occupies the third place in terms of migrations taking place after 1990.

This section provides a brief discussion of the different modes of socio-economic incorporation of the Senegalese population in these three countries, while addressing some of the factors which have influenced this, such as the structure of the labour market and the national migration policies.

As a former French colony, Senegal has historical ties to France, which has been the traditional destination of Senegalese migrants for several decades. There were Senegalese who fought next to the French in the two World Wars and many of them subsequently settled in France. After the country gained its independence in 1960, large numbers of Senegalese went to work in the booming automobile industry in France which was actively recruiting workers from its ex-colonies. At the end of the 1960s, the National Office of Immigration is created in France, establishing recruitment offices in 8 foreign countries, among which Senegal. Only around 18 000 immigrants from Sub-

[26] Author's translation from French.

Saharan Africa are counted in 1962 in France (mostly coming from Senegal and Mali) but they are more the 80 000 in 1975.

With the increasing restrictions on entry, labour migration to France became more and more difficult, especially for the less skilled. On the other hand, family migration intensified, as the immigrant workers started bringing in their wives and children (Timera 1996). The composition of the flows changed, with skilled migrants making up an increasing share. Furthermore, there is also an important student migration in France as many Senegalese choose France to get tertiary education (Tall 2002). This is facilitated by language ties and the fact that the structure of the educational system in Senegal has been imported from France. Furthermore, France has been the traditional destination for high-skilled migrants, although more recently these are increasingly choosing the United States or Canada (Dioh 2010). Notwithstanding, these latter two categories of migrants occupy white-collar jobs, often in the public administration. However, on the whole, the Senegalese community has been described as very diverse in terms of occupations and socio-economic status. Street-sellers and other types of traders are not absent in France: Bava (2000) studied the diversity of activities that this category encompasses among the Senegalese in Marseille. However, this sector has been decreasing in France, also because of the development of more flourishing "commercial spaces" in Southern Europe (Fall 2002).

With the end of active recruitment in 1974 and the introduction of visas for Senegal in 1984, France became an increasingly difficult to reach destination for Senegalese migrants. On the other hand, the frequent regularisation campaigns and the dynamism of an informal economy made Italy an attractive alternative. Furthermore, Italy had started developing its sector of small and medium-sized enterprises and industries which required a growing amount of unskilled and cheap labour force. Important flows of Senegalese to Italy can be traced to the second half of the 1980s. The Senegalese pioneers, mostly Murids, first settled in Rome and on the touristic coasts of middle and Southern Italy. Drawing on their previous experience with trade and lacking knowledge of the local labour market, the Senegalese mostly engaged in small trade activities on the beaches[27] (Schmidt di Friedberg 1993, 1994). Already by 1993, the Senegalese were the third African community in Italy, after the Moroccans and the Tunisians (Tall 2008). At the same time, the beginning of the 1990s saw a large internal migration of the

[27] They became known as the "vu-cumprà".

Senegalese towards the northern industrial cities such as Milan, Bergamo, Brescia or Turin (Schmidt di Friedberg 1994: p. 132). There, they entered wage-employment in small and medium enterprises, mostly as welders, masons, labourers, mechanics or manual workers in the food-processing industries as well as in the construction sector (Tall 2008; Riccio 2008).

This diversification in Senegalese migrants' occupations in Italy was also facilitated by the several regularisation campaigns conducted by the government: in 1986, 1990 and 1996. Few Senegalese migrants had entered the country holding a permit to work and to stay (Reynieri 2004). The most common strategy was entering with a short-term visa – once these were introduced in 1990 – and then applying for regularization. These campaigns allowed access to employment offices and labour agencies, opening up the path to formal employment. According to a study (Mboup 2001), in 2000 50% of legal Senegalese migrants were workers in factories in the North of Italy. Nonetheless, traders are said to still make up a large share of the Senegalese population in Italy. Furthermore, legal status – giving access to formal employment- may be lost with the end of the contract, which may drive back the migrant into illegality and street-selling activities.

While some describe trade as an art and a passion, for most street selling is an activity chosen by default, in the absence of better choices. Many migrants interviewed by Schmidt di Friedberg (1994) or Riccio (2001: p. 591) describe it as an activity they would abandon at the first opportunity, a form of temporary employment while waiting to find a better job in the Italian labour market. Both authors emphasize the internal heterogeneity of the peddlers group with respect to social origin, age or education level. Migrants with university degrees and an urban background are found selling their merchandise next to Senegalese with no education coming from rural areas.

Spain is the most recent destination for Senegalese migrants among the three and that in which illegal migrants are believed to make up the largest share. African immigration to Spain is largely clandestine and, as in Italy, Africans have legalized their immigration status through regularization campaigns. Several campaigns have been held since the 1980s, the most recent in the spring of 2005. To benefit from the campaign, immigrants have to register in their local municipality (*empadronarse*). In terms of occupations, Senegalese men in Spain are primarily engaged in agricultural and construction jobs (St. Jacques 2009), but also in street-selling (Perez 2004). In terms of agriculture, the work is seasonal and the pay is low. The pay for construction work is much better than for

agriculture, but construction work is also temporary as workers find themselves unemployed between projects. Women are involved in cleaning, caretaking and sewing work.

France differs from Italy and Spain in several respects. In terms of migration history, Italy and Spain were themselves emigration countries until relatively recently, whereas France has a long-standing tradition of receiving guest workers. Consequently, the legal provisions for the integration of migrants are more developed in France than in the Southern European countries. Anti-discrimination policies are also more developed. On the other hand, France has also moved towards a stricter migration regime, whereas Italy and Spain have been welcoming workers until very recently.

The structure of the labour market is another distinctive aspect which is to some extent responsible for the differences in economic incorporation of the Senegalese. Italy and Spain are both characterized by a widespread and well rooted underground economy. In Southern Europe, more people (and especially migrants) are working in occupations where administrative and legal rules are more easily ignored, such as agriculture, building, small manufacturing firms, and particularly self-employment (Quassoli 1999). The types of jobs one can find in the informal economy are generally low-skilled, imply hard manual labour and flexible work in the service sector or casual and often seasonal labour, increasingly rejected by the local populations. Research has also stressed the role of the underground economy in promoting irregular immigration (Sciortino 1996), as migrants lacking documents are attracted by the availability of employment in an economy where they do not require any. In comparison, France has a more rigid and regulated labour market, with high social protection of employees and heavy taxation of labour. These differences may be responsible for Tall's (2008) observation that Senegalese in France have higher levels of unemployment than in other European destination. He argues this is due to a larger community at destination that could support migrants to access the social benefits extended by the welfare state (Tall 2008: p. 26).

The relative lack of control, the more flexible labour market and the larger share of the informal economy in Italy and Spain might, on the other hand, provide more chances to find work for unskilled and undocumented workers. These aspects have been argued to be responsible for counterintuitive findings with respect to the role of education or legal status in migrants' economic integration. Based on several quantitative surveys, mostly in the North of Italy, Reynieri (1998, 2004) finds that highly-educated migrants from African countries have nearly as little chance of obtaining good jobs as poorly-educated

ones. Furthermore, some studies suggest that the unemployment rate among immigrants with tertiary level education is twice as high as the rate of those lacking educational qualifications. According to Reynieri (2004), highly educated immigrants are more likely to be unemployed because they are less willing to take just any job offer and prefer to wait longer to find a job that better corresponds to their social status and qualification. It was also found that migrants lacking legal status were not less likely to work than those with documents. On the contrary, the former may be more attractive for firms looking to cut down costs.

A last and important difference between the three countries, which is related to differences in the history and characteristics of Senegalese flows, is the gender composition of the respective Senegalese communities. In 2008, Senegalese population in Italy presented the greatest sex imbalance (only 15% of Senegalese legal residents were women, ISTAT 2009), followed by Spain (23%, Permanent Observatory for Immigration, Ministry of Labour and Immigration 2009) and France (45 %, INSEE). This indirectly suggests a larger propensity to reunify the family in France (Gonzalez-Ferrer et al. 2012). According to Riccio (2001), the low propensity of the Senegalese in Italy to bring their wives at destination, compared to other Sub-Saharan African groups such as the Ghanaians, testifies to a strong transnational orientation and a highly mobile migratory mode.

Overall, studies suggest that the Senegalese community in France has a more socio-economically and demographically diverse profile than in Italy or Spain; in the latter two destinations, a strong ethnic niche in street-selling and other trade activities was developed, in which the Murid brotherhood plays an active role. The history of Senegalese migration flows as well as the structure of the labour market in the three countries are at least partly responsible for these differences. Findings discussed in chapter 2 (section 2.5.4) suggest that the level of resources available in the larger immigrant community is likely to affect the operation of migrant networks. It is therefore expected that access to migrant networks will have different influences on migrants' economic integration in France than in Italy and Spain. Presumably, pre-migration ties should lead to better economic outcomes in the former than in the latter two destinations, since they are tapping in a more resource-rich community.

Chapter V

Kin-necting Africa and Europe: Gender Differences in the Role of Migrant Networks in Senegalese Migration Flows[1]

This chapter uses recent longitudinal data collected by the Migration between Africa and Europe (MAFE) project to investigate gender differences in the role of migrant networks in international mobility. It examines the extent to which networks have a differential impact on male and female migration; whether men and women mobilize different types of ties in order to migrate; and whether networks influence their mobility through different channels. Based on discrete-time hazard models, this research confirms previous findings from other contexts of a differential influence of networks in male and female migration. However, this difference is not one of magnitude: once taking into account the role of the migrant partner, other networks remain similarly influential in men's and women's international mobility. Gender differences stand out with respect to the type of networks mobilized. Furthermore, the level of resources that networks have access to affects differently men's and women's migration chances, suggesting that other mechanisms of influence are at play. Whereas men make a more extensive use of their networks, Senegalese women have more chances to migrate if a close family network has established itself for a long period of time in a given destination.

[1] Based on this chapter, written by the author alone, a comparative paper on Senegalese and Congolese migration flows was developed together with co-author Sophie Vause. It extended this chapter with some elements of Congo analysis (Sophie Vause) in order to investigate the importance of the context of origin in shaping the role of networks in migration.

5.1 Introduction

The influence of migrant networks on international mobility has increasingly been documented by recent scholarship (Curran and Saguy 2001; Winters et al. 2001; Palloni et al. 2001; Curran and Rivero-Fuentes 2003), as was discussed in the first chapter. Another strand of literature, developing in the last two decades, has shown important gender differences in patterns of international migration. Men and women differ in their motivations for moving to another country and in their settlement patterns at destination. However, as noted by Curran and Saguy (2001), research integrating both social networks and gender issues in the analysis of migration processes has remained scarce.

The effects of networks have been assumed to be the same for men and women alike. This is problematic since one can reasonably expect the role migrant networks play in men's and women's mobility to be different, given that the costs, risks and benefits of migration are differently constructed by gender. The few existing studies that have "engendered migrant networks" (Curran and Rivero-Fuentes 2003) have so far provided empirical evidence for a differential effect of networks on male and female migrations and suggested several hypotheses as to why this would be the case (Hondagneu-Sotelo 1994; Lindstrom 1997; Davis and Winters 2000; Davis et al. 2002; Curran et al. 2005; Garip 2008). However, their findings, which do not always go in the same direction, are rather limited in geographical scope, being based almost exclusively on the Mexican migration to the US and the internal migration in Thailand[2].

Focusing on an understudied flow – Senegalese migration to Europe - the present chapter further investigates gender differences in the role of migrant networks on international mobility. More precisely, it has the following objectives: first, to assess the extent to which migrant networks are influential in this flow and whether their effect on individual migration propensities varies according to the gender of the potential migrant; second, to investigate whether men and women mobilize different types of ties in order to move abroad or, in other terms, to see which network compositions are the most effective in facilitating migration for men and women respectively. Finally, the

[2] For a few exceptions see Stecklov et al. (2010) on Albanian migration and Heering et al. (2004) on emigration intentions from Morocco.

paper examines whether networks influence men's and women's migration through different channels.

This analysis complements existing scholarship in several respects. First, there is little research on this topic outside of the Mexico-US migration context, and to my knowledge, no such quantitative research exists on Africa. Second, previous research does not distinguish the role of the migrant spouse from other types of family ties, thereby confounding different mechanisms of network influence. Third, this study relies on the use of longitudinal data on migrant networks collected at the individual level, proposing a different type of measure for studying the role of networks in migration.

The chapter is organized as follows: section two provides an overview of the theoretical and empirical literature on the differential roles of migrant networks in men's and women's migration processes and details the research questions and hypotheses. Section three describes the operationalization of the data and the methods used in this analysis. Results are presented in the fourth section and a final section discusses the findings and advances some conclusions.

5.2 Theory and Hypotheses

5.2.1 The gendered nature of the migration process

Gender is a fundamental dimension in most societies, structuring role relations and influencing the nature of expectations and exchanges. Gender relations have been shown to shape migration processes, as men and women differ in their migration experiences, settlement patterns and the relationships they maintain with their origin communities (Pessar 1999; Hondagneu-Sotelo 1994; Boyd and Grieco 2003). As Cerrutti and Massey argue: "in Mexico, who migrates and why is likely to be related strongly to gender and household position. Not every family member is in a position to consider migration as a realistic alternative. Cultural values, normative expectations, and social institutions, as well as historical and structural factors, inevitably shape the range and number of choices" (Cerrutti and Massey 2001: p.190).

Studies have reconsidered several theoretical explanations of migration through a gender lens and showed that human capital investments, household demands and life-cycle factors play differently in men and women's migration decision-making (Pedraza 1991; Kanaiaupuni 2000a; Feliciano 2008). The neo-classical economic theory of migration argues that individuals will migrate if returns to their human capital

investments – education, labour force experience – are greater at destination than at origin. Studies on male labour migration to the US have found migrants to be negatively selected on education. They argued this to be the case because lack of English skills or legal status and difficulties in converting their origin-country degrees reduces their returns to education in the US relative to their home labour markets (Borjas 1991; Taylor 1987).

However, as Kanaiaupuni (2000a) shows, this finding does not extend to migrant women from patriarchal societies such as Mexico, where prevailing gender discrimination limits the employment opportunities available to higher-educated women. She finds that, unlike for men[3], migration chances increase with the level of education for Mexican women. Household demands also create different migration risks for men and women over their life course. In many contexts, the traditional division of labour assigns women the role of care providers which encourages married women and those with young children to remain home; men, in their role of economic providers, are more likely to migrate with the increase of the demands of the household (Massey et al. 1987; Kanaiaupuni 2000b).

Despite these findings, the role of migrant networks has mostly been analysed from a *gender-blind perspective.* Networks have generally been assumed to act in the same way and to yield similar returns for men and women. In recent years, however, several studies have integrated a gender perspective into the analysis of migrant networks, most of them based on the context of the Mexican migration to the United States (Hondagneu-Sotelo 1994; Kanaiaupuni 2000a; Cerutti and Massey 2001; Curran and Rivero-Fuentes 2003; Davis and Winters 2000), with a few referring to internal migration in Thailand (Curran et al. 2005; Garip 2008). Their findings point to several ways in which gender relations may shape the role played by migrant networks in the migration process; these are discussed below.

5.2.2 Female migration perceived as more risky

Men and women face different barriers to moving abroad. Cultural norms in many societies tie migration to masculinity (Kanaiaupuni 2000b). As Lindstrom (1997) shows, the prevailing discourse in rural Mexican communities is that women's

[3]Feliciano (2008), Stecklov et al. (2010) find that education is also positively associated with migration for men, though to a lower extent than for women.

migration is more risky and that they are more vulnerable to various sorts of dangers involved in the migration process. This is also the case in Senegal, as discussed in chapter 4. In their research on the Senegalese River Valley, Bâ and Bredeloup (1997) document families' reticence to allow women to travel abroad even in order to join their husbands.

The patriarchal gender ideology and the very real risk of abuse that women face (Durand and Massey 1995) together lead to dependence and reduced agency for women and constrain their ability to consider independent migration (Pedraza 1991). Research has shown that where migration is viewed as having higher risks, as is the case with international migration compared to internal mobility, networks of assistance become more salient precisely because they serve to mitigate those risks (Davis et al. 2002). *It can thus be expected that having connections to prior migrants, knowledgeable about the perils of the trip, is more important for women than for men*. Indeed, several studies in the Mexican or the Thai contexts have found that networks have a stronger impact on women's migration propensities than on men's (Curran and Rivero-Fuentes 2003; Kanaiaupuni 2000a; Curran et al. 2005; Davis and Winters 2000).

Drawing their inspiration from Granovetter's research on the "strength of weak ties" (1973), researchers on migration have recently tried to evaluate whether it is strong ties (between close family members) or weak ties (between more extended family members, friends or acquaintances) that are more effective in facilitating international migration[4]. On the one hand, relationships between close family members are characterized by higher degrees of trust, stronger norms of reciprocity and are expected to convey more reliable information. On the other hand, weak ties, connecting people belonging to different social circles, may give access to a greater amount and a wider array of information, potentially opening up a larger range of opportunities at destination. Empirical evidence has not been entirely conclusive in this respect, with some studies finding that ties among household members are more instrumental in facilitating migration (Davis et al. 2002; Dolfin and Genicot 2006), while others have found little difference between close family and community ties (Garip 2008). A reason potentially

[4] As discussed in chapter 3, measures of migrant networks do not include the intensity of the tie, thus the correspondence with Granovetter's distinction is only partial. Usually close family ties are considered to be strong ties, whereas community members are considered as "weak" ties.

accounting for these conflicting results is that studies have not considered the gender of the potential migrant and assumed that men and women mobilize the same type of ties.

From a more anthropological point of view, Lindstrom (1991) reminds us that culturally defined role relations and conducts for appropriate behaviour shape the nature and degree of influence that networks have on individual migration. "The normative framework for a specific social tie is established by the social roles that the actors bring into their interactions" (Lindstrom, 1991: p.3). He further argues based on an analysis of migration from rural Mexico that, besides playing a role in the actual trip, family members at destinations are expected to watch over and monitor women's behaviour abroad. They have a "shield and control function" important in women's migration, but not in men's. Given the higher levels of trust, loyalty and responsibility characterizing close family ties, these are better able to perform such a function than extended kin and friends. Furthermore, they are also more likely than weaker ties to accept such a responsibility, which may easily become a considerable burden in the context of migration (Hondagneu-Sotelo 1994). Kanaiaupuni (1995) has documented the reluctance of established US migrants to help other women migrate unless these were close relatives. *Thus, given that female migration is riskier than men's, one can expect family migrant networks to be especially crucial in their migration, while the two type of links may be equally useful for men.*

However, the previous literature has not adequately accounted for the specific influence of a particular tie in the migration process: the migrant spouse. Reflecting both a household strategy and a network effect, the case of spousal reunification should not be confounded with the influence of other type of ties. A larger role of migrant networks, and especially of close family ties, in women's migration than in men's may in fact be attributable to the higher frequency of spousal reunification as a channel of migration. As discussed in chapter 2, some studies have dealt with this issue by restricting their focus to a specific population, such as never married sons and daughters of the household head (Curran and Rivero-Fuentes 2003). Most research, however, has not separated the effect of the spouse from that of other close family ties, which may lead to overestimating the impact of networks, especially with respect to female mobility (Davis and Winters 2000; Garip 2008; Stecklov et al. 2010). Acknowledging this limit of previous studies, all analyses in this chapter distinguish the influence of the migrant partners and aim to evaluate its importance in migration propensities. The migrant network refers to the rest of an individual's migrant connections and is thus more

comparable between men and women. Furthermore, an in-depth analysis comparing the role of other types of ties for women reuniting with their partner and for women migrating independently is carried out in the next chapter. A similar analysis is not possible for men due to the very few cases of men following their spouses abroad in Senegalese migration flows.

5.2.3 The gender composition of the network

The gender of the migrant connection – other than the spouse - may also affect the extent to which he or she influences the decision and ability to migrate of would-be migrants because it shapes both the value of the resources held and the willingness to share them.

First, given that labour markets at destination are often gender-segregated, it is mostly prior migrants of the same gender who can provide the most relevant information and contacts. This is what several qualitative studies have found concerning Salvadoran (Menjivar 1995), Mexican (Hondagneu-Sotelo 1994), and Guatemalan (Hagan 1998) migrants in the United States. This implies that networks work best along gender lines. Women would be more likely to be influenced in their destination choices by other women from their networks: they can count on them for help integrating in an employment niche, such as the domestic sector, or to obtain relevant information about employment opportunities (Kanaiaupuni 2000a, Davis and Winters 2000). The same can be argued for men.

Second, research has shown that access to female migrant networks can be crucial for prospective female migrants in order to overcome not only the economic but also the social barriers to migration. While men's migration is generally encouraged and they are able to rely on their migrant relatives for help, families may oppose women's migration projects. It has been shown that women then turn to their female networks, thus circumventing the patriarchal authority (Lindstrom 1997, Curran and Rivero-Fuentes 2003). Such findings are also reported by Hondagneu-Sotelo (1994) in her research on Mexican migration to the US, where she finds that both single and married women manage to migrate, sometimes against their family's will, with the help of other female relatives or friends already abroad. *Based on these last two points, it is expected that prospective female (male) migrants are more influenced by their ties to prior female (male) migrants than by their connections with men (women) migrants.*

Finally, the resources that previous men and women migrants make available to new candidates to migration are further shaped by the historical patterns of migration from a specific context. In many international migration flows, and the Senegalese one is not an exception, men are the first to depart and have thus the opportunity to accumulate a more extensive migration experience. Male networks can thus be more resourceful in such contexts, for both men and women. Supporting this hypothesis, Curran and Rivero-Fuentes (2003) find that female networks are more important in internal migration in Mexico, given their well-developed presence in these streams, whereas male networks matter more in international migration, reflecting the larger and more extensive history of male migration to the United States. *For this reason, we may expect that women's migration chances are also positively affected by access to the more resourceful male networks, whereas men should derive little or no benefit from access to female ones.*

5.2.4 Providing effective support

Furthermore, networks could influence men's and women's migration through different channels. Heering et al. (2004) investigate the determinants of migration intentions in Morocco and report significant gender differences. Operationalizing the concept of "a culture of migration" by the level of historical migrant networks at a regional level, they find that male intentions of migration are high in regions with an important culture of migration, while no such correlation exists with respect to female migration intentions. The latter are only influenced by the presence abroad of members of their personal circle. The arguments in Heering et al. (2004) apply to migration intentions, which are only approximate determinants of migration behaviour; however, their findings could point to different mechanisms of network influence in male and female migration. They suggest that networks influence women's migration to the extent to which they are capable of offering them an effective support at destination. On the other hand, prior migrants would exert a more diffuse and diversified influence on men by providing information or normative models[5] to follow.

Prior migrants' capacity to offer direct assistance with migration will mostly depend on the level of resources they have, whereas information and demonstrative influences will be less affected by it. If a network's effective support is more important in female migration, we should observe among women a higher reliance on networks that give

[5] Mahler (1999) calls this "demonstrative effects".

access to a greater amount of resources. First, migrants currently abroad should be better able to provide assistance at destination and have a larger influence on female migration than return migrants. On the other hand, the latter have more direct means of sharing their knowledge and information with potential migrants in the home community and are therefore also expected to be influential in male migration, albeit to a lower degree. Second, the larger the network, the more resources it can give access to; it is expected that larger networks are more important for women than for men.

Third, previous studies in the literature assume that length of migration experience is a good proxy for the level of resources (Garip 2008) and find a positive relationship between migration chances and the level of experience of prior migrants (Massey and Zenteno 2000; Delechat 2001; Garip 2008). However, to my knowledge, no work has examined so far whether the level of resources of the network differently affects male and female international migration (for an exception focusing on internal migration in Thailand, see Curran et al. 2005). Also, most studies have operationalized the migration experience of the networks by computing the *average* number of months or years spent abroad or of trips taken by network members. Besides being affected by extreme values[6], such an indicator assumes a linear relationship, which may not necessarily be the case.

Fourth, Garip (2008) includes a measure of the geographical dispersion of the network in her models of internal migration in Thailand, arguing that the more dispersed network members are between several destinations, the higher the diversity of resources, but finds no significant relationship with migration chances. It could, however, be argued that the more concentrated the network is in a single location, the higher the level of resources available to the potential migrant who considers that location. In this case, a positive relationship between networks' geographical concentration and women's migration chances would be expected.

5.2.5 Research questions and hypotheses

Based on the review of the relevant theoretical and empirical literature and given the specificities of the Senegalese context discussed in chapter 4, the present research aims

[6] For example, the presence in one's network of a long term migrant may have the same effect whether he or she has spent 10 or 20 years at destination. However, the average years of migration experience of the entire network would change considerably between the two values.

to answer three sets of questions, which are further broken down into eight hypotheses. These are summarized below.

1. The paper investigates whether the importance of networks varies according to the gender of the potential migrant, as previous research has shown. The *first hypothesis* is that having a migrant network has a greater effect on women's migration chances than on men's[7].

2. Moreover, it seeks to establish whether men and women mobilize different types of networks in order to migrate. Given the low level of female autonomy in Senegal and the strong hold of patriarchal gender norms, the channel of spousal reunification is an important means of entry to Europe for Senegalese women but not for men. Having a migrant spouse should thus substantially increase women's migration chances (*second hypothesis*). Furthermore, my *third hypothesis* is that close family ties (other than the partner) are more important than distant ties (friends and extended kin) in women's migration, but equally influential in men's.

Previous literature is more ambiguous as to how gender composition matters. On the one hand, as discussed, there is the expectation that migrant social capital works along gender lines since, in a gender segregated labour market, same-sex migrants are better able to provide job-relevant information and contacts. On the other hand, the longer presence of Senegalese men in migration flows to Europe makes male networks more resourceful. Thus, the *fourth hypothesis* is that male networks are influential for both sexes, but female networks are only useful in women's migration.

3. The paper also investigates whether networks influence men's and women's migration through different channels. Following Heering et al. (2004), a network's function of providing effective support (supervising the trip, accompanying and hosting them at destination, etc.) should be more important for would-be women migrants then for men. It is expected, thus, that female migrants rely more on those network members that command more resources and who are therefore more capable of offering the needed support.

While no direct measure of resources held by network members is available, such as occupational status or income, four proxies are used in order to test this hypothesis. The

[7] Or, put in different terms, that women's migration is more dependent upon the presence of a personal network abroad than that of men.

fifth hypothesis is that current migrants are more influential than returnees in women's migration, but are equally influential in men's. *Sixth*, the impact of the size of the network is tested, starting from the assumption that larger networks make available a higher level of resources to the candidate to migration. It is expected that larger networks are significantly more influential than smaller ones for women, while we expect the size of networks to be less relevant for men. The third proxy for the amount of resources is the migration experience accumulated by the network members. I expect that women rely more on long term than on recent migrants, as the former had the opportunity to gather more resources, whereas recent migrants should be equally helpful in male migration *(seventh hypothesis*). Furthermore, the effect of the geographical dispersion of the network members is studied as the fourth proxy. The more concentrated the network is in a particular destination, the larger should be the amount of support and resources it is able to provide to the newly arrived migrant, which is expected to be especially important in women's migration (the *eighth hypothesis*). On the other hand, the more dispersed the network, the more diverse may be the information about possible destinations, an aspect which is expected to weigh more in men's migration decision.

5.3 Data and Methods

5.3.1 The population of study

The data and the methodology used in this chapter have been described in general lines in chapter 3. More details and a brief reminder are given below.

The present analysis includes all Senegalese interviewed using the MAFE biographic survey, whether they were interviewed at origin or at destination. As a reminder, 1067 non-migrants and return migrants were interviewed in Senegal and 603 migrants in France, Italy and Spain (200 in each country) – the total sample is 1670 individuals. The methods used in this chapter combine descriptive analysis and regression techniques. The descriptive part examines the extent to which men and women differ in their access to migrant networks and in the composition of their networks (section 5.4.1). It further traces the timing of the respondents' moves abroad in relation to the moves of their network members, expecting women to be more likely to follow someone from their network than men. The influence of prior migrants in the migration decision and its funding is investigated in a final section (section 5.4.4).

5.3.2 Methods of analysis: discrete-time event history

Using regression analysis, the chapter investigates whether men and women experience differential rates of returns to their migrant social capital in terms of chances to migrate, net of other human capital and family characteristics. More precisely, it compares the effects of different network compositions on the likelihood of a first European migration among men and women. Given that the data is longitudinal, the best way to do this is to employ discrete-time event history analysis. This technique allows measuring the "risk" that an event occurs (i.e. migration) and following the evolution of this risk in time, while taking into account the variables that may interact with it. In other words, the method estimates not only whether the event occurs but also when it occurs (Le Goff 2003).

As discussed by Allison (1982) and Yamaguchi (1991), this method divides the time into discrete intervals (calendar years) and estimates the probability of observing the event within each interval, given that it has not occurred up to that point. It is more adapted to data where the information is collected in larger time units (such as years), which is why it has been preferred to continuous-time duration models, such as the Cox model. Migration events are only recorded once a year so there may be many so-called ties, i.e. observations with the same spell length. This may bias coefficients and standard errors in a Cox model but is not a problem in discrete-time duration models[8].

The equation for the models employed in this chapter is given by Allison (1982). The odds of experiencing the event are not only a function of individual characteristics, but also of time:

$$\log\left(\frac{p_{it}}{1-p_{it}}\right) = \alpha + \beta_1 X_i + \beta_2 Z_{i(t-1)} + \varepsilon_i$$

where p is the probability to migrate, i identifies an individual, t the year, X_i is a matrix of covariates constant over time; $Z_{i(t-1)}$ is a matrix of time-varying covariates which are lagged by one year; and the βs are the respective vectors of coefficients; ε is the residual. The great advantage of this method is that, unlike cross-sectional regression analysis, it allows examining the influence of characteristics that vary with time. This is

[8] There are other arguments for using discrete time and not Cox models: discrete-time models do not make the questionable assumption of proportional hazards, i.e. the effect of predictors is constant over time. Also, using a continuous-time framework is untenable when many predictors vary in time.

very important in order not to mistake consequences of migration for its determinants[9]. This equation will estimate the likelihood of migrating to France, Italy and Spain for the first time compared with not experiencing this event in a given year, as a function of the previous year's characteristics $Z_{i(t-1)}$ and constant characteristics X_i such as religion.

Using the respondents' detailed migration histories, a binary measure is constructed, to indicate whether a migration event to the destination of interest occurred in a specific year. In order to better study network mechanisms, the analysis is restricted to first adult migrations and thus excludes those migrations taking place before the individual turned 18[10]. While information is available on subsequent migrations, it was chosen to only focus on the first one, as networks are expected to play differently once the individual has accumulated personal migration experience (Espinosa and Massey 1998; Garip 2008). Migrations to other destinations (in Europe or Africa) are right censored at migration[11]. Individuals enter the risk set at age 18 and are followed until they leave to Europe for the first time or until the survey date, whichever occurs first. The total number of events (un-weighted) is 329 for men and 272 for women. The age of respondents when surveyed also informs on the time since they have been at risk of migrating.

Given that the dependent variable is a binary outcome, logistic regression is used. Coefficients are presented as odds ratios, which are interpreted as the proportional effect of a change in a given variable on the hazard rate of migrating in a given year. Separate analyses are carried out by gender. The differences between the coefficients for men and women are tested using t-test statistics in the separate models and by adding interactions between the gender and the network variables of interest in a pooled two-sex model. For purposes of clarity, only the single-sex models are presented since differences in the

[9] To give a concrete example, which will be discussed further on: the positive association between owning a real-estate or business asset and being a migrant is more a consequence of migration than a determinant. Before migrating, Senegalese men are not more likely to be asset holders than non-migrants, but this changes after migration.

[10] In those (very few) cases where the respondent migrated as a child before migrating again after having turned 18, I consider his or her second migration as the "first adult migration".

[11] This means that a migration to other destinations is treated as a non-migration and is given the value 0 on the outcome variable. Furthermore, the individual is dropped from the risk set after this first migration to another destination. To check whether this affects the results, two alternative strategies were used. First, migrants to other destinations (mostly African ones) were dropped from the analysis altogether. Second, a multinomial logistic regression model was estimated, distinguishing three outcomes: non-migration, migration to a European destination and migration to another African country. Results obtained in both cases were very similar to the models presented in this chapter, and are available upon request.

effect of covariates are more easily read, while the pooled model is available in the Table B-5. Weights are included in both the descriptive and the multivariate analyses in order to take account of the sampling design and differential non-response rates. Finally, given concerns about unobserved heterogeneity discussed in chapter 3, random-effects logistic models are also estimated for both sexes. The rho coefficient is not however significantly different from 0 and all coefficients are very similar between the two models, suggesting that unobserved heterogeneity is not significantly affecting results. Given that there may also be concerns about using random effects in discrete-time models for a single episode per individual (Steele 2004) – here, their first migration- only the simple models are presented.

The independent variables have been described in chapter 3 and summarized in Table A-1 in the Appendix. As a reminder, all variables are time-varying and measured annually, except religion. In the models, all network variables are lagged one year in order to ensure that the migration of the network member precedes the (potential) migration of the respondent. The same is done for some of the control variables, such as the activity status, the family situation and the possession of assets. Descriptive statistics for the distributions of both the control variables and the migrant network variables are discussed in the following two sections.

5.3.3 Characteristics of the sample population

Table B-1 (in Appendix) presents a quick overview of some characteristics of the sample population disaggregated by gender and migrant status at the time of the survey. When interviewing migrants in Europe, efforts have been made to over-sample women in order to be able to analyse female migration. However, once sampling design is taken into account – by using weights – the share of women having ever undertaken an adult migration of over a year is 6%, whereas that of men is 15%. Women are, on average, one year older than men when they undertake the first adult migration, but the difference is not statistically significant.

Overall, more than half of the Senegalese interviewed have only primary level education or no formal education, but this percentage is substantially higher among women. The sample's education distribution is similar to that observed in nationally representative studies (DHS Senegal 2006ANSD 2009). However, migrants are significantly more educated then non-migrants, and this is also the case by gender. Confirming findings from national level surveys, men are economically active to a

much higher degree than women: 80% of men compared to 45% of women declare having a job[12] at the time of the survey among non-migrants.. Migrants of both sexes are more likely to work than their non-migrant counterparts, though significant gender differences subsist.

Another dimension considered in the survey is whether the respondent owns assets (such as a plot of land, an apartment or house, or a business): women are twice less likely than men to possess any. The share of asset holders is much higher among migrants, and this for each gender[13], confirming previous findings that migration experience leads to more investments, especially for women (Mezger and Beauchemin 2010). There are no significant differences between men and women in their likelihood to be in a couple at the time of the survey and to have children younger than 7. Differences in religion by migrant status are not significant among men, though Murids and other Muslims are slightly over-represented among migrants; for women, other Muslims are significantly more likely to be a migrant.

5.4 Findings

5.4.1 Access to migrant networks

The much lower likelihood of migration among Senegalese women compared to their male counterparts discussed in chapter 4 may be related to a lower access to migrant networks. Thus, a first issue that this chapter investigates is whether men and women are as likely to declare having current migrants in their personal entourage and whether their migrant networks are similar in terms of composition. Given the dynamic nature of the network measure, a descriptive static outlook would clearly be of limited utility. Such an analysis is further complicated by the fact that migrants, once abroad, may help family members or friends join them. Thus, they may have larger migrant networks as a *consequence* of their migration. In the multivariate analysis this is not a problem, since the clock stops when they migrate. It was therefore decided to proceed in a similar way in this descriptive part and investigate access to migrant networks the year prior to their first migration, for those who migrate to Europe, or the year before the survey, for those

[12] Moreover, a larger share of men declare themselves unemployed than of women (7% compared to 4%).
[13] Differences are significant at $p<0.01$ whether men and women are compared or migrants versus non-migrants among each sex.

who do not[14]. Furthermore, this section focuses on the migrant connections that individuals have in Europe, since only migrations to France, Italy and Spain are analysed here and since, as will be shown later on, migrant networks in Africa are not instrumental in such migrations[15].

Table V-1 shows that there is no difference in reported access to migrant networks between men and women. Among both sexes, around 60% know at least one migrant who is in Europe. However, as the next line of the table shows, significant gender differences are revealed once results are broken down by migrant status. Whereas a similar share of non-migrant men and women as well as of migrant men are connected to migrants, migrant women stand out as the most likely to have migrant networks (82%). Therefore, knowing someone abroad seems more strongly associated to migration for women than for men, and appears to support the first hypothesis of this study. However, when looking at the size of migrant networks for those who know at least one person abroad, women report having, on average, significantly smaller migrant networks than men, though the difference is not substantial (an average of 1.9 persons for women independent of their migrant status, compared to 2.2 for men). This gender difference is slightly bigger among non-migrants, but is smaller and not significant among migrants. Access to migrant networks varies according to other factors as well, most importantly the educational level. Table V-1 further shows that those who are more educated are more likely to know someone abroad as well as to have a wider network, among both men and women. In fact, within each educational level, the gender difference is not significant.

Men and women are thus just as likely to have ties to migrants in Europe, when their own migrant status is not considered. But do they have ties to the same kinds of migrants? The data allows examining in more detail the composition of men's and women's networks according to the type of relationship, the gender and the geographical dispersion of their European network members (Figure V-1), among those who have at least one migrant connection in Europe (N=994)[16]. The first two graphs

[14] Naturally, this gives an "advantage" to non-migrants since they will have had more time to develop networks.
[15] A comparison with access to migrant networks in Africa was nonetheless carried out. The patterns of gender differences are the same, with the exception that migrant women do not have more access to African migrant networks than to others (results are available upon request).
[16] Both migrants and non-migrants are considered. As in the previous table, networks are measured the year prior to their migration for migrants and the year prior to the survey for non-migrants.

(Figure V-1, a. and b.) exclude the migrant partner and focus only on the other network members. In terms of the relationship composition, three types of networks are distinguished: those composed exclusively of close kin, those consisting only of extended kin or friends, and those composed of both type of ties. Men are significantly more likely than women to have networks exclusively composed of extended kin or friends, though more than half of the women with access to European networks report at least one such extended tie (Figure V-1, a.). A relatively small percentage reports access to both types of ties. The difference is larger with respect to the gender of their network members: most men's networks are *only* composed of other men (77%), while this is the case for about half of the women (53%). The fact that both men and women are more likely to be related to a male migrant reflects the larger presence of men in Senegalese migration flows to Europe. However, women are twice as likely as men to be related to any female prior migrants[17].

Table V-1 Access to migrant networks by gender, migrant status and educational level

Having a migrant network in Europe	Males % and (mean size)	Females % and (mean size)	Gender differences % (mean)
Total	60 % (2,2)	59 % (1,9)	n.s (**)
Migrant status			
Non migrants	59,1 % (2,2)	57,3 % (1,8)	n.s (**)
Migrants	64,1 % (2,0)	82,4 % (1,9)	*** (n.s.) [a]
Level of education[b]			
No education	50,6 % (1,8)	48,8 % (1,9)	n.s (n.s.)
Primary	57,5 % (2,3)	64,7 % (1,8)	n.s (n.s.)
Secondary	71,3 % (2,2)	76,1 % (2,1)	n.s (n.s.)
Tertiary	69,7 % (2,7)	77,2 % (2,0)	n.s (n.s.)

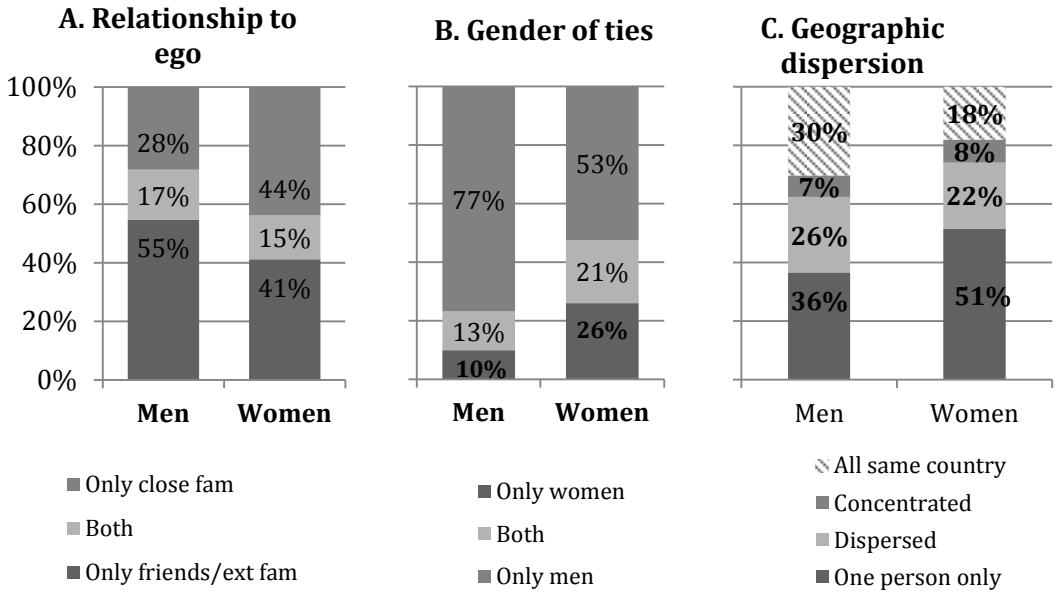
*p < 0.10, ** p < 0.05, *** p < 0.01. [a] Differences are significant both between migrant men and migrant women, and between non-migrant women and migrant women. [b] Differences between educational levels are significant for both men and women at p<0.01

Finally, the extent to which network members are concentrated in a single country is measured (Figure V-1, c.): networks are considered as: dispersed if less than half of all

[17] And more than twice as likely as men to have exclusively female networks (26% versus 10%).

network members are in the same country; concentrated if half or more are; and highly concentrated if all members are in the same country. The case of networks composed of only one person had to be considered apart. Men are less likely than women to have a single tie to a European migrant. Second, they are more likely than women to have networks where all members are concentrated in one country.

Figure V-1 Network composition by gender.



Whereas Figure V-1 focuses on the *composition* of networks of those who have at least one member abroad, Table B-2 in Appendix, presents men's and women's *access* to migrant networks according to their type. Findings confirm the above-mentioned trends. Women are less likely to report access to extended kin or friends migrants, but more likely to have female networks. They are just as likely as men to have close kin in Europe (excluding the partner). Table B-2 also distinguishes network members by the amount of time spent in Europe. Women are less likely than men to report access to recent migrants (i.e. who have been in Europe for under 3 years) but just as likely to be connected to experienced or long term migrants as men are.

This first descriptive outlook sought to determine whether men and women differ in their access to migrant social capital. It found that while men and women have a similar degree of *access* to migrant networks, there are significant gender differences with respect to the *type* of migrant ties possessed. Women are less likely than men to report having extended kin or friends abroad; on the other hand, their networks are more likely

to be composed of other women migrants. Last, men's networks seem more geographically concentrated in a given destination.

5.4.2 Timing of migration: who follows whom?

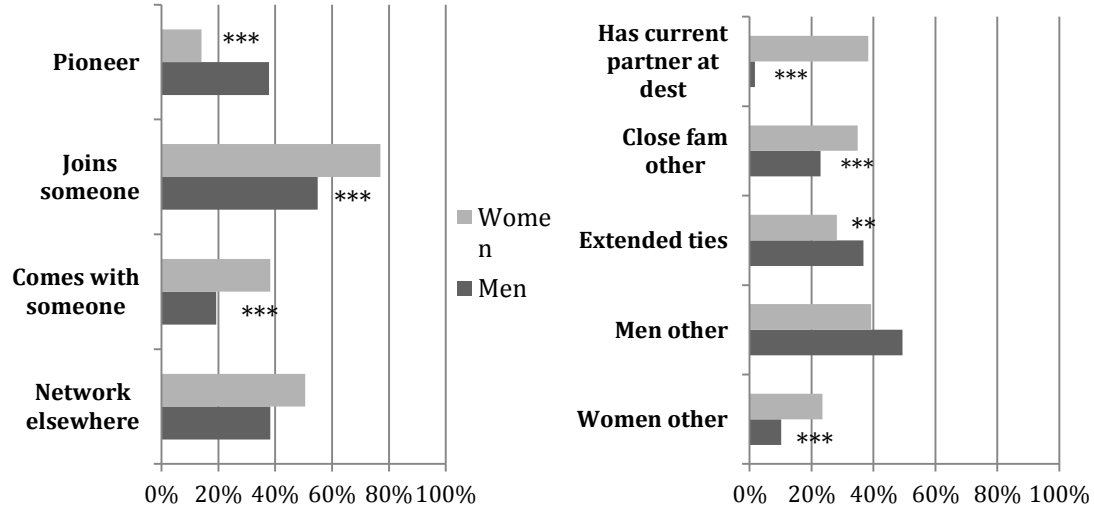
The previous section also revealed some initial differences with respect to migrant status. Migrant women are much more likely than any other group to have connections to European migrants, suggesting that networks might play a larger role in women's migration to Europe than in men's. Another way of apprehending the role of networks for men and women is to establish the timing of their migration in relation to prior migrants known to them. More precisely, this section seeks to evaluate the share, among men's and women's moves, of "independent" versus "follower" migrations, expecting women to be more dependent on their network and thus more likely to follow rather than to go first. It thus focuses only on migrants and asks whether anyone (and who) in their personal networks was present at destination when they arrived. Cerrutti and Massey (2001) carry out a similar analysis but only study individuals' migration in relation to their parents or partners; here, the prior presence abroad of other close family members as well as of extended kin or friends is also examined. A further distinction is introduced between the cases where the network members were already present at destination and the case where they arrived at the same time as ego, for having, in most cases, travelled together. This distinction is important since network members may more often fulfil the function of travel companions for women than for men.

Figure V-2 shows that, as expected, first migrations of women are significantly more likely to be of a "follower" nature: 77% of women migrate to a destination where someone of their network was already present, compared to 55% of men. They are also twice as likely to be accompanied on their trip by someone, revealing thus the importance of this function of networks in female migration. For a large share of men, their first adult migration had as destination a country where no member of their network was present (40%). Such a move has been called here "pioneer"[18] migration, though the term should be understood only in relation to the individual's entourage and the particular destination. Although women are substantially less likely to migrate as pioneers it is interesting to note that a significant minority (15%) migrate to places

[18] If individuals are accompanied by another network member in their migration, they will not appear as a "pioneer"

where no one from their entourage is present. While most interviewees had a network at destination, almost half reported having networks (also) elsewhere, which gives a further indication of the high level of connectedness of Senegalese migrants.

Figure V-2 Timing of migration: who follows whom?



Legend: Pioneer: no one present at destination; Joins someone: someone has been present at destination for at least a year when ego arrives; Comes with someone: ego travels together with (at least) a member of his or her network; Network elsewhere: ego is related to migrants located in another country than the one he or she travels to. The categories are not mutually exclusive, so the total can be more than 100%. Legend for gender differences: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure V-2 further distinguishes between the different types of networks already present at destination when ego arrives[19]. Researchers have, for a long time, mainly portrayed African women as passive, associational migrants who migrate to reunite with their spouses. More recently, there has been a surging interest in migrant women who do not fit into this category - students, tradeswomen – and studies argue that there has been an increase in autonomous female migration from Sub-Saharan countries (Coulibaly-Tandian 2007; Tall and Tandian 2010). The scarcity of large-scale surveys means that there is little quantitative evidence to support such claims. The MAFE data confirms that a large share of female migrations to France, Italy or Spain involves women

[19] Since the multivariate analyses investigate the influence of network members who were already abroad the year when ego migrates, I decided to focus on these ties here as well. Still, the pattern of results does not change when also including those who arrive at the same time as ego. Moreover, the different categories are not exclusive, meaning ego may have both family networks and extended kin at destination, in which case he or she will appear under both categories.

reuniting with their partner abroad- this is the case for about 40% of the female sample. In contrast, very few men join their wives abroad[20].

Figure V-2 also brings evidence in support of the third hypothesis, concerning the higher reliance of women on close family networks other than their partner, such as parents or siblings. Whereas there is no difference in *access* to such networks by gender (as seen in Table B-2), there is a significant difference between men and women as to the percentage *joining* an immediate family member abroad: this is the case for 35% of migrant women, but only 22% of men. This would suggest that women tend to prefer the destinations where close kin members are located. Conversely, their migration seems less connected to members of their extended family or friends than the migration of their male counterparts, though the difference is not substantial. Finally, while both men and women are just as likely to migrate to a destination where a male migrant they know is already located, women follow in a greater proportion a female connection, which is in accordance with the fourth hypothesis.

To sum up, different patterns of migration in relation to one's migrant network are revealed among men and women. Women are much more likely than men to migrate where they have connections; in other words, to follow someone rather than to go first. While the reunification with the partner is an important channel of migration, a similar share of migrations takes place to countries where the woman has other close family members, such as parents or siblings. Furthermore, women are less likely than men to follow more distant relatives or friends but more likely than them to migrate to a destination where they know other women.

5.4.3 Multivariate event-history analysis of male and female migration to Europe

While the descriptive patterns presented above reveal substantial gender differences, they do not control for personal characteristics such as age, education, partnership and occupational status, which may account for these differences since they are likely to be associated both with access to networks and with the likelihood of migration. Moreover, descriptive analyses do not allow estimating the relative importance of different types of network ties on the probability of migration.

[20] Only six such cases exist in the sample.

Table V-2 Summary of the research hypotheses and the models testing them

Questions	Hypotheses	M#:	Operationalization*:
Q1: Does the effect of networks vary with to the gender of the potential migrant? Q2: Do men and women mobilize different types of networks in order to migrate?	H1: Networks are more influential in female than in male migration.	M0	Only controls
		M1	Has migrant network Euro (ref: no network in Euro) Has migrant network Africa (ref: no network in Africa)
	H2: Having a migrant partner should substantially increase women's migration chances.	M2	Location of partner. Categorical variable, 3 values: Single (reference) Current partner in Senegal Current partner in Euro Has other migrant network Euro Has other migrant network Africa
	H3: Close ties more influential than extended ties for women; both similar effects for men.	M3	Nr. close ties besides partner in Euro Nr. of extended kin or friends in Euro
	H4: Female networks more important for women than for men. Only male networks important for men.	M4	Nr. of men besides partner in Euro Nr. of women besides partner in Euro
Q3: Do networks influence men's and women's migration through the same channels?	H5: Current migrants larger effect than returnees in female migration.	M5	Nr. of persons currently in Europe Nr. of returnees
	H6: The size of the network is more relevant for women then for men.	M6	Size networks, Categorical, 3 val. No network in Euro 1 member network in Euro >2 members network in Euro
	H7: Network members settled longer at destination will have a larger effect on female migration than recent migrants.	M7	Nr. of recent migrants Euro(<3 yrs) Nr. of experienced migrants Euro (4-9 yrs) Nr. of long-term migrants Europe (>10yrs)
	H7: The more concentrated the network is, the larger its influence in women's migration. For men, concentration will not have the same positive effects.	M7	Categorical variable: geographical concentration of network members currently in Euro. 5 values: No network One person Dispersed (<50% in same country): Reference Concentrated (>50% but not all in same country) All in same country

*All migrant network variables are lagged 1 year and exclude the migrant partner.

Therefore, to further investigate the role networks play in men and women's migration, the hazard rates of undertaking a *first adult migration to France, Italy or Spain* (the dependant variable) in any given year are estimated in a series of multivariate discrete-time logistic models, a methodology which was described in a previous section (5.3.2). After a first model including only the controls, a series of eight models introduce different specifications of the network composition in order to test the research hypotheses. Table V-2 gives a succinct description of the models, the hypotheses they test, and the operationalization of the migrant network variables.

5.4.3.1 The effect of individual characteristics

Table V-3 presents the results of the first two models for each gender: Model 0 introduces all the controls and M1 builds on the first one by adding two dummy variables stating whether the individual had access to migrant networks in Europe or in Africa the previous year. Adding the network dummies in a second stage allows to evaluate the extent to which these variables improve the model fit. The last column reports the significance level of the differences in the coefficients between men and women[21]. I start by briefly discussing the effects of the control variables. Not surprisingly, for both men and women, migration rates increase with age, up to a turning point after which they start decreasing. Compared to the period before 1990, chances to migrate do not seem to fluctuate significantly in the 1990s or after 2000 for neither men nor women, according to M0. However, introducing the network dummy in M1 turns these coefficients negative, especially for men. Given the larger access to networks in recent periods, one would have expected a higher level of migration than was actually recorded. This may suggest a negative interaction between time and networks, whose effects appear to have weakened after 1990. Such a finding seems in line with recent qualitative research suggesting a breaking down of networks with increased political restrictions on migration (Collyer 2005; Engbersen 2000). Further analysis, for which there is no space here, is needed on the interaction between time and the role of networks.

Education is positively correlated with migration to Europe and, as found in the case of Mexican migration to the US (Kanaiaupuni 2000a; Feliciano 2008) it is especially

[21] Whether, for example, migrant networks have a larger effect in men's migration than in women's.

important for women[22]. Feliciano explains this positive selection of women by the greater costs involved in migration, which only a select few are able to meet. Given the prevailing perception in the Mexican patriarchal culture that migration is a masculine activity, women who migrate are substantially deviating from traditional gender norms. "Those women who are risk takers, and most likely to deviate from their traditional roles, may also be those who are most likely to be more educated." (Feliciano 2008: p.155). This seems to also apply in the Senegalese case. Furthermore, in a context of low rates of female economic participation and gender discrimination, educated women may expect larger returns to their human capital through migration. Interestingly, networks mediate some of the effect of education, which tallies with previous descriptive results (Table V-1) showing that the more educated have a higher access to and larger migrant networks. Asset holders are more likely to migrate than those who possess no assets, but the relationship is only significant for women. As regards the impact of the activity status held by the individual the previous year, unemployed and inactive men are more likely to migrate than students (and also than those who have a job, $p<0.05$). For women, being a student seems to increase chances to migrate, though the relationship is not significant.

Unlike findings for Mexican and Paraguayan migration by Kanaiaupuni (2000a) and Cerrutti and Gaudio (2010), Senegalese single women are not more likely to migrate than women who are in couple, either married or not. On the contrary, among the Senegalese, the latter seem to have a larger propensity to migrate. Men who were in couple the previous year are also more likely to migrate. However, whether or not the coefficient for being in couple is lagged makes an important difference: for men, migration seems to be associated with the end of a union, whereas for women with the start of one[23]. Having young children is a significant deterrent for female migration as it halves a woman's chances to go abroad, while it has no significant effect on men's chances (though the coefficient is also negative).

[22] Holding any type of degree has a significantly larger effect for women than for men at $p<0.05$, once taking into account networks.

[23] Two additional time-varying variables: start and end of a union were added to an extra model (results available upon request). The finding for women may reflect the practice of marriage migration, whereby migrants marry someone from their origin countries, which will be discussed in later chapters.

Table V-3 Effects of control variables on the odds of first migration. Discrete time logistic model, coefficients presented as odds ratios

		Men		Women		Gender
Variable	Category	M0	M1	M0	M1	differences
Age	Age (continuous)	1.45***	1.48***	1.37**	1.36**	n.s.
	Age squared	0.99***	0.99***	0.99**	0.99***	
Period	Before 1990 (ref)	ref	ref	ref	Ref	n.s.
	1990's	0.86	0.63**	1.43	1.08	
	2000's	1.01	0.57**	1.11	0.59*	
Education	No education (ref)	ref	ref	ref	ref	
	Primary level	0.70*	0.68**	2.82***	2.35***	***
	Secondary level	1.83***	1.46*	3.64***	2.39***	n.s.
	Tertiary level	2.17***	1.70***	6.74***	4.57***	***
Activity status (t-1)	Student (ref)	ref	ref	ref	ref	
	Has a job	1.42*	1.28	0.49	0.54	n.s
	Unemployed	2.14***	1.91***	0.72	0.58	**
	Inactive	2.46**	2.69**	0.45	0.44	***
Assets (t-1)	No assets	ref	ref	ref	ref	
	Has assets	1.28	1.29	2.46***	2.29***	**
Family status (t-1)	Single (ref)	ref	Ref	ref	ref	
	In partnership	1.63***	1.55***	1.45*	1.69*	n.s
	No children under 6	ref	ref	ref	ref	
	Has children under 6	0.73	0.71	0.56*	0.62*	n.s
Religious Group	Murid (ref)	ref	ref	ref	ref	
	Tidjane	0.62***	0.70***	0.51**	0.58*	n.s
	Christian	0.41***	0.35***	0.63	0.72	
	Other Muslim	1.11	1.04	2.03**	2.24***	
Migrant network (t-1)	Has current MN Eur		4.31***		13.39***	***
	Has current MN Afr		0.87		0.60*	n.s
Pseudo R-sq		0.07	0.09	0.08	0.15	
Person-years		12 117		16 047		
Nr. of events		329		272		

Weights are used in the regression * p < 0.10, ** p < 0.05, *** p < 0.01. The difference between M1 and M0 is significant at p<0.001 for both men and women; difference in BIC' provides strong support for M21compared to M0

Religion shapes the patterns of Senegalese out-migration: confirming previous qualitative findings, Murid men appear to be migrating significantly more than Christians or members of the largest Muslim brotherhood, the Tidjane. Among women, those belonging to other Muslim brotherhoods[24] have more chances of migrating than Murid women.

In M1 two simple dichotomous measures of migrant networks are introduced: whether the individual has family or friends located in Europe and in Africa the previous year[25]. Only European networks are instrumental in migration to Europe, confirming that migrant social capital is location specific, and their effect is quite large. For women, having networks in Africa discourages them from migrating to Europe, as it probably increases their likelihood to make an intra-continental move[26]. Also, adding the network variables significantly improves the model fit[27] of M1 compared to M0, especially for women. Furthermore, knowing someone in Europe has a significantly larger impact on women's migration propensity than on men's[28], which seems to confirm the first hypothesis of a more important role of migrant networks in female than in male migration.

5.4.3.2 Network determinants of male and female migrations from Senegal

In order to further investigate the role of different network compositions and test the various hypotheses, seven additional models were estimated changing only the specification of the network variables (M2 to M8; Table V-4). The models control for all the predictor variables discussed in Table V-3 which are not shown in the text for clarity purposes[29]. Given that networks in Africa are not instrumental in migration to Europe, only members that were located in Europe were included in the network measures.

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[24] Unfortunately, numbers are too small to be able to further break down this category, and thus no interpretation can be proposed.
[25] For this rough measure, the partner is included and all network members, irrespective of their location (Europe or Africa) are considered.
[26] This has been confirmed by running a multinomial logit model distinguishing migrations to Europe and to Africa and comparing both outcomes to that of not migrating. Results are available upon request.
[27] The *fitstat* routine in Stata was used to assess this. It compares models on a series of statistics, such as the AIC and the BIC. Furthermore, the increase in the Pseudo R-squared can be compared since the two models are nested.
[28] Both t-tests and interaction terms in a gender-pooled model (Table B-5, Appendix) confirm that gender differences in the effect of the network dummies are significant.
[29] The coefficients do not vary from those shown in Table 4-3. The full models are available upon request

Given the importance of the spousal reunification channel for women as noted from the descriptive section, the analysis first seeks to separate the effect of having one's partner abroad from that of other network ties. This is only possible for women, given the low number of cases of reunification for men. Most previous studies investigating the gender-based character of networks do not analyse separately the role of the partner, which could lead to overestimating the role of networks for women. Indeed, the results show that it is the partner who, within the migrant network, is most influential in Senegalese women's migration (M2, Table V-4). Compared to being single, having a partner abroad substantially increases chances of migration for women while those whose partner is in the origin country are the least likely to leave. Controlling for the presence abroad of the partner substantially reduces the size of the network effect for women, which remains only slightly larger[30] than that for men.

Thus, the non-partner network continues to increase the chances of migration for both men and women but has a similar effect for both (increasing odds of migration about 4 times for men and 5 times for women). In light of this last result, the next models for women all control for the presence of the partner abroad and the partner coefficient remains large and significant throughout the models. In addition, migrant partners are excluded from all the network variables (with the exception of the geographical concentration measure[31]).

The next two models investigate whether men and women rely on different types of networks in their migration. M3 in Table V-4 disaggregates networks by the type of relationship between their members and ego. The number of close family members – partner excluded - and the number of extended family members or friends are the two variables measuring this composition. The findings support the second hypothesis, predicting a larger role of close family networks than of more distant kin and friends in female migration. Each additional close relative abroad almost doubles Senegalese women's odds of first migration. However, controlling for the number of close family ties, having friends or extended kin abroad does not affect women's chances of migration, suggesting that female mobility is only increased by the presence of close

[30] The gender difference is barely significant at $p<0.10$.

[31] Given that women whose partner is abroad are likely to migrate to that destination - if they ever migrate,- it may be argued that other ties are influential to the extent they are also located in that particular destination.

relatives abroad[32]. On the other hand, men are equally influenced by friends or distant kin and by close family members in their migration[33] (each additional tie increases odds by about 30%). The interaction terms in the gender-pooled model also show that close kin ties have a stronger influence on women than on men, while the opposite is true for extended ties, supporting the third hypothesis.

The effects of gender composition are investigated in M4 using two count variables, respectively the number of men and of women in the network, partner excluded. The only useful network resource for men are prior *male* migrants[34], supporting previous qualitative evidence about the importance of same-sex networks (Hondagneu-Sotelo 1994). On the other hand both prior male *and* female migrants significantly increase women's migration chances and seem to have a similar influence. Female networks have a significantly larger effect on women's migration chances than on men's, thus confirming the fourth hypothesis.

The last four models investigate whether networks influence male and female migration through different channels. The general hypothesis is that prior migrants who are in a better position to effectively support newcomers with their trip and with their integration at destination will be of a larger influence than less resourced network members in female migration. First, network members abroad are expected to be more influential for women than returnees, while return migrants should also influence male migration. Findings from M5 reveal a different pattern: while being related to returnees does not affect women's migration chances, neither does it influence men's. Thus, despite being in a better position to share their knowledge with potential migrants, returnees are not instrumental in the migration process.

[32] T-test statistics confirm that the difference is significant between the coefficients for close family members and for friends or extended kin among women and not significant for men.

[33] These findings have been further verified by estimating two additional models (Table B-4 M3a and M3b, Appendix). In these models, the size of the total network is controlled for and either the number of family members (M3a) or the number of friends/extended kin (M3b) is introduced. Findings go in the same way: in M3b, a change in the network composition towards a larger share of kin and extended friends significantly *reduces* women's chances, while the composition of the network does not matter for men.

[34] Results are verified by estimating two additional models, in the same way as for the type of links, showing that a change in the network composition towards a larger share of males raises the odds of men's migration, while the opposite change significantly reduces them (Models 4a and 4b respectively, Table B-4 in Appendix).

Table V-4 Network composition and odds of migration. Discrete-time logistic models, coefficients presented as odds ratios

Variable	Category	Men	Women	Gender difference
Model 2: Partner abroad				
Other migrant network	Has MN Europe besides partner	4.27***	5.45***	*
	Has MN Africa besides partner	0.84	0.58*	n.s
Partner location	No partner (ref)	ref	ref	
	Partner in Senegal	1.52***	0.36***	
	Has partner abroad		10.76***	
Model 3: Type of relationship				
Type of links	Number close family members	1.30***	2.12***	***
	Number friends/ ext. family	1.28***	1.09	*
Model 4: Gender composition				
Gender	Number of men abroad	1.44***	1.59***	*
	Number women abroad	0.9	1.54***	***
Model 5: Return network				
Location	Number current network	1.29***	1.55***	n.s
	Number return network	0.87	1.16	n.s
Model 6: Size of the current network				
Size	No migrant network	ref	ref	
	One member	3.65***	3.21***	n.s
	Two or more	4.10***	6.39***	**
Model 7: Experience of members				
Experience of members	Number recent migrants	1.62***	1.07	n.s
	Number experienced migrants	1.41***	1.91***	n.s
	Number long term migrants	1.1	1.34**	**
Model 8: Geographical concentration of members				
Concentration	No migrant network	0.19***	0.07***	n.s
	Only one person abroad	0.69	0.56*	n.s
	Dispersed network (ref)	ref	ref	
	Concentrated network	0.84	1.9	*
	All members in same country	1.36	2.00**	n.s.
Person years		12 117	16 047	
Number events		329	272	

Models 2 to 8 all control for having the partner abroad for women and exclude him from the other network variables. Weights are used in the regressions. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

M6 examines whether women need more network connections abroad in order to migrate than men. Results show an increase in migration chances when one member in ego's network is in Europe and a larger increase when two or more persons are abroad. However, as expected under hypothesis six, it is only for women that large networks are *significantly* more influential than small ones[35].

Furthermore, M7 tests whether women's migration chances depend more on prior migrants who have been abroad longer and thus had the opportunity to accumulate more resources than on more recent migrants. The results support this hypothesis: female migration seems to only be affected by prior migrants having spent four years or more abroad. The opposite can be said about male migration, where it is the more recent and experienced migrants who appear to be most influential. Long-term migrants, settled at destination for over ten years, do not significantly improve their migration chances.

There are two possible explanations for this unexpected finding. On the one hand, if information is an important channel of network influence for men, we may expect fresh information to be more valuable. Migrants who have more recently crossed the borders and dealt with the political and economic systems at destination are probably more up-to-date than migrants having entered more than ten years before. Second, those settled abroad longer may be more "assimilated" in the host society and identify less with the co-ethnic group, leading them to be more selective in their assistance to prospective migrants (Böcker 1994).

Finally, networks that are more concentrated in a particular destination are expected to provide a higher level of support, which is important in women's migration. On the other hand, more dispersed networks, giving access to a more diverse range of information and migration choices, may be more useful in male migration. With respect to women, the hypothesis appears to be supported: having more than half of one's network members in a given country substantially increases women's chances of migration (M8). The geographical location of the network members does not, however, appear to significantly impact men's migration chances.

[35] T-test, $p<0.001$

5.4.4 The roles of migrant networks in the decision and financing of migration

The multivariate analyses have shown that having access to migrant networks substantially increases chances to migrate to France, Italy and Spain, but also that networks are not an undifferentiated resource. Different ties were found to be influential in male and female migration. A last part of the analysis investigates the extent to which networks contribute to the decision to migrate and to the financing of migration. Two questions in the survey that were described in chapter 3 ask, for each migration of more than a year, who contributed to the decision to migrate and to its financing. It is further possible to identify the contributors belonging to the migration network.

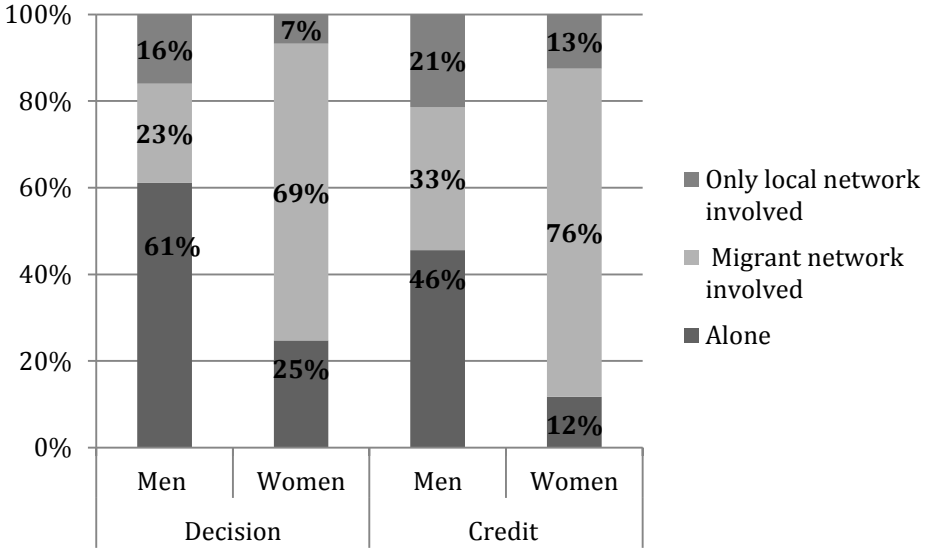
Figure V-3 examines the extent of the migrant network's involvement[36] in the decision and funding of the first migration to France, Italy and Spain for migrants *who had access to a migrant network*. As before, the analysis is split by gender. Among men, a relatively high percentage of networked migrants decides and funds their migration themselves (61% and 46% respectively). In other words, a large part of men do not activate their migrant social capital in order to obtain credit for undertaking the trip or are refused such financial assistance. The network participates in men's decision to migrate in only about a quarter of cases (23%) and in a third (33%) to its funding. Interestingly, local networks of non-migrants have a relatively smaller but comparable involvement in both outcomes. The situation looks very different for women: the migrant network plays a central role in both their decision (70%) and in the financing of their migration (76%). Only a quarter of networked women decide to migrate entirely by themselves and fewer (12%) finance their trip alone.

Next, this section identifies who in the migrant network participated in the decision and financing of the respondents' migration, according to their relationship to ego, their gender, their location and their migration experience. Only the findings with respect to the migration decision are presented here (Figure V-3); the same analysis with respect to the financing of migration can be found in the Appendix (Figure B-1). Patterns are very similar between the two outcomes: in fact, those who are involved in the

[36] Three categories are distinguished for both questions: a) the migrant decided/funded the migration alone, b) someone from the migrant network participated (whether ego or someone from the local network was associated or not to the decision/financing) c) someone from the local network (hence a non-migrant) participated (whether ego was associated or not; no one from the migrant network participated).

respondents' migration decision are also participating in its funding in 67% of the cases for men and in 84% of the cases for women[37].

Figure V-3 Role of migrant network in migration decision and credit.



Legend: Only those who undertook a first migration to France, Italy or Spain *and* who knew someone abroad the year of their migration (had a migrant network) are considered. The analysis is carried on 227 men and 238 women. Gender differences significant for both measures (decision & credit) at $p<0.001$

For women, as expected, the largest role is played by the migrant spouse (Figure V-4; Relationship): he is involved in two thirds of the cases where the migrant network participated in the decision. Thus, and in accordance with results from the multivariate analysis, the spousal reunification channel is to a large extent responsible for the higher participation of migrant networks in female migration decision; the same applies to the funding of migration. In order to better ascertain the influence of other types of migrant ties in women's migration process, the next chapter will analyse separately independent and spousal reunification migration forms for women.

For men, close family members such as siblings and, to a lower extent, parents, are the most likely to take part in their migration decision (45% and 27% respectively of the cases where the migrant network is involved). This shows that one can hardly separate collective (household) decision-making from "true" network effects in what concerns close kin ties, and that many migrations are a mixture of both (Palloni et al. 2001). In

[37] The overlap is lower if the reverse situation is considered: those who participate to the funding of ego's migration are also involved in the decision in only half of the cases for men and 76% for women. This is due also to a larger role of migrant networks in the funding of the migration than in the decision.

slightly less than a quarter of cases other ties – such as extended kin or friends – are also reported as having influenced men's decision.

The second graph in Figure V-4 looks at the gender of the network members who participated in the migration decision, this time excluding the migrant partner. Again, results from previous sections indicating a larger role of prior female migrants in the migration of women are backed up by these descriptive analyses. Women network members are more likely to have participated in the migration decision of other women (35%) than to that of other men (11%). Nevertheless, for both men and women, migration decisions remain dictated or influenced to a larger extent by other men.

The following graph (Figure V-5; Location) shows that members who participated in the migration decision were most likely from the country where the migrant eventually travelled, especially for women (in 90% compared to 77% of the cases for men). This also applies to network members who helped finance the respondent's migration, showing that these two mechanisms of network influence are location-specific and responsible for channelling migrants to particular destinations. Still, in about a quarter of cases (Figure B-1, Location, Appendix), men were given financial assistance to go to *other* countries than those where their creditors were settled.

The last analysis examines the degree of involvement of network members according to the level of their accumulated migration experience. Recent migrants were less likely to contribute to either the decision or the funding of migration, but were still involved in between 20-25% of the cases. Long-term migrants, having spent 10 years or more at destination, were the most likely to be involved in women's migration decisions, and this to a significantly larger extent than in men's.

To summarise, migrant network members are seldom involved in either the decision or the financing of men's migration. When they do participate, however, they are more likely to be close kin, men, from the same country where the migrant travels to, and with a medium level of experience abroad. For women, the migrant partner holds the central role in these stages of the migration process. Besides him, prior female migrants play a more important role than in men's migration. The next chapter will throw more light on the influences of other type of ties in female migration by distinguishing between two forms of mobility: independent and partner-reunification.

Figure V-4 Network's involvement by relationship to ego and gender.

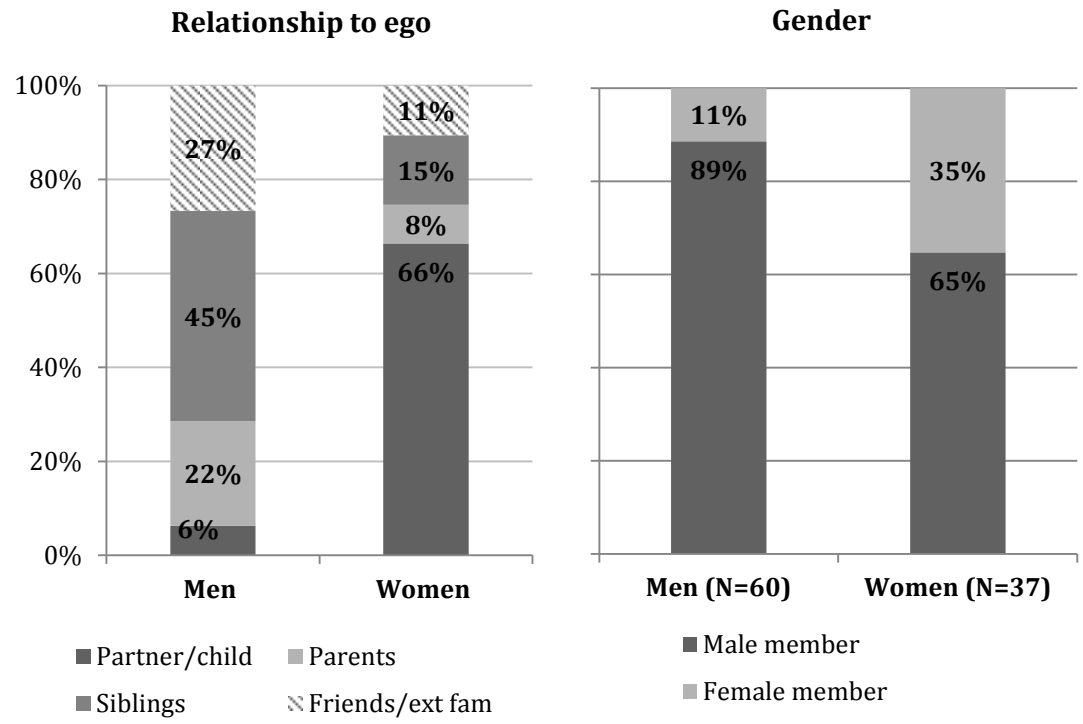
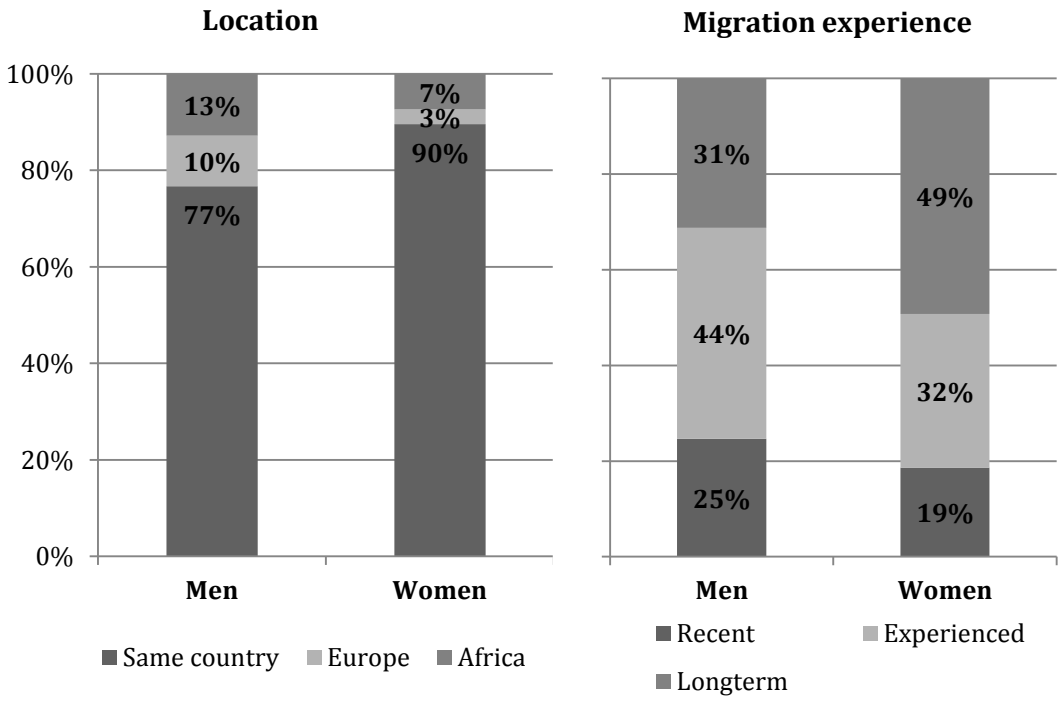


Figure V-5 Network's involvement by location and migration experience.



5.5 Discusion and conclusions

Overall, the findings confirm the overarching hypothesis of this chapter: gender shapes the role played by migrant networks and advances our understanding of their functioning.

First, descriptive statistics have shown that men and women report a similar level of access to migrant networks. However, migrant women were more likely to be related to prior migrants at the time of their migration. This brings initial evidence in support of a larger role of networks in female migration. Second, the composition of migrant networks differs between men and women. The latter are more likely than men to report access to female migrant networks. Furthermore, while immediate family members (besides the spouse) make up a large share of Senegalese women's networks, the majority of Senegalese men's networks are exclusively composed of extended kin or friends.

Next, the chapter compared the timing of men's and women's migrations with respect to the moves of their network members. Women are almost three times less likely than men to "pioneer" a destination where no member of their network is located, and are twice as likely to be accompanied by someone on their trip. Besides reuniting with their partner (which makes up a large share of female migrations), women are more likely than men to migrate to a destination where immediate family members other than their partner are located and less likely to join distant family members or friends. This brings evidence in support of a larger role of close family networks in female migration.

In a final step, discrete-time event-history analyses were carried out to investigate in more detail the differential effects of network composition on men's and women's migration odds. At first sight, after taking into account the year of migration as well as the age, human capital, activity status, family life-cycle and the religious background of the individuals, networks appear to be significantly more influential in women's migration than in men's, confirming previous research on Mexican migration. However, when the network is disaggregated and the influence of the partner set apart – which most previous research has not done - this finding appears to be mainly due to a substantial impact of the husband's migration on female mobility. Behind a "network effect" lies thus a "partner effect". Accounting for this leaves networks only slightly more influential in women's than in men's migration. Therefore, the first hypothesis – of a larger effect of migrant networks in female mobility - should be nuanced and a

more systematic consideration of the mechanism of spousal reunification should be undertaken in future research.

However, even after accounting for the presence of one's partner abroad, significant differences in the *type* of ties influential in male and female mobility stand out. As expected under the third hypothesis, Senegalese women only rely on other close family members to migrate, while both weak and strong ties are equally important in men's migration. One would need more qualitative data in order to discern the mechanisms responsible for this difference, which shows how barriers to female migration are culturally constructed. In Senegal, a context of low female autonomy where women's migration is discouraged and seen as highly risky, results suggest that networks are mainly expected "to watch over and protect" (Lindstrom 1997) women who make the trip abroad. Such a function seems best guaranteed by the more trustful social capital embodied in immediate family members.

The finding of a greater reliance of Senegalese women on family networks resonate with ethnographic research on the Senegalese River Valley (Bâ 1995) and on Mexican migration (Hondagneu-Sotelo 1994; Kanaiaupuni 2000a). However, these results should not be read in the sense that Senegalese women are passive actors, subjected to their partners' or close family members' economic projects. Qualitative research has also shown how women may strategically build and instrumentalise networks in order to achieve their own goals of economic and personal advancement. Coulibaly-Tandian (2007) found that family reunification is not always a unilateral decision of the man in which women have no say, but rather it is often a strategy used by women in order to reach a European destination. Hondagneu Sotelo (1994) gave examples of women who convinced their brothers to migrate in order to be allowed to do so in their turn by the family. More research is needed on the ways in which women create and mobilize these networks in order to overcome gender barriers to migration.

The findings further show that the effect of ties with previous migrants varies with the gender of these migrants, presumably reflecting both the gender segmentation of the labour market at destination and the degree of establishment of the gendered migrant networks. It was found that male networks are the only influential connections among men, and that both female and male previous migrants influence women's migration chances, thus supporting the fourth hypothesis. Given the longer migration history of Senegalese men, male networks are more established and could thus offer access to more resources than female networks, and this for both sexes. In addition, prior male

migrants are better able to give job-relevant information and contacts to other men. On the other hand, previous ethnographic evidence has shown the importance of female networks for women. Though less established abroad historically, these networks have been shown to be crucial for women who do not have the support of their family in migrating. They also give valuable information and assistance with finding a job. Chapters 6 and 8 further investigate these roles played by female networks.

This chapter also tried to further our understanding of the mechanisms through which networks promote men's and women's migration. Based on previous research, it asked whether the main function of networks for women is to offer them financial and logistic support with migration, whereas for men prior migrants would play various other, equally important, roles such as providing information and shaping aspirations to migrate. This thesis is limited in the extent to which it captures the level of resources embedded in networks. Findings based on indirect proxies support the general hypothesis with regard to Senegalese women: they are significantly more likely to migrate if they have well-established networks, made up of long term migrants and highly concentrated in a particular country. Such networks are assumed to command a higher level of resources and be better able to support women's migration. In contrast, men's migration chances depend more on recent networks, while their level of geographical dispersion does not appear to matter. A puzzling finding, which requires further investigation, is the lack of influence of long-term migrants in men's migration process.

The final descriptive section investigated the involvement of networks in the migration decision and its funding and showed a larger contribution of networks in women's migration, though this was mostly attributable to the migrant partner. Although close family ties and extended kin or friends impact men's migration propensity to a similar extent, the former appear to be more engaged in their migration decision-making and financing of the trip. This suggests that weaker ties serve other functions in male mobility, such as providing information on crossing the borders or help with finding employment at destination. The latter aspect will be directly investigated in chapter 7. It should also be added that migrant networks contributed to funding men's trips in only a third of the cases, which almost puts them on par with locally-based non-migrant networks. Providing credit does not appear to be the main function of migrant networks in male mobility.

This chapter made several methodological and analytical contributions. First, most previous studies are limited to an investigation of the role of household networks, which they can rarely disaggregate, and of an extrapolated measure of community networks. To my knowledge, this study is one of the first to be able to take into account the influence of the larger (and actual) social circle of the individual, such as family members who are not household members, friends and acquaintances. Furthermore, through the longitudinal collection of the respondents' migration and family formation trajectories, but also of the migration trajectories of his or her network members, this study was able to disentangle the mechanism of spousal reunification from other forms of migrant network influences. The substantial importance of the migrant partner in Senegalese female mobility underscores the importance of collecting such data in future studies.

Migrant networks are undoubtedly influential in shaping the international migration potential of Senegalese men and women. Yet findings also paint a picture of highly heterogeneous network effects and channels of influence. The disaggregation of migrant networks enabled by the MAFE data reveals that men and women rely on different type of ties in order to migrate and that these ties influence their migration process through different channels.

Chapter VI

On their own?
A study of independent versus partner-related migration of Senegalese women[1]

This chapter focuses on the heterogeneity of female mobility and investigates whether human and social capital play different roles in women's independent versus spousal reunification migration. Using the same MAFE data but restricting the analysis to women only, the chapter compares the determinants of the two forms of female migration by means of discrete-time hazard analysis. Findings show that higher levels of human capital and of access to migrant networks (other than the partner) increase chances of both types of migrations, though, as expected, to a larger degree for women migrating autonomously. Furthermore, the two types of migrants rely on different types of ties for moving abroad. Female networks play a crucial role in independent migration but are not influential in triggering reunification. While both types of migrants rely to a great extent on migrant siblings or parents to migrate, ties with extended kin or friends are also instrumental for women moving independently of a partner. Prior migrants' level of resources – as proxied by the time spent abroad – seems especially important in independent migration, while having larger and more geographically concentrated networks is similarly influential in both types of mobility. Finally, whereas migrant networks participate to a large extent in the migration decision-making and the financing of the trip of independent migrants, the migrant spouse alone takes on these roles in bringing his wife abroad. More investigation is needed on the ways in which other ties influence partner-related migrations.

[1] Based on this chapter, written by the author alone, a comparative paper on Senegalese and Congolese migration is currently under development together with co-author Sophie Vause, Université Catholique Louvain-la-Neuve. The analyses in this chapter will be extended to include a comparison with female migration flows from DR Congo.

6.1 Introduction

The previous chapter investigated the ways in which gender shapes the interaction between migrant networks and international mobility patterns. It confirmed and extended findings from recent studies showing that networks as well as other well-established determinants of migration are differently influencing male and female mobility (Kanaiaupuni 2000; Curran and Rivero-Fuentes 2003; Davis and Winters 2001; Feliciano 2008). But it also underlined the importance of the spousal reunification channel in Senegalese women's mobility. This chapter goes further by considering the internal heterogeneity of female mobility. Long-time conceptualized as passive, associational migrants, women have increasingly been considered by recent scholarship as actors of their own migration, migrating autonomously for work or study reasons.

Scholars have, however, challenged a too rigid dichotomy between these forms of female migration arguing that the boundary between them is often blurred (Hondagneu-Sotelo 1994). In many cases the primary motivations of family migrants may be economic: Coulibaly Tandian (2007) shows how Senegalese women may in fact instrumentalise family reunification in order to access foreign employment. However, very few studies have empirically investigated to what extent the determinants of women's family migration and independent migration actually differ (Cerrutti and Massey 2001).

Using the same longitudinal data on migration from Senegal as previously, this chapter investigates the determinants of Senegalese women's migration, distinguishing between associational moves and independent migration, understood here as independent of a partner. It aims to make several contributions. First, most research on female international migration, and the theory-building which was derived, focused on migration from Latin America, Eastern Europe or Asia. The phenomenon has been understudied in the Sub-Saharan African context, especially with a quantitative approach. The chapter examines whether the African context fits in the existing framework or whether new theories need to be developed for it. Second, it extends the literature by investigating whether and how migrant networks (other than one's partner) are differently mobilized by women migrating through different channels, or under different "auspices" (Tilly and Brown 1967). This raises the under-studied question of how different forms of migrant ties interact in shaping the migration process.

The chapter is organized as follows: section two provides an overview of the theoretical and empirical literature on gender, networks and different forms of female mobility and outlines the research hypotheses. The third section introduces the data and methods used in this analysis, while results are described in the fourth section. A final section discusses the findings and draws some conclusions.

6.2 Theory and hypotheses

6.2.1 The "auspices" of women's migration: associational vs. autonomous female migration

The extent to which the independent migration option is open to women varies across societies. Culturally defined gender roles and expectations are not only influencing *who* migrates, but also *how*. In some societies, such as rural Thailand, women are perceived as more reliable remitters and the family prefers the migration of unmarried daughters to that of sons (Curran et al. 2005). In other cultures, such as patriarchal West African countries, the social acceptance of women's independent migration is low, the only "legitimate" reason for women's migration being family reunification. In Senegal, women who migrate alone in search of work expose themselves to negative judgment by their social entourage and may even be stigmatized as prostitutes (Bâ 1995). Yet, as discussed in chapter 4, anthropologists have found that even the migration of spouses in order to reunite with their husbands is sometimes opposed by the husband's family, with whom the wife generally resides. The in-laws fear that, in addition to losing valuable labour force, the migrant's ties to his home community and family will weaken and the remittances he sends home will diminish (Barou 2001; Dia 2009). Moreover, the difficult living conditions at destination and the fact that polygamy is illegal in many European countries have increasingly deterred men from bringing their spouses over. As a consequence, long-term transnational couples are relatively frequent and perceived as the norm.

Comparing five Latin American countries, Massey et al. (2006) show that female out-migration looks very different depending on how patriarchal the gender system is. They find that in societies where women are more autonomous, independent, and less tied to men as partners, they are more likely to migrate and more numerous to do so as independent agents (Massey et al. 2006: p.89). Similar findings are reported by Cerrutti and Gaudio (2010) in their comparison of Mexican and Paraguayan migration patterns:

gender relations, among other factors, affect the volume of female migrations, the characteristics of women who migrate and the channel of migration (2010: p.111). Much of previous work, especially quantitative, has focused on Mexican and Latin American migration, owing to a greater availability of data. Migration from Sub-Saharan Africa has so far been less studied empirically and theorized. According to some scholars, one of the consequences of the socio-economic and political crises affecting many African countries has been to raise women's participation in the labour market and in migration streams as independent agents, since impoverished households increasingly need their contributions (Findley 1997; Antoine and Sow 2000; Bocquier and Traoré 2000; Adepoju 2002). This increased reliance has been posited to relax gendered expectations, though the extent to which these changes are long-term is still unclear. However, most studies are based on qualitative evidence limited in geographical scope or refer to internal migration.

Differences in the main motivations and barriers to migration between autonomous migration and family reunification are expected to translate into differences in the drivers of migration. However, while acknowledging the heterogeneity of women's migration experiences, studies challenge a too rigid dichotomy between the forms of mobility and suggest that the boundary between them is often blurred. On the one hand, women who migrate to reunite with their spouses may subsequently enter employment at destination. This possibility was put forward by Kanaiaupuni (2000: p.1336) in a study of Mexican migration to the US: "Often, in fact, economic motivations are hidden under the pretext of an associational move, which not only represents the 'proper' reason for migration in many social contexts, but also the mode that most facilitates entry into the United States." More generally, researchers have argued that in the context of increasing restrictions on international mobility, legal categories of entry cannot be presumed to reflect individuals' actual motivations for migration, but rather the most accessible option for travelling abroad at the moment. Since entering as a labour migrant in Northern countries is increasingly difficult, candidates to migration claim refugee-status or enter as family migrants if this increases their chances of reaching their destination (Gonzalez-Ferrer 2011).

On the other hand, research has challenged the belief that "autonomous" female migrations are indeed independent and have stressed the influence of other family members in the migration decision-making and mobility process. In a study on autonomous female migration from the Ivory Coast, Comoé (2005) finds that few

women have decided by themselves to migrate or have travelled alone, and concludes that women's autonomy in the migration process remains limited. Such findings may suggest that the factors driving the migration of women through couple-reunification channels or more independently would not be as different as one would expect. So far, though, studies investigating this question empirically have been rare.

6.2.2 Human and social capital drivers of autonomous and partner-related migration

As already discussed, research has found women to be positively selected on education to a larger extent than men (Feliciano 2008; Donato and Kanaiaupuni 2000); this finding was also confirmed for Senegal in the previous chapter. This may result from the low returns to education and few occupational rewards for women in societies characterized by gender discrimination (Kanaiaupuni 2000). It may also be a consequence of the larger barriers faced by women in the migration process, leading only the most resourceful to challenge cultural norms and undertake a migration (Feliciano 2008). To be more precise, Feliciano's argument is not necessarily that education empowers women. Rather, she argues that women who chose and managed to pursue their education in a society where females are under-educated are more ambitious and refuse to conform to traditional expectations. In her own words "those women who are risk takers, and most likely to deviate from their traditional roles, may also be those who are most likely to be more educated, because, in Mexico, women continue to lag behind men in terms of educational attainment" (2008: p.155). Given that independent female migration is assumed to be motivated primarily by economic reasons and that it is seen, in many societies, as deviating from traditional gender norms, *a larger influence of human capital characteristics than in spousal-reunification migration is expected*.

However, that is not to say that education levels have no effect on chances to migrate in relation to one's partner. The few existing studies of family reunification suggest that reunification at destination is more likely with women's potential adaptability to the receiving context, as signalled by a higher educational level or occupational status (Baizan et al. 2011). Moreover, higher levels of education may translate into a higher bargaining power within the couple and allow women to impose their opinions (Hondagneu-Sotelo 1994). *Thus, education is expected to positively affect partner-related migration as well.*

Migrant social capital has been shown to influence women's migration more than men's (Curran and Rivero-Fuentes 2003; Winters et al. 2001). The previous chapter has also confirmed that female migration is more dependent upon the presence abroad of others and further found that different ties are more influential depending on the gender of the migrant. Having a migrant partner strongly increases women's chances to migrate, proving the importance of the family reunification channel in Senegalese female international migration. This brings up the under-investigated question of whether ties to other kin members or friends play different roles in independent and in partner-related migration. Given the important role of the partner in the reunification of their spouses, it may be reasonable to expect that other ties will play a lesser role in this type of mobility; in contrast, undertaking an autonomous migration may depend strongly on the support of kin or friends abroad. *Thus, a larger role of migrant networks other than the partner is expected in independent migration than in partner-related migration.*

Nevertheless, other ties may also play a role in spousal reunification. In her seminal study on the intersections of gender and migration in Mexico, Hondagneu-Sotelo (1994) emphasizes the influence of the wives' migrant ties located in the US in helping them migrate. Her interviewees report that it was their migrant relatives or friends, more often female, who helped convince their husbands to bring them abroad or sometimes even directly financed their migration trip without the husband's knowledge. Furthermore, Hondagneu-Sotelo notes the importance of female networks in the migration of single women. Their migration was often initiated at the suggestion of a sister or female friend who had a job ready for them in the US. Thus, according to the author, migration was often quite spontaneously enacted. Curran and Saguy (2001) also document how women formed an aspiration to migrate after coming into contact with prior female migrants. The latter challenged traditional forms of female identity and patriarchal domination, while stressing new values and lifestyles. Embeddedness in migrant female networks led non-migrant women to increasingly perceive migration as a strategy for achieving social mobility and reshaping gender roles. *It is expected, thus, that female networks play an important role in both types of migrations, though possibly a higher one in independent migration.*

Previous findings discussed in chapter 5 suggested that the presence abroad of close kin members is highly important in female mobility. Given that the migrant spouse can fulfil the function of social control and protection presumably embodied in such ties, *other immediate family members should be less important in reunification than in*

independent migration. Furthermore, it is probable that women migrating independently will require a higher degree of assistance from their migrant network, which more resourced migrants will be better able, and perhaps willing, to provide. As in the previous chapter, the current location, the length of establishment as well as the size and the geographical concentration of the networks are all considered proxies for the level of resources available in the migrant networks. *They are all expected to influence independent migrations to a larger degree than partner-related moves*.

With respect to the latter, it is difficult to predict the effect of time since the couple has been living transnationally on the likelihood of reunification. On the one hand, the longer the spouses are apart, the longer is also the settlement of the husband at destination and thus, potentially, the better his material situation. This should then positively impact the likelihood of reunification. On the other hand, a long separation may reflect a preference for keeping one's family in the origin country, and thus diminish the odds of wives' migration.

Cerrutti and Massey (2001) are among the very few to study quantitatively the "auspices" of women's migration. Focusing on the Mexican migration to the US, they distinguish between the migration of wives and that of daughters, and within each type, between migration with and without work at destination. What they find is that wives' migration is strongly associated to that of their husbands and mostly influenced by family life-stage characteristics and social capital, with little difference in profiles between wives who work and those who do not. Migration of daughters, especially when associated with work, more closely resembles that of sons in that it is significantly influenced by human and social capital variables.

Thus, according to Cerrutti and Massey's findings in the context of Mexican female migration, human capital levels matter only for independent migration. Different social ties are mobilized in the two forms of migration, but are generally less influential in the migration of wives. A limitation of this otherwise very innovative study is that the authors do not distinguish, in their models of wives' migration, between women who migrated after they married and those who did so before[2]. The latter can be classified as independent migrants and their inclusion may confound the results, given that

[2] The authors do make this distinction in their descriptive results, which show that about a third of the "wives" migrated before marriage (2001: p.191). There is no indication whether they knew their future spouse at the moment of their migration.

determinants are different. Also, they do not go very far in their disaggregation of migrant networks: only kin members are included and measures do not take into account their gender, location or migration experience. Finally, given that their models are cross-sectional, they are unable to include time-varying covariates.

6.2.3 Research questions and hypotheses

Based on the review of the relevant theoretical and empirical literature and given the specificities of the Senegalese context, this chapter aims to answer three sets of questions, which are further refined into several hypotheses.

1. **The chapter investigates whether the importance of autonomous female migration has increased in recent periods**. A *first hypothesis* predicts an increasing share of independent migrations out of the total female migrations over time.

2. Moreover, it analyses **whether women's human and migrant social capital are influencing the likelihood of autonomous and partner-related migration to a different degree.** The *second hypothesis* expects both types of mobility to be positively associated with the woman's level of education, but this should have a larger effect on autonomous migration. In a similar vein, social ties to migrants other than one's partner are expected to be more influential in independent than in partner-related migration (*third hypothesis*).

3. **The paper also asks whether the two types of migrants rely on different social ties in order to migrate**. Given that previous research has paid less attention to this aspect, the enquiry is more of an exploratory nature. It is nonetheless expected that female networks play a role in both types of female mobility, but a larger one in independent migration (*fourth hypothesis*). It is further expected that close kin members play a larger role in independent female mobility (*fifth hypothesis).* The last hypothesis expects that networks cumulating a higher level of resources (through their size, geographical concentration, current location and maturity) will be especially influential in autonomous female mobility, while these distinctions will be less relevant in partner-related migration (*sixth hypothesis).*

6.3 Data and methods

6.3.1 The population of study

The chapter is focused on describing the profiles and explaining the factors associated with two types of female migration. Independent migration is defined here as a move to a destination where the partner is not present, either because the woman is single or because she migrates without her partner. As a shortcut, this type of migration is often referred to as "autonomous" or "independent" migration in this thesis. Such labels do not imply that these women migrate without any help - on the contrary, the chapter will show the crucial role played by prior migrants in their migration.

In contrast, migrating in relation to the partner means here that the woman migrates to a destination where her partner is also present[3]. The data used is the same as in the previous chapter, but the analysis is restricted to a women-only sample (N=871) including non-migrants, current migrants and return migrants. There are 134 independent migration events and 145 partner-related moves in the sample. In a first stage of the analysis, the two forms of female migration are descriptively compared in terms of individual characteristics and access to migrant networks.

6.3.2 Discrete-time event history analysis

Multivariate regression analysis is used to investigate whether independent and partner-related migrants make a different use of their migrant networks (besides the partner). In order to do this, two sub-samples are constructed and in each case a discrete-time hazards model is estimated, based on the same general principles described in the previous chapter (Allison 1984). What differs between the two samples is the definition of the risk set. Given that there are no cases in the MAFE Senegal sample of independent migrations by women whose partner is also abroad (i.e. migrations to a destination where the partner is not present), I consider that a woman is at risk of undertaking an independent migration as long as she is single or, if in a couple, as long as her partner does not migrate. Thus, to estimate the odds of undertaking an *independent migration*, women are followed from age 18 up to their first migration to Europe (the event of interest), up to the time of the survey *or* up to the year when their

[3] There is no case in our sample of the woman migrating to another destination than that of the partner, should he be abroad.

partner migrates (right-censored observations), whichever comes first. As in the previous chapter, migrations to destinations other than France, Italy or Spain[4] are also treated as right-censored.

In order to study the determinants of partner-related migration, following Baizan et al. (2011) and Gupta (2003) only women who are in a union and only the years when the husband or partner[5] is away are considered. The clock starts when the man migrates, i.e. when the couple starts living apart. The event of interest is the woman's migration, which can take place at the same time as the man's (in case of joint couple migration[6]) or after several years of having lived apart. Couples still living geographically apart at the end of the survey and those divorcing/separating or reuniting in Senegal (due to the husband's return) were treated as censored when the first of these events takes place. As in the independent migrations model, migrations to other destinations are right censored. Furthermore, since only migrations to France, Italy or Spain are of interest here, cases where the husband migrates to another destination are excluded from the analysis. The data is arranged as a couple-year dataset: each year of life of a transnational couple is a line in the dataset and constitutes an observation in the analysis. More details on the composition of the models will be given in section 6.3.2, before presenting the results from the multivariate analysis.

Furthermore, as a robustness check, a pooled model was also run[7], following all women from age 18 up to their migration or the time of the survey, whichever came first, independent of their partnership status (which was still controlled for). Migrations considered could thus be both independent and partner-related. Interactions between having a migrant partner and the education level as well as all migrant network variables were included to see whether these factors had a different influence for women who had a migrant partner that particular year. While this model is run as a further way to verify the results, it is not completely accurate in its definition of the risk set. For example, depending on their partnership status, women are not similarly at risk of undertaking a partner-related migration. By pooling everyone together, the model

[4] There are 40 cases of female migrations to other destinations in the sample
[5] I include in the analyses informal unions, which are not very frequent and, for the most part, become marriages.
[6] A model excluding the cases of joint couple migration was also run but since results were similar, owing probably to the small number of cases in this category, it was decided to include them as it increased the number of events.
[7] Models available from the author.

assumes they are. However, the findings from the two separate models are all confirmed in this pooled model.

6.4 Findings

6.4.1 Descriptive statistics

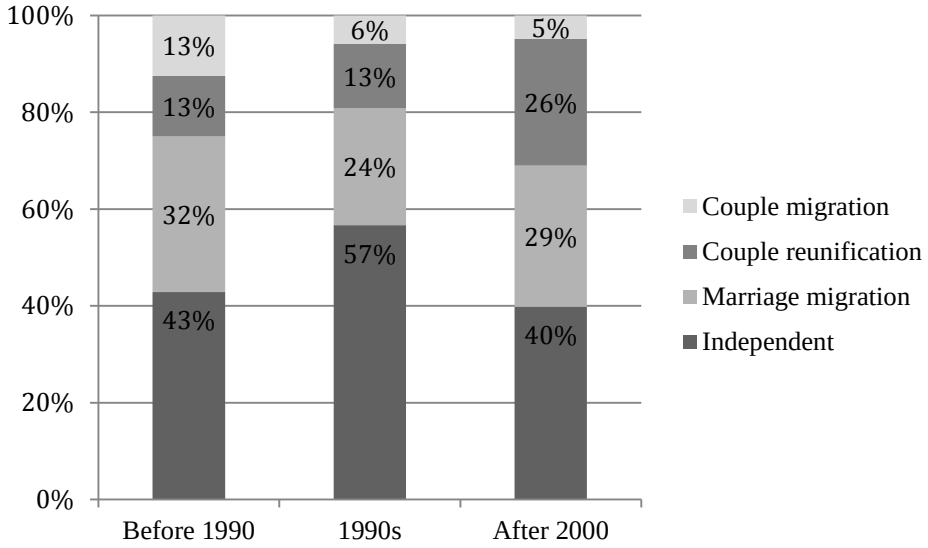
Several researchers have argued that Sub-Saharan African women are increasingly engaging in autonomous migration, but have cited only anecdotal evidence (Adepoju 2002). Retrospective data is not entirely suited for examining trends over time, but for lack of better datasets, an exploratory investigation of the evolution in the share of different forms of female mobility is carried out here. Figure 3-1 presents the relative frequencies of the different forms of female migration to Europe in the MAFE-Senegal sample over time, distinguishing three periods: before 1990, the 1990s and after 2000. Independent migrations make for less than half of all migrations, but there is no clear (nor significant) pattern of increase in their share over time: after an increase in the 1990s, in the 2000s the relative number of independent migrations decreases to values close to those from before the 1990s. This descriptive analysis brings no support for the first hypothesis of an increasing trend in autonomous female migration to Europe.

The figure further distinguishes between different forms of partner-related migrations: joint couple migrations, reunited spouses and marriage migrants. I consider a joint couple migration the case when both spouses migrate at the same time. The difference between the latter types of migration two lies in the sequencing of women's union formation and the migration of their partner. The terms "marriage migrants" or "imported partners" are frequently used in the literature to refer to women who marry someone who is already a migrant. On the other hand, women whose partner migrates after their union are referred to as "reunited" or, more pejoratively, "trailing wives". Figure VI-1 shows a decrease in the share of joint couple migrations over time, an increase in the cases of spousal reunification and a relative stagnation in the number of marriage migrations. While the determinants of these various forms of associational migration may differ, numbers are too low to distinguish them in the rest of the analysis.

Table VI-1 presents the distribution of the independent variables, at the time of migration, for the two types of female migrants. While independent migrants seem younger than partner-related ones, the most notable difference is with respect to education. Autonomously migrating women are significantly and substantially more

educated than those who migrated in relation to their partner, but both types of migrants are more educated than non-migrants: only 10% of the former have no degree, compared to 31% among associational migrants while 50% of non-migrant women were in this case at the time of the survey (for the comparison with non-migrants see Table V-1 in the previous chapter).

Figure VI-1 The relative share of different forms of female migration over time



Given their higher level of education, independent migrants are also more likely to be studying the year prior to their migration, while almost half of the partner-related migrants were homemakers before migrating. 14% of partner-related migrants were not in a union the year before: they are actually "marriage migrants", who marry and migrate the same year. Not all women migrating autonomously were single in the year prior to the migration: around 22% were in couple. More than half of them end their partnership the year of their migration. The rest represent women who migrate leaving their husbands behind, a phenomenon which, although rare, is not completely absent Senegal. The qualitative literature has documented the migration of African businesswomen engaged in trade and adopting a circular mobility (Bouchard 2003; Bredeloup 2012). They do not settle in a particular destination (and are thus not followed by the reunification with the husband), but rather involve a great deal of travel between different global cities such as Paris, Rome, Dubai or New York.

Worth noting is also the higher incidence of divorce among independently migrating women, despite their younger age, and which was also noted in qualitative research. Bâ

(2008) reports that women often choose this strategy as a consequence of a failed life project, either a marriage or an unsuccessful professional integration.

Table VI-1 Individual characteristics at the time of the first migration to Europe, by type of female migration (column percentages)

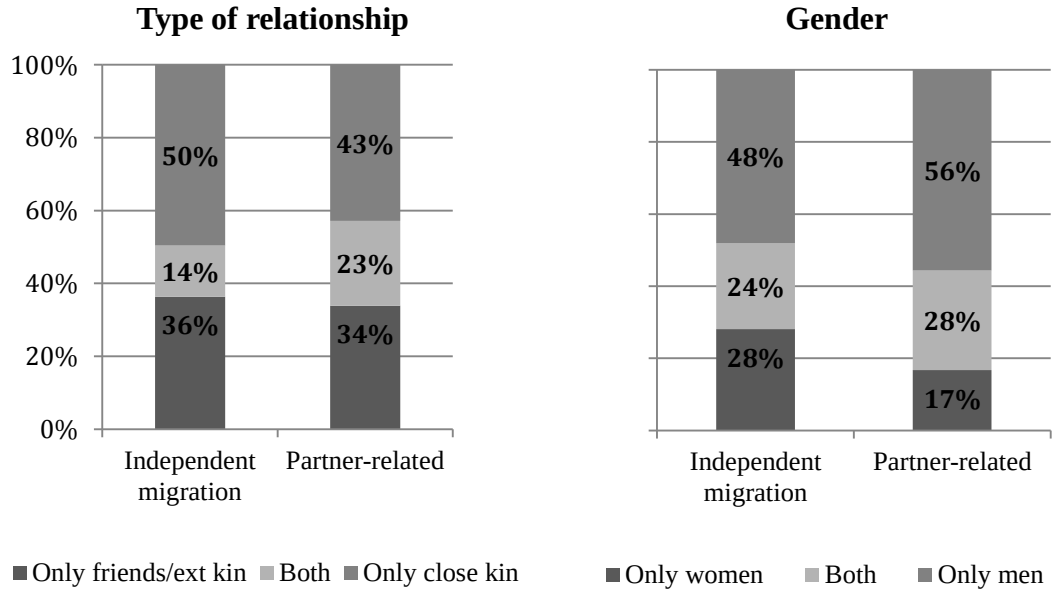
	Independent	Partner-related
Age first adult migration Europe (n.s.)		
18 to 24	41%	36%
25 to 34	51%	44%
over 35	8%	19%
Educational level ***		
No degree	9%	31%
Primary	34%	30%
Secondary	20%	21%
Higher	36%	19%
Activity status t-1 ***		
Student	40%	18%
Employed	40%	35%
Unemployed	3%	4%
Inactive	18%	42%
Family status (t-1)		
In couple ***	22%	86%
Has children < 6 *	18%	37%
Has had a divorce *	16%	7%
Access to migrant networks **		
Knows at least someone in Eur other than the partner	70%	58%
Number of cases	134	145

Legend: *** p<0.01; ** p<0.05; * p<0.10, Weighted data

In terms of access to migrant networks other than the partner, independent migrants are significantly more likely to know someone in Europe (70%) than partner-related migrants (58%) or non-migrants (56%). However, when comparing the composition of these networks (for those who know at least one person other than the partner in Europe) between the two types of migrants, no significant differences are revealed (Figure VI-2). While autonomously-migrating women are slightly more likely to report knowing only other women in Europe than partner-related migrants, this difference is not significant; nor is there any difference in the composition of the networks according to the type of relationship between ego and the network members.

Looking at who was present *at destination* when the migrant arrives shows a slightly different picture. The difference in access is smaller and no longer significant, as 48% of independent migrants have ties previously established there, while only 43% of partner-related migrants have kin or friends other than their partner. Among those who have a network at destination (Figure C-2**,** Appendix), independent migrants are more likely to report knowing at least one woman and at least one extended kin or friend[8]. Thus, it would seem that though they report having a similar *access* to these different types of networks, independent migrants are more likely than partner-related ones to *follow* certain type of ties, such as female migrants and extended kin or friends, and to choose destinations where such ties are located.

Figure VI-2 Composition of migrant networks other than the partner by type of migration



6.4.2 Multivariate analysis

The descriptive statistics have already drawn a picture of important and significant differences between the human and social capital characteristics of the two forms of female migration. The multivariate analysis allows evaluating the influence of these factors in parallel (Table VI-2 and Table VI-3). A series of nested models have been estimated for each type of female migration using a different definition of the risk set

[8] Both differences are significant at $p<0.05$

(as explained in section 6.3.2). The first model, M0, includes only controls; M1 adds a dummy for whether the woman has access to a migrant network in Europe other than the partner. Comparing M1 and M0 allows examining the extent to which the migrant network variable brings a significant contribution to the explained variance. The next six models (M2 to M7) presented in Table VI-3 are variants of M1 as they each introduce a *different specification* of the network variable.

All controls and migrant network variables are constructed in the same way as in the previous chapter (see also Table A-1 Appendix). There are two additional controls used in the spousal reunification model: first, whether the union is polygamous (the wife has at least one other co-wife). Second, whether the union started while the spouses were living geographically apart, i.e. the woman marries a man who is already a migrant (or who started his migration the same year as the start of their union). These two dummy variables are not time-varying. Also, the reference category for the variable giving the geographical concentration of the network is different between partner-related and independent migrants. For the latter, given the low number of cases of "geographically dispersed" networks, this category was merged with the case of a single-person network.

The last column of Table VI-2 presents the level of significance in the difference between the coefficients for the independent migration versus the spousal reunification models[9] (for example, whether education has a *significantly* larger effect on the odds of independent migration than of spousal reunification).

6.4.2.1 The effect of human capital characteristics

In the models for independent migrations (first two columns of Table VI-2), age is the duration variable, as all women are followed from 18 onwards. As observed for men, age has a curvilinear effect on women's likelihood to migrate autonomously: odds increase with each year of age but only up to a certain point when they start decreasing. In contrast, it has no effect on chances to undertake a partner-related migration. Spousal reunification odds decrease slightly with each additional year of separation[10], but the

[9] Are compared the coefficients from Model 1, which includes the network variable.
[10] Time since living geographically apart is the duration variable in the models for partner-related migration. Different specifications of the variables were used (squared term, categorical variable) without providing significant results.

effect is not significant. The time period coefficients suggest no increase in either form of female migration in recent years; on the contrary, the odds of reunification in Europe seem to have decreased for left-behind wives from the 1990s onwards[11]. This coefficient should however be taken with a grain of salt with respect to spousal reunification, as those observed in more recent periods will have had less time to reunite with husbands and are more likely to be right-censored.

A further aim of this research is to establish the extent to which human capital attributes are differently influencing the chances of independent and partner-related migration. Confirming previous results (Feliciano 2008; Gonzalez-Ferrer 2007; Baizan et al. 2011), migrant women are positively selected with respect to education, irrespective of the type of migration they undertake. However, the selection appears stronger among those migrating autonomously and education coefficients are significantly larger than for spousal-reunification[12], confirming the second hypothesis. Being a student the previous year increases chances to migrate autonomously compared to being inactive; so does being economically active, but not in a significant way. Activity status seems unrelated to the likelihood of spousal reunification.

Family status the year prior to the migration has a significant influence on both types of migration. Being in a union significantly and drastically diminishes chances to migrate independently (M0: OR 0.2***), which is not surprising given the patriarchal gender system prevalent in Senegal and the fact that men play the role of economic provider. However, women who are divorced or separated not only have to provide for themselves economically but are also socially stigmatized in Senegal. They appear more likely to migrate, though the coefficient is not significant.

[11] This finding is not at odds with the first descriptive outlook at the relative shares of the different forms of migration (Figure 4-1). If the number of Senegalese men going to Europe and leaving their wives behind increases, and even as the chances of their wives to join them decrease, the share of partner-related migrations may still appear on the rise.

[12] As confirmed both by t-tests reported in the last column of the table as well as the interaction terms in the pooled model.

Table VI-2 Effects of individual characteristics on the odds of migrating independently or in relation to one's partner. Coefficients presented as Odds Ratios

		Independent		Partner-related		Signif.
Variable	Category	M0	M1	M0	M1	diff.
Time apart		-	-	0.96	0.96	
Age	Age (continuous)	1.79***	1.63**	0.99	0.98	**
	Age squared	0.99***	0.99**	1	1	n.s.
Period (decades)	Before 1990 (ref)	ref	ref	ref	ref	
	1990's	1.62	1.3	0.35***	0.31***	**
	2000's	1.06	0.72	0.35**	0.32***	n.s.
Education level t-1	No degree	ref	ref	ref	ref	
	Primary level	3.89***	2.89**	1.13	1.15	**
	Secondary or more	9.05***	6.32***	2.03*	1.93*	***
Activity status t-1	Inactive (ref)	ref	ref	ref	ref	
	Student	2.15*	2.15*	1.39	1.44	n.s.
	Economically active	1.37	1.34	0.71	0.78	n.s.
Family status t-1	In couple (ref: single)	0.20***	0.20***	-	-	
	Never had a divorce	ref	ref	-	-	
	Has had a divorce	1.99	2.02	-	-	
	No children under 7	ref	ref	ref	ref	
	Has children under 7	0.4	0.43	0.71	0.77	n.s.
	Monogamous union	-	-	ref	ref	
	Polygamous union	-	-	0.21***	0.22***	
	Union starts same country	-	-	ref	ref	
	Union starts apart	-	-	1.35	1.33	
Religion	Murid (ref)	ref	ref	ref	ref	
	Tidjane	0.46*	0.49*	0.76	0.75	n.s.
	Christian	0.4	0.48	2.81**	2.80**	**
	Other Muslim	2.01*	2.41**	0.97	0.92	**
Migrant network t-1	No MN (-partner)		ref		ref	
	Has MN (-partner)		3.55***		1.62*	**
Person-years		14016		1591		
N events		134		145		

Legend: *** p<0.01; ** p<0.05; * p<0.10, Weighted data

The odds of joining one's partner in Europe depend strongly on the type of union the woman is in: those who have other co-wives are substantially less likely to undertake such a move (M0: OR 0.21***). As polygamy is not accepted in Europe, it is difficult for migrants who have several wives to bring them all to the destination. The qualitative literature has documented a rotating system, with wives taking turns living with their husband in Europe (Dia 2009, 2010), but the phenomenon is unlikely to be widespread and has been said to be decreasing (Barou 2001). Furthermore, polygamous couples may espouse more traditional values and prefer to reunite the family in Senegal once the husband returns. While marrying someone who is already abroad is positively related to chances of joining the partner in Europe, the coefficient is not significant. Thus, for Senegalese migrants, choosing wives at origin does not necessarily involve bringing them to Europe.

Finally, having children younger than seven years old deters both types of female migration, though not in a significant way. Women migrating autonomously and those reuniting with their partners seem to belong to different religious groups. The former, are most likely to belong to smaller Muslim brotherhoods or to be Murids, rather than Tidjane or Christian, whereas Christian women are most likely to join their partner abroad.

Having other ties in Europe (M1) increases chances of both types of female migration and the M1 model fit is significantly improved over M0 in both cases. However, as expected, the coefficient is significantly larger in independent migrations than in partner-related ones (OR= 3.5*** compared to 1.6*, difference between coefficients significant at $p<0.05$). This confirms the third hypothesis of a bigger effect of migrant social capital in autonomous female migration. Furthermore, networks mediate some of the effect of education in independent migration: as seen in the previous chapter, more educated people are more likely to have access to migrant networks for both men and women.

6.4.2.2 The influence of network composition

Table VI-3 further presents the influence of different type of ties in the two forms of migration. First, only close family members[13] seem to matter for couple reunification

[13] Both partners and children are excluded in this analysis.

migration: each additional close kin in Europe increases women's chances to reunite with their partner, whereas other types of ties have no effect. Close kin ties strongly increase chances of autonomous migration and do so to a larger extent than for partner-related migration[14] (OR: 2.34***, M2). Yet, friends and extended family members are also influential in the odds of independent migration, albeit to a lower degree than close kin members (OR, 1.36*). Thus, the fifth hypothesis receives some support, although it has to be nuanced in view of the finding with respect to the influence of weaker ties in autonomous migration.

In terms of the gender composition of networks (M4), knowing male migrants in Europe other than one's partner is positively associated with both forms of migration. On the other hand, having ties to migrant women appears to be especially important in independent migration, while it does not affect the likelihood to migrate in relation to one's partner. These results do not confirm Hondagneu-Sotelo's (1994) findings on the influential role of female networks[15].

The next four models examine whether prior migrants possessing a higher level of resources are more influential than the less-resourced in independent migration. This distinction is expected to be less important in partner-related migration given that the husband is taking in charge the wife's migration and living costs at destination. According to Model 4, however, this distinction seems relevant in both type of moves. Current migrants are the only ones that significantly affect chances to migrate autonomously or in connection to one's partner: having ties to returnees has no effect once controlling for current networks.

M5 brings some evidence of a differential role of the migration experience of network members in the two forms of female mobility. The odds of undertaking an autonomous move depend more on access to migrants that had been abroad longer (5 years or more) and less on recent connections. It may be that well-established migrants, who have a higher level of resources, are more likely to take on the responsibility of hosting a woman migrating alone. The level of experience of migrants is less relevant in partner-reunification migration.

[14] As verified by an interaction term in the pooled model and by carrying out t-tests on the coefficients ($p<0.05$)

[15] This relates to female migrants helping left-behind wives in Mexico overcome patriarchal constraints and convince their partners to bring them to the US (or to migrate against their will).

Table VI-3 Effects of migrant network variables on the odds of migrating independently or in relation to one's partner. Coefficients presented as Odds Ratios

Variable	Category	Independent	Partner-related	Significance level diff.
Model 2 : Type of relationship				
Type of links	Number close family members	2.34***	1.38**	**
	Number friends/ ext. family	1.36*	1.06	*
Model 3: Gender composition				
Gender	Number men abroad	1.56**	1.25*	n.s.
	Number women abroad	1.82***	1.07	**
Model 4: Return network				
	Number current migrants	1.63***	1.21**	n.s.
	Number returnees	1.36	0.72	n.s.
Model 5: Experience				
Experience of members	Number recent migrants	1.05	1.26*	n.s.
	Number experienced migrants	1.80***	1.32	n.s.
	Number long term migrants	1.64***	0.96	**
Model 6: Size of the current network				
Size	No current MN (ref)	ref	ref	
	One member	2.60***	1.33	n.s.
	Two or more	4.76***	2.10**	**
Model 7: Geographical concentration of members[a]				
	No MN in Europe	0.30*	0.62	
	Only one person Europe	1.07		
	Dispersed network (ref)	ref	ref	
	Concentrated network	2.8	2.01	
	All members in same country	2.66*	2.40*	
Person years		14016	1591	
N events		134	145	

[a]Given that the variable is not coded in the exact same way between the two models, t-tests couldn't be conducted to check whether the difference is significant

Furthermore, as M6 shows, having larger networks (two people or more) has a significantly larger effect than having ties to only one migrant in Europe in terms of likelihood to migrate independently of one's partner. Women's odds of reuniting with their partners are significantly increased when their networks are larger, but the two coefficients (for one-person networks and for larger networks) are not significantly different from one another.

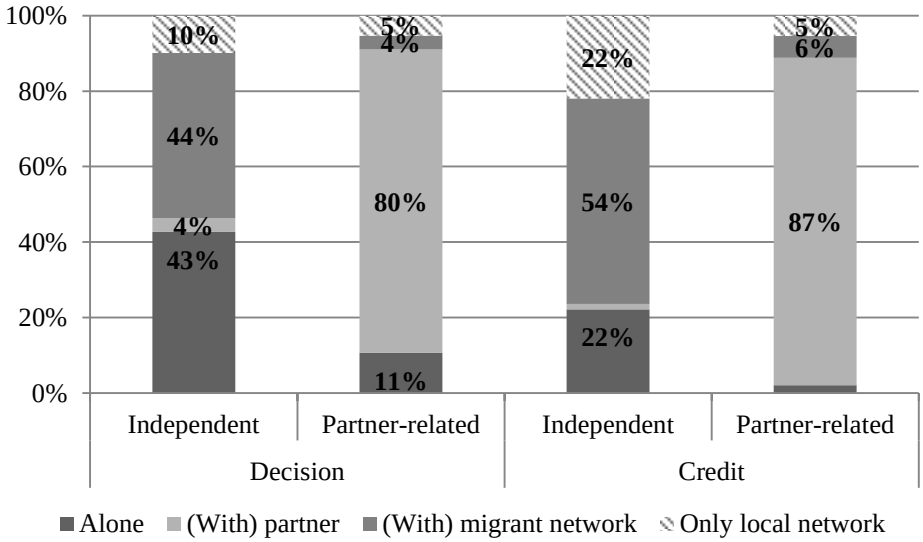
A final model (M7) tests the effects of the location of the network members, assuming that a higher concentration makes available a higher level of resources to the potential migrant. Odds of both types of migration increase when more than half or all of the

network members are in the same country compared to more dispersed networks (less than half of the members in the same country). Thus, geographical concentration plays a similar role for independent and partner-related migrants.

6.4.3 The roles of migrant networks in migration decision-making

Having kin or friends in Europe besides one's partner has been shown to increase the chances of both independent and partner-related migration, albeit to a smaller degree for the latter. This final section investigates the extent to which migrant networks serve two specific functions in these types of migration: influencing the decision to migrate and providing credit for doing so.

Figure VI-3 Role of migrant network in migration decision and credit



Legend: Only those who undertook a first migration to France, Italy or Spain *and* who knew someone abroad (other than their partner) the year of their migration are considered. The analysis is carried on 98 independent migrants and 95 partner-related migrants. Differences significant for both measures (decision & credit) at $p<0.01$

Based on the same questions described in the previous chapter, Figure VI-3 shows that migrant networks contribute to the decision-making process or the financing of the trip in a substantial share of independent migrations (44% and 54% respectively, among those who have a network). On the other hand, the migrant partner is involved in the decision and financing of their spouses' migration in most cases. Other migrant connections only rarely take part in these two aspects of the migration process, based on our sample. Yet, the multivariate analysis presented in Table VI-3 shows that male close relatives do increase women's likelihood of reuniting with their partner. More research

is needed on the channels through which their influence is exerted: whether, as found by Hondagneu-Sotelo in her Mexican case study, these relatives help convince husbands to reunite the couple in Europe or whether they work in other ways. Chapter 8 investigates the influence of these networks in women's economic participation at destination.

Thus, around half of "independent" migrations by women are decided and financed at least partially by someone in their migrant network. This share is significantly higher than in the case of men, where the network participated in about a quarter to a third of the cases (see Figure V-3, previous chapter). Figure C-1 in Appendix further examines, in those cases where the migrant network *was* involved[16], which type of ties are participating in the migration decision-making process of women moving independently of a partner. It compares these findings to the network's involvement in men's migration decision-making. Migrant siblings are the most likely to contribute to the migration decision of both independent men and women, followed by parents and extended kin or friends. However, women are more likely to decide their migration together with other migrant women than men are (31% compared to 11%). For both men and women, migrants intervening in their migration decision are most likely to be located in the same country where they migrate. However, long-term migrants – those settled abroad for over 10 years - take part in or decide of independent women's migration to a much larger extent than of men's. They are perhaps those who have accumulated the necessary level of resources for taking up the responsibility of helping a woman migrate by herself.

To sum up, migrant networks are involved *to a larger degree* in the decision and funding of women's independent migration than of men's. In particular, prior female migrants and longer-term migrants assume a greater role in women's autonomous mobility than in men's. On the other hand, migrant ties beside the partner play a very small role in the decision-making and financing of wives' reunification. The migrant partner is responsible for these two roles in the great majority of cases of this form of mobility.

[16] The results can only be very exploratory on this aspect, given the low number of cases in this category (44 female independent migrations and 64 for men in the decision of which the migrant network played a role)

6.5 Discussion and conclusions

Past work has paid only limited attention to the patterns of women's international mobility from Sub-Saharan Africa, as most quantitative research so far has focused on migration flows from Mexico and Latin America. Moreover, previous scholarship, with few exceptions, has not systematically investigated factors associated with women's independent and family reunification migration. This chapter tries to remedy this situation by investigating the patterns and selectivity of international female migrations from Senegal to Europe. The data did not support the first hypothesis, as no historical increase in autonomous female migration was observed over time. Given the rigid patriarchal system and the low level of female autonomy characterizing the Senegalese society, this is not too surprising. General conclusions about an unprecedented rise in autonomous female migration from Africa (Adepoju 2002) should be further contextualized, since the data show this to depend on the region of origin.

This chapter further analysed the influence of human and social capital in independent migration and in the process of spousal reunification. Table VI-4 summarizes the main results. Both the descriptive statistics and the multivariate analyses show women to be positively selected into migration with respect to education, regardless of the type of migration they undertake, confirming the second hypothesis. Education has a larger influence on the chances to migrate independently, and is the most important driver in this form of mobility. Several previous studies can be mobilized to explain this finding. As in Mexico, Senegalese women's educational attainment is much lower than men's and, given the gender discrimination in the labour market, it is probable that women with high education levels do not enjoy the same occupational rewards as men and have higher incentives to seek employment abroad (Kanaiaupuni 2000). Undoubtedly, acquiring education is also empowering women and shaping different aspirations. But the causality is not necessarily unidirectional. Educated women are likely to form a subgroup which is already selected on other unobservable characteristics, such as ambition and drive, which lead them to challenge gender norms that confine women to a domestic role (Feliciano 2008). The same selection may equally be at work in the process of family reunification, as educated wives might enjoy a larger negotiating power within the couple. They are also, in all probability, more likely to have educated spouses, for whom it may be easier to achieve the economic status legally required in family reunification schemes.

Table VI-4 Summary of main results.

		Independent	Partner-related
H2	Human capital (level of education)	++	+
H3	Close kin	++	+
	Friends/extended kin	+	0
H4	Males	+	+
	Females	++	0
H5	Experience abroad	++	0
	Current location	+	+
	Size	++	+
	Geographic concentration	+	+

"+" denotes a positive effect, "0" no effect. A double plus ("++") means that the effect of the variable is significantly (at least $p<0.05$) larger in independent than in partner-related migration

The main focus of this chapter is on examining to what extent and which forms of migrant social capital are influential in the two types of migrations, an issue that has so far been under-studied. Independent migrants were found to be more likely than both partner-related migrants and non-migrants to report having friends or family members other than one's spouse in Europe. However, the composition of their migrant networks did not differ from those of reunited wives in terms of gender or type of relationship. Thus, the two types of migrants differ in the level of their *access* to networks, but not in the *type* of networks accessed. It was only when comparing the composition of the network *at the chosen destination* that differences were revealed. In particular, independent migrants appeared more likely to follow their female migrant connections as well as their extended kin or friends.

Next, the chapter has examined the impact of women's networks and human capital on their migration likelihood, net of other factors. It uses a series of nested discrete-time event history models with two different specification of the risk set for the analysis of independent migration and of spousal reunification. The expectation that social ties to prior migrants have a larger influence on women migrating autonomously than on spousal reunification in Europe (*third hypothesis*) was confirmed. Perhaps surprisingly, and despite the central role of the husband in the migration decision-making and financing of the wife's trip, having other social connections in Europe seems to also increase women's chances to reunite with their husbands. However, not all ties are useful in this process: only close male relatives appear to be playing a significant role. In contrast, women's independent migration is both influenced by their ties to prior females and male migrants, albeit to a larger extent by the former. This chapter thereby

confirms the crucial role of female migrant networks in women's mobility, but confines it to autonomous moves. Furthermore, the large participation of prior migrant women in the migration decision, may suggest that (part of) their influence works through shaping women's aspirations to migrate.

While having a close kin abroad seems the most instrumental type of connection to Europe, friends and extended kin migrants are also useful for women seeking to move autonomously abroad. Female friendship networks have been found to help women migrate when their families were opposed to their project; the present data does not however allow investigating this further (Hondagneu-Sotelo 1994). Nevertheless, it can be said that independent migrants make a more extensive use of their networks to achieve migration than partner-related migrants. Yet, certain ties are also playing a role in wives' reunification migration. More research, especially of a qualitative nature, is needed to inform us on the paths through which these connections exert their influence. In chapter 8, one such potential mechanism will be explored: the role of networks in the economic integration of women at destination.

A final aspect considered was whether women migrating independently require networks with a larger amount of resources than wives joining their husbands. This last hypothesis was only partially validated. Indeed, it seems that migrants that have been established abroad longer are more strongly influencing chances to migrate for independent migrants and they also play the largest role in the decision-making and financing of their trip. But the other measures that were assumed to proxy the level of the networks' resources did not play differently in the two types of mobility. Having networks that are currently abroad, larger and more geographically concentrated seems to encourage both independent and partner-reunification migration.

Comparing autonomous female migration to male mobility reflects a significantly larger involvement of migrant networks in the moves of the former. Women are much less likely to decide their migration or finance it alone than men. Furthermore, their odds of migrating depend to a larger extent on the presence abroad of a close kin member. These findings emphasise the need to refine the degree of "autonomy" that is often implied in studies of independent female migration.

Overall, findings confirm the general hypothesis that human and migrant social capital play a larger role in independent female migration, while also being influential in spousal reunification. This is not altogether in line with the findings of Cerrutti and Massey (2001) with respect to Mexican women's migration. Some parallels may be

drawn, despite the fact that the analyses are not fully comparable: the study populations differ (Cerrutti and Massey include child migrations) and different methods are used (their analysis is not longitudinal). The authors find that social capital and education level play no role in wives' mobility, or even a negative one in what concerns the years of education, whereas family considerations play a larger one. They also find fewer differences between the two forms of mobility.

Several reasons may be responsible for these differences. First, while both countries are characterized by a patriarchal culture and high gender inequality, the more established nature and longer history of Mexican flows to the United States may have decreased some of the barriers that women are still facing in Senegal. Where female migration is still a marginal phenomenon, as in Senegal, and autonomous migration especially so, it is likely to be more selective in terms of human and social capital characteristics. Second, the presence of residentially-concentrated and large Mexican communities in the U.S. may give more guarantees to families in origin communities that the behaviour of their daughters will be socially monitored at destination. Furthermore, migration has long been shown to be more selective where larger distances are concerned which is the case with Senegalese migration to Europe compared to Mexico-US flows.

Lastly, Cerrutti and Massey do not disaggregate networks according to their gender composition. The crucial role of female networks in the autonomous migration of women documented in this chapter underlines the paramount importance of making such distinctions as well as of distinguishing different forms of mobility.

Chapter VII

The roles of migrant networks in the labour market trajectories of Senegalese men in Europe

This chapter examines the impact of migrant networks on the labour market trajectories of Senegalese men in Europe using data from the MAFE survey. The general assumption in the literature is that membership in co-ethnic networks enhances immigrants' employment opportunities and occupational attainment at destination by providing them with valuable information, contacts or even job referrals. Some studies have indeed found positive effects of ethnic networks on economic outcomes while others, however, have stressed the negative aspects of the reliance on such networks or the lack of influence of bonding social capital. Three research questions guide the analysis. First, how do migrant networks - kin and friends at destination – influence access to the labour market and the occupational mobility of recent migrants? Second, what kinds of networks are associated with better outcomes? Finally, how is the role of networks influenced by the destination context? The research design, following Senegalese immigrants in France, Italy and Spain, allows for investigating the influence of the context of reception in the functioning of migrant networks. Findings reveal a heterogenous picture, as effects depend on the context of destination, the time since arrival and the legal status of the migrant. Having close family members (other than the spouse or children) at destination enables legal migrants to engage in a longer job search. Both kin and friends increase chances of gaining access to semi or skilled employment and protect from the more precarious status of self-employment in France, but do not have the same effects in Italy or Spain, where the Senegalese community is more recent and less diverse in terms of socio-economic status.

7.1 Introduction

The influence of social networks in labour market processes has received considerable attention over the last few decades. A substantial amount of research has studied the role played by social capital in different individual economic outcomes such as securing access to the labour market, improving occupational status or increasing wages (Granovetter 1973; Lin et al. 1981; Lin 1999; Boxman et al. 1991; Burt 2002; Mouw 2003, 2006). Immigrants are believed to be especially reliant on social ties, given that they often lack other types of capital which may facilitate their economic integration, such as host-country language skills or qualifications (Portes and Sensenbrenner 1993). As the two authors argue: "few instances of economic action can be found that are more embedded" (1993: p.1320). Most empirical applications have considered immigrants (mainly Latinos) in the US (Portes and Jensen 1989; Aguilera 2002, 2003, Amuedo-Dorantes and Mundra 2008; Sanders and Nee 1996; Sanders et al. 2002), while only recently studies on this topic have started focusing on European countries such as Germany (Kalter and Kogan 2011; Kanas et al. 2011; Lancee 2012), the Netherlands (Lancee 2010) or the United Kingdom (Kahanec and Mendola 2007).

An important part of this literature has focused on the role of co-ethnic ties and communities in the economic incorporation of immigrants. It is generally assumed in the literature that prior immigrants pool together their resources to help their relatives and friends freshly arrived abroad, and that these ties increase the benefits of migration for the newcomers. Networks tying prior migrants to newcomers are argued to allow for rapid transmission of information about openings in workplaces and opportunities for business start-ups or to directly match immigrants to jobs. Whereas some studies have indeed found positive effects of ties to co-ethnics on various economic outcomes (Wilson and Portes 1980; Munshi 2001, Aguilera and Massey 2003), others, however, have found no effect or even negative impacts of the reliance on such networks (Menjivar 1995; Sanders et al. 2000; Kanas et al. 2009, 2011; Lancee 2010, 2012). That co-ethnic ties are always beneficial has been further challenged on theoretical grounds by work that emphasizes the costs in lost opportunities and good jobs that come with the maintenance of ethnic networks and identity (Reitz and Sklar 1997). Moreover, proponents of the "ethnic mobility entrapment" thesis (Wiley 1967; Li 1977; Li 2004) had long drawn attention to the fact that the ethnic economy may also act as a trap for immigrant workers.

Some of the contradictory findings in previous quantitative research may be due to the fact that most studies have been cross-sectional and use static measures of economic outcomes and ethnic networks. This chapter aims to contribute to the literature on the role of ethnic networks in migrants' economic incorporation at destination by using longitudinal retrospective data on a less studied group: Senegalese migrants in Europe. By focusing on co-ethnic ties established *before* the migration, this work is able to avoid general biases of reverse causality. The adoption of a diachronic perspective on migrants' labour market trajectories further allows disentangling short and longer-term effects of networks.

Another limitation of previous studies consists in their lack of comparative scope. The functioning of migrant networks has been said to be shaped by characteristics of the immigrant stream and by structural conditions in the host society (Grieco 1998, Massey and Espinosa 1997; Li 2004), but so far little research has considered how their influence varies across contexts. This work takes advantage of the multi-country research design of the data and compares the role of migrant networks across three destinations of Senegalese migrants, with different histories of migration and labour market structures: France, Italy and Spain. Furthermore, the disaggregation of migrant networks by type of relationship to ego, by gender and migration experience of prior migrants shows how the effects of social capital are contingent on the composition of social networks. Finally, important gender differences in the modes of migration and the economic integration of Senegalese migrants have led to analysing men and women in two different chapters; this chapter focuses exclusively on men. Nonetheless, the findings from both chapters will be analysed from a gender perspective and show how gender interacts with co-ethnic networks in shaping their effects.

The following section will briefly summarize the literature addressing the influence of co-ethnic networks on the economic well-being of immigrants, highlighting its often contradictory findings, and introduce the research questions. A third section will describe the data and the methods used. Results are presented in section four; their discussion and the chapter's conclusions are laid out in a final section.

7.2 Theory and hypotheses

Drawing on Putnam's (2000) distinction between *bridging* and *bonding* social capital, co-ethnic ties among migrants are often referred to in the literature as *bonding*. Essentially, bridging social capital refers to ties that link members of a given social

group with the wider society: immigrants' ties to natives are qualified as *bridging* capital. In contrast, *bonding* social capital is inward-looking in the sense that it links members of the social group with each other (Heath and Yu 2005): in this case with other members of the ethnic community. Previous studies have generally converged in their finding of a positive effect for bridging social capital on immigrants' labour market outcomes, such as labour force participation, occupational status and earnings (Aguilera 2002, 20054; Kanas et al. 2010, 2011; Lancee 2010, 2012). Inter-ethnic contacts offer a link out of the ethnic community opening up new sources of information as well as more diverse and valuable resources and job opportunities (Heath and Yu 2005).

The role of bonding social capital in migrants' economic integration is less clear-cut, as both positive and negative (or no) effects have been identified in the theoretical literature. This chapter focuses on a particular subset of migrants' bonding social capital: family and friendship ties at destination that *precede* their migration. As such, the analysis is limited in scope in that it does not capture the entire span of migrants' co-ethnic ties in the receiving country. Notwithstanding, it is likely that people with kin and friendship networks upon arrival at destination can more easily access wider "ethnic networks" (Elliott 2001; Mouw 2003; Lancee 2010). Furthermore, these are the ties that are expected to be influential in migrants' *initial* access to the receiving labour market, which is of particular interest in this chapter. Thus, a brief discussion of the contrasting perspectives on bonding social capital is also relevant for the purpose of this analysis. Several arguments have been developed in the literature, emphasizing either the usefulness or the limitations of ethnic attachment for immigrant and racial minorities (Li 2004).

7.2.1 The benefits of membership in ethnic networks

The idea that, upon arrival in the host country, immigrants draw on co-ethnic ties to gain access to knowledge, assistance and other resources that facilitate their economic incorporation in the host country is not new[1] (Portes and Sensenbrenner 1993). Several

[1] As a side note, this chapter starts by reviewing the arguments expecting a positive effect of bonding social capital, before turning to theoretical accounts that emphasize its downsides. Yet, it may be worth noting that the former approaches developed in reaction to the latter, challenging what was viewed as an ethnocentric and assimilationist view (Sanders 2002). A reverse trend is observed recently: after having imposed itself as the dominant approach, the "positive" view is currently challenged for over-romanticizing bonding social capital and ignoring its downsides.

theoretical arguments on the benefits of membership in ethnic networks have been advanced in the literature and are outlined below.

The closure argument. Compared to other social structures, ethnic networks have been described as more dense and characterized by a higher degree of closure and trust (see the review by Sanders 2002). According to Coleman (1988), networks with closure – in which elements are strongly interconnected – are the source of social capital because they provide more reliable communication channels and facilitate trust, thus making economic exchanges less risky. In a similar vein, but with arguments less focused on the structure of the networks, Portes and Sensenbrenner (1993) identify two sources or mechanisms of social capital. "Bounded solidarity" refers to a sense of in-group solidarity in reaction to real or perceived threats to the group. "Enforceable trust" refers to the capacity of the group to enforce norms and sanction deviant behaviour. Co-ethnic and migrant networks rely on these mechanisms, which guarantee a high level of trust and reduce free-riding behaviour, making them a valuable social resource for immigrants to make headway in the labour market.

The ethnic economy argument. Whereas the closure argument may be said to refer to the *willingness* of network members to share their resources, the ethnic economy argument refers to the *resources* they command. A long line of American research, dating back to the 1970s, showed how the expansion and urban concentration of immigrant populations has led to the creation of often thriving ethnic economies (Wilson and Portes 1980). These, it has been argued, facilitate the entry into the labour market for newcomers and may represent an alternative path for upward mobility, especially for immigrants lacking formal qualifications and having difficulty with the host country's language. Furthermore, the financial assistance of co-ethnics has been argued to be crucial for setting up ethnic businesses, both in the host country (Chan and Cheung 1985) or transcending national borders (Wong and Ng 1998). Waldinger (1994) has also documented how, through a mechanism of network recruitment benefiting both employers and (future) employees, immigrant groups get to dominate certain professions, creating veritable ethnic niches within the host country's labour market.

In his review, Sanders (2002: p: 348) concludes that: "research leaves little doubt as to the importance of social capital derived through ethnic networks in promoting economic action." The quantitative literature is also not short of studies stressing the economic returns to bonding social capital - in the form of co-ethnic networks in general or of migrant networks, more specifically - but has mostly focused on immigrants in the

United States. There is some evidence that for immigrants the main source of information on jobs is through relatives and friends, particularly those who belong to the same ethnic origin (Chavez 1992; Zhou 1992; Waldinger 2005; Pichler 1997; Elliott 2001; Elliott and Sims 2001; Fernandez and Castilla 2001; Garcia 2005). Munshi (2001, 2003) analyses the role of Mexican community networks in helping migrants obtain employment in the US, and finds that access to the labour market is positively correlated with the presence of migrant networks. Similar findings with respect to labour force participation are reported by Aguilera (2002, 2003) and Massey and Donato (1994) while other studies have found a positive impact of ethnic networks on earnings (Greenwell et al. 1997; Aguilera and Massey 2003; Amuedo-Dorantes and Mundra 2007; Donato and Massey 1993), occupational attainment (Munshi 2003) and job tenure (Datcher 1983; Aguilera 2003).

7.2.2 The "dark side" of bonding social capital

Evidence going in the opposite direction is also present in the literature and there are several theoretical reasons for expecting that connections with co-ethnics might actually be detrimental to the economic well-being of immigrants.

The isolation argument. An argument following the "classical hypothesis" of assimilation theory is that the maintenance of a strong ethnic identity and a sociability mostly oriented towards co-ethnics hinders the economic mobility of immigrants for at least two reasons (Reitz and Sklar 1997). First, it increases their distinctiveness from the mainstream society, which rewards conformity and homogeneity and often discriminates against difference. Second, maintaining ethnic exclusive social networks isolates them from natives who are better informed about employment opportunities and have a better knowledge about the labour market (Calzavara 1983). This concurs with Gordon's (1964) argument about "structural assimilation" as a correlate of economic assimilation. To the extent that host-country specific capital is more instrumental in the integration into the receiving labour market, ties to natives are by definition a useful asset while maintaining an exclusive ethnic sociability may hinder their acquisition[2]. Thus, the "ethnic attachment thesis" (Li 2004) stresses the costs in terms of "lost

[2] Surprisingly, there hasn't been much research so far directly testing this hypothesis. A recent study by Nannestad et al. (2008) contradicts this hypothesis and shows that, among non-Western immigrants in Denmark bonding social capital does not impede the establishment of bridging social capital.

opportunities for good jobs and high earnings" (Reitz and Sklar 1997: p.234). From a more structural perspective, Granovetter (1973) and Burt (2001, 2002) similarly argue that strong bonds and dense networks lead to segregation and fragmentation at the societal level, while "structural holes" and weak bridging ties are most instrumental in the economic advancement of individuals.

The "ethnic mobility entrapment" thesis: first postulated by Wiley (1967), it equally states that ethnic members who become "embedded in a firm network of ethnic relations" (Wiley 1967: p.10) may enjoy a sheltered and comfortable adjustment to the host society but are cut in the long run from employment information and better opportunities that the mainstream can offer. They become trapped in the limitations of ethnic communities, which hinder their economic and social mobility. Furthermore, enclave economies not only generate wealth but also internal stratifications (Sanders 2002). Sanders and Nee (1987) find that immigrants working in the enclave economy are to some extent exploited by their co-ethnic employers, as they tend to work longer hours for lower wages. At the same time, obligations of loyalty make them reluctant to leave their jobs and thus trap them inside the ethnic sector (Li 1977[3]). Therefore, while the ethnic economy is profitable to employers, it might actually not be serving the interests of the workers (Portes and Jensen 1992).

Portes (1998) identifies other downsides of social capital potentially constraining the individuals' economic success. Strong norms of solidarity within tight ethnic networks may impose substantial pressures on more successful individuals to support family and community members (Chort et al. 2012). This may encourage some forms of free-riding behaviour. Furthermore, ethnic communities also impose common norms and sanctions on those who deviate from them, thus generating a conformity which may be economically counterproductive (Fokkema and de Haas 2011).

Several quantitative studies point to a negative effect of bonding social capital on occupational attainment: Sanders et al. (2002) and Kalter and Kogan (2011) show that co-ethnic ties only lead to low prestige jobs and are unhelpful in finding jobs of medium or higher occupational prestige; similar findings are reported for Hispanics and Blacks in the US (Green et al. 1999) while Elliott finds that ethnic ties lead to more ethnically

[3] For example, Li (1977) shows that while co-ethnic social connections helped Chinese in Chicago find jobs in the ethnic businesses sector, these connections equally imposed expectations of loyalty that compelled them to remain in low paying jobs out of obligation to their employers.

homogenous jobs for Blacks in U.S. cities. Finally, co-ethnic networks are found to lower wages for immigrants in Canada (Kazemipur 2006) or the US (Chiswick and Miller 2005) and to lead to self-employment (Sanders and Nee 1996). Others find no effect of co-ethnic ties on either the likelihood of employment or occupational status for immigrants in Germany (Drever and Hoffmeister 2008; Kanas et al. 2011) or the Netherlands (Lancee 2010; Kanas, van Tubergen and van der Lippe 2009).

A more nuanced result is Amuedo-Dorantes and Mundra's (2005) finding that the presence of a family member in the US slightly *reduces* immigrants' employment likelihood. They interpret this as evidence of a temporary shelter that strong ties provide, allowing the newcomer to search longer for a better employment opportunity. If this is the case, then this effect should only be observed for recent migrants, and disappear as their length of stay increases but the authors do not test for this possibility. In light of Portes' (1998) argument of the excessive claims of members, their finding could also be taken as evidence of a free-riding behaviour, whereby members abuse of obligations of solidarity inherent in co-ethnic ties for longer than they should. While qualitative research has found that migrants are sometimes lodged by relatives free of charge while they search for a job, it also stressed that this relationship was not without tensions and conflicts often appear (Collyer 2005; Van Nieuwenhuyze 2009).

Qualitative studies have further questioned the assumption that co-ethnic networks are invariably sources of financial, material or emotional assistance and point to the negative consequences of migrant social capital and the reliance on immigrant networks. As Menjivar (1995) shows in her comparative work on Salvadoran, Vietnamese and Mexican immigrants in California, while kinship-based networks ease the initial stage of migration, in many cases these social relations become conflictive and even break down at destination. Within the Salvadoran immigrant community, long term residents do not always assist newcomers – whom they have helped reach the US – and may, instead, cheat and lie to them in an attempt to make economic profit out of them. Her findings are corroborated by Hondagneu-Sotelo's study of networks among Mexican domestic workers in the Bay area, which finds that newcomers are often exploited by their more seasoned counterparts[4] (Hondagneu-Sotelo 1994). Similar

[4] Menjivar's and Hondagneu-Sotelo's examples point to another negative consequence of social capital, beyond those enumerated by Portes, and which could be said to be the opposite of free-riding. In this case, the members in a position of power exploit the weakness of the newcomers. This mechanism is not

findings are reported by Mahler (1995, 1999) in her study of Salvadoran neighbourhoods in Long Island. Furthermore, in its comparison of international migrants originating from Turkey, Morocco, Egypt, Ghana and Senegal, the *Push-Pull* project finds that there is a gap between the help migrants expected from their networks in the destination country and what they actually receive, a gap which is greatest for Senegalese migrants living in Spain (Schoorl et al. 2000).

Overall, research on the role of co-ethnic ties in immigrants' labour market outcomes draws mixed conclusions. Some argue that ethnic ties are a valuable resource as they are characterized by mutual trust and facilitate a quick entry into a sheltered ethnic economy[5]; others emphasize its negative side, that of trapping workers in worse and sometimes exploitative employment conditions and of isolating them from the mainstream opportunities. This section turns to a brief exploration of some of the methodological and theoretical reasons responsible for the apparently conflicting findings in the literature.

7.2.3 Measuring the influence of networks on economic outcomes

A first empirical reason behind the contrasting quantitative findings is that the definitions and measures of co-ethnic networks vary greatly between the different studies. Indirect measures such as the linguistic concentration (Chiswick and Miller 1996) or the proportion of individuals from the same origin community living in the vicinity (Munshi 2001) can only assume or infer social relationships between immigrants in or from the same community. These area-based measures could however be tapping into other, structural, factors such as local labour market conditions. Furthermore, findings from studies using *access* (i.e. number of social ties, see Aguilera and Massey 2003) or *use* measures of social capital (i.e. whether the job was found through social ties, see Datcher 1983) are not always going in the same direction. This chapter uses measures of access to social capital, which has the advantage of also capturing broader and more indirect influences of co-ethnic ties on labour market outcomes, as previously discussed in chapter 2.

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levelling, unlike the free-riding one, and leads instead to an increasing inequality within the immigrant community

[5] Or even, according to Waldinger (1994), in an ethnic niche within the larger economy

A second reason, which is both methodological and theoretical, lies in the lack of a dynamic perspective on both economic integration and co-ethnic networks. First, the use of cross-sectional data makes it difficult to infer the causal effect of co-ethnic ties from an observed positive correlation between immigrants' social contacts and their economic outcomes. The reverse causality is equally possible: larger networks may also be a consequence of higher occupational status or income, since people with more resources may have more opportunities to meet and interact with others (Lin 2000). With respect to co-ethnic ties in particular, more economically successful immigrants may actively help and finance the trip of other kin or friends from their origin communities and thus expand their ethnic networks (Paul forthcoming). The positive results obtained by Aguilera and Massey (2003) between co-ethnic ties and wages may thus be affected by such a bias, since they do not distinguish in their measure of ties between those kin or friends who arrived before and after the respondent. An innovative means of correcting for the endogeneity of community networks is provided by Munshi (2003), who uses rainfall in Mexico as an instrumental variable[6]. The analyses presented in this chapter as well as in the next avoid the reverse causality bias by focusing only on pre-migration ties.

Second, despite the acknowledgement of the dynamic nature of economic assimilation processes, most studies focusing on its social determinants have used cross-sectional measures of labour market outcomes. However, several researchers have argued that the influence of ethnic networks may not be the same as the duration of settlement increases (Hagan 1998). It is reasonable to expect that kin and friendship ethnic networks have a larger influence upon arrival at destination than later on in the migration spell. While there have been several studies of immigrant occupational mobility or earnings from a longitudinal perspective (Chiswick 1978; Chiswick et al. 2004; Borjas 1989), there has been little research on the influence of ethnic networks on these dynamics. A recent exception is research by Stanek and Veira (2009) who analyse occupational mobility of migrants in Spain. Though not the focus of their paper, they find that networks – which they measure, rather crudely, as the "participation of social network members in obtaining their first job in Spain" – increase chances of downward mobility for migrants. This chapter adopts a longitudinal perspective on migrants' labour market

[6] The rainfall size in the origin community is strongly and negatively correlated with migration to the U.S. but is uncorrelated with employment shocks in the U.S.

trajectories and aims to examine both short and longer-term effects of pre-established ethnic ties.

7.2.4 Differential effects of social capital

Finally, the somewhat contradictory findings in the literature should also be read in light of the fact that membership in co-ethnic networks does not have a uniform effect across contexts, groups of people, and the nature of the ties linking them. Or, to use Portes' (1998) framework discussed in chapter 2[7], the effects of social capital are contingent on the attributes of beneficiaries (those making claims), the sources of social capital (those agreeing to the demands) and the assets that these sources can command. The last dimension is further influenced by the resources of the broad immigrant group and the destination context. According to Li (2004), the literature has not paid sufficient attention to nor undertaken a systematic analysis of the ways in which these dimensions shape the roles of co-ethnic networks.

7.2.4.1 Attributes of the beneficiaries

It has already been pointed out that the ethnic economy appears to profit business owners more than immigrant workers (Sanders and Nee 1987; Portes and Jensen 1992; Aguilera 2008). Also, as will be discussed in more detail in the next chapter, research has recently started investigating the extent to which co-ethnic networks have different influences over men's and women's labour market integration at destination. Some findings point to immigrant women enjoying lower economic returns from their social ties than men (Zhou and Logan 1989; Livingston 2006; Sanders et al. 2002).

Furthermore, researchers have argued that those lacking other forms of capital - formal qualifications, host-country language skills, legal status – are more dependent on co-ethnic ties, which will therefore be more influential in their labour market integration. According to Aguilera and Massey (2003), since undocumented migrants cannot search openly and widely for jobs and are limited in their geographic mobility, they have a much weaker bargaining position than documented ones. Owing to their precarious status, networks are thus expected to have a more substantial effect on undocumented

[7] The discussion in chapter 2 focused mostly on how the three dimensions distinguished by Portes shape migration propensity. Here, I will refer mainly to their role in influencing migrants' labour market outcomes at destination.

migrants (2003: p. 690). However, empirical findings have been mixed, with Aguilera and Massey (2003) confirming this hypothesis but Amuedo-Dorantes and Mundra (2007) finding a larger effect of family ties on the wages of legal migrants[8]. Finally, empirical evidence that ethnic networks are especially useful for immigrants lacking formal qualifications and language proficiency has so far been relatively scarce[9] (Munshi 2003; Lancee 2010; Kanas 2009).

7.2.4.2 Nature of their ties to sources

There is a general consensus in the literature that the benefits of networks depend on the sources of social capital, more precisely on the nature of the relationship between the sources and the recipients. However, researchers studying labour market networks disagree on whether strong ties or weak ties are more useful in job mobility. The argument in favour of the former is that they are more reliable sources of information and more motivated to help, especially in a context of scarce resources (Lin et al. 1981), while the latter are said to offer a broader scope and less redundant information (Granovetter 1973).

Within the migration field, the distinction between bonding and bridging social capital only partially overlaps with that between strong and weak ties. As Burt (2002) argues, a bridge over a structural hole can be either a strong or a weak tie. Similarly, ties to co-ethnics can be strong or weak[10]. Recent work has investigated whether there are differences in the roles of close family members, co-ethnic friends and acquaintances. Studying various immigrant groups in the US, Waldinger (1994, 2003) has argued that given their scarcity of information on jobs and the responsibility involved with referrals, this was only exchanged among close family members. Focusing on Filipino domestic workers in several destinations, Paul (forthcoming) arrives at similar conclusions: the closer the bond, the higher the level of assistance provided. Using the data from the Mexican Migration Project, Aguilera (2008) showed that Mexican owned firms provide preferential treatment to friends and family, but such a treatment is not extended to

[8] Both studies investigate Mexican migration to the United States.
[9] Lancee (2010) and Kanas et al. (2011) find no significant interaction between social and human capital on migrants' labour market outcomes.
[10] As mentioned before, quantitative research on immigrants is limited in this respect since most surveys do not include measures of the intensity of the relationship nor of the frequency of contact.

other co-nationals; he concludes that ties characterized by a higher level of obligation provide better employment opportunities.

On the other hand, Kalter and Kogan (2011) find that Ethnic German and Jewish Quota Refugees in Germany are more likely to have found their first job through weaker ties with acquaintances than through stronger ties to relatives. Similarly, Aguilera and Massey (2003) found that weaker ties – between distant relatives and friends – are more influential than close family members for undocumented Mexican migrants in accessing formal employment and obtaining higher wages in the United States. Yet others find no significant different between the two type of ties (Amuedo-Dorantes and Mundra 2005; Garcia 2005).

Less considered in the literature are indirect mechanisms through which ties can affect labour market outcomes and the fact that strong and weak ties may also serve different roles. Close family ties are more likely than extended kin or friends to provide newcomers with a place to stay and take them in charge until they find a job, which could allow migrants a longer search period for a potentially better job. Amuedo-Dorantes and Mundra (2005) found evidence of such a "temporary shelter" effect of networks, but did not distinguish between the type of ties nor by time since arrival.

7.2.4.3 Resources that networks can command

Finally, as Li (2004) convincingly argues, the effectiveness of social capital depends on the resources it taps into, more specifically the class-based resources and advantages of the networks: "Social capital cannot replace other forms of capital to produce unrealistic outcomes beyond the material limits of its contextual boundaries" (2004: 146). However, studies rarely have direct measures of the resources embedded in the networks[11]. As mentioned before, the size of the network and the migration experience of its members are used as proxies for the level of resources. Munshi (2003) argues that migrants who have been abroad longer are more likely to be employed and have presumably risen in the occupational hierarchy, making them better able to provide valuable employment information and referrals. His findings support these hypotheses,

[11] Such as the educational level or occupational status of network members.

as increases in the size of networks and especially in the share of long-term[12] migrants increase the likelihood of employment.

7.2.4.4 The immigrant community and the destination context

The resourcefulness of the migrant network may be shaped, in turn, by other context-based features of the broader immigrant community, such as its size, history of migration at destination and political context of reception, as well as its geographical concentration. These aspects have already been discussed in section 2.5.4 in chapter 2. The findings of Menjivar's (1995) comparative study of Salvadoran, Vietnamese and Mexicans in the US could be briefly reminded. She explains the breakdown of social networks upon arrival in the US among the Salvadorans by the intersection of three interrelated forces: the state's reception of migrants, local labour market opportunities and the receiving community. Unlike Mexicans, Salvadorans cannot count on a resourceful and well-established co-ethnic community in the US; on the other hand, they cannot count on state support and the social benefits that the Vietnamese political refugees may claim. This lack of both resources and support from the state affects the viability of co-ethnic networks among the Salvadorans, leading to more frequent instances of tension, conflict and exploitation than in the other communities.

Thus, the more resources an immigrant community has at its disposal – in other terms, the higher the class positions of its members – the greater should be the level of social capital stemming from it. Conclusions on the lesser value of bonding social capital for economic outcomes have often been drawn from the perspective of a resource-poor group, such as the Turkish or the Moroccans in Germany and the Netherlands (Lancee 2010; Kanas et al. 2011). This chapter will compare the effects of migrant networks in an "older" destination country, such as France, where the Senegalese community is more established and diversified, with those in "newer" immigration countries such as Italy and Spain.

7.2.5 Research questions and hypotheses

Most of the literature on the economic returns to bonding social capital has focused on immigrants (mainly from Latin America) in the United States, with some recent

[12] Long-term migrants are, in his analysis, migrants having spent over three years at destination.

exceptions considering migrants in the Netherlands, the United Kingdom and Germany. African migrants have not figured very prominently in this research, nor have more recent countries of immigration, such as the South European countries. The general question asked in this chapter is to what extent a specific form of bonding social capital - pre-migration ties – affects the labour market outcomes of Senegalese migrants in France, Italy and Spain. Two main outcomes are analysed: access to the labour market and occupational status. Based on the reviewed literature and the specific context of Senegalese migration to the three European countries, some specific questions and hypotheses are formulated below.

1. What is the influence of pre-migration ties on the likelihood to work upon arrival?

Previous research provides conflicting arguments and evidence with respect to the role of bonding social capital in *access* to the labour market upon arrival. On the one hand, co-ethnic ties should enable a quicker access to the labour market (the "facilitating" or "information hypothesis" - H1); on the other, co-ethnic ties may provide the newcomer a temporary shelter and thus allow him a longer job-search period (H2). However, most studies have not used longitudinal data and have not measured employment likelihood upon arrival. If networks ensure such a function of temporary shelter, we should expect a negative effect to *only* be observed at the beginning of the migration spell (H2a), and such an effect to especially concern pre-established close family ties (H2b).

2. Do pre-migration ties affect the likelihood to work later on in the migration spell?

As the period of settlement increases, migrants form ties to other co-ethnics and with natives, and the effect of pre-migration ties should be lower than upon arrival, but there is no reason to expect these ties to negatively affect labour force participation at this stage. Having been present at destination longer, pre-migration contacts may still be a valuable source of information and assistance with finding work, and should thus positively impact employment likelihood at the time of the survey (H3).

3. To what extent do pre-migration ties affect occupational status?

The second outcome of interest is migrants' occupational attainment over the migration spell. Previous research has reached conflicting conclusions, some pointing to a positive role of co-ethnic or migrant networks on earnings and occupational attainment, while others find bonding social capital to lead to lower quality jobs. However, previous work has also stressed the importance of the resources of the immigrant community as well as

the influence of the host country's labour market structure and policies in shaping the role of migrant networks. Chapter four identified differences in the level of resources and modes of economic incorporation of the Senegalese community between the three destination countries. In France, the Senegalese community is more educated and heterogeneous in occupational attainment - due to a longer history of migration but also to a sustained inflow of student migration - and thus presumably more resourceful than in Italy and Spain. In the latter two destinations, Senegalese men have developed a veritable ethnic niche in the street-selling business. Thus, it is expected that the influence of networks on the occupational status will depend on the context of destination (H4). Migrant networks may turn out more helpful for reaching skilled occupations in France (H4a), whereas they may be more likely to lead to self-employed commercial activities in Italy and Spain (H4b).

4. To what extent does the role of pre-migration networks vary according to the attributes of beneficiaries, their ties to providers and the level of resources embedded in these networks?

Several differential effects of networks are suggested in the literature and will be tested in this chapter. First, migrant networks have been argued to have a larger impact on the labour market outcomes of unauthorized than authorized migrants, though findings have not consistently supported this hypothesis (H5). Second, given the gender-based segregation of the labour market sectors in which immigrants are often incorporated at destination, prior male migrants are expected to be more influential in Senegalese men's employment outcomes (H6). Third, migrants who have been abroad longer are assumed to have more resources and thus play a larger role in newcomers' labour market integration (H7).

7.3 Data and methods

7.3.1 The study population

First of all, given the substantial gender differences in Senegalese migrants' economic incorporation at destination but also the different mechanisms through which networks are expected to play in men's and women's labour market integration, they are treated in separate chapters. Here, the focus is on Senegalese men's labour market outcomes. Second, the analysis only includes individuals who have migrated at least once to Italy,

France or Spain[13] while they were between 18 and 65 years old. Only the first migration spells in one of these countries are taken into account. French, Italian and Spanish migration spells of migrants who returned to Senegal and were interviewed there are however included. This allows to partially correct for the usual bias of selective return that affects most studies on the economic outcomes of immigrants, as discussed in chapter 3. Furthermore, migration spells lasting only one year have been excluded as these might only be for transit purposes and migrants may not necessarily try to integrate in the labour market at destination.

7.3.2 Operationalization of variables

Both dependent and independent variables have been described in chapter 3. Further details specific to the analyses in this chapter will be given here.

7.3.2.1 Dependent variables

Access to the labour market. A first aspect of economic integration is migrants' access to the destination labour market. A dummy variable distinguishes whether the respondent is working (1) or not (0). Students are excluded[14] from the "not working" category[15]. To avoid the sometimes arbitrary border between other forms of inactivity and unemployment, which is especially problematic in the case of irregular immigrants who cannot formally register with the national employment agencies, the two categories are not distinguished. However, there are very few cases of inactivity among Senegalese men abroad, and results are robust to their exclusion. The paper studies the labour market access at two points in time: the first year of their migration and at the time of the survey. For those who were no longer at destination at the time of the survey because of having returned to Senegal or migrated elsewhere[16], the last year of their

[13] Migration spells to other destinations were excluded since, due to the research design, the MAFE sample does not include current migrants in other countries.
[14] The retired are de facto excluded by the age boundaries, since only migrants younger than 65 are considered.
[15] This is different from Kalter and Kogan's (2011) analysis: they include students in the reference category which probably contributes to explaining the longer entry on the labour market of immigrants from the former Soviet Union to Germany than of the Senegalese .
[16] In another country of the survey, i.e. to France, Italy or Spain. Migrants who moved to another destination altogether are not captured. Those interviewed elsewhere than the country of their first migration represent 13% of the final sample

migration spell is considered. Given the binary nature of the dependent variable, logistic regression methods[17] are used.

Occupational status. This chapter investigates the influence of pre-migration ties on the type of jobs held by the migrants. A categorical variable[18] is created which incorporates both the level of occupational attainment and the employment situation. As previously discussed, it is important to distinguish the case of self-employed activities when studying Senegalese migration to Europe, given the large number of migrants engaging in such activities and the precarious[19] nature of this type of work (see van Nieuwenhuyze 2009; Riccio 2001). Three categories are distinguished: 1) skilled and semi-skilled wage earners or managers[20], 2) unskilled workers, and 3) the self-employed[21]. The chapter analyses both the first occupational status and the last occupational transition at destination. In examining the latter, the analysis has to take into account the fact that a large share of migrants had not changed their job (53% of migrants) by the time of the survey. The last dependent variable, measured at the time of the survey (or the last year for those having left) distinguishes three cases: those who have not changed their first job, those who moved into a semi-skilled or skilled job, and those who moved into an unskilled or self-employed occupation. It thus introduces a measure of the extent of occupational mobility migrants experienced abroad[22]. In analysing both outcomes – first occupational status and last occupational transition - multinomial logistic regression models are estimated, given the categorical nature of the dependent variables.

The limits of the MAFE data were discussed in detail in chapter 3. It will only be reminded here that the data was collected on an annual basis, which may mask a great

[17] Given the low variance in terms of access to the labour market upon arrival (around 85% of individuals find a job in the first year), event history methods estimating time until the first job could not be applied.
[18] The ways of constructing the categorical variables have been described in the data and methods chapter; two different operationalizations of the variable are tested, giving very similar results.
[19] Lack of legal status and of any income security has been argued by previous qualitative studies to characterize this type of work, aspects which are also confirmed in MAFE data.
[20] Due to the relatively low number of Senegalese occupying high skilled positions, this category regroups both managing and liberal professions (doctors, lawyers, engineers) and semi-skilled wage-earners (technicians, administrative clerks and skilled workers
[21] The self-employed category is almost exclusively formed of street-vendors and other types of small-scale commercial activities
[22] Given the low sample size and the fact that a large share of the migrants are still in their first job, it was not possible to analyse separately and in more detail the occupational mobility of those who did change their job. Such an analysis is however planned once the entire MAFE dataset (including the Congo and Ghana) becomes available.

deal of job mobility and unemployment and lead to under-reporting of short spells of activity. Whether the migrant found a job after one or after 10 months since arrival makes for an important difference which this paper is not able to study. However, what the survey lacks in detail it compensates in scope, as the data give the possibility to reconstruct the labour market trajectories of migrants over the span of the migration episode. Whereas most previous studies are cross-sectional in nature, this chapter is able to investigate the role of networks at several moments of migrants' economic integration process.

7.3.2.2 Independent variables

Pre-migration ties. The migrant networks variables are constructed in a similar way as in the preceding chapters. The difference in this chapter is that the measures capture only ties located in the *same country* where the respondent migrates and who have been in the respective country *for at least a year* when he or she arrives. By focusing on ties formed *prior* to migration, this analysis avoids the common problem of reverse causality, which affects most previous studies on this topic. Three aspects of the composition of these pre-established migrant networks are taken into account: the type of relationships (close family ties vs. extended kin and friends), the gender of the tie and the level of migration experience (recent vs. longer-term migrants). Given the lower sizes of migrant networks at destination, dummy variables are used instead of continuous measures.

A limit[23] of this measure that should be reminded here is that it only partly captures respondents' co-ethnic networks at destination, since migrants establish new ties over their migration period. However, since one often meets co-ethnic members through previous connections, this variable might be capturing some of the effect of the rest of the network as well. Furthermore, there is no possibility of knowing whether the respondent lives in the same city or community at destination as his pre-migration ties.

The models also control for several time-varying contextual and individual characteristics which have been shown to shape economic outcomes. The construction of the variables has been described in chapter 3 and their expected effects are discussed below.

[23] Furthermore, as discussed in chapter 3, the problem of non-random selection into friendship networks cannot be adequately tackled here.

Educational level. The more educated, as measured at the time of arrival, are expected to fare better in the labour market. However, previous studies on African migrants in Europe suggest that "brain waste" is prevalent among this population and that higher qualifications, especially those received in developing countries, do not prevent unemployment and under-employment (Rakotonarivo and Vause 2010; Reynieri 1998, 2004).

Language ability. Those who self-declare they can speak the host-country language upon arrival with no major difficulties are distinguished from the rest in a binary variable. Language proficiency should facilitate economic integration.

Age. The respondent's age is introduced as a continuous time-varying variable.

Legal status. The lack of a residence permit has been shown to negatively impact the type of job and the earnings migrants obtain at destination, but not necessarily their access to the labour market (Aguilera and Massey 2003; van Nieuwenhuyze 2009). On the contrary, documented migrants may wait longer to find a job, as they can target better jobs and are entitled to social benefits (Reynieri 2004). A dummy variable distinguishes those who can legally reside on the territory from those with no documents or only a short-term visa.

Religion. Qualitative work on Senegalese migration has emphasized the important role played by Murid transnational networks in facilitating the mobility and the economic integration of its members (especially in commercial activities). The models include a binary variable for membership in the Murid brotherhood.

Family situation. Several variables describe respondents' family situation: two binary variables measure whether the migrant is currently in a union or not , and whether he has children under 6 or not. In models estimated for outcomes at the time of the survey, a categorical variable distinguishes whether the respondent is single, has a partner located elsewhere or has a partner currently living in the same country. The latter are expected to enjoy better employment opportunities than those whose partners are elsewhere[24] (mostly left behind in Senegal).

Period of arrival. The economic and political context at destination is important for migrants' economic integration but this chapter does not focus on this. In an attempt to

[24] The direction of causality is however more likely to run in the reverse way, as achieving a stable material situation increases the chances of bringing one's spouse in Europe (see Baizan et al. 2011)

control for the decade-specific conditions encountered at destination, a categorical variable distinguishes migrations before 1990, during the 1990s and after 2000.

Country of destination. The ways in which the mode of economic incorporation of migrants varies across the three destinations of interest has been discussed in chapter 4. Senegalese migrants are expected to find a job quicker in Italy and Spain, which have a less protected labour market and a larger underground economy than France, but they are also expected to find lower quality jobs. In Italy, Senegalese migrants are more likely to enter self-employed commercial activities such as street-peddling.

Duration since arrival. The assimilation hypothesis argues that migrants' employment prospects improve with time spent at destination (Chiswick 1977), as migrants accumulate a set of skills useful in the labour market. A continuous variable measuring the time since arrival is included in most models, as well as a squared term to capture nonlinearity in the relationship.

7.3.3 Descriptive statistics

In Table VII-1, the distributions of the included independent variables are presented, split by country. Chi-square and t-tests are performed to see whether the differences between the three destinations are significant, which is the case for most variables (presented in the last column). The total analysis sample is of 369 individuals (and migration spells). In terms of access to migrant networks at destination, there seems to be no significant difference between migrants interviewed in France, Italy or Spain: between 40 and 50% of Senegalese migrants knew at least someone previously established in the country upon arrival[25]. However, the size of their migrant networks varies, with migrants in France having the largest number of pre-migration ties on average and those in Spain the smallest, reflecting the longer history of Senegalese migration to France. One in five migrants has a close family member already present at destination, and a larger share have other friends and extended kin. Italy stands out in that Senegalese choosing this destination were more likely to follow extended ties[26].

Most Senegalese migrants report pre-migration ties with other men and few migrants in Italy and Spain report having female connections at destination. In France, however, a

[25] The share of migrants with pre-migration ties grows in recent years, as Senegalese networks grow.
[26] This is not without similarity to Algerians' branching out to the United Kingdom where they followed weaker ties despite having stronger links to France, their traditional destination (Collyer 2005).

sizable minority (17%) has access to female networks, a likely consequence of the older and more feminized nature of flows to this destination. A larger share of migrants report having family or friends who had been at destination for five years or more (35% on average) than more recently established ties (25% on average). This is especially the case for France, where respondents declaring access to longer-term migrants are twice as numerous, but the country differences are not significant.

As discussed previously, the case of men following their spouses abroad is so far extremely rare (there are only six cases in the sample). The numbers were therefore too small to consider this type of tie apart, and spouses were excluded[27] from all the above variables, as were the equally few cases of men following their children abroad. Thus, "close family members" refers to parents or siblings.

Table VII-1 also presents the distribution of the control variables. Although the previous chapters showed that Senegalese migrants are more educated than non-migrants, the Senegalese population interviewed in Europe is overall characterized by low educational levels in comparison to natives or other migrant groups (Reynieri 2004). A third of the migrants have no degree, and this percentage is especially high in Spain (47%), while only around 9% of the migrants have some tertiary level education upon arrival at destination (11% in France but only 2% in Spain). Overall, the Senegalese whose first longer-term migration was in France or Italy are more educated than those who migrated to Spain. Around a third of respondents in Italy and Spain declare being able to speak the host country's language upon arrival, while a large share of the respondents do so in France, which is to be expected given that French is the official language of the educational system in Senegal. The MAFE data confirm qualitative studies reporting a large presence of the Murid brotherhood in Italy: around two thirds of the surveyed male migrants in Italy belong to the brotherhood compared to only around a third in France or Spain[28].

[27] Furthermore, excluding these "reunited" men from the multivariate analyses does not change the results.

[28] In the latter two destinations, a third of the migrants belong to the Tidjane brotherhoods and another third to smaller Muslim brotherhoods. Only about 5% in each destination are Christians.

Table VII-1 Descriptive statistics for independent variables by country of destination, men

	France	Italy	Spain	Total	Sign. diff.
Pre-migration ties					
Has pre-established ties at dest	44%	50%	39%	45%	n.s.
Range	0-9	0-6	0-3	0-9	
Mean	1.99	1.63	1.24	1.69	Spain sign
SD	1.52	1.05	0.43	1.20	diff **
Type of networks					
Relationship to ego					
Has close family members	20%	19%	18%	19%	n.s.
Has extended kin / friends	29%	39%	21%	30%	**
Gender					
Has men	37%	50%	35%	41%	*
Has women	16%	4%	4%	8%	**
Experience abroad					
Has recent migrants (<5 years)	23%	31%	23%	26%	n.s.
Has experienced migrants (>5 years)	41%	36%	29%	35%	n.s.
Controls					
Educational level					
No qualification at arrival	21%	19%	48%	30%	***
Primary level at arrival	23%	27%	23%	24%	
Secondary level at arrival	44%	39%	27%	36%	
Tertiary level at arrival	11%	14%	3%	9%	
Speaks host-country language	87%	37%	28%	52%	***
Murid	26%	64%	31%	41%	***
Period of arrival					
Arrived before 1990	50%	19%	8%	24%	***
1990s	29%	37%	20%	29%	
2000s	22%	43%	72%	47%	
Mean age at arrival	26.8	27.2	27.7	27.1	n.s.
Mean duration of episode	13.9	11.6	7.5	11.5	**
SD	11.2	6.6	5.3	9.0	
Legal status at arrival					
No documents at arrival	9%	36%	43%	31%	***
Visa only	28%	43%	36%	36%	
Documents or no need	63%	21%	21%	33%	
Family status at time of survey					
Single	30%	15%	27%	24%	***
Partner elsewhere	37%	67%	57%	54%	
Partner at destination	33%	18%	17%	22%	
N (un-weighted)	152	123	94	369	

* p<0.10, ** p<0.05, *** p<0.01. Weighted data

Migrations to Italy and especially Spain are more recent than in France, with a larger share of respondents having arrived after 2000. This also translates into shorter migration episodes[29] for the Spanish and, to a lower extent, for the Italian respondents compared to the French. There are otherwise no differences with respect to the mean age of arrival in Europe, which for all countries is approximately 27.

Another difference between the three destinations is with respect to the legal status migrants have upon arrival: over two thirds of migrants in Italy and Spain entered illegally or with a short-term visa, while this was the case for only a third of respondents in France. The majority of the latter held a residence permit or did not need any documents for entry[30]. Finally, as mentioned above, almost all migrants came to Europe while they were single or left their spouses behind. However, during their migration episode, between 17% (Spain) and 33% (France) of them brought their partner from Senegal or started a union at destination. Overall, the descriptive results confirm previous knowledge from qualitative studies or smaller surveys about the Senegalese population in the three European destinations, which increases our confidence in the representativeness of the MAFE data.

7.4 Findings

7.4.1 Senegalese migrants' economic incorporation in France, Italy and Spain: a descriptive outlook

Table VII-2 presents the evolution of Senegalese male migrants' economic situation over the migration spell with regards to the two main outcomes studied in this chapter: access to the labour market and occupational status. The activity status upon arrival is compared to that at the time of the survey (or the last year of the migration spell for migrants who had left the destination country) and the occupational category of the first job is compared to that of the last recorded job. These descriptive statistics are further broken down by country of destination and confirm previous findings about the differences in patterns of economic incorporation of Senegalese migrants in France, Italy and Spain.

[29] At the time of the survey (2008) respondents in Spain had been abroad shorter than respondents in France.
[30] The latter situation was especially the case for those entering before 1985, when France introduced visas for Senegalese citizens, and concerns 15% of the respondents.

In all countries, most migrants work upon arrival; however France hosts an important share of students, whereas these are almost non-existent in the Italian and Spanish samples. Roughly two thirds of the initial students in France had entered the labour market by the time of the survey. When excluding students from the reference category, the share of those who find a job in the first year abroad is roughly 86% and the country differences are not significant. The likelihood of employment grows substantially by the end of the migration spell in all countries (up to 96% in Italy) except Spain, where it slightly decreases.

Table VII-2 The evolution of migrants' economic outcomes, by country of destination

	France		Italy		Spain		Total		
	First year	Last year	First year	Last year	First year	Last year	First year	Last year	Cnt. diffs.
Access to the labour market									
Economic status (column %)									
Jobless	11%	8%	15%	4%	11%	18%	12%	10%	*** (1^{st})
Student	32%	13%	3%	0%	0%	0%	11%	4%	*** (last)
Working	57%	79%	82%	96%	89%	82%	77%	86%	
N	152		123		94		369		
% with job excl. stdnts	84%	91%	84%	96%	89%	82%	86%	90%	n.s. (1^{st}) *** (last)
N	97	127	120	123	94	94	311	344	
Occupational status									
Type job	First job	Last job	First job	Last job	First job	Last job	First job	Last job	
Skilled	37%	45%	8%	37%	7%	10%	15%	30%	*** (1^{st})
Unskilled	44%	34%	42%	43%	58%	68%	48%	49%	** (last)
Self-employ	20%	21%	50%	21%	35%	22%	37%	21%	
N	124		121		91		336		
Mean ISEI	32.7	34.3	25.9	31.1	23.0	24.5	27.8	30.5	n.s. (1^{st}) ***(last)
% changed job	37%		58%		47%		46%		**

* p<0.10, ** p<0.05, *** p<0.01. Weighted data.

Reflecting previous qualitative findings discussed in chapter 4, Senegalese migrants in France are significantly more likely to be working in skilled and semi-skilled occupations than their counterparts in Italy or Spain. In the Italian sample, self-employment – mainly street-peddling - is the first type of economic activity most

migrants engage in upon arrival. Among those interviewed in Spain, more than half start their employment careers with an unskilled occupation, often in the agricultural sector. When comparing the first job migrants held upon arrival with their current job, some signs of upward mobility can be observed, as semi-skilled or skilled jobs constitute a larger share and self-employed activities are less represented. On the other hand, only about half of the sample changed jobs at least once since arriving, meaning there was little scope for such mobility. The same patterns are revealed when considering the mean ISEI. Migrants in France have the highest average occupational status while those in Spain the lowest, while migrants in all countries display an improvement in the average level of their occupational status as their period of settlement increases.

7.4.2 Multivariate analysis

The analysis now turns to an examination of the role of pre-migration ties in migrants' economic incorporation, both upon arrival and later in the migration episode. Since many other factors are also shaping labour market outcomes, regression analysis is used in an attempt to disentangle the influence of migrant networks from other influences.

7.4.2.1 Access to the labour market

Table VII-3 presents results from logistic regression models estimating the probability of being employed in the first year upon arrival (models M1-M4) and at the time of the survey(models M6-M5), for men between the ages of 18 and 65. Those who studied upon arrival are excluded from both analyses, to ensure that the observed differences between the two moments are not triggered by a different composition of the sample. The latter two models were run both including and excluding migrants who studied upon arrival, with very similar results[31].

In the first model, only the bonding social capital variable is introduced: a dummy variable which takes the value 1 if the respondent has at least one family member or friend already present at destination when he or she arrives. Having pre-migration ties seems to *reduce* chances of having a job the first year upon arrival (OR= 0.53, M1), though not significantly so. This could lend support to the temporary shelter hypothesis,

[31] Including students in the analysis of employment at the time of the survey yields a similar pattern of results, with minor differences: a larger role of human capital variables and smaller coefficients for the network variables.

which argues that networks take in charge the newcomer, thus allowing him or her a longer search period (Amuedo-Dorantes and Mundra 2005). If this were the case, we should observe a larger effect of close family ties, since they are more likely to assume such a charge. Indeed, results in Model 2 suggest that this is the case. Two dummy variables distinguish between having close kin at destination and having friends or more extended kind: only immediate family members have a significant and substantial negative effect on the likelihood to be employed upon arrival.

M3 examines to which extent these associations are spurious by controlling for a series of contextual and individual variables. The negative effect of close family ties is maintained after taking into account these other factors. Overall, contextual variables seem to play a larger part in explaining employment chances than individual-level ones. Migrants in Italy and, more significantly so, in Spain, are more likely to have a job in the first year than those in France. This is in line with expectations, given the larger underground economy in these two countries and easier access for newcomers, especially undocumented ones, than the more protected labour market in France. Migrants arriving at destination in more recent years – after 2000 – are associated with a lower probability to find a job upon arrival compared to those arriving before 1990. Belonging to the Murid brotherhood raises chances of employment significantly, confirming previous qualitative findings on the important role played by Murid religious networks in migrants' economic integration.

Furthermore, results show a negative association between respondents' educational level and employment in the first year, although not significant. This has been observed in previous studies focusing on migrants' economic integration (Reynieri 2004; Roulleau-Berger 2010) and has been argued to reflect a tendency of the more educated to wait longer to find jobs which better match their qualifications, jobs which are also more difficult to find. Descriptive results presented in Figure D-1 show that the more educated are more likely to find a job later and that jobs found in the second year or later are significantly more likely to be semi-skilled or skilled and less likely to be in self-employment (both relationships are significant at $p<0.05$). Results from M3 further point to a positive but non-significant association between likelihood to work in the first year and speaking the language of the country. Undocumented migrants or those coming with a short-term visa are not less likely to find work upon arrival than documented migrants. Family situation variables (being in a union and having children under 6) do not have a significant effect and have not been included in this model.

Moreover, M4 examines whether family networks have a different effect for unauthorized migrants by introducing an interaction term between the two variables. The negative effect of family networks is only found in the case of documented migrants (OR 0.17**, M4), whereas results point in the opposite direction for illegal migrants (OR 3.24, M4). For the latter, access to family networks is not associated significantly with the likelihood to have a job (0.17*3.94 = 0.67). Since finding a better job in formal employment is an unlikely target for undocumented migrants upon arrival, this result seems to confirm the "temporary shelter" interpretation.

Overall, the analyses presented in Models 1 to 4 show no evidence that pre-migration ties lead to a quicker access to the labour market. On the contrary, having close family ties seems to decrease chances to have a job upon arrival, while extended kin and friends have no effect. This could support the hypothesis of a temporary shelter offered by family networks to newcomers. Further evidence in this direction would be finding that this effect is indeed temporary. Models 5, 6 and 7 examine whether pre-migration ties play a role in migrants' employment chances at the time of the survey. As expected under the temporary shelter hypothesis, family networks no longer have a negative effect on the likelihood to be employed (OR 0.91). On the other hand, weaker pre-migration ties – to extended kin or friends – appear positively associated to migrants' employment probability at the time of the survey, though not in a significant way.

Another aim of this chapter was to establish the extent to which the effect of networks on employment likelihood depends on their gender composition and their level of resources (hypotheses six and seven). This disaggregation does not appear relevant with respect to the likelihood to work upon arrival as neither men nor women, and neither recent nor longer-term migrants, respectively, had any influence on this aspect (Model 6a and 7a in Table D-1 in the Appendix). Some differences appeared with respect to the influence of network composition on employment at the time of the survey. Results presented in Model 6 in Table VII-3 show that access to male networks upon arrival positively and significantly increases migrants' likelihood to be employed at the time of the survey, whereas ties to female migrants have no influence (the coefficient is even negative). This confirms the sixth hypothesis. On the other hand, migrant connections settled at destination longer are not more instrumental in helping the migrant find work than those who had been established for a short period: coefficients, though not significant, go in the opposite direction. Altogether, no support is found for the

expectation that longer-term migrants are more instrumental in finding work, neither upon arrival nor at the time of the survey.

Most control variables affect in similar ways employment probability at the time of the survey, with the exception of the country of destination. As seen in the descriptive statistics, migrants in Spain are less likely to be employed than those in France at the time of the survey. This effect holds when controlling for other individual and contextual characteristics, but is not significant. An additional variable was introduced in the analysis which takes into account the union status of the respondents and the location of their partners at the time of the survey. Those who report having a partner at destination, most often for having brought them from Senegal but some have started a union at destination, seem more likely to work at the time of the survey. While causality may run both ways, it is likely that family formation and reunification are to a large extent shaped by migrants' economic situation. Finally, no significant interactions between the context of destination and the effect of pre-migration ties in access to the labour market were found, although family networks appear to have a stronger negative effect upon arrival in France.

To sum up, results point to a negative temporary effect of close family networks on employment likelihood upon arrival, which could be interpreted as a "temporary shelter" effect. No evidence is found for pre-established networks facilitating a quicker access to the labour market. On the other hand, pre-migration ties to other males and to extended kin and friends seem to have a positive effect on the likelihood to have a job later in the migration spell (at the time of the survey), although only significant with respect to gender.

Table VII-3 Likelihood to be employed upon arrival and in the current (last) year for men. Logistic regression reporting odds ratios.

	FIRST YEAR				LAST YEAR		
Variable	M1	M2	M3	M4	M5	M6	M7
Has any pre-migration ties upon arrival (ref: no ties)	0.53						
Has friends/extended kin		0.62	0.84	0.87	2.93		
Has close family		0.36**	0.40*	0.17**	0.91		
Age			1.01	1.01	1.03	1.03	1.04
Educational level arrival (ref: no qualification)			ref	ref	ref	ref	ref
Primary level			0.93	0.96	0.36	0.30*	0.39
Secondary or tertiary			0.79	0.79	0.82	0.88	0.79
Speaks host-country language arrival (ref: doesn't speak)			1.56	1.55			
Country (ref: France)			ref	ref	ref	ref	ref
Italy			1.27	1.24	1.13	1.09	1.25
Spain			2.64*	2.59*	0.39	0.35	0.38
Period (ref: before 1990s)			ref	ref	ref	ref	
1990s			1.38	1.44			
After 2000			0.59	0.64	0.37	0.37	0.36
Murid (ref: other religion)			2.14*	2.10*	3.51*	3.05	3.29
Legal status (ref: has residence permit)			ref	ref	ref	ref	ref
No permanent documents at arrival			1.01	0.68	2.4	2.18	2.28
Has close family X no permanent docs				3.94			
Single					ref	ref	ref
Partner elsewhere					1.3	1.11	1.21
Partner at destination					4.07	3.74	4.44*
Has male migrants upon arrival						3.18**	
Has female migrants upon arrival						0.55	
Has recent migrants upon arrival							3.38
Has longer-term migrants upon arrival							1.27
Duration					1.06	1.09	1.07
Duration square					1	1	1
Pseudo R-sq. (McFadden's)	0.03	0.04	0.11	0.12	0.13	0.14	0.13
Number of cases	311	311	311	311	306	306	306

$*$ p < 0.10, $**$ p < 0.05, $***$ p < 0.01. Weighted data, MAFE-Senegal. Network variables count only those members who have been in the country for at least a year when ego arrives (have arrived before ego). The current partner is excluded. Education, language ability, legal status and pre-migration ties are all measured at the time of arrival. Those who study at destination upon arrival are excluded.

7.4.2.2 The influence of pre-migration ties on occupational status and mobility

Co-ethnic ties have also been shown to influence the type of jobs migrants occupy at destination. As the review of the literature has shown, some researchers found that co-ethnic networks lead to lower quality jobs, and eventually trap the migrants in a secondary sector (Sanders and Nee 2002; Kogan and Kalter 2011). Others, however, have contradicted this finding and shown that networks increase earnings (Aguilera and Massey 2003) and occupational attainment (Munshi 2001), while still others find no effect (Lancee 2010, 2012; Kanas et al. 2011).

Table VII-4 presents the results from a multinomial logistic regression comparing the odds that migrants' *first* job is in semi-skilled and skilled wage-employment or self-employed activities with the odds of them first finding unskilled wage-employment (the reference category). A first model (M1, 1st and 5th columns) shows that migrants in Italy and Spain have less chances of directly entering semi- or skilled job and more chances of first entering self-employment (in Italy only) than of starting their employment career with an unskilled job. The network previously established at destination does not significantly influence the type of job found. However, when distinguishing the effect of networks by the context of destination (in M2 through an interaction effect between pre-migration ties and being in Italy or Spain), having networks and living in France (the main effect) is positively associated with first entering semi- or skilled employment (OR 2.65**). No such evidence can be found for networks in Italy or Spain, whose effect seems slightly negative (i.e. an OR below 1: 2.65x0.33=0.87). Furthermore, whereas networks in France protect from self-employment (OR=0.19**), in Italy and Spain their influence goes in the opposite direction (0.19***x6.56***=1.25***) compared to ties in France. Living in Italy or Spain is no longer negatively associated with the likelihood of having a semi or skilled first job but still positively impacts the probability of entering self-employment, though not in a significant way. Thus, the effect of the destination context is partly mediated by the pre-migration ties newcomers have there.

M3 controls for an additional set of contextual and individual characteristics, but the network effects remain significant. The control variables have the expected influence. Waiting longer before the first employment (time since arrival) strongly increases chances of finding a more skilled job, confirming intuitions from the descriptive statistics discussed above (Table VII-1), while a job found sooner is more likely to be a self-employed activity such as street-peddling than unskilled, wage-earning work. A

higher education level and speaking the host-country's language at arrival increase the probability of finding a semi- or skilled first job. Having no legal documents is strongly and positively associated with self-employment and negatively associated with skilled work. Membership in the Murid brotherhood is neither found to increase chances of first entering self-employed activities nor to affect the odds of skilled work. Finally, chances of entering a semi- or skilled job seem to have increased after 2000. If skilled jobs take longer to find, this result could corroborate the previous finding of a lower likelihood to have a job upon arrival in recent years.

A last model (M4) distinguishes between ties to close family members and ties to extended kin and friends: while both types of ties seem to play similar roles, the latter appear more influential with respect to both skilled and self-employed work. Neither the gender composition nor the level of migration experience embedded in the networks seem to influence significantly the network's effect on the type of first job[32].

Overall, findings[33] point to *differential* roles of networks depending on the context of destination. Only in France do pre-migration ties have beneficial effects by increasing chances of access to better quality jobs and decreasing the likelihood of entering the more precarious condition of self-employment. None of these effects can be found in Italy and Spain. There, migrant networks and especially weaker ties to extended kin and friends are even increasing slightly the chances of taking up self-employed activities upon arrival.

The final question this chapter asks is whether migrant networks also influence immigrants' subsequent occupational mobility, beyond their access to the first job. Is there evidence of an "entrapment" in lower quality jobs, as some researchers have argued? Three cases are distinguished: respondents are still in their first job, they have moved into a semi-skilled job or they have moved into an unskilled or self-employed activity. The latter two cases can be considered as forms of upward *versus* stagnant or downward mobility, respectively. Table VII-5 presents results from a multinomial logistic regression, taking the first case (no job change) as a reference. Migrants in Italy

[32] Models are available upon request. With respect to the gender composition, the non-significance of results may also be driven by the fact that few migrants in Italy and Spain have pre-migration female ties.
[33] To check for the robustness of these results, the analyses were replicated on a sample of migrants who declare being able to speak the destination language, which is another aspect on which the three countries differ. A similar pattern of results was found, especially with regards to the contextual interactions. These results are available upon request.

and Spain are more likely than those in France to move into unskilled or self-employed activities than they are to maintain the same job, while those in Spain are substantially less likely to move into skilled jobs.

On average, networks have no effect on the likelihood and type of occupational mobility experienced by migrants. However, distinguishing the effect of networks according to the context of destination reveals important differences. In France, access to pre-migration ties increases the likelihood of switching to a semi- or skilled job, while in Italy and Spain networks significantly reduce chances of this form of mobility (3.43x0.17=0.58). No significant effects of networks are found with respect to moving into unskilled or self-employed jobs compared to still being in the first job.

M3 controls for other factors, such as the duration of the migration spell and the type of first job, which are expected to strongly affect mobility chances. Pre-migration ties maintain their effects on access to skilled occupations. However, a comparison of the explanatory power of the models[34] shows that networks play only a small part. As expected, as the duration of settlement increases, so do chances of moving into a new job, irrespective of its type. The likelihood of moving into semi-skilled or skilled positions does not appear to vary significantly with the type of first job, meaning that this category covers both upward (from low skilled to skilled) and horizontal mobility (from skilled to skilled). On the other hand, those initially occupying a lower skilled activity are more likely to move into unskilled and self-employed jobs than respondents who started their career at destination in a skilled position (and who would thus experience downward mobility). In other words, moving into unskilled or self-employed activities is mostly associated with horizontal mobility, which is also what the "ethnic entrapment" thesis predicts. There are no significant differences in the influence of close family and extended kin or friends on these mobility processes (M4).

[34] Using the command fitstat in Stata and changing the order in which the variables are included shows only a moderate increase with the inclusion of the network variables

Table VII-4 Type of first job, multinomial logistic regression, Odds Ratios, Men (18-65)

Reference: UNSKILLED	SKILLED				SELF EMPLOYED			
Variables	M1	M2	M3	M4	M1	M2	M3	M4
Has any pre-migration ties (ref: no ties)	2.00 **	2.65 *	2.02		0.96	0.19 **	0.21 *	
Italy (ref: France)	0.51				3.26 ***			
Spain (ref: France)	0.37 **				1.64			
Italy/Spain (ref: France)		0.58	0.95	0.93		1.47	1.43	1.36
Has pre-migration tie x Italy/Spain		0.33	0.37			6.56 **	6.21 *	
Time since arrival			2.66 *	2.62 **			0.25 *	0.19 **
Time squared			0.84	0.81			1.28 **	1.35 **
Age			0.98	0.98			0.99	0.98
Primary level (ref: no degree)			0.7	0.77			1.04	1.02
Secondary or tertiary (ref: no degree)			1.87	1.96			1.19	1.15
Speaks language on arrival (ref: not speak)			3.25 ***	3.07 **			0.93	0.93
1990s (ref: before 1990s)			2.46	2.53 *			0.92	0.93
After 2000 (ref: before 1990s)			3.24 **	3.39 **			0.6	0.59
No perm. documents (ref. has residence permit)			0.52	0.55			2.86 ***	2.95 ***
Murid (ref: other religion)			1.53	1.58			1.65	1.64
Has close family at dest				1.88				0.28
Has friends/extended kin at dest				2.87 *				0.15
Close family x IT/SP				0.74				4.97
Friends x IT/SP				0.25 *				9.68 *
Pseudo R-sq.(McFadden's)	0.05	0.07	0.14	0.15	0.05	0.07	0.14	0.15
Number of cases	304	304	304	304	304	304	304	304

$*$ p < 0.10, $**$ p < 0.05, $***$ p < 0.01 Weighted data. Significance level below coefficient. Those who studied upon arrival are excluded. Network variables count only those members who have been in the country for at least a year when ego arrives (have arrived before ego); the current partner is excluded. Education, language ability, legal status and pre-migration ties are all measured at the time of arrival.

Table VII-5 Type of occupational transition, multinomial logistic regression, Odds Ratios, Men (18-65)

Reference:	Semi-skilled or skilled work				Unskilled or Self employed			
No change of job	M1	M2	M3	M4	M1	M2	M3	M4
Italy (ref: France)	1.48				2.11 **			
Spain (ref: France)	0.23 ***				2.69 ***			
Has pre-migration ties (ref: no ties)	0.9	3.43 ***	3.14 **		1.18	2.21	1.98	
Italy/Spain (ref: France)		1.84	4.05 **	3.42 **		3.52 ***	2.65 **	2.32 *
Pre-migration tie x IT/SP		0.17 ***	0.25 *			0.41	0.56	
Type first job (ref: semi/skilled)								
Unskilled first job			0.86	0.88			2.62 *	2.65 *
Self-employed first job			0.78	0.78			3.11 *	3.09 *
Duration since arrival			1.50 ***	1.51 ***			1.50 ***	1.51 ***
Duration square			0.99 ***	0.99 ***			0.99 ***	0.99 ***
No permanent documents			1.62	1.63			1.45	1.48
Has close family at dest				2.67				0.91
Has friends/ext kin at dest				2.01				1.76
Close family x IT/SP				0.48				1.28
Friends x IT/SP				0.43				0.54
Pseudo R-squared	0.04	0.04	0.17	0.17	0.04	0.04	0.17	0.17
Number of cases	304	304	304	304	304	304	304	304

$*$ p < 0.10, $**$ p < 0.05, $***$ p < 0.01. Significance level below coefficient. Weighted data. Those who studied upon arrival are excluded from the analysis. Network variables count only those members who have been in the country for at least a year when ego arrives (have arrived before ego); the current partner is excluded. Legal status and pre-migration ties are measured at the time of arrival.

7.5 Discussion and conclusions

This chapter investigated the impact of pre-migration ties on the labour market integration of Senegalese male migrants in France, Italy and Spain. Previous research has challenged the assumption that co-ethnic ties are invariably benefitting economic outcomes on both theoretical (Portes and Sensenbrenner 1993; Li 2004) and empirical grounds (Menjivar 1995). The analyses in this chapter set out to identify the conditions under which migrant networks might be helpful or not, focusing on a less studied population. The longitudinal nature of the data allows avoiding many of the limitations of previous research, while the comparative design enables the investigation of some contextual effects on the role of migrant networks.

Previous work has argued that migrant networks facilitate a quicker access to the labour market for newcomers. Other studies advanced a competing argument: that pre-migration ties offer a temporary shelter to newly arrived migrants, allowing them to search longer for a better job. Yet, for lack of suitable data, most quantitative studies examining these hypotheses did not adopt a diachronic approach; they investigated the current employment situation of migrants, whereas an appropriate test would require studying migrants' access to the labour market shortly *upon arrival*. This chapter analysed the likelihood of employment in the first year abroad and found that migrant networks *reduce* the probability to be employed, which could lend support to the second hypothesis. Furthermore, as expected under this hypothesis, only close family networks have this effect on the likelihood to work (hypothesis 2b); extended kin and friends have no influence on employment probability at arrival. Indeed, immediate family members are presumably more likely to take in charge and put up the newly arrived migrant, a burden that may weigh too heavily on weaker ties.

Furthermore, findings from the models on the type of first occupation suggest that jobs found later are more likely to be semi-skilled or skilled, as also shown descriptively. Another corollary of the second hypothesis argued that the negative effect of family networks on employment probabilities should be temporary. Subsequent models found that pre-migration close family ties have no influence on the employment probability at the time of the survey, supporting hypothesis 2b. On the other hand, extended kin and friendship ties prior to migration as well as pre-established male networks appeared positively correlated with the likelihood to work in the current (last) year of the migration spell, albeit only significantly so with respect to male connections. Thus, the third hypothesis is confirmed only with respect to specific type of ties.

While this analysis extends the literature by being able to focus on migrants' employment in the first *year* upon arrival, the relatively large unit of time may still mask a lot of heterogeneity. It may be that using a finer unit, such as months, further network effects would be revealed.

Bearing in mind this limitation and considering the overall results, it can be concluded that bonding social capital in the form of pre-migration ties does not have a clear positive effect on Senegalese men's *access* to the labour market, either at the beginning or later in the migration episode. Only certain migrant connections – such as male networks – significantly increase employment chances at the time of the survey. These findings corroborate those of Lancee (2010; 2012), Kanas et al. (2011), despite a different operationalization of bonding social capital. On the other hand, Kalter and Kogan (2011) find that pre-migration ties accelerate the entry on the labour market for recent immigrants from the former Soviet Union in Germany. However, they do not distinguish students from other inactives who, together with the unemployed, form their reference category. To the extent that students are less likely to have pre-migration ties at destination and given they take longer to enter the labour market, their inclusion may be at least partly responsible for the observed correlation.

The second question approached in this chapter is whether access to migrant networks influences the kind of jobs migrants get. Both the type of first jobs occupied at destination and the subsequent occupational mobility are considered. Findings reveal strong contextual effects going in the expected direction. At first sight, pre-migration ties have no effect on occupational status. But when distinguishing their influence by the destination context, substantial and significant differences between the roles of networks in France, on the one hand, and in Italy and Spain, on the other, are observed, confirming the fourth hypothesis. As expected under hypothesis 4a, in France, ties to prior migrants increase chances of accessing a semi-skilled or skilled first job compared to unskilled work, whereas no such effect is observed in Italy and Spain. Furthermore, having kin or friends before arrival in France protects from the more precarious status of self-employed activities. In contrast, in Italy and Spain networks slightly increase the likelihood of first taking up self-employed work, lending support to hypothesis 4b. Thus, overall, pre-migration ties do appear to lead Senegalese migrants to better jobs in France, but not in Italy and Spain.

The chapter also considered longer-term effects of pre-established networks on the occupational mobility experienced by migrants during their stay abroad. Networks are

still found to work differently in the two contexts. In France, migrants with access to pre-migration ties are more likely to move into semi- or skilled occupation than to stay in the same job. The opposite applies to Italy and Spain, where networks decrease the likelihood of upward mobility compared to ties in France. It should however be noted that the observed differences may partly be due to the different sampling methods adopted in the three destination countries: a random sample was achieved in Spain, but not in Italy and France.

Notwithstanding, findings are altogether suggesting that the role of networks is also shaped, to a certain extent, by the level of resources available in the larger immigrant community. The presence of a more socio-economically diverse and established Senegalese community in France might explain why co-ethnic ties in this context lead to better economic prospects. In contrast, pre-migration ties in Italy and Spain lead to the perpetuation of the pre-existent ethnic niche developed by the Senegalese in small trade activities of a rather precarious nature. Of course, the structure of the labour market at destination and the historical links between countries are probably, in their turn, responsible for these dynamics. The larger underground economy in Italy or Spain is arguably sustaining such ethnic niches. On the other hand the colonial and linguistic linkages between Senegal and France have sustained a growing inflow of Senegalese students, for the most part settling in France upon graduation and contributing to a diverse community.

Whereas it can be argued that resources at the level of the immigrant community matter, the same has not been found with respect to those embedded in the pre-migration networks, based on the indirect measure used in this thesis. Longer-term migrants in one's network are not more influential than recent migrants with respect to labour market outcomes. It was assumed that having spent more time at destination, long-term migrants achieved a better economic situation and were thus better able to help newcomers' in their labour market integration. It may however be that as their period of settlement lengthens and their economic assimilation increases, migrants cease to consider the co-ethnic group as their main (or only) reference group. Newcomers, especially if illegal, may be seen as giving a bad image to the immigrant community. Long-term migrants may thereby be less willing to extend their assistance to new migrants, especially if they feel they have already contributed their share of help.

The role of membership in the Murid Sufi brotherhood deserves further discussion. This has been found to have a strong positive influence on the likelihood to find work, both

upon arrival and later in the migration spell. In light of previous qualitative studies, this could be explained by embeddedness in dense and resourceful transnational Murid networks, which have been shown to facilitate access to the labour market for their members (Riccio 2003; Ebin 1996). However, being a Murid has not been found to increase chances of engaging in small-scale trade activities such as street-selling, which was generally associated in previous studies with Murid transnational networks. This may support Riccio's (2001, 2011) arguments about the highly heterogeneous composition of Senegalese Murid networks, within which several communities, characterized by different modes of economic incorporation, co-exist.

Findings also show that human capital variables do not have a strong effect on labour market trajectories. The level of education at arrival does not affect the likelihood to find a job; the coefficient is even negative, though not significantly so, which may suggest that better educated people wait longer to find a better job. Holding at least a secondary degree does appear to slightly increase chances of accessing skilled employment, but not in a significant way. However, speaking the host country language significantly improves the likelihood to find a first semi- or skilled job. These findings generally support previous (qualitative) studies documenting the low level of relevance that educational qualifications have on Senegalese' labour market integration in Spain (Van Nieuwenhuyze 2009) and in Italy (Reynieri 1998, 2004).

Overall, results for men underscore the importance of adopting both a longitudinal and a comparative perspective when studying the role of co-ethnic ties. They further emphasize the need to disaggregate measures of migrant networks. This allows uncovering other, more indirect, mechanisms through which migrant networks may affect labour market outcomes, such as giving the newcomer the opportunity to search longer for a better job. Such disaggregation also emphasizes the contextualized nature of network effects, a throwback to Li's (2004) argument that social capital does not work wonders and "cannot replace other forms of capital to produce unrealistic outcomes beyond the material limits of its contextual boundaries" (2004: p.146).

Chapter VIII

Putting social capital in (a family) perspective: The roles of migrant networks in women's labour market participation at destination

Previous research has found that the economic returns to social capital are lower for migrant women than for men and that the use of informal search methods leads women to lower quality jobs. It has also shown that the family context of migration influences women's participation in the labour market at destination. However, such studies have not considered the potential interactions between social capital and the family context of migration; more precisely, whether migrant networks influence labour market outcomes differently for women arriving through family reunification channels than for those coming independently. This has also led to neglecting another mechanism through which kin and friends at destination might affect women's participation in the labour force: the provision of reliable childcare. Using the same longitudinal dataset as in the previous chapters, it is found that the sequencing of women's migration and marriage trajectories greatly influence employment probability at destination upon arrival. Furthermore, the influence of migrant networks is different depending on whether women migrate in relation to their spouse or not. Sharing childcare responsibilities seems to be the most important function of social networks for women migrating with young children. For those migrating independently, female networks are the only useful social resource in securing access to the labour market. However, confirming previous qualitative findings, these networks lead to lower quality jobs upon arrival and limit upward mobility.

8.1 Introduction

Women make up an increasing part of migration flows. Yet, while a substantial amount of research investigated the economic integration of male migrants, women's labour market performance has been less studied. In most quantitative studies, gender only appears as a control variable. This is partly due to the still prevailing assumption that women are mostly family migrants, whose migration is not motivated by work reasons but who passively follow their spouses abroad. However, recent research has emphasized the great heterogeneity in women's migrations motives and employment patterns at destination (Cerrutti and Massey 2001). Besides human capital and legal status at entry, the sequencing of the migration and family formation events has been shown to explain a large part of this heterogeneity (Gonzalez-Ferrer 2011). However, the lack of longitudinal data has so far prevented further investigation into the mechanisms underlying these findings.

Furthermore, among the recent scholarship on migrant women's economic integration at destination, few studies considered the role played by social ties in economic outcomes. Research not restricted to immigrant women indicates that the impact of migrant social capital on employment may be less beneficial for women than for men (Drentea 1998; Hagan 1998; Huffman and Torres 2002; Livingston 2006). Our understanding of the influence of social ties is however limited by the fact that most of these studies do not distinguish between the various types of female migration. We might expect social ties to play differently in the economic outcomes of women who join their partner at destination and women who come alone. Qualitative research has shown that migrant men from contexts where independent female migration is still negatively perceived may refuse to share their resources with women of whose migration they do not approve (Hondagneu-Sotelo 1994). Finally, whereas the primary pathway of social networks' influence in men's employment is job information and referrals, an equally important function of networks in women's labour market participation may be the sharing of childcare responsibilities. To my knowledge, no quantitative study has effectively distinguished between these two venues of network influence when investigating migrant women's labour market performance.

This chapter examines the factors influencing Senegalese women's labour market outcomes in three European countries (France, Italy and Spain), focusing in particular on the roles of migrant networks and their interactions with the family context of migration. It extends previous research by using longitudinal data that allows for a

diachronic analysis of women's labour market, migration and family formation trajectories. The rest of this chapter is organized as follows: in the next section, previous literature on the determinants of immigrant women's labour market outcomes is reviewed. This is followed by a statement of the research questions and the hypotheses that guide the analysis. After a brief discussion of the data and the variables used in section 8.3, section 8.4 introduces the results with respect to women's likelihood of employment and occupational status. The last section summarizes and discusses the findings, as well as the limitations of this analysis.

8.2 Theory and hypotheses

8.2.1 Type of migration and employment at destination

The share of female international migration has been steadily increasing and women currently represent almost half of all international migrants (FNUAP 2006, p.1; Zlotnik 1995). Yet, research on the economic assimilation of women at destination has been lagging behind. This reflects both data limitations, since national data on migration flows and occupation of migrants is not always broken down by gender, as well as theoretical preoccupations, governed by the dichotomy between male labour migration and female family migration (Zlotnik 1995; Catarino and Morokvasic 2005).

While women's migration is not a new phenomenon, women have long been absent from research on migration (Morokvasic 2008; Boyd and Grieco 2003). They've emerged in the literature towards the end of the 1970s and have subsequently been conceptualized under two typologies. First, as family reunification flows intensified[1], women's presence started being acknowledged but was reduced to the stereotype of the woman who passively follows her spouse, on whom she is economically dependent. This image was to some extent shaped by the migration policies of many receiving countries which assigned women a "dependent" or "family migrant" status that did not give the right to work. Second, an increase in female migration flows of an economic nature has shifted the focus away from the "trailing wives" to single women working in the domestic and care sectors, the emblematic figure being the Filipino nannies or nurses (Tacoli 1999; King and Zontini 2000).

[1] And even became the main channel of entry in the traditional Western European destinations (Gonzalez-Ferrer 2008).

However, researchers have emphasized the fact that the entry channel should not be mistaken for the actual reason of migration and the subsequent integration in the host society: "a woman may enter as a family migrant, but that doesn't mean that her role in the immigration context is limited to that of a wife or mother. She may enter the labour market - formal or informal - and play an active economic role" (Oso Casas 2004: p. 175). Economists studying immigrants' assimilation in the US labour market have argued that family migration may actually lead to an increased labour force participation of immigrant wives. According to the family investment hypothesis (Long 1980), women are more likely to work and work longer hours in their first years abroad in order to support their husbands' investments in receiving country-specific human capital. The evidence in support of this has however been mixed and the hypothesis has only been tested in the American context.

Recent work on the labour performance of immigrants in Europe has revealed a more complex picture in terms of the interactions between the type of (family-linked) migration and employment patterns at destination. Gonzalez-Ferrer (2011) shows that the sequencing of one's migration, marriage and spouse's migration is an important factor in explaining migrant women's, though not men's, labour market participation in Spain. First, her results do not support the hypothesis that women migrating when single are more likely to enter the labour market than those who reunite with their spouses. However, a reason potentially accounting for this finding is that when analysing the likelihood to work, the author includes students in the reference category of the dependent variable. To the extent that an important share of women migrating while single are pursuing further education abroad (and thus not immediately entering the labour market), excluding students might change the results significantly.

Another interesting finding, which remains unexplained in her paper, is that "imported spouses" – individuals who married someone who was already a migrant - are less likely to work at destination than "reunited partners", for whom the union precedes the migration of both spouses. It has been argued elsewhere in the literature that men bringing one's spouse from the origin country may espouse more "traditional" cultural values and gender norms [2] (Lievens 1999). This form of marriage practice has sometimes even been associated with forced marriages and, consequently, seen as a

[2] The opposite seems however to apply to women bringing their partner from the origin countries, as Autant (1995) has shown about young Turks in France

threat for the overall integration process at destination (Kraler et al. 2011). Others, however, have suggested that women coming from strongly patriarchal societies may prefer marrying a migrant as a means of emancipation and escaping the social control of their future in-laws families (Kofman 2004).

An important limitation of previous studies examining the influence of the type of migration on labour market outcomes at destination is that they often rely on the legal class of admission for distinguishing various forms of migration. This leads to confounding the effects of migration policies and those of migrants' own motivations for migration. As researchers have argued, in countries that separate the right to work from the right to reside, women may face difficulties in entering paid work if they are initially classified as dependents or family migrants (Boyd and Grieco 2003; Kofman20004; Lim 1995). These restrictions are usually only temporary, for one or two years (SOPEMI 2000). In the case of Spain, Gonzalez Ferrer (2011) has found that the legal status at entry decreases the likelihood to work after taking into account the reasons and the type of migration undertaken. Besides the legal obstacles to taking up work at destination associated to the family migrant status, another explanation may account for this finding. In order to sponsor the migration of one's partner at destination, the established migrant needs to prove sufficient material and legal resources[3]. We may expect that women coming through this channel will have fewer reasons to take up paid employment at destination, as they join a partner with a good economic situation. Therefore, the legal status at migration may simply be a proxy for the economic wellbeing of the partner.

8.2.2 Social capital, family context of migration and labour market outcomes

As discussed in the previous chapters, the influence of co-ethnic networks in immigrants' economic incorporation at destination has been extensively studied. However, most research exploring this relationship has been gender blind. The studies that did take gender into consideration have generally shown women to be disadvantaged in their access and economic returns to social ties. Revisited research on Miami's Cuban enclave (Portes and Jensen 1989) shows that women receive few of the

[3] A certain level of income, longer-term residence permit (or nationality) and a certain length of residence are required to qualify for the right to bring family members at destination. The conditions of eligibility differ according to the destination country and have been increasingly tightened since the end of the 1990s across most of Western Europe (OECD 2011; 0NU 2009).

benefits experienced by male co-ethnics. Similarly, research on New York City's Chinese enclave (Zhou and Logan 1989) finds negative human capital returns for female workers only and suggests that the positive outcomes of enclave economies for men may be enjoyed at the cost of women's opportunities. Gilbertson's (1995) research on Dominican and Colombian workers in Latino firms in New York City also concludes that the success of small business owners and male workers is won at a cost to immigrant women. More recent quantitative research similarly finds migrant women to be channelled into low-paying and informal sector jobs via their social ties, while male migrants used their social ties to obtain higher-paying, more stable employment (Livingston 2006; Sanders et al. 2002).

How can the negative impact of networks on women's economic outcomes be explained? Livingston (2006) distinguishes two aspects affecting the likelihood that a person will use and benefit from their social networks in the job search process: the *demand* for assistance and the *supply* of resources available through those networks. In most migration flows, women start migrating later than men and have thus less knowledge and fewer host-country skills and experience. There is therefore not much reason to expect that their demand for assistance is lower. Indeed, Livingston (2006) finds that the overall *usage* of family and friendship networks in the job search process is similar for Mexican men and women in the US.

The supply of resources available through social networks depends, in its turn, on the *size* of these networks, the *relevance* of the information available and the *willingness* of the network members to share it. In migration flows initiated and still dominated by men, women, who migrate once networks have already developed, may encounter larger co-ethnic networks at destination but most of these ties will consist of other men. However, given the gender-segregated nature of the destination labour markets where migrants are incorporated, the job information that other male migrants can pass on to recently arrived women migrants may be less *relevant* (Fernandez-Kelly 1983; Curran et al. 2005). Furthermore, studies suggest co-ethnic (male) networks may not be so *willing* to share their information. Immigrant networks have been shown to reinforce the maintenance of traditional gender roles and the gender division of labour from the country of origin (Diop 1987; Grasmuck and Pessar 1991). Whereas they encourage labour force participation for male migrants, male network members in the family and community may refuse to assist women in negotiating the destination labour market, "either because of their personal beliefs about appropriate gender roles or because

challenging tradition by helping women in the job market may elicit collective sanctions within the immigrant community" (Livingston 2003, p: 13). Qualitative research on migrant women in France also documents various forms of gender discrimination within ethnic enclaves (Roulleau-Berger 2010). This echoes Portes' (1998) comments about the ways in which social capital may constrain individual freedom: tight community networks create demands for conformity and sanction those who deviate from traditionally upheld norms.

Thus, women migrants seeking employment may be limited to relying on less-established female networks whose members have only minimal experience in the destination labour market. Indeed, qualitative findings point to the important role of prior female migrants in offering jobs to newcomers. However, given the high concentration of women in the domestic sector, these networks have generally been found to reinforce the occupational segregation by gender. Qualitative research by Repak (1995), Hondagneu-Sotelo (1994) and Hagan (1998) on Central American, Mexican and Mayan women in the US, converged in finding that female migrants were channelled into domestic jobs or other highly-feminized sectors via their social ties. Quantitative studies also suggest this, although the hypothesis was not tested directly, since measures of co-ethnic social ties are generally not disaggregated by gender. Livingston (2006) found that women using network-based search methods have a higher likelihood to find a job in the informal sector than in the formal one. Using the work-module data of the General Social Survey in the United States, Drentea (1998) found that when women used informal job-search methods, they entered women-dominated jobs; similar findings are reported by Leicht and Marx (1997) and Straits (1998) with respect to the general population. In an analysis not focused on migrant populations, Huffman and Torres (2002) find that women receive lower quality tips about job openings then men, especially if their social networks consist of a larger number of females.

Furthermore, research found that women's networks are less diverse and are composed of close family members to a larger extent than men's (Marsden 1987; Moore 1990), as well as less likely to include influential people (Campbell 1988). These differences are probably more accentuated with respect to immigrants, at least in the early phases of their migration settlement. Having close kin abroad is more influential in women's migration chances, as findings in chapter 5 have also shown, which explains why women have more immediate family members at destination then men. However, to the

extent that weak ties give access to less redundant information, women may be disadvantaged in their job search as opposed to men.

Finally, whichever the gender differences in networks among migrants upon arrival, these tend to be exacerbated with time, as women do not have the same opportunities to reinforce and expand their networks as men do. Based on an in-depth study of the Maya community in Houston, Hagan (1998) shows that the social context of the private-household domestic work they engage in at destination isolates Maya women and prevents them from developing ties to the majority population. Even their initial ties to the co-ethnic community slowly deteriorate as a consequence of working long and unpredictable hours and of the residential isolation that their jobs impose. This has negative consequences on their future legalization and employment prospects. In contrast, men managed to reinforce their pre-established ties while also gradually forging new relations and weak ties with non-ethnic neighbours and co-workers.

In sum, previous research suggests that a reliance on networks with low levels of resources limits the kinds of jobs that women can access and their avenues for social mobility, which in turn prevents them from developing ties to better-situated individuals.

While rich, this literature leaves several areas under-researched. First, quantitative research on this subject has focused on the influence of networks on the type and quality of the jobs women have, and much less on access to the labour market in general. Furthermore, while scholarship agrees on the heterogeneity of migrant women's experiences depending on their family context of migration, with few exceptions the above mentioned studies did not investigate whether women coming through different channels make a different use of networks. Qualitative findings suggest that men are particularly unwilling to share their social resources with women whose migration they do not approve of. For example, Hondagneu-Sotelo (1994) found that women who challenged gender norms by undertaking solo migration have encountered obstacles in their attempts to tap the migration-specific social capital of male family and community members. Foucher (2005) documents more extreme cases where Senegalese migrant men, organized in village associations, actively sought[4] to stop the internal migration of

[4] The actions of these male associations, according to their members interviewed by Foucher (2005), were oriented to the protection of women from prostitution and other forms of exploitation in the families where they usually worked as domestic helps. Examples were made of women who refused to remain in

single women by controlling exit routes and by forcibly repatriating those who had made it to the city. Thus, women migrating independently may be even more dependent on female networks than those undertaking a more accepted form of migration, such as family reunification. In a similar way, independent migrants whose family opposes their migration may rely more on weaker ties to friends or extended family members.

Last, the above-mentioned studies are all considering one particular pathway of network influence in women's labour market access: the provision of job information and referrals. However, there is another, quite intuitive role for social ties, which has received surprisingly little consideration in the literature: the sharing of childcare responsibilities. The presence of young children in the household has been shown to inhibit women's participation in the labour market (Condon 2000). Women remain principally or solely responsible for childcare and other domestic responsibilities, particularly so in the African context. In this case, a different aspect of social networks, the provision of social support, may enhance a woman's ability to work for pay by providing dependable and free childcare or by sharing household chores. Some evidence of this function of networks has been found by Stoloff et al. (1999) in research on the access to employment of women in the Los Angeles area, not restricted to immigrants. They find that single mothers with children are more likely to work if they have an extended kin network. Distinguishing this mechanism of network influence is important as it may confound conclusions about the role of networks in providing job information and referrals.

8.2.3 Senegalese women in Europe

This chapter investigates the roles of migrant networks in the economic integration of different types of female migrants. It focuses on Senegalese women in France, Italy and Spain. Although chapter 4 discussed the context of Senegalese international migration and the economic integration of Senegalese migrants at destination, several aspects of particular interest to that chapter are worth briefly summarizing here. First, the international migration of women is still numerically low and socially frowned-upon in the Senegalese context. As discussed in chapters 4 and 5, one does not observe clear trends towards a feminization of migration flows nor an increase in "autonomous"

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the village by shaving their heads in a public space Yet, despite their brutal nature, efforts to control female migration from this region mostly failed.

forms of migration, as noted for other regions of origin such Latin America or Asia. The migration of women outside of the family reunification channel – which is termed here independent migration - is often stigmatized and associated with prostitution (Coulibaly-Tandian 2007; Bâ and Bredeloup 1997).

The limited participation of women in international migration flows can be related to the rigid patriarchal norms that govern social and economic life in Senegal. The male breadwinner model is still very strong, and women are not supposed to challenge their husbands' role by engaging in economic activities. If they do, the revenues they obtain are generally used for their own personal purposes and do not contribute to the material survival of the household, which relies mainly on men. As nationally-representative surveys showed (DHS 2006), Senegalese women have a much lower participation in the labour market than their male counterparts (38% compared with 66% for men in 2006) as well as lower literacy rates. Gender inequalities are reflected in the country's human development ranking: Senegal ranks 140 of 157 countries in the Gender-related development Index (UNDP 2009).

Women's migration towards Europe has been initially directed to France, through flows of family reunification migrants and international students. More recently, Senegalese women started migrating to Italy and Spain, where their presence remains nonetheless limited: in 2008, they represent between 15-20% of the stock of legal Senegalese migrants, whereas their share is about 40-45 % in France.

The economic integration of Sub-Saharan African women in Europe has been little researched so far, and they have mostly been depicted through the stereotype of the family migrant and, in the case of Senegalese migrants, associated to practices of polygamy (Baizan et al. 2011). This chapter aims to extend the literature by focusing on a particular aspect: the role of pre-migration ties in migrant women's economic integration. At the same time, I seek to place the analysis within the family context of women's migration as well as within the larger context of gender relations prevalent in the Senegalese culture. In this respect, qualitative findings pointing to the social meaning of work for migrant women, beyond the economic aspects, should not be ignored. For women, finding work, any kind of work, can be understood as a means of achieving autonomy and a higher social standing within the couple as well as within the host-society (Chaib 2008; Roulleau-Berger 2010).

8.2.4 Research questions and hypotheses

Based on the review of the literature and the specificities of the Senegalese context, this chapter aims to answer the following three main questions, which can be further divided into six hypotheses.

First, most previous work has relied on indirect measures, such as the class of admission, for assessing the influence of the type of migration on women's economic integration at destination. Using detailed longitudinal information on migrants' migration and family formation trajectories, this chapter investigates **to what extent and how the type of migration**[5] **is influencing women's labour market outcomes.**

It is expected that the type of migration according to the sequencing of family formation and both partners' migration trajectories will be a strong predictor of labour market participation. A grading in employment probabilities with independent migrants the most likely to work, followed by joint couple migrants, reunited partners and, lastly, imported partners, is expected (H1).

Second, migrant social capital has been argued to shape women's economic integration, albeit in a less beneficial way than for men. This chapter further investigates **the extent to which pre-migration ties have short and longer-term effects on Senegalese women's labour market outcomes**. Two hypotheses from the previous literature are tested. Access to migrant networks is expected to increase women's labour market participation (H2a). Female networks would lead to lower quality occupations (H2b)

Third, previous literature has not considered potential *interactions* between women's type of migration and the influence of social networks in their labour market trajectories. Yet, as discussed in section 8.2.2 it is likely that women migrating independently mobilize migrant networks in different ways and to a varying degree than those reuniting with a partner at destination. The chapter examines **whether migrant networks have different influences according to the family context of migration.** More specifically, three hypotheses are tested. Migrant networks are expected to play an indirect role in women's access to the labour market by providing childcare and other forms of domestic help. Thus, their influence should be especially important for women who have young children at destination (H3a). Female networks should be more

[5] The definition and construction of this variable will be detailed in section 8.3.2

important for independent migrants than for partner-related migrants (H3b). Similarly, friendship and extended family networks are expected to play a larger role in the economic integration of independent migrants than of partner-related migrants (H3c).

8.3 Data and Methods

8.3.1 The study population

This chapter uses the same MAFE dataset described in chapter 3. While this chapter focuses on women, the criteria for choosing the study population for this analysis are similar as in the previous chapter (chapter 7). Only women who have migrated at least once, after the age of 17 and before 65, for a period of over a year in France, Italy or Spain are included in the analysis. The lower age boundary has been chosen to exclude child migration; women arriving at an age older than 65 may not seek to enter the labour market and have therefore been excluded from the analysis. Furthermore, only women's first such migration spell is analysed, since the network may play differently in subsequent migrations.

8.3.2 Operationalization of variables

In the same way as for men, this chapter investigates two labour market outcomes. *Access to the labour market.* The first dependent variable is a dichotomous measure informing whether the respondent is working or not (for more details see chapter 3 and 7). The reference category "not working" includes the unemployed as well as the homemakers. The advantage of an analysis contrasting those with employment and those without is that the complicated boundary of being inactive and being unemployed is avoided. Many women who would take up a job if offered to them may still declare themselves "homemakers" in the meantime. Unlike for men, the reference category for women is still mostly composed of homemakers, as only 3% declare themselves unemployed[6]. On the other hand, women who migrate for study reasons are expected to be very different from those who are inactive or unemployed at destination, and were

[6] The low number of women who declared themselves unemployed, besides preventing specific analyses of this category, further leads to suspect that this distinction may be to some extent artificial for the interviewees.

thus excluded from the reference category[7]. As in the case of men, the chapter studies the labour market access at two points in time: the first year of their migration and at the time of the survey (last year of the migration spell for those who re-migrated to Senegal or elsewhere[8]). Given the binary nature of the dependent variable, logistic regression methods are used[9].

Occupational status. A second type of economic outcome of interest is the type of jobs occupied by the migrants, measured in this chapter using the Index of Socio-Economic Status (ISEI). As discussed in chapter 3, it was considered less important to distinguish the case of self-employed activities in the analysis of women since a lower share of them are self-employed and since in many cases the status of the job is quite similar irrespective of whether it is practiced as an independent or as an employee. Further advantages of using a continuous dependent variable include allowing an unlimited distinction within occupational groups and being better suited for small sample sizes. Given the continuous nature of the dependent variable, Ordinary Least Squares regression methods are used. As in the case of men, the chapter analyses both the first[10] and the last occupational status at destination. With respect to the latter, a categorical variable distinguishes three outcomes: no mobility (the migrant had only one job at destination), a move into a semi-skilled or skilled job, and a move into a low skilled job. Multinomial logistic regression is used to estimate this outcome.

To preserve the same population in the analyses of employment status and of the type of job, those who studied at destination are also excluded from the occupational status analysis. A brief discussion on the ways in which the findings change when taking them into account is nonetheless included, and the models including the students are available in the appendix. Furthermore, in all models women over 65 years old are excluded, as

[7] Students may also work, and have in a few cases declared a secondary economic activity. However, numbers are too small to allow for specific analyses and priority was given to the constitution of a homogeneous sample, in order to facilitate the interpretation of results.

[8] They represent 11% of all women. Whether the woman is still present at destination at the time of the survey does not significantly affect labour market outcomes so was not included in the final models

[9] Event history models of time since the first job were also considered, but since the large majority of women migrating independently found a job in the first year, the collinearity between types of migration and the time-dependency of the hazard was judged problematic.

[10] The first job may have been obtained later on during the migration spell for those who don't start working immediately upon arrival.

their reasons for not working may be different. The total sample[11] is of 280 women (including students) and the unit of analysis is their first European migration spell.

The network measures and the other independent variables are the same as in the analyses of male labour market patterns (see chapter 7), with the exception of the family context of migration, which will be presented below. As discussed in the previous chapter, migrant networks at destination precede the labour market outcomes of interest and thus reversed causality[12] can be ruled out. Since by construction these ties have to be present at destination for at least a year when the respondent arrives, they cannot be developed during migrants' first job.

Type of migration. As discussed above, the family-context of migration is expected to strongly influence women's labour market outcomes at destination. Unlike other datasets offering only indirect proxies such as the admission category or reasons for migration, the MAFE data allow the construction of direct measures to approach this aspect. The data offers information on both the family formation and migration trajectories of the respondents as well as the migration trajectories of their spouses, where relevant. Following Gonzalez-Ferrer (2011), I construct a typology distinguishing between 1) women migrating while single, 2) those leaving their partners behind, 3) those migrating jointly as a couple, 4) those reuniting with their partners and whose union precedes the partner's migration (reunited partners) and, finally, 5) those who also migrate to join their partner but whose union started after the partner's first migration (marriage migrants or imported partners[13]). Since the second group has similar outcomes to the first, and given the low sample size in that category, in most analyses the first two categories are merged into one: women migrating independently of their partner. Also, in some of the analyses, the last three categories are regrouped, for similar reasons, in the category of partner-related (or family) migrations. To

[11] The final sample sizes for the likelihood of employment, after excluding students and the inactive for other reasons is N=250, for the ISEI of the first job, N=205, for the ISEI of the last job: N = 226.

[12] However, as in the case of men, unobserved heterogeneity can be a problem, as other variables may affect both the composition of friendship networks and labour market outcomes. People with more ambition, a more likeable personality and more ability, may be both more likely to have many friends and to get a job more easily. It is tried to minimize this bias by including additional control variables. For example, it was found in chapter 4 that more educated people have more ties to former or current migrants. Including educational attainment in the models partly accounts for the effect of social ties.

[13] The term "imported partner" is often used to describe this form of migration, but has negative connotations. Given that the migration may come only years after the union is formed, the term marriage migrant is not completely accurate either. Both terms will be used here, referring to the same form of migration.

construct the typology, I consider all unions, even the non-legalized ones, which is important in order to be able to distinguish between the imported and the reunited types[14]. However, 95% of the partner-related migrants are married upon arrival.

Figure VI-1 shows that the largest share of women in the sample (around 55%) have migrated in relation to their partner, with most of them coming as "imported" partners (35%). The high frequency of this form of migration may be related to the strong gender imbalance within the Senegalese community in Europe, especially in Italy and Spain. Single women represent 40% of the migrants, a significant part among them coming for study purposes. Women in couple who migrate without their partners are a small minority (7%).

8.3.3 Descriptive statistics

In

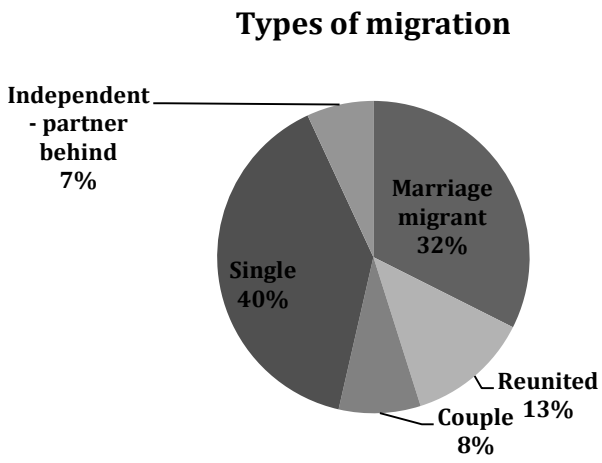
Table VIII-1, the distributions of the migrant network variables are presented, broken down by type of migration. Women coming independently of a partner are compared to those whose partner is present at destination. Overall, their access to pre-migration ties is highly comparable. Almost half of migrants have other ties already present at destination when they arrive, and although the share is slightly higher among independent migrants, differences are not significant. Compared to men, women declare slightly smaller networks at destination[15]. Independent migrants appear more likely to have extended kin or friends at destination and female networks than partner-related migrants, though not significantly so[16]. Among both types of migrants, a larger share reports knowing more established migrants than recent migrants (40% compared to 20 % on average), though independent migrants are more likely than partner-associated ones to be related to migrants recently arrived at destination.

[14] Qualitative evidence has reported cases where unions are formed but where the man migrates in order to gather the resources necessary to formalize the marriage (Randall and Mondain 2010). This is a very different case than that of marriage migration; not taking into account informal unions they could not be distinguished.

[15] A mean of 1.4 for women compared to 1.7 for men, difference significant at $p<0.05$

[16] The difference becomes however significant when considering the composition of networks only for those who have at least one pre-migration tie at destination, as was done in chapter six.

Figure VIII-1 Type of migration with respect to the migration trajectory of the partner



Weighted percentages; N=280

Table VIII-1 Access to and types of pre-migration ties by mode of migration

	Independent migrant	Partner-related migrant	Total	Sign. diff. between types
Pre-migration ties at destination				
Has pre-established ties	48%	42%	45%	n.s.
Range	0-3	0-4	0-4	
Mean	1.47	1.33	1.40	n.s.
SD	0.70	0.64	0.67	
Type of networks				
Relationship to ego				
Has close family members	22%	26%	24%	n.s.
Has extended kin/ friends	32%	23%	27%	n.s.
Gender				
Has men	29%	29%	29%	n.s.
Has women	25%	20%	22%	n.s.
Experience abroad				
Has recent migrants (< 5 years)	26%	15%	20%	*
Has long- term migrants (5 or more)	40%	38%	39%	n.s.
Number of cases (un-weighted)	134	146	280	

*p<0.10; **p<0.05; ***p<0.01; n.s. not significant. Weighted data.

The relative share of each form of migration is discussed in chapter 6. Independent and partner-related migrants are different with respect to other characteristics. Women migrating independently of a spouse are more educated and more likely to speak the language of the reception country than partner-related migrants, though both types of migrants are positively selected with respect to education when compared to non-migrants. Furthermore, as expected, autonomous migrants are more likely to arrive at destination without legal documents or with only a short-term visa[17], whereas partner related migrants are probably benefitting from family reunification policies and enter more often with a residence permit.

Table E-1 in Appendix presents the distribution of the main independent variables by country of destination. Given the longer history of migration to France, migrants in this destination are more likely to report at least one pre-migration tie: they are especially more likely to declare access to female networks and to long-term migrants than those in Italy or Spain. Somewhat surprisingly, women migrants in France are not significantly more educated than the rest, but they are more likely to have arrived before 2000 and with a residence permit. Marriage migrations represent a higher share of all migrations in France than in Italy or Spain. There are no significant country differences with respect to the proportion of women who have children under 6 years old abroad (almost 20% of women on average).

8.4 Findings

8.4.1 The economic outcomes of migrant women upon arrival: descriptive outlook

Table VIII-2 presents the evolution of women's economic situation over the migration spell with regards to the two main outcomes studied in this chapter: access to the labour market and occupational status. Independent and partner-related migrants are compared[18]. The most substantial difference between the two types of migrants is with respect to labour force participation upon arrival: whereas 82% of independent migrants (65% if students are considered as well) work in the first year, only 30% (28 % including students) do so among partner-related migrants. There is a further gradient

[17] 60% of migrations compared to 25% for partner-related migrants

[18] Results of chi-squared and t-tests that evaluate whether the difference between independent and partner-related migrants is significant are reported in the last column.

with respect to the likelihood to work upon arrival within the partner-related category, as marriage migrants seem the least likely to work (24%), followed by reunited spouses (36%) and couple migrants (43%). However, a substantial share of partner-related migrants gradually enter the labour market: 61% of them work at the time of the survey.

Table VIII-2 Migrant women's access to the labour market and occupational status by type of migration (weighted)

	Independent		Partner-rel.		Total		Sign diff. by type migrant
	First Year	Last year	First year	Last year	First year	Last year	
Access to labour market							
Activity status (column %)							
Jobless	15%	9%	64%	38%	43%	25%	*** (1st yr)
Student	20%	10%	8%	2%	13%	6%	** (current)
Working	65%	80%	28%	60%	44%	69%	
% with job (excl students)	82%	89%	30%	61%	51%	73%	n.s.(current)
Occupational status							
Type job	First job	Last job	First job	Last job	First job	Last job	
ISEI	31.9	33.9	26.0	27.7	28.8	30.6	n.s. (1st yr)
SD	13.6	13.8	12.9	13.2	13.5	13.8	** (current)
Ever changed job (%)	45%		31%		37%		*
Type job sector (mean ISEI; column %)							
Employee/manual unskilled (22)	20%	19%	45%	45%	34%	33%	** (1st yr)
Domestic unskilled (23)	34%	27%	23%	21%	28%	24%	*** (current)
Shop assistant, peddler (30)	16%	19%	9%	11%	12%	14%	
Semi/skilled (45)	30%	34%	23%	23%	26%	29%	
	No networks		Has network				
	First	Last	First	Last			
% Working	49%	66%	54%	82%	ns (first); ** (current)		
Mean ISEI	28.5	29.1	30.5	30.8	n.s. (both)		
N (un-weighted)	134		146		280		

* p<0.10, ** p<0.05, *** p<0.01; n.s. not significant; Weighted data.

With respect to occupational status, the average ISEI of the first job is quite low, especially for women who migrate in relation to their partner (26 compared to 32 for independent migrants). Furthermore, the progression is quite limited between the first and the current year of their migration spell, while the differences between types of

migrants persist. To give a more concrete idea about the type of jobs held by the women upon arrival, the initial classification present in the data set was regrouped according to the sector of employment and skill level of the job. In parenthesis is the mean ISEI for each category. The domestic sector is the most common venue for entry into the labour market for independent women, attracting a third of this category in our sample. While it is also a frequent first type of employment for partner–related migrants, a larger share of these migrants finds an unskilled manual job in a factory, in the catering industry or else takes up low-skilled agricultural work (the employee/manual unskilled category). Fewer women engage in commercial activities, and when they do they are more likely to be shop-assistants than street-peddlers, though the latter case can also be found among independent migrants. Slightly less than a third of independent and less than a quarter of partner-related migrants occupy a semi- or skilled job (a large part of them as administrative clerks or in the care sector).

Lastly, Table VIII-2 examines whether there is an association, at this first descriptive level, between access to pre-migration networks at destination and women's economic outcomes. In terms of likelihood to work, women who report having networks at arrival seem slightly more likely to work than those who do not, though the difference is significant only with respect to the current year. There appears to be no association between migrant social capital and occupational status, neither for women's first nor their current job.

8.4.2 Likelihood of employment: short and longer term effects

Whereas descriptive analyses can give an initial idea of the existing relationships between type of migration, migrant social capital and access to the labour market, multivariate analyses are needed in order to better disentangle the influence of each of the factors as well as their potential interactions. Table VIII-3 presents the results of a series of logistic regressions modelling the probability to work upon arrival and at the time of the survey. The first model M1 introduces only the network dummy: access to pre-migration tie does not appear to significantly influence women's labour force participation upon arrival. M2 builds on the first by adding the influence of the type of migration. Results seem to support the first hypothesis: a gradient in employment probabilities is revealed, with imported partners the least likely to work, followed by the reunited and those coming jointly as a couple (the difference between the latter two is not significant), while women migrating independently of their partner are the most

likely to be employed upon arrival. Furthermore, the large increase[19] in the Pseudo-R^2 between the two models suggests that the mode of migration explains to a much larger extent women's access to the labour market than pre-migration ties at destination.

Controlling for variations in the socio-demographic characteristics of the individuals (M3 – the "full" model) does not account for the differences between the various forms of migration. Women migrating independently of their partners are still significantly and substantially more likely to work upon arrival which is to be expected given they have to provide for themselves and that work is probably their primary motivation for migration. The difference between marriage migrants and reunited spouses is partly explained by the lower age at migration and lesser labour force experience of the former. However, marriage migrants still appear less likely to work upon arrival than the rest. It may be that these women and their partners are different on other, unobservable, aspects, such as attitudes towards gender norms. As other studies argued, migrant men who turn to the origin country to find a spouse may have a more traditional view of gender roles, a view which is perhaps no longer shared by migrant women at destination, considered as being too "emancipated" (Lievens 1999; Celikaksoy et al. 2003).

The questionnaire also includes a question regarding the participation of the migrant and his or her social entourage in the decision to migrate, allowing multiple answers. The variable was recoded in two categories to distinguish those who reported to have taken part in the decision from those whose migration was entirely decided by others[20]. Whereas almost all (90%) of the independent migrants participated in the migration decision (or decided alone), less of the reunited and joint couple migrants did so (around 60%), but this percentage was significantly lower among imported partners (44%) where, in most cases, the husband unilaterally decided of his wife's migration. These differences seem to support the idea that couples formed through marriage migration are more patriarchal and have a more asymmetrical power balance. Furthermore, as in other contexts where migration is considered the only venue for success, Senegalese migrants enjoy a prestigious status in their origin communities and are highly sought-after sons-

[19] This is further confirmed by other statistical tests comparing the two models (fitstat command, comparison of BIC')

[20] Given the high correlation with the type of migration this variable could not be introduced in the same time in the model; a different model was estimated excluding the type of migration it was found that having actively participated in the decision to migrate is positively affecting the likelihood to work upon arrival

in-law (Mondain and Diagne 2010). This may further diminish the bargaining and decision-making power of the women they choose to marry. Notwithstanding these differences, it should not be ignored that many of the "imported" partners do play an active role in the migration decision and work at destination upon arrival.

Table VIII-3 Likelihood of employment upon arrival, women (18-65), logistic regression (odds ratios)

	FIRST YEAR				LAST YEAR	
Variable	M1	M2	M3	M4	M5	M6
Time since arrival	-	-	-	-	1.05	1.04
Has pre-migration ties	1.21	1.11	1.1	0.78	1.76	1.45
Marriage migrant		0.47*	0.72*	0.4	0.81	0.82
Reunited		ref	ref	ref	ref	ref
Couple		1.36	1.56		0.88	
Independent		8.12***	10.10***	6.76***	3.81**	4.04***
Married t-1					1.31	1.36
Age			1.23	1.19	1.73*	1.45
Age squared			1	1	0.99*	0.99
Education level (*ref: no degree)*			ref	ref	ref	ref
Primary			0.83	0.82	0.85	0.84
Secondary or more			0.97	0.96	1.26	1.26
Speaks language			2.03	2.35	1.29	1.11
No permanent documents			0.91	0.84	1.51	1.78
No permanent doc t-1			-	-	0.39*	0.33**
After 2000 (ref: before 2000)			0.83	0.62	2.69**	2.58*
Italy or Spain *(ref: France)*			2.4	2.77	0.34*	0.37*
Has worked in Senegal			2.35*	2.29*	2.69**	2.50**
Has children < 6 years			0.68	0.13***	0.77	0.54
Has children x Has ties				13.93**		0.89
Log likelihood	-171.7	-136.2	-124.5	-121.4	-119.8	-121.9
Pseudo R2	0.01	0.21	0.28	0.3	0.17	0.16
N	254	250	248	248	236	236

*p<0.10; **p<0.05; ***p<0.01. Those who study upon arrival are excluded from the analysis. In all models, time varying variables are measured at the time of arrival (education, age, legal documents, year, children, and pre-migration ties). In the analysis of employment at the time of the survey, marital and legal status are measured the prior year

In terms of human capital, the most important competence is being able to speak the language of the destination country, which confirms the findings of previous studies (Dayan et al. 1996). Language ability also mediates the effect of education[21], which is no longer significant when including the language variable, as was also found with respect to Senegalese men's economic integration (chapter 7). This resonates with qualitative findings, such as Roulleau-Berger's (2010) study on the economic integration of migrant women in France, which shows that their educational qualifications are unable to protect migrant women from unemployment. Legal status has no significant influence on employment likelihood. Having worked in Senegal before migration is on the other hand an important predictor of taking up work at destination. This could be because of the accumulated work experience *per se*, although this might not be recognized in the European labour market. It is more likely, though, to reflect more modern views on gender roles for the woman and perhaps her partner.

Having children younger than six at destination decreases the probability to work, but not significantly so. This is a bit puzzling as one would have expected a larger effect. Introducing the variable in a continuous form or distinguishing women with two or more young children does not alter the finding. It could be that another factor is at play, attenuating the negative effect of children. Social ties at destination can be one such factor, as discussed in section 8.2.2: women may benefit from the help of family or friends who take care of their children while they work.

In order to estimate the extent to which networks serve this role, an interaction term between access to pre-migration ties and having young children at destination was introduced in M4. If social ties link migrants to jobs, they should have an influence for both women with and without young children; if they (also) serve a role in taking care of women's young children while they work, they should have a larger influence for the former. The interaction term is positive and significant confirming that networks have a larger positive effect for women with children (OR= 14 x 0.13 = 1.8). For those without, networks do not seem to have a bearing on their employment likelihood upon arrival. Also, having young children but no social ties at arrival has a much larger and significant negative effect than previously on the likelihood to work.

[21] In a model excluding language skills, having secondary level education or more significantly increases the chances of taking up employment at destination (OR = 1.8*)

The lack of an effect of co-ethnic ties besides providing childcare may hide differential influences of the various types of ties – according to their gender or relationship to ego – in the different forms of migration. This chapter hypothesized another possible interaction between the family context of migration and the role of networks. It is expected that women migrating on their own, and not under the auspices of family reunification, rely more on female networks than on male ones, as men may be unwilling to share their resources with them and facilitate their entry into the labour force. On the other hand, women whose partner is at destination may benefit from the resources available through their partners' mostly male networks. Results seem to confirm this hypothesis. M7 in Table VIII-4 introduces an interaction term between the type of migration and access to male or female ties, while controlling for all the other variables in M3 (from Table VIII-3). Being related to a female migrant at destination significantly increases independent women's chances to work upon arrival (coefficient: OR=2.57*[22]) whereas male networks have no effect.

Table VIII-4 Likelihood of employment upon arrival: interaction effects (Odds Ratios)

	FIRST YEAR		LAST YEAR	
Variable	M7	M8	M9	M10
Type of migration (ref: independent)	ref	ref		
Has partner at destination	0.14***	0.08***	0.29***	0.24***
Has male pre-migration ties (ref: no men)	0.84		1.59	
Has women at destination	2.57*		2*	
Men x Has partner	1.68		1.4	
Women x Has partner	0.14*		0.19	
Has close fam. at destination		1.96		0.88
Has friends/ext. fam. at destination		0.56		3.72^{+}
Close fam. x Has partner		0.64		3.08
Friends/ext. fam. x Has partner		1.78		0.27
Log Likelihood	-131.35	-121.9	-120.1	-121.8
Pseudo R2	0.26	0.29	0.14	0.13
N	254	248	227	227

$^{+}$ p<0.15; *p<0.10; **p<0.05; ***p<0.01 Controls include all variables presented in Table 2, M3. Imported, reunited and joint couple migration forms have been grouped in "partner-related" migration.

The interaction term between female networks and having one's partner at destination is negative, suggesting that female networks have a lower effect for partner-related

[22] Following the introduction of the interaction term, the main effect only applies to the reference category, which is independent migrants

migrants. On the other hand male networks (excluding the partner) have a somewhat larger positive impact, though the interaction term is not significant. The findings hold when excluding women with young children at destination, suggesting that the mechanism through which female networks influence independent migrants' access to the labour market is by providing information on employment opportunities. Finally, M8 in Table VIII-4 investigates whether independent women also rely more on weaker ties than on close family members in securing access to the labour market. This hypothesis is not supported with respect to the likelihood to work upon arrival, as the distinction in terms of proximity of the tie does not appear to matter (none of the terms is significant).

Previous qualitative literature has argued that the longer-term effects of migrant networks may be different than the shorter term ones. This chapter further investigates the extent to which pre-migration ties and the type of migration are still affecting women's employment status at the time of the survey (Models 5 and 6 in Table VIII-3 and Models 9 and 10 in Table VIII-4). Among the time-varying variables, some are measured at arrival (such as networks, type of (family) migration, education, language ability), others are lagged one year in relation to the year of the survey (married, having young children, legal status). In addition, the time spent at destination since arrival[23] is controlled for. Those who studied upon arrival are excluded from this analysis to insure a longitudinal comparison for the same sample.

First, the family context of arrival is less influential in women's employment later on in the migration trajectory: women coming in relation to their partner partly catch up with independent migrants, as the advantage of the latter is much lower (OR=3.81*). An interaction[24] between time since arrival and partner-related migration was found to be positive and significant, suggesting that the benefits of the duration of settlement are especially felt by partner-related migrants. A look at descriptive statistics confirms this finding: whereas 30% of partner-related migrants worked upon arrival, this percentage had doubled by the end of their migration period. Controlling for the marital status, measured the previous year, has no influence on the likelihood to work and does not alter the influence of the type of migration. This suggests that independent migrants

[23] Introducing this variable under other forms (squared term, logarithm) produces no significant results; the linear term was therefore included to save degrees of freedom
[24] Model not shown but available upon request (OR=1.10, p=0.02)

having formed a union while abroad do not leave the labour market. While in Senegal women often stop working after marriage (Adjamagbo and Antoine 2009), an exposure to different gender norms at destination may explain this finding. On the other hand, women who have undertaken an independent migration are, in any case, more likely to deviate from traditional gender roles.

Having kin or friends at destination upon arrival is positively but not significantly associated with the probability to work. However, the pre-established migrant networks found at arrival seem to no longer play a large role in the access to employment for women with young children (interaction term Has children x Has ties in M6 is not significant and close to 1). This is not really surprising: as their experience in the host country lengthens, women may increasingly access various social services such as kindergartens and therefore be less dependent on co-ethnic networks. Thus, the childcare role of networks seems most important in the early settlement period.

Confirming previous findings concerning migrants in Spain (Gonzalez-Ferrer 2011), legal status at entry and current legal status have opposite influences, though only current status was found to be significant. Whereas entering the country without permanent documents may reflect a higher financial need and a stronger preference to work, as discussed in section 8.2.1, in the long run the lack of residence rights may limit migrants' job opportunities, access to employment services and may expose them to exploitation and discrimination. The other covariates play in a similar way as in the likelihood of employment upon arrival, with the exception of the host country. As was found for men, whereas migrants in Italy or Spain were more likely than those going to France to work upon arrival, they are less likely to be employed in later periods. This may be related to differences in the structure of the labour market, briefly discussed in chapter 4: in France, a more protected labour market makes access more difficult but may guarantee higher job stability afterwards.

It was also found (Table VIII-4, Models 7 and 8) that female networks are the only forms of co-ethnic social capital investigated here which are influential in independent migrants' access to the labour market upon arrival. These ties affect much less the employment outcomes of partner-related migrants. It may be expected that independent and partner-related migrants converge in their use of networks as the time they spend at destination increases. This does not seem to be the case, however: the same patterns of influence can still be observed at the time of the survey as female networks are positively associated with independent women's likelihood to work (OR=2.01*, Model

9). Furthermore, weaker ties – in the form of friends, acquaintances or extended kin – also have a positive influence on independent women's employment probability at the time of the survey; however, as was the case for men (chapter 7), this effect is not significant at a conventional threshold[25]. While it would appear that partner-related migrants do not benefit from female networks and weaker ties in the same way as independent migrants in view of the negative coefficients of the interaction terms, the lack of significance does not allow a definite conclusion in this respect.

8.4.3 Occupational status of the first job at destination

As discussed in section 8.2.2, research has shown that the use of social ties in the job search actually hinders migrant women's labour market performance (Livingston 2006; Smith 2000). It is argued that women are channelled via their female networks into low-quality, often private domestic work with little opportunity for advancement (Hagan 1998; Hondagneu-Sotelo 1994). However, quantitative studies have not directly tested this hypothesis, as they had no disaggregated data on individuals' social ties.

Table VIII-5 presents the coefficients from an OLS regression model for the influence of networks, the type of migration and other controls on the occupational status of the first job obtained at destination, as measured by the ISEI. As the first job might not have been obtained in the first year, the model controls for the time elapsed since arrival up to when the woman first entered the labour market at destination. This is only slightly positively, though not significantly, influencing the ISEI of the first job.

The type of migration is not only affecting Senegalese women's labour force participation, but also the types of jobs they obtain. Marriage migrants and reunited spouses enter lower status jobs than women migrating independently. Women who migrate as a couple appear to have similar outcomes as independent migrants, but the low number of cases of joint couple migration is probably responsible for the lack of significance of the coefficient. These findings could lend some support to the family investment hypothesis, according to which migrant married women take on low paid and "dead-end" jobs in order to support their partners' investments in host-country human capital (Long 1980). Sociological research adopting the migrant women's perspective (Roulleau-Berger 2010) argue that what is seen as a sacrifice can actually be

[25] It may be that higher sample sizes would confirm the positive influence of these types of ties.

perceived by women as an increase in autonomy within the couple and the host society, and an emancipation from traditional gender roles. Partner-related migration remains negatively and significantly related to occupational status in the other models, with the exception of joint couple mobility.

Table VIII-5 Occupational status (ISEI) of first job, OLS regression, Women (18-65)

Variable	M1	M2	M3
Time since arrival (years)	0.32	0.28	0.31
Type of migration			
Imported	0.88	1.21	0.71
Reunited	ref	ref	ref
Joint couple	5.57	5.83	5.26
Independent	4.67*	3.83*	3.37*
Has pre-migration ties *(ref: no ties)*	-1.74		
Married t-1	1.33		
Has children < 6 yrs t-1	1.7		
Age (years)	0.15	0.18	0.15
Educational level (ref: no degree)	ref	ref	ref
Primary	3.74	3.98	3.83
Secondary or more	5.87**	6.15**	5.70**
Speaks language	8.45***	8.29***	8.64***
No permanent documents	2.58	1.44	1.53
In Italy / Spain *(ref: France)*	4.43**	4.52**	4.73**
Arrived after 2000 (*ref: before 2000)*	0.06	0.61	0.34
Has male pre-migration ties *(ref: no men)*		-1.38	
Has women at destination *(ref: no women)*		-3.26*	
Has close kin destination			-1.07
Has friends/extended kin destination			-0.94
R-squared	0.11	0.13	0.11
Adjusted R-squared	0.05	0.07	0.05
N	201	205	205

*p<0.10; **p<0.05; ***p<0.01. Those who studied upon arrival were excluded from this analysis. All covariates are measured at the moment of arrival, except marital status and having young children which are lagged one year relative to the year when the woman entered her first job at destination.

Confirming previous studies, having social ties at destinations seems to lead to lower-quality jobs. Access to pre-migration ties decreases the ISEI of the first job, but the coefficient is not significant (M1). However, when distinguishing these ties according to their gender, it becomes apparent that it is the female networks that are responsible for this negative effect, whereas the male ones have no significant influence. Close family members or more extended kin and friends seem to affect the status of the job in similar

ways, as there is no difference between the coefficients (M2). Additional analyses[26] were run disaggregating each type of tie according to gender, but female strong and weak ties seem to have a similar (negative) influence. Also, whereas an interaction term between the gender of the tie and the form of migration seemed to suggest that female networks have a higher negative influence for independent migrants, the coefficients were not significant. The level of resources of prior migrants as proxied by their migration experience was not found to shape their influence significantly.

The other factor most strongly associated with the ISEI of the first job is human capital, in the form of education and host-country language ability. Being able to speak the language of the destination country increases the ISEI score by around 8 points, while having attained a secondary level degree or more increases it with 6 points on average. Marital status and family situation do not influence occupational status, nor does age or legal status. Migrants in Italy or Spain appear to find jobs of a higher occupational status.

To maintain a similar sample as in the previous analyses in this chapter, the models presented in Table VIII-5 exclude women who initially came for studies and later took on a job (N=30). Including them (Table E-2 in Appendix) affects two sets of coefficients: first, all human capital variables have a stronger positive effect and the fact of having studied abroad is among the most important predictors of occupational status, which is increased by an average of 7 ISEI points, after taking into account the level of education and language abilities. Second, the effect of networks is less important. Possibly, these more educated women have access to different kinds of social capital, not measured here: through their studies they may have built friendships with similarly educated individuals and with natives, who can act as bridges to better quality jobs. Also, their pre-established migrant connections may similarly be more educated and occupy better professional positions, which will compensate, in the model, the negative effect of networks for the rest of migrants.

Overall, access to pre-established migrant networks, and especially female networks, seems to lead women to lower quality jobs upon arrival. But does it also affect their later employment prospects? Is there any evidence of an entrapment in lower quality jobs? Given that few women have changed their job during the time they spent at

[26] Models not shown, but available upon request

destination, only a highly exploratory[27] analysis can be conducted. This investigates whether networks affect women's subsequent job mobility by distinguishing three types of occupational transition: no job change, a move into a semi-skilled or skilled job and a move into an unskilled job. Table E-3 in Appendix presents the results of the multinomial regression, taking the first case (no job change) as a reference. The model controls for the time spent at destination, which, as expected, increases the likelihood of any type of job mobility, but especially of moves into skilled jobs. As expected under the ethnic entrapment hypothesis, having access to pre-migration ties is significantly increasing the likelihood to move into unskilled jobs while it does not affect moves into more skilled employment. However, distinguishing according to the gender of the ties, M2 shows both female networks and male networks to lead to subsequent moves into unskilled work.

The type of migration is not significantly associated to any outcome, though women migrating independently, in couple or as marriage migrants appear to have higher chances of moving into skilled jobs compared to reunited spouses. As expected, human capital is positively related to moves into skilled work. Having a secondary level degree or more and speaking the host country's language upon arrival increases the likelihood of upward mobility. Age slightly decreases chances of moving into unskilled work.

8.5 Discussion and conclusions

This chapter investigated how pre-migration ties intersect with the channel of migration in shaping Senegalese women's labour market trajectories in Europe. It has shown that the various ways in which co-ethnic social ties influence women's economic integration become apparent only when taking into account the (family) context of migration, which most of the previous studies had not done. Several findings stand out.

First, migrant networks are less influential in women's labour market outcomes than their type of migration. Whether women migrate in relation to their partner or independently is the strongest determinant of the likelihood to work upon arrival and also affects the type of jobs women occupy. Furthermore, the different forms of partner-related migration, according to the sequencing of family formation and migration trajectories, are associated to differential rates of labour market entry. Women migrating

[27] There are plans to expand this analysis to the larger MAFE sample the when data will be available.

with their husbands, followed by reunited partners, are more likely to work upon arrival than marriage migrants. A potential explanation for this difference, which persists after taking into account observable differences in human and social capital, is that imported partners are in unions with a more asymmetrical power balance and where more patriarchal gender norms are enforced (Lievens 1999; Mondain and Diagne 2010).

Differences between the various types of female migration diminish in the long run, as more and more women migrating in relation to their partner eventually enter the labour market. However, partner-related migrants have a lower occupational status in their first job than independent ones, after controlling for human capital and other characteristics. A similar finding has been reported about Congolese migrants to Belgium (Vause 2010) and migrants from various origins to France (Roulleau-Berger 2010). Possibly, the economic activities of women who follow their partners at destination are only meant to complement their husbands' income. They may be more likely to work on a part-time and temporary basis, aspects more characteristics of lower-level jobs.

Furthermore, women migrating in relation to their partners may be more inclined to accept any kind of job as a way to achieve emancipation and a higher social status within the couple and relative to their community of origin. While their engagement in the labour market may appear strikingly low in absolute terms, this should be placed in the context of origin. It is not the purpose of this work to evaluate the extent to which migration is empowering women, but compared to non-migrant women in the MAFE sample, those who come to Europe, whichever the channel, are more likely to work, even though not in their first years abroad.

Second, having social ties at destination facilitates access to the labour market but leads to lower quality jobs. Furthermore, migrant networks operate through different mechanisms according to the family context of migration. An important function of networks upon arrival is to provide assistance with childcare to women with young children at destination, making them much more likely to participate in work for pay. This function is only temporary, however: as their period of settlement lengthens, women seem to no longer rely on pre-established co-ethnic ties as they probably turn to other sources (such as public social services) for help with childcare.

The findings further confirmed previous qualitative evidence of a higher reliance of women migrating alone on female networks and, to some extent, also on friendship ties and extended kin. Hondagneu-Sotelo (1994) notes that Mexican migrant men were reluctant to help solo migrant women access the labour market as they did not approve

of their migration. In Senegal too, independent female migration continues to be stigmatized and has little acceptance (Bâ and Bredeloup 1997). For independent migrants in the MAFE sample, ties to male migrants were not influential in any way, whereas ties to female migrants increased the likelihood to find a job. In addition, female networks were more influential for these women than for their counterparts migrating in relation to their partners. These results hold when excluding women with young children, suggesting that the mechanism of influence in this case is probably one of providing job information, contacts or referrals. This is confirmed by the fact that female networks also affect occupational status: having ties to female migrants established at destination leads to lower quality jobs, irrespective of migration type.

Huffman and Torres (2002), in a study not focused on immigrants, argue that women provide lower-quality job leads because they occupy lower status jobs (2002: p. 809). Similarly, the findings from the present chapter are likely to reflect the existence of gendered ethnic niches: descriptive statistics show that more than half of the Senegalese women find unskilled jobs in the domestic or service sector. They further suggest that female networks are actively contributing to the reproduction of the observed gender-based segregation.

Finally, the influences of pre-established migrant networks and of having one's spouse at destination are largest upon arrival, though both factors continue to affect employment outcomes later on in the migration period. One limit of the dataset is that it does not contain information about the ties that migrants develop once at destination, either with co-ethnics or with natives. Thus, as the period of settlement lengthens, the networks that the migrant finds upon arrival in the host country measure less and less accurately her overall social network. Finding a lower influence of the network measures with the increase of time spent at destination is not necessarily evidence of a lower reliance by migrants on social ties in general.

Overall, findings served to put in perspective the role of migrant social capital for women's labour outcomes. First, compared to the large role played by migrant networks in women's migration likelihood, pre-migration ties play a relatively modest part in their economic integration at destination. Second, their influence is only understood in connection to the (family) context of their migration. Third, while female networks are somehow helpful in finding work, they also appear to trap women in gender-segregated niches of the labour market. As for men, bonding social capital is found to reproduce inequality, rather than offer means of overcoming it.

Chapter IX

Conclusion:
Contextualizing the influence of migrant social capital

9.1 Introduction

This thesis set out to investigate the roles of migrant networks in the international migration process. It has challenged the conventional wisdom that networks are invariably sources of help and has systematically investigated the conditions under which migrant networks work, while also trying to address some of the ways in which they function. The thesis has addressed these goals in several ways. Whereas previous studies have analysed individuals' migration behaviour and their subsequent economic integration separately, here the two aspects are brought together in a longitudinal analysis of migration as a process. This has allowed me to disentangle some of the mechanisms through which networks exert their influence, and helped to assess their effect at different stages of the process. Second, research so far has addressed insufficiently the differential role networks play in men's and women's migration experiences; this thesis has tackled the concern by placing gender at the centre of the analysis and systematically investigating gender differences in the role of networks. In doing so, it has distinguished the specific role of the migrant partner from the influence of other social ties, too often conflated in previous work, and has studied their interaction in shaping women's migration processes. Third, most previous studies treated networks as an undifferentiated resource, ignoring their composition (often because of data limitations). The present thesis has examined the extent to which different types of tie influence the propensity to migrate, and migrants' economic incorporation, differently.

The main challenge has been to examine these aspects in a quantitative framework. Taking advantage of a recent longitudinal dataset offering rich information on individuals' networks as well as their migration and economic trajectories, the thesis investigates the *heterogeneity* of the effects of migrant networks. By taking into account both migration and labour market outcomes, several destination contexts, men and women and the composition of migrant networks, this thesis has provided a detailed analysis of the roles of migrant networks in the migration process. Moreover,

most research on this topic focused on Latin American or Asian migration to the USA, and more recently on Turkish or Moroccan migrants' economic integration in Germany and the Netherlands. Sub-Saharan African migration to Europe has been less studied in quantitative research. This thesis therefore extends this literature by examining an under-studied flow - Senegalese migration - and destinations that figured less prominently in past research, such as Italy, Spain and France.

9.2 Overview of findings

9.2.1 Migrant networks and the likelihood of migrating to Europe

In the first part of this thesis (chapters five and six), the following research question was asked:

To what extent do migrant networks influence the propensity to migrate?

Several dimensions of this question were investigated: whether migrant connections shaped men's and women's mobility similarly; whether different types of tie had similar influences; and whether networks played similar roles in different types of (female) migration. While findings in the Senegalese context reveal migrant networks to be an important factor of influence in migration behaviour, they also show that migrant social capital has a different influence depending on the gender of the potential migrants and that it is not an undifferentiated resource.

An initial finding is that migrant social capital is region-specific. Having ties in Africa does not influence migration to Europe for men or women. Consequently, only ties to migrants located in Europe are included in the analyses of the likelihood to migrate for the first time to France, Italy or Spain as an adult (chapters five and six). Owing to the research design of the MAFE survey, migration within Africa could not be investigated. Exploratory analyses suggest, however, that networks have a lower influence on intra-continental migration. Furthermore, having ties in Europe reduces the likelihood of moving to another African country, especially for women.

The first hypothesis that was tested was whether networks have a larger role in women's mobility, as previous studies suggest. At first sight, this appears to be the case. However, distinguishing the presence abroad of women's current partners from the rest of the network – which, to my knowledge, none of the previous quantitative studies does - shows that behind a network effect lies a considerable partner effect. This is an important distinction for at least two reasons. First, it confirms the importance of couple reunification migration in female mobility, which has as yet

received little quantitative evaluation, especially in the Sub-Saharan African case where data is lacking.[1] Previous studies from Mexico show that married women are not more likely to migrate than single women (Kanaiaupuni 2000; Curran and Rivero-Fuentes 2003). However, as chapter five shows, there is a great difference between the migration propensities of women whose partners are in Senegal compared to those whose partners are abroad. Instances of married women leaving their partners behind are rare in the Senegalese setting. Had they made this distinction, the Mexican studies might have also reached this result. Second, not considering the role of the migrant partner separately overestimates the role of family networks in female mobility and prevents distinguishing between different mechanisms of network influence. Findings in this thesis show that the migrant partner has a much larger effect on women's mobility than other close kin members, such as their parents or siblings. This is to be expected, given that the legal means at his disposal are greater and that spousal reunification is, to a larger extent, a household decision. Notwithstanding this, one needs to separate these influences in order to better understand gender differences in the role of migrant networks.

After taking into account the crucial role of the partner in female mobility, networks have only a slightly larger positive effect on women's likelihood to migrate than they do on men's. Chapter six further investigates this question by distinguishing between two forms of female mobility: women migrating to reunite with their partner and women moving independently of a partner. Results show that networks besides the partner are especially crucial to autonomous female mobility: they are much more influential than in male mobility or reunification mobility. However, having ties abroad other than one's spouse also appears to increase women's chances of reuniting with their partner. This confirms other findings from the Mexican case reported by Hondagneu-Sotelo (1994). In her study, women's connections at the destination were helping by putting pressure on the husband to bring his wife to the USA.

A second hypothesis guiding the investigation concerned the type of ties most influential in men's and women's mobility. It was argued in previous studies that close family ties have a larger impact on female migration than on male, while weaker ties have less influence on women's propensity to migrate. This hypothesis has been largely verified in the context of Senegalese migration to Europe, and holds up even

[1] Only six cases of male reunification migration were present in the MAFE sample: it can be said that this form of mobility is still a rare phenomenon in Senegalese migration flows.

when excluding the partner and children from the measure of strong ties. In both autonomous and reunification female migration, close family ties – such as siblings or parents - are more influential than extended kin or friends. Men, on the other hand, mobilise both types of tie to a similar extent.

Third, this thesis also confirms previous findings, mostly emphasised in qualitative work, that migrant networks work along gender lines. Taking into account the gender composition of the networks significantly affects the results. Only ties to prior *male* migrants turn out to be helpful in men's first migrations to Europe, whereas knowing other women migrants has no influence. On the other hand, *female* networks are especially important in female mobility, and influence women's propensity to migrate to a larger extent than male networks. The only exceptions are women who reunite with their partners, who rely on other male migrants,[2] and appear to draw no benefit from their female migrant connections with respect to the likelihood of reunification. An argument that has been put forward to explain that networks work along gender lines is the gender segmentation of destination labour markets where immigrants are incorporated; migrants of the same gender are more likely to provide relevant contacts and information for finding work abroad. The lower influence of female networks in spousal reunification may thus be linked to the lesser economic participation at destination of reunited spouses.

A fourth aspect considered is whether networks influence male and female mobility through different mechanisms. It was expected that the main function of networks for women would be to offer them material assistance and support with migration, whereas former migrants would play various other, more diffuse, roles in men's migration, such as providing information and motivation. Several findings support this hypothesis. Women are more likely to migrate if they have well-established networks, made up of long-term migrants and highly concentrated in a particular country. Such networks are assumed to command a higher level of resources and to be better able to offer the degree of assistance that women need to migrate. The finding applies to both autonomous and reunification migration. In contrast, recent migrants are more influential in male mobility, and more dispersed networks are just as useful in facilitating migration as more concentrated ones. Descriptive statistics of the involvement of the respondents' networks in their migration decision-making and financing of the trip (chapters five and six) further confirm this hypothesis: for

[2] The current partner is excluded from the male networks.

autonomous women's migration, compared to men's, migrant networks are twice as likely to be involved in both these matters. Men, on the other hand, are more likely to decide and finance their mobility alone than are women migrating independently of a partner. As expected, the partner is involved in the decision-making and funding of most reunification migrations. Other migrant ties are only marginally involved in these aspects (in less than 10% of the cases). Yet, regression results found these ties to significantly increase the likelihood of reuniting with one's partner. This leaves open the question of the mechanisms through which social ties abroad influence reunification migration. Qualitative work in the Mexican context found that other ties help convince men to bring their wives abroad or even assist those left behind to cross the border without the husband's knowledge (Hondagneu-Sotelo 1994). Given the limited autonomy of married women in Senegal, the latter seems unlikely to happen. More research, supplemented by qualitative fieldwork, is needed to investigate the ways in which migrant networks influence the spousal reunification processes.

Table IX-1 Summary of main findings with respect to migrant networks' influence on the propensity to migrate to Europe, by gender and type of migration

	Male migration	Autonomous female migration	Spousal reunification migration (women)
Migrant ties in Europe	+	++	+
Migrant ties in Africa	0	-	-
Close family ties	+	++	++
Extended kin/friends	+	+	0
Male networks	+	+	+
Female networks	0	++	0
Recent migrants	++	0	0
Experienced migrants	+	+	+
Long term migrants	0	++	++
Geographic concentration	0	+	+
Size network	+	++	+

Legend: "+" illustrates a positive effect of the particular network measure. A "++" illustrates a significant gender difference at least at $p<0.10$. "0" refers to no network effect. "-" represents a negative effect

A general finding that may be mentioned, despite not being the primary focus of this thesis, relates to education. Migrants from Senegal appear mostly to be drawn from amongst the better-educated. This applies to both men and women and all types of mobility. However, the positive selection of migrants on education appears especially strong in autonomous female migration, which has also been found with respect to Mexican migration to the US (Kanaiaupuni 2000; Feliciano 2008). This may reflect the gender discrimination that is prevalent in the country of origin and the limited

employment opportunities for educated women in Senegal. It may of course translate the empowering effect of education. But it could also be the case, as suggested by Feliciano (2008), that women who engage in what are relatively marginal behaviours in patriarchal Senegal – such as pursuing higher education or migrating autonomously – are a selected population on other, unobservable characteristics, such as ambition and drive.

9.2.2 Migrant networks and migrants' labour market outcomes at destination

The second part of the thesis (chapters seven and eight) investigates a subsequent stage of the migration process and aims to answer the following research question:

To what extent and in which ways do migrant networks influence economic integration at destination?

The general assumption in the migration literature is that membership in co-ethnic networks enhances immigrants' employment opportunities and occupational attainment at their destination by providing them valuable information, contacts or even job referrals. However, other studies have challenged the idea that co-ethnic networks are invariably sources of support, and emphasise the negative aspects of the reliance on these ties in terms of economic outcomes. Ethnic networks may isolate migrants from the wider society and the better and more diverse employment opportunities that natives may provide; furthermore, employment in the ethnic enclave may act as a mobility trap for migrants in the long run.

This thesis finds that the influence of migrant social capital on labour market trajectories is a highly differentiated process, depending on the gender of the newcomers, the composition of their networks, and the context of destination. Overall, migrant networks are not found to have strong direct effects on access to the labour market, and seem more likely to lead to lower quality jobs. Furthermore, a detailed investigation of the role of networks reveals other, more indirect ways through which these shape migrants' labour market outcomes, but which have so far received less attention in the literature.

A first outcome investigated is migrants' *access to the labour market*, both upon arrival and at the time of the survey. For men, having close kin at destination prior to one's arrival reduces the likelihood of working in the first year. This may support the temporary shelter effect theorised by Amuedo-Dorantes and Mundra (2005), who argue that networks put up newcomers, allowing them a longer search period for a potentially better job. This interpretation is strengthened by the finding that this effect

is only temporary: access to pre-established family networks no longer reduces employment probability later on in the period of migration.

Furthermore, jobs found later are more likely to be skilled than those found in the first year; the latter are most likely to be self-employed activities. Extended kin or friends at destination do not have any effect on men's access to the labour market upon arrival, and are positively but not significantly associated with employment at the time of the survey. On the other hand, belonging to the Murid Sufi brotherhood was found to have a significant and strong positive effect on the likelihood to work. To the extent that belonging to the brotherhood reflects access to Murid religious networks, this result may confirm previous qualitative findings of the powerful economic role that these transnational networks have.

With regard to women's labour force participation, distinguishing the migrant spouse from the rest of the migrant networks is even more crucial than when examining migration propensity, since the two types of tie have opposite influences on women's likelihood to work. The most important predictor of women's economic integration is their mode of migration, and more specifically whether they have their partner at their destination. As expected, women who reunite with their partner are less likely to work upon arrival than women migrating independently, though some of the former do enter the labour market later on.

Furthermore, some distinctions were observed between the different types of spousal reunification: marriage migrants – women marrying someone already abroad – were less likely to work upon arrival than reunited spouses – whose union precedes their spouse's migration. Marriage migrants were also less likely to have participated in the decision to migrate, suggesting they are part of more traditional couples in which the power balance strongly leans towards the man. Although there were few cases of couple migrations – where both partners migrate at the same time – it seems that women experiencing this type of mobility were more similar to independent migrants in their economic outcomes.

Compared to the substantial effect of the presence of one's partner at destination, other forms of migrant social capital are less influential in women's access to the labour market. However, compelling evidence was found of an indirect channel of influence of networks: pre-migration ties increase the likelihood of working upon arrival for women with young children, presumably by providing reliable and free childcare.

Taking into account the gender composition of networks reveals further effects of pre-migration ties on economic outcomes and confirms that networks work along gender lines. Female ties at destination increase the likelihood to work for women migrating independently, albeit not very strongly. Male networks, on the other hand, are not helpful in finding work for women independent migrants, while they are for partner-related migrants. For men, having pre-migration male ties increases their employment probability, but only at the time of the survey. This seems to support the argument of a gender segmentation of the labour market. But it may also reflect an unwillingness of prior male migrants to help women whose migration they do not approve of.

Overall, this thesis does not find strong evidence of a positive role of networks with respect to access to the labour market. Findings point to more indirect functions of networks which may positively impact migrants' labour market trajectories, such as providers of a temporary shelter for men or childcare for women. Only same-gender networks seem to be directly related to higher chances of finding employment, although the effect is not as substantial as qualitative work may lead us to expect.

The second outcome that this thesis investigates is migrants' occupational status, both in their first job abroad and later in the period of migration. The findings in chapter seven and eight seem to confirm previous work showing that networks have no effect on occupational attainment or, if anything, lead to lower quality jobs. However, results suggest that migrant social capital may be influenced by the resources available at the level of the larger immigrant community. For Senegalese men in Italy or Spain, having networks has no effect on their likelihood to enter a semi-skilled or skilled first job, but slightly increases their chances of becoming self-employed, mostly as street-peddlers - a highly precarious status.

It is only in France that a positive effect of networks is found among men, as pre-migration ties are more likely to lead to skilled employment and to protect migrants from self-employment. In France, the Senegalese community has been established longer, is more educated due to a larger inflow of student migration, and presumably occupies a more diverse array of occupations. In contrast, in Italy and Spain, Senegalese migrants have transformed small-scale commercial activities such as street-selling into a veritable ethnic niche. Qualitative work has brought evidence of the important role of networks in initiating newcomers in such activities. Moreover, analyses in chapter eight found access to pre-established female networks to lead women to lower-status jobs. Exploratory findings also suggest that these effects are of

a longer-term nature and that embeddedness in pre-migration networks traps migrants in low-skilled jobs.

9.3 Discussion

This thesis found that the role of migrant networks in the migration process is much more ambiguous and complex than the overly optimistic conventional wisdom would argue. It also showed that when investigating their influence it is not enough to ask whether or not networks are facilitating migration but also "to what extent", "under which conditions", "which types" and "for whom" they are influential in the migration process. Moreover, this work has confirmed previous arguments that migrant social capital does not only promote but may also constrain individuals' economic goal seeking (Portes and Sensenbrenner 1993).

To systematically analyse the heterogeneity of migrant networks' effects, it was proposed in chapter two to adopt Portes' (1998) distinction between three dimensions of social capital, each conditioning its impact: the attributes of the beneficiaries, the nature of their ties to sources and the resources these sources can command. Based on this framework, I employed statistical methods to test hypotheses about the ways in which these dimensions shaped the role of migrant networks in the migration process. The findings confirmed that the role of networks was contingent on these dimensions, but also that these interacted with each other in shaping the effects of migrant social capital. In this section, the findings that were summarised above will be further discussed on these three levels of analysis.

9.3.1 The who you are dimension: the importance of gender

Curran et al. (2005) argue that quantitative sociologists have been less successful than their qualitative counterparts in incorporating gender in migration studies. This thesis attempted to treat gender as a "key constitutive element" (Hondagneu-Sotelo 2003, p. 9) of the migration process and to integrate it with theories of migrant networks, which have largely developed in isolation from research on gender and migration (Curran and Saguy 2001).

Throughout this thesis, gender was found to structure almost all aspects of the relationship between migrant networks and the migration process. The implications of gender relations for analysing the role of networks are threefold. First, findings showed that women mobilise migrant networks differently from men, relying on different types of tie, and requiring other forms of assistance. Second, networks were

generally found to work along gender lines, meaning that prior migrants of the same gender had a larger influence in shaping one's migration behaviour and economic integration. These points will be further discussed in the following section.

Third, the role of networks can only be understood in connection with women's family status and the migration trajectory of their spouse. This adds a further layer of heterogeneity among women themselves and requires that an analysis of migrant networks take into account the specific form of female mobility and the separate role of the spouse. This has so far been insufficiently done in previous work, either quantitative or qualitative. Not distinguishing the role of the partner and the different forms of female mobility conflates different mechanisms of influence, preventing a deeper understanding of the role of networks and of the multiple interactions between social ties and types of mobility (autonomous or partner-related). Adopting a network perspective allows us to treat the migrant partner as a separate form of social tie and to analyse its specific influence *in interaction* with other forms of social capital, without assuming *a priori* a rigid dichotomy between the different forms of female migration. It further permits putting into perspective the "independent" and "autonomous" nature of the mobility of women who do not follow a spouse. The crucial importance of other forms of ties in their migration process – more so than for men - showed that autonomy should be envisaged as a continuum and that "independent" migrants are not entirely autonomous in their decisions, just as reunited spouses are not completely deprived of decision-making power.

Of course, these findings are to be placed within the context of Senegalese culture, its gender relations and the prevailing culture of migration. As discussed in chapter four, Senegalese women's limited autonomy is reflected in several social spheres, such as their geographic mobility and their access to the labour market. Migration is still a social practice associated with the male role of economic provider. Whereas the migration of women in order to join the partner is tolerated, independent female migration is socially frowned upon and discouraged by the family and the community. Quantitative data from the MAFE household survey presented in chapter four confirm that women are still migrating to a much lower extent than men. Furthermore, there is very little sign of a "feminisation" of migration flows over time, either via an increase in absolute levels of female migration or via a diminishing gender gap.

In this context, the findings confirm the necessity of taking gender into account when studying the role of networks. Not doing so leads to obtaining average effects which will show nothing of the true impact of networks, nor will it distinguish the

mechanisms through which networks influence the migration process for different categories of individuals.

9.3.2 The who you know dimension: network composition matters

This thesis investigated two aspects of migrant networks' composition: network members' relationship to the individual and their gender. The extent and channel of influence of ties in the migration process appears to vary according to both these dimensions.

Findings confirm that the influence of migrant connections depends on the nature of their tie to the prospective migrant, but it cannot be said that one type of tie is necessarily more important than the other. Adopting a longitudinal view of the migration process by considering both mobility behaviour and subsequent economic integration suggests that the different types of tie serve different functions in this process. Overall, it was found that family networks participate to a larger extent than friends and extended kin in the decision-making and the financing of the trip, as well as potentially hosting the newcomer at destination. On the other hand, weaker ties seem more directly related to migrants' economic outcomes at destination, such as finding a job as well as the type of job found.

Furthermore, findings show that the influence of a particular type of tie depends on the gender of the prospective migrant. Close family networks appear crucial in women's migration propensity, whereas they shape male mobility to a lower extent and have no more influence than weaker ties. Immediate family members (other than the partner or children) are especially influential in women's autonomous mobility, though they also increase their likelihood of joining their partner abroad. This may suggest that they serve another function, that of monitoring and controlling migrants' behaviour, a function that is considered necessary in female mobility but less so in men's (as Lindstrom (1997) has argued with respect to Mexican migration to the USA). Qualitative studies in the Mexican and Thai contexts have suggested that women's families agree to let them travel abroad if another close family member, preferably male, is also at destination (Hondagneu-Sotelo 1994; Davis and Winters 2000; Curran et al. 2005). Thus, the influence of close kin networks may reflect the family's capacity to extend the social control over women's behaviour at destination. In this sense, family networks may be said to reinforce normative expectations about gender roles and kinship obligations (Curran and Saguy 2001).

The findings in this thesis further emphasise the need for "engendering" migrant networks and reveal the importance of disaggregating them according to gender. While playing an important part in explaining women's migration propensity, close kin and male ties do not seem to influence their subsequent economic integration. In contrast, female networks markedly shape both the migration propensity and subsequent labour market outcomes for women migrating on their own. As already mentioned, this is probably at least in part due to the gendered structure of labour opportunities in host countries (Chant and Radcliffe 1992; Fernandez-Kelly 1983; Ward 1990). However, previous qualitative evidence points to further mechanisms of influence of this type of network. Networks are not only transmitters of resources but also of different values and norms, of new meanings regarding being a man or a woman. As Curran and Saguy (2001) argue, they are "vehicles for cultural change" (2001, p. 72). Through contact with prior female migrants, women are exposed to new attitudes with respect to gender roles, where slightly risky or non-traditional behaviour and material consumption are encouraged. This may lead them to increasingly consider migration, especially in its autonomous form, as a desirable strategy. While our findings cannot disentangle this particular role of female networks, the larger role of female networks for independent than for partner-related migrants may support the above-mentioned interpretation.

A question that these findings raise is whether migrant networks enable women to overcome patriarchal barriers, or whether they reflect another form of social control imposed on their mobility. Drawing a parallel with Michael Lambert's (2002, 2007) research on Senegalese women's rural-to-urban migration may provide some answers. Lambert showed how Jola women armed themselves with a culturally sanctioned reason to migrate: the collection of a trousseau intended to enhance their future husband's domestic situation. This target was however, according to Lambert, a cover behind which women, connected through dense female networks, pursued other objectives, such as settling more permanently in the city. The accumulation of the trousseau legitimised women's migration, allowing them to overcome patriarchal barriers to their mobility. Similarly, it can be speculated that close (male) relatives abroad offer women the necessary sanction that will legitimise their migration in the eyes of the family and the community. At the same time, embeddedness in female migrant networks triggers the desire to migrate and exposes them to new gender identities. To use the conceptualisation of migration proposed by de Haas (2010) and discussed in chapter two, it can be argued that in a strongly patriarchal context such as Senegal, female networks lead women to *aspire* to migrate, while male relatives

increase their *capability* to do so. Some qualitative findings also support the idea that women migrate under the tutelage of men but through female networks. Hondagneu-Sotelo (1994) has found that some of her Mexican female interviewees had first to convince their brothers to migrate in order for their family to then allow them to also take the journey north. Coulibaly Tandian (2007) reported cases where Senegalese women instrumentalised family reunification in order to achieve personal goals of migration. Her interviewees had actively sought to marry migrant men in order to be able to move abroad, since their family and community would not have accepted their independent migration. Both authors find that such strategies are often created and transmitted through tightly woven female networks.

The quantitative data used in this thesis confirmed that both type of networks – female ties and close male relatives - are influential in women's migration. More qualitative research is needed, however, to explore the ways in which these different ties are used together and sometimes at cross-purposes. In particular, the meaning of the ties binding individuals and how they serve to "challenge or reinforce cultural forms of organization, particularly gender relations" (Curran and Saguy 2001, p.72) should be considered in more detail. An in-depth qualitative analysis of the role of migrant networks should reveal such circular dynamic processes through which gender constructions are transformed through the influence of networks via migration.

9.3.3 Resources matter – up to a point

The literature on the influence of migrant networks has not paid sufficient attention to an important distinction in social capital research: that between social networks and the level of resources embedded in such networks (Lin 1999). As most previous quantitative work, this thesis is limited in the extent to which it can include this dimension in its examination. The survey collected no direct data on the socio-economic position of network members. The level of resources was however approached indirectly in this thesis, in two different ways, or at two different levels. First, the migration experience of network members - measured in terms of duration spent in Europe - was assumed to be correlated with their material resources and economic stability. This hypothesis was also supported by the results in chapter seven and eight which show that the economic position of Senegalese migrants in the sample improves with time spent at destination. Settled migrants were expected to have a larger influence on respondents' migration propensity and subsequent economic integration. Second, based on a contextual comparison of Senegalese migration flows in the three destination countries considered, it was hypothesised that

the resourcefulness and diversity of the Senegalese immigrant community is higher in France than in Italy and Spain. Qualitative research has showed this to affect the functioning of migrant networks (Menjivar 1995). It was therefore expected that networks at destination would led to better employment opportunities in France. These hypotheses received only partial support, which requires further refining the role of embedded resources in shaping the effects of migrant social capital.

First, findings summarised in section 9.2.2 of this conclusion suggest that bonding social capital in the form of pre-migration ties is more likely to lead to social reproduction than to social mobility. Networks in France appeared more successful in connecting migrants to skilled jobs than networks in Italy and Spain; the latter, on the other hand, were more likely to lead newcomers to more precarious self-employed commercial activities, such as street-selling. The role of networks was not found to vary according to the context of destination for women. However, women with access to pre-established female networks were more likely to find lower-skilled jobs. Furthermore, examining longer-term effects revealed some signs of entrapment in such low-skilled jobs for women with pre-migration female connections. These findings suggest that migrant social capital is, to some extent, reproducing the ethnic niches developed at destination and the gender-segmented nature of the labour market. This seems to confirm Li's (2004) argument that social capital does not work wonders: "Social capital cannot replace other forms of capital to produce unrealistic outcomes beyond the material limits of its contextual boundaries" (2004, p.146). Only where networks can draw upon a more diversified and resourceful co-ethnic community - such as the Senegalese in France – are they able to help newcomers achieve a better economic integration at destination.

Second, following previous research (Munshi 2003; Garip 2008), it was assumed that, since longer-term migrants have a higher level of resources, they are better able to assist prospective migrants in their migration process. However, with one exception, longer-term migrants were not found to be more instrumental than recent migrants in the migration process. They have a larger positive influence than recent migrants in women's migration propensity, but not in men's and women's subsequent economic integration. Furthermore, whereas ties to recent migrants increase men's likelihood of migration, longer-term, more established migrants in their network had no effect on their mobility chances.

An alternative explanation for this somewhat surprising finding can be found: if long-term migrants are more assimilated in the wider host society, they are also more likely

to have diversified their social circles and to identify less with their community of origin. Hence, their motivation for helping others may have decreased, even as their resources for doing so may have increased. A previous quantitative study (Serban and Voicu 2010) finds some evidence of this with respect to Romanian migration to Spain. They find that migrants are more likely to help others in the first couple of years after their arrival, but that their propensity to assist newcomers decreases afterwards. Unfortunately, their study does not include a gender dimension. Furthermore, long-term migrants may belong to a different migration wave, characterised by different educational, social class and cultural characteristics (Kubal and Dekker 2011). This may lead to a perceived social distance between subsequent waves of migrants, which may discourage the provision of (or the call for) assistance to newcomers.

The findings with respect to the migration experience of network members mark out other aspects that deserve attention alongside the level of resources. To the extent to which migrant social capital functions through a mechanism of bounded solidarity, based on a common experience of an underprivileged situation, accessing a higher social position may lead migrants to distance themselves from co-ethnic networks of obligations. A further incentive for leaving the networks is the "downward levelling pressure" (Portes 1998) that less successful members exert on the more successful ones through their excessive claims. Such claims may be accepted if the level of identification with the co-ethnic group is high and if prior migrants maintain an orientation towards the home society. Or, to use the distinction imported to the migration literature by Bakewell et al. (2011), this may happen if the settled migrants show an "iterationally-oriented type of agency". The dominance of the iterational element of agency would sustain an orientation towards preserving traditional identities as well as strong links and ties with the community of origin.

Overall, the findings emphasise, on the one hand, the need to collect data on the level of resources embedded in migrant networks, as this is likely to affect their ability to provide useful assistance to prospective migrants. Networks in France draw upon the resources of a more established and better-educated Senegalese community than those in Italy or Spain, which may explain why they provide access to better employment opportunities. Of course, other elements of the destination context – such as the labour market structure or immigration policies – may equally be responsible for the observed findings. On the other hand, findings also suggest that such data should be supplemented by an understanding of the type of ethnic identification of network members, as this may shape their willingness to help (potential) newcomers.

Achieving a better position in the host society may come at the cost of a disaffiliation from the co-ethnic community and networks. Not disentangling these two dimensions prevents an accurate evaluation of the role of embedded resources.

9.4 Limitations of this thesis and directions for future research

A first limitation concerns the operationalization of migrant social capital. Although innovative compared to previous studies, the measures of migrant networks available in the MAFE data are in their turn limited in several ways, as discussed in more detail in chapter three. I will discuss here two of these limits and how overcoming them in future data collection efforts may increase our understanding of the operation of migrant networks. First, conspicuously missing from most measures of migrant "networks" - including the one used in this thesis - is the *structure* of these networks. The information collected in the MAFE data allowed the construction of ego-centred migrant networks, including some information on their composition. The regrettable absence of any measures allowing the direct estimation of network members' level of resources (such as their occupational status or level of education) has already been mentioned. Moreover, no information was collected on the ties linking the members of respondents' networks to each other. With respect to network structure, according to the mechanism of "enforceable trust" conceptualised by Portes (1998), more tightly knit and dense migrant networks should be more likely to help prospective migrants.

Another aspect of networks missing in this thesis concerns the ties that migrants develop at destination, especially those they may form with natives. This form of social capital, generally referred to as "bridging capital", has often been found to have a positive effect on migrants' labour market incorporation at destination. Collecting information upon it would have offered a more complete picture of the types of social capital affecting the migration process. But, additionally, it would have opened up new grounds for investigating the propensity to offer assistance to prospective migrants.

With respect to network structure, high-density networks have been found to be positively associated with levels of ethnic identification among migrants (Lubbers et al. 2007), which may make members more likely to help co-nationals. On the other hand, tightly knit networks may reflect that an ethnic group is relatively isolated from the native population, as Lubbers et al. (2007) argued to be the case for the Senegalese in Spain. This may quicken the saturation of the migration system, making it difficult for it to incorporate new members. In contrast, bridging ties to natives may

place the migrant in a better position to find out about job opportunities and thus also make them better able to help newcomers in their job search. A branching out of the migrant network in the native population may offer more possibilities for the incorporation of prospective migrants, but only to the extent to which members remain committed to their ethnic group.[3] Thus, information on network structure and bridging social capital would allow further disentangling the relationship between resources and ethnic identification. It would also allow for approaching the process of offering assistance from the perspective of the sources, and no longer only from that of the potential beneficiaries. Qualitative work has started examining factors influencing the provision of assistance to prospective migrants (Potot 2008; Paul forthcoming), but little or no quantitative data is yet available.[4]

Second, this thesis extended previous work by adopting a life-course perspective on the migration process, taking into consideration both the decision to migrate and labour market trajectories at destination. This allowed a broader view of the mechanisms through which migrant networks shape the migration process. However, this perspective could have been further enlarged. First, as discussed above, this thesis acknowledges the important role of networks in shaping *aspirations* to migrate, besides the more instrumental role of affecting *capabilities*. Indeed, some of the interpretations advanced in this conclusion directly refer to such a channel of influence: for example, the role of female networks in women's independent migration. The data on which this thesis is based did not, however, allow me to test these particular interpretations directly. Previous quantitative work has so far rarely studied such mechanisms and more analysis should focus on this preliminary "stage" in the migration process. Using the same data as this thesis, Mezger and Gonzalez-Ferrer (2011) studied the factors influencing a subsequent stage in this process: taking concrete steps to migrate. They found that networks have a positive influence both on migration attempts and, conditional on having made an attempt, on its successful realisation. The limited number of cases of (reported) failed migration attempts in the Senegalese sample, however, renders it impossible to distinguish them by gender or to disaggregate the networks further in order to understand their effects.

[3] A sociability oriented outside of the ethnic community may reflect a low identification with one's ethnic group and a lower propensity to help co-ethnics settle at destination.
[4] A project that focuses on the evolution of migration systems is currently underway (Theorizing the Evolution of European Migration Systems – THEMIS), and may provide useful insights into the process of mobilisation of migrant social capital.

The longitudinal perspective adopted in this thesis was further limited in that most of the work focused on first episodes of migration. Some respondents in the Senegalese sample had more complex migration trajectories, engaging in stepwise or circular migration trajectories. Qualitative work (Paul forthcoming) suggests that migrant networks shape not only whether one chooses to migrate or not, but also the type of trajectory chosen. Pooling the three migration flows investigated by the MAFE project in a single dataset may offer the opportunity for a quantitative appraisal of this hypothesis. Furthermore, this would also allow us to address the interdependence between the labour market and migration trajectories, which the current sample size did not permit. A "failed" economic integration or an entrapment in a low-quality job may lead migrants to re-migrate to another destination or to return to Senegal. Given a larger sample, the two processes can be studied simultaneously. Last, it may also permit the examination of the ways in which networks influence destination choice and the types of tie that are most likely to be followed.

Finally, this thesis confirmed the crucial importance of "engendering" networks, by taking into account both the gender of the prospective migrants and that of prior migrants. Some of the most substantial roles of networks are revealed when considering both these dimensions and their interaction. The large differences between men and women in the roles played by networks that this thesis documented are to be situated within the specific context of Senegal, and especially its capital area, which remain characterised by a strong hold of patriarchal norms and traditional gender relations. Undoubtedly, our results gloss over important variations in gender roles within Senegal, according to ethnic group and religion, that this thesis was not able to consider. In order to understand better how gender identity shapes the kind of ties people use and the ways in which they use them, the findings in this thesis would gain from being replicated in a setting where women enjoy a higher level of autonomy. Based on the interpretations advanced in this thesis, one would expect to find fewer gender differences in the operation of networks in such a setting. The pooled MAFE data offers the possibility of comparing the Senegalese case with those of Congo and Ghana, which are arguably characterised by lower levels of gender inequality. This may further help to evaluate the generalizability of the findings by identifying the dimensions which are likely to affect the operation of networks cross-culturally.

A. APPENDIX for Chapter 3

a. Sampling strategy in Dakar, Senegal[1]

To draw a probabilistic representative sample of households in the region of Dakar, a three-stage stratified random sampling strategy was applied using the 2002 Population Census as a sampling frame. At the first stage, census districts, which include about 100 households in Senegalese urban areas, were randomly selected with varying probabilities. At the second stage, households were selected randomly in each of the selected primary sampling units. At the third stage, individuals were selected within the households.

1. **Selection of primary sampling units (first stage):** 60 census districts were randomly selected. This number of primary sampling units ensures a balance between a large geographical dispersion of households (which decreases sampling errors) and a more concentrated sample (which reduces costs). The region of Dakar was divided into 10 strata of equal size, according to the percentage of migrant households within each of them (on average, 11.6 percent of the households). 6 census districts per stratum were drawn, with a probability proportional to the number of households within each census district. By doing this, districts with a large number of migrants were more likely to be selected than those with low numbers of migrants. This provides samples of returnee migrants and of households affected by migration that are large enough for statistical analyses. As important changes had taken place during the period between the Census in 2002 and the MAFE fieldwork in Dakar, especially in suburban areas, the listing of households in the 60 randomly selected census districts was updated before starting the second stage.

2. **Selection of households (second stage):** households were randomly selected from the updated list of households in the selected primary sampling units. Two strata were distinguished: households with migrants and without migrants. 'Migrant households' could not exceed 50 percent per district. Selected households that could not be reached (absence, refusals, etc.) were not replaced during the fieldwork. Replacement would distort the computation of sampling weights, and could also bias the sample. Instead, 22 households were selected to reach an effective sample size of 20 households per census

[1] Source: MAFE Methodological Note; http://mafeproject.site.ined.fr/

district on average (the original target was 1,200 household questionnaires); in other words, we expected a potential drop of 10 percent..

3. Selection of individuals (third stage): individuals were selected within households for the life history survey. In each household, individuals were classified into 3 non-overlapping strata:

Return migrants, who were aged 18 or over at their (first) departure (or whose age at departure is unknown); Spouses/partners of migrants (if the spouse/partner is not a return migrant himself/herself); Other people. T

Then, simple random sampling was done in each household to select:

- Up to two return migrants (random selection if more than two in the households, all the return migrants were selected if not more than two in the household)

- Up to two Spouses/partners of migrants (random selection if more than two in the household)

- One randomly selected other eligible person

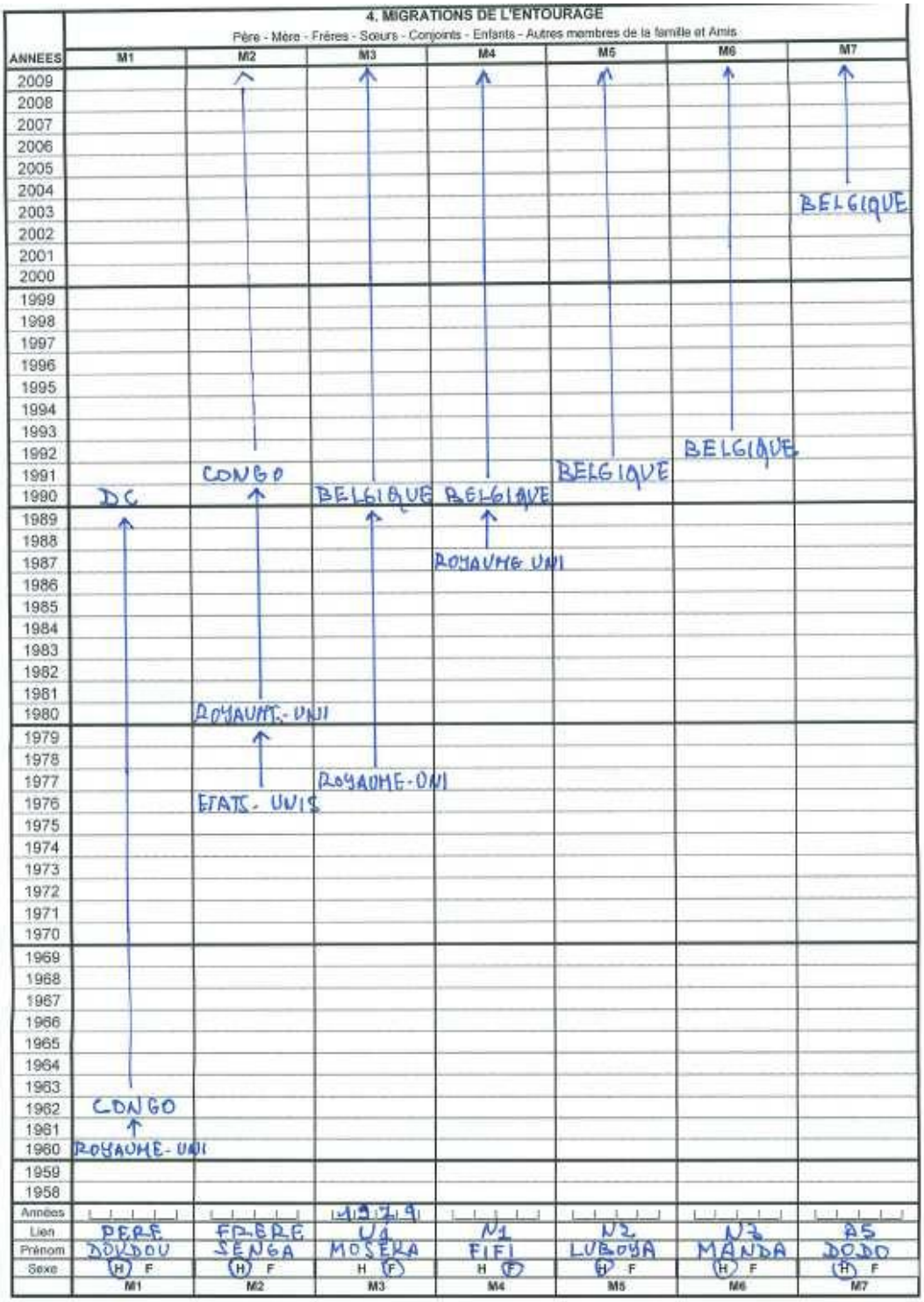
Our initial objectives were not completely fulfilled because the final drop was 23.6 percent (1,396 individuals were selected and only 1,097 were ultimately interviewed.

Figure A-1 Sampling methods in France, Italy and Spain

Country	Target areas	Sample size	Quotas	Recruitment methods
France	3 regions comprising 64% of Senegalese people in France (Ile de France, Rhône-Alpes and Provence- Alpes-Côte d'Azur)	200	By age, gender and socio-economic status	Selection from contacts obtained in Senegal, Public spaces, migrant associations, snowballing, interviewers' contacts
Italy	Lombardia, Emilia Romagna, Toscana, Campania	202	By age and gender	Selection from contacts obtained in Senegal, Public spaces, migrant associations, snowballing, interviewers' contacts
Spain	12 provinces	198	Random sample from Padron Municipal Register	Population register (Padron), contacts obtained in Senegal, interviewers' contacts

Source of table: MAFE Methodological note n°2 (Schoumaker and Diagne 2010)

Figure A-2 Example of the collection of information on the migration trajectories of migrant network members with the life-history calendar (biographic grid)



Source: Questionnaire filled in DR Congo, MAFE project

Table A-1 Operationalization of covariates

Variables	Categories	Nature
Variables of interest: Migrant Network in Europe[a]		
Number of current migrants in Europe	Continuous. All ties included	All migrant network variables are **time-varying** and are **lagged one year** (measured the prior year)
Number of current migrants in Africa	Continuous. All ties included	
Size of current network in Europe	Categorical: No network; 1 person network; 2 or more persons network	
Number of male current migrants in Europe	Continuous. Current partner excluded.	
Number of female current migrants in Europe	Continuous. Current partner excluded.	
Current partner in Europe	Dummy (0: No current partner in Europe)	
Number of current migrants besides the partner currently in Europe	Continuous. All ties except the current partner.	
Number of close kin besides the partner currently Europe	Continuous. Includes siblings or parents, and sometimes children.	
Number of extended kin or friends current migrants in Europe	Continuous. Includes aunts/uncles, cousins, niece/nephew, grandparents, other extended kin, friends, acquaintances	
Number of recent migrants currently in Europe	Continuous. Migrant has spent mess than 3 years in Europe	
Number of experienced migrants currently in Europe	Continuous. Migrant has spent between 4 and 9 years in Europe	
Number of long term migrants currently in Europe	Continuous. Migrant has spent 10 years or more in Europe	
Number of returnees from Europe	Continuous. Migrants who had spent at least a year in Europe but are now back in Senegal	
Geographical concentration of the network	Categorical (5 values): No migrant network in Europe; Only one person in Europe; Dispersed network (less than half of all network members in Europe are in a given country): Concentrated network (more than half in a given country); All members same country	Time-varying, Not lagged
Other covariates		
Age	Continuous	Time-varying
Educational level	Categorical (3/ 4 values). No formal qualification; Primary level degree obtained; Secondary level degree; Tertiary level degree. In some analyses the latter two values are grouped.	Time-varying
Activity status	Categorical. In education; Actively	Time-varying.

	employed; Unemployed; Inactive	Lagged 1 year
Asset holding	Dummy. No assets; Has at least one asset (plot of land, apartment/house, business)	Time-varying. Lagged 1 year
Partnership status	Dummy. Single; In a union	Time-varying. Lagged 1 year
Location of the current partner	Categorical. 3 values. Single; Partner in Senegal; Partner in Europe	Time-varying. Lagged 1 year
Has children 6 years or younger	Dummy. No young children; Has young children	Time-varying. Lagged 1 year
Period	Categorical. Before 1990; 1990-1999; 2000-2008	Time-varying
Religion	Categorical. 4 values. Murid; Tidjane; Other Muslim, Christian	Time-invariant
Covariates used only[c] in the analysis of migrants' economic integration (chapter 7 and 8)		
Period of arrival[b]	Categorical. Before 1990; 1990-1999; 2000-2008	Time-invariant
Time since arrival	Continuous.	Time-varying
Country of destination	Categorical/Dummy: France; Italy; Spain (in some analyses the latter 2 are grouped)	Time-invariant
Speaks the host-country language at arrival	Dummy: Has great difficulties speaking the host country language; Can speak without major difficulty	Time-invariant
Legal status at arrival	Dummy. Has a residence permit for at least 1 year (or no need of documents); No residence permit (or only short term visa)	Time-invariant (measured in the first year)
Legal status	Dummy. Idem	Time-varying (measured prior year)

[a] Analyses in chapters 7 and 8 use similar specifications of the migrant network variables. Differences consist in: are only considered migrant networks l**ocated at destination** (and not anywhere in Europe), and who have been at destination **for at least a year** when the respondent arrives. The variables are thus **time-invariant** over the duration of the migration spell. Dummy variables instead of continuous measures are used. [b] All variables measured "at arrival" in the destination country are time-invariant over the entire duration of the particular migration spell. [c] Educational level and family status variables are also used in the analysis of economic integration. The only difference is that they are measured at the time of arrival and thereby are not time-varying in these analyses

B. APPENDIX for Chapter 5

Table B-1 Individual characteristics by gender and migrant status, in 2008 (column %)

	Men		Women		
	Non-migrants	Migrants	Non-migrants	Migrants	Total
Mean age (n.s.)	38.8 (0.94)	41.7 (0.58)	40.8 (0.88)	42.4 (0.92)	
Education level (men: n.s. ; women : **)					
No degree	18%	23%	41%	15%	31%
Primary	39%	28%	35%	24%	35%
Secondary	30%	33%	19%	48%	16%
Higher	13%	17%	5%	13%	18%
Occupational status (men: n.s.; women: ***)					
Student	4%	2%	4%	7%	4%
Employed	80%	88%	45%	65%	80%
Unemployed	7%	7%	4%	2%	7%
Other inactive	9%	3%	47%	26%	9%
Asset holding (men: **; women ***)					
Has assets	37%	50%	15%	38%	29%
Family status (n.s.)					
In couple	68%	76%	66%	66%	68%
Has children under 7	39%	40%	39%	31%	39%
Religion (men: n.s.; women: *)					
Murid	31%	37%	32%	27%	31%
Tidjane	42%	31%	51%	44%	42%
Christian	8%	7%	7%	6%	8%
Other Muslim	19%	25%	10%	22%	19%
N (weighted)	571	254	737	108	1670
%	34%	15%	44%	6%	100%

Legend: Significance levels are reported for differences by migrant status within each gender

Table B-2 Access to (European) migrant networks by gender

% Having network in Europe, by type of tie	Men	Women	Gender difference
Partner	1%	7%	***
Size network besides partner[a]	2.2	1.9	**
Close family other	28%	34%	n.s.
Friends/ extended kin	43%	31%	***
Men other	54%	41%	***
Women other	14%	26%	***
Recent migrants (<3 yrs) other	29%	22%	**
Experienced migrants (3-9yrs)	31%	29%	n.s.
Long term migrants (>10yrs)	30%	26%	n.s.

[a] For those who have a network

Table B-3 Multinomial logistic regression of the likelihood to migrate by destination (ref: no migration), Odds Ratios

	EUROPE MEN	AFRICA	EUROPE WOMEN	AFRICA
Age	1.48***	1.50*	1.22	1.56*
Age-squared	0.99***	0.99*	1.00**	0.99**
Before 1990 (ref)	ref	ref	ref	ref
1990s	0.68*	1.58	1.04	0.55
2000s	0.58***	0.15***	0.60*	0.29
No education				
Primary level	0.69**	0.49*	2.30***	5.69***
Secondary level	1.48*	0.42	2.42***	3.01
Tertiary level	1.63***	0.41**	4.13***	0.8
Student	ref	ref	ref	ref
Has a job	1.25	1.45	0.53	1.18
Unemployed/inactive	1.98***	0.48	0.47	2.84
Asset holder	1.3	1.73	2.38**	0.56
Has child < 6	0.7	1.27	0.66	0.26**
In partnership	1.56***	0.71	1.28	2.58
Murid (ref: Other)	1.35**	1.1	-	-
Other Muslim (ref: other) -		-	2.91***	0.82
Has ties in Europe	4.37***	0.97	13.83***	0.91
Has ties in Africa	0.83	1.89	0.59**	4.13
Person years	12117		16047	
Number of events	329	110	272	40

Table B-4 Effects of changes in the relationship and gender composition of the network on the odds of first migration to Europe (discrete-time logistic model, coefficients as OR)

Variable	Category	Men	Women
Model 3a: Increasing share of close family members			
Type of links	Network size abroad	1.22***	1.12
	Number close family member	1.04	1.43***
Model 3b: Increasing share of extended kin / friends			
Type of links	Network size abroad	1.26***	1.60***
	Number extended kin/ friends	0.96	0.70***
Model 4a: Increasing share of men			
Gender	Network size abroad	0.92	1.40***
	Number men abroad	1.47**	0.93
Model 4b: Increasing share of women			
Gender	Network size abroad	1.35***	1.30**
	Number women abroad	0.68**	1.07

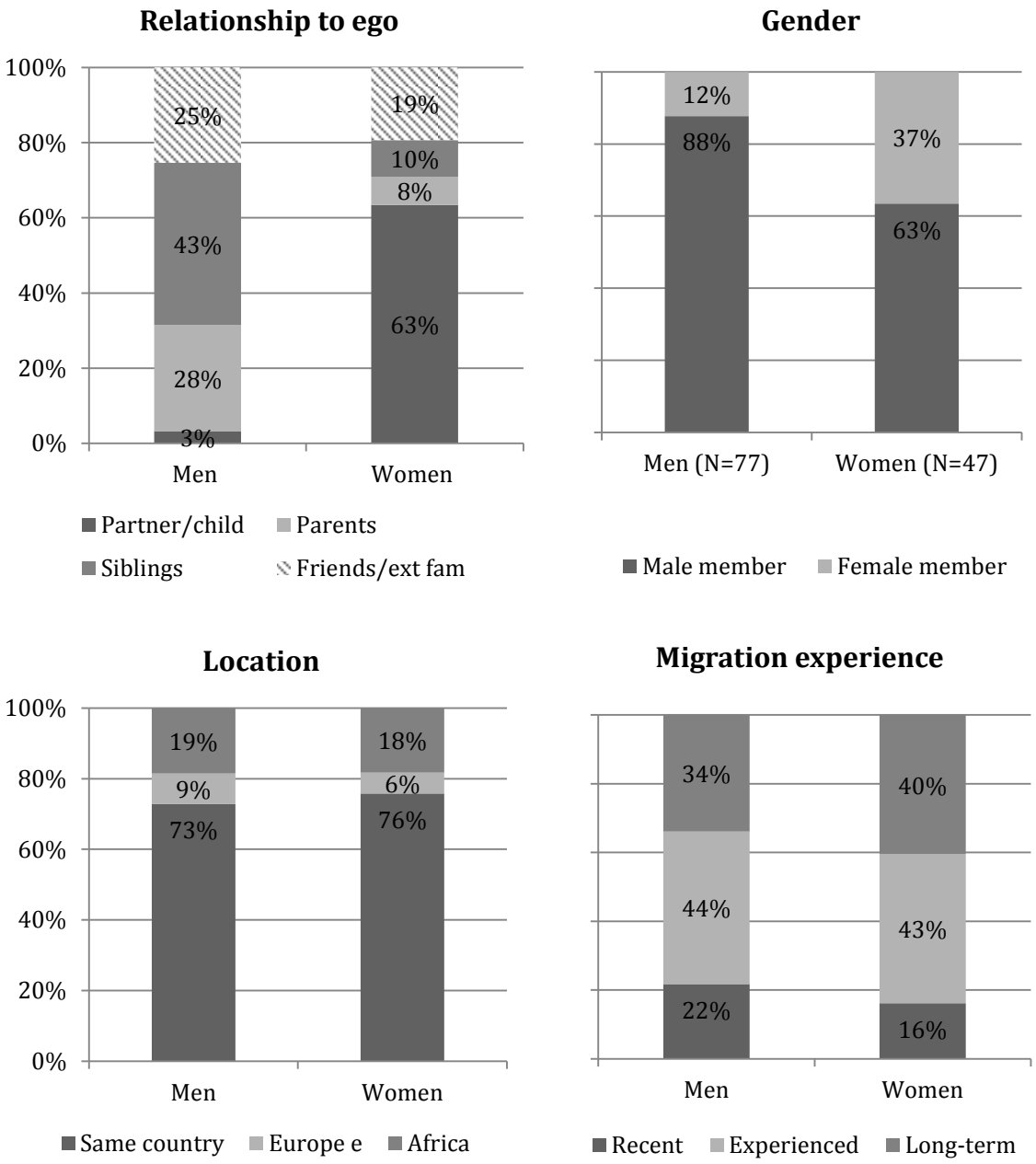
Table B-5 Logistic regression of odds of first migration to Europe, gender-pooled model with interactions, Odds Ratios

Variable	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
Female (ref: male)	0.52***	0.23***	0.33***	0.26***	0.32***	0.32***	0.31***	0.32***	0.30***	0.53*
1990s	1.06	0.8	0.78	0.74*	0.9	0.89	0.74*	0.89	0.9	0.68**
2000s	1.08	0.68**	0.68**	0.59***	0.75*	0.72**	0.58***	0.69**	0.75*	0.50***
Age	1.39***	1.35***	1.33***	1.34***	1.36***	1.34***	1.34***	1.34***	1.36***	1.34***
Age-squared	0.99***	0.99***	0.99***	0.99***	0.99***	0.99***	0.99***	0.99***	0.99***	0.99***
Primary level	1.15	0.97	0.93	0.98	1.04	1	1.01	1	1.01	0.95
Secondary level	2.31***	1.70***	1.73***	1.69***	2.13***	2.11***	1.77***	2.00***	2.11***	1.57**
Tertiary level	3.04***	2.28***	2.36***	2.23***	2.57***	2.51***	2.26***	2.42***	2.49***	1.94***
Has a job	1.1	1.04	1.07	1.07	1.19	1.15	1.05	1.15	1.19	1.02
Unemployed/ Inactive	1.03	0.94	0.81	0.85	0.98	1	0.86	1.02	1.01	0.9
Asset holder	1.48**	1.52**	1.51**	1.52**	1.44*	1.41*	1.48**	1.43*	1.38*	1.50**
Has children <= 6 yrs	0.59***	0.63**	0.66**	0.67**	0.67**	0.69*	0.68**	0.70*	0.69*	0.69*
Tidjane	0.60***	0.62***	0.59***	0.65***	0.59***	0.62***	0.64***	0.61***	0.60***	0.62***
Christian	0.53***	0.55***	0.53***	0.50***	0.53***	0.60**	0.52***	0.56***	0.53***	0.50***
Other Muslim	1.30*	1.31*	1.30*	1.25	1.35*	1.41**	1.31*	1.39**	1.38**	1.31*
In couple t-1	1.44***	1.35**								
Has network t-1		2.87***								
Network * Female		3.10***								
Partner abroad			11.43***	8.61***	11.10***	11.09***	11.12***	11.17***	11.19***	6.14***
Has network besides partner			2.79***							
Network other x Female			1.31							
Has network EUR other				4.37***						
Has network AFR other				0.79*						
Network EUR other X Female				1.29						
Number close kin EUR other					1.29***					
Number friends/ext ties EUR					1.26***					

Close kin other x Female					1.53***					
Friends x Female					0.86					
Number men other EUR						1.39***				
Number women other EUR						0.96				
Men x Female						1.20*				
Women x Female						1.58***				
One person other EUR							3.34***			
Two or more pers other EUR							3.83***			
One person x Female							1.1			
Two or more x Female							1.84**			
Number recent other EUR								1.58***		
Number experienced other EUR								1.39***		
Number long term other EUR								1.09		
Experienced x Female								1.37**		
Long term x Female								1.25*		
Number current migrants other EUR									1.28***	
Number returnees other from EUR									0.87	
Current x Female									1.23***	
Returnees x Female									1.45	
No network other EUR										0.24***
One person other EUR										0.8
All same country EUR										1.74**
No network x Female										0.25***
One person x Female										0.75
More concentrated x Female										1.91*
All same country x Female										1.49
Person years	28164	28164	28164	28164	28164	28164	28164	28164	28164	28164
Number events	601	601	601	601	601	601	601	601	601	601

$*$ p < 0.10, $**$ p < 0.05, $***$ p < 0.01 . This analysis is run on the entire population, including men and women. Weights included.

Figure B-1 The involvement of migrant network members in the financing of the trip, by type of ties and gender



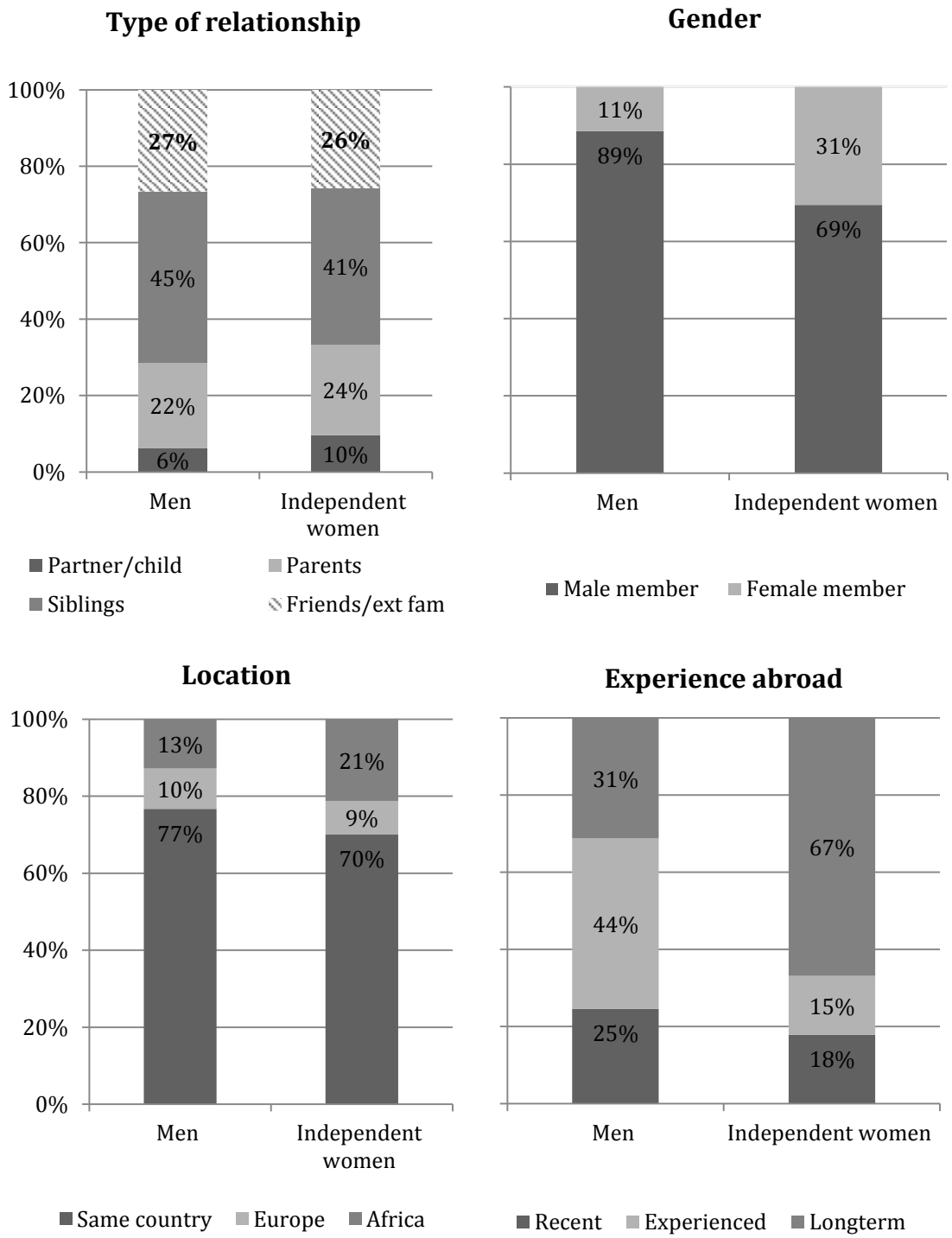
C. APPENDIX for Chapter 6

Table C-1 Individual characteristics by migrant status, at the time of the survey - 2008 (weighted, column percentages)

	Non migrants	Partner-related	Independent migrants
Mean age (s.d.) *n.s.*	40.97 (0.84)	39.24 (1.15)	42.53 (1.48)
Educational level ***			
No degree	40%	24%	4%
Primary level	35%	18%	15%
Secondary level	20%	43%	58%
Tertiary level	5%	15%	23%
Occupational status ***			
Student	4%	2%	16%
Actively employed	46%	55%	77%
Unemployed	4%	4%	2%
Inactive	46%	39%	5%
Has assets ***			
Asset holder	15%	47%	50%
Family status			
In couple ***	66%	81%	54%
Has children < 7 *n.s.*	39%	44%	27%
Religion ***			
Murid	31%	23%	38%
Tidjane	52%	40%	24%
Christian	7%	10%	6%
Other Muslim	10%	26%	33%
N	592	126 (134)	149 (145)

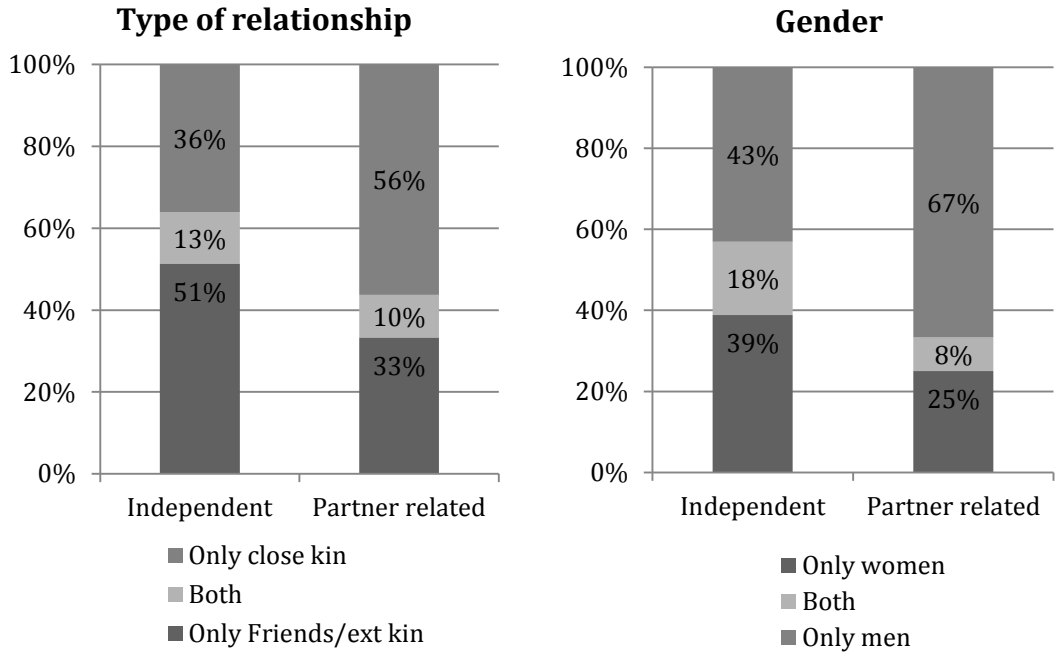
Legend: *** p<0.01; ** p<0.05; * p<0.10

Figure C-1 Type of ties participating in the migration decision of men and of women migrating independently of their partners



Legend: Are considered only those who undertook a first migration to France, Italy or Spain *and* in whose migration decision someone from the migrant network participated. The analysis is carried on 64 men and 40 women. Gender differences significant in terms of the migration experience of network members and the gender composition of the network, at $p<0.001$

Figure C-2 Composition of migrant networks present at destination by type of migrants



D. APPENDIX for Chapter 7

Figure D-1 Time until the first job is obtained, grouped by educational attainment.

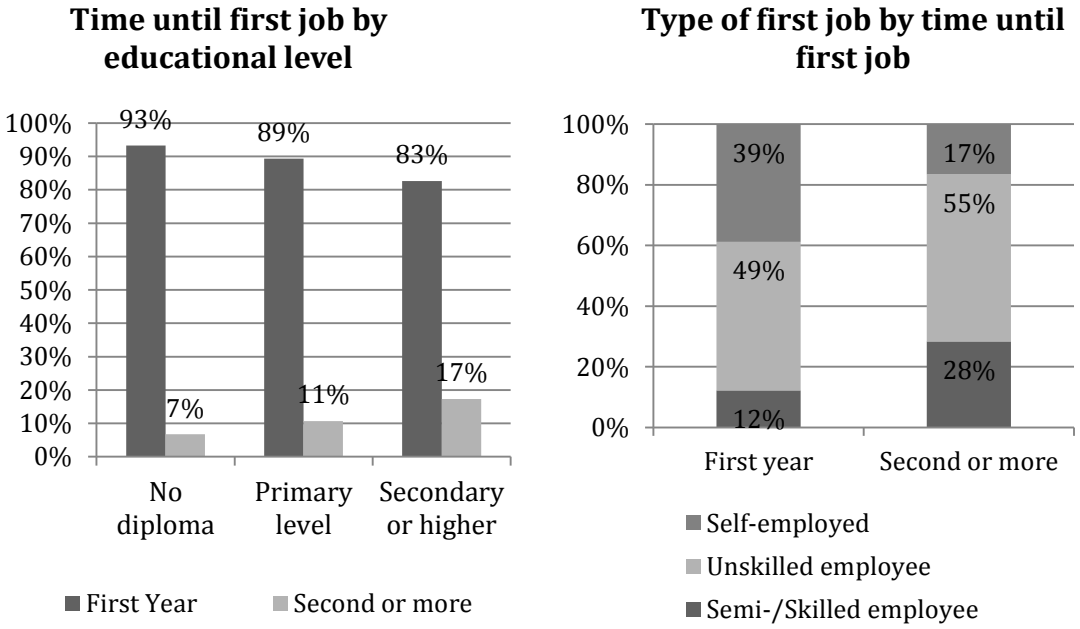


Table D-1 Likelihood to be employed upon arrival, men logistic regressions, Odds Ratios

	FIRST YEAR	
Variable	M6a	M7a
Age	1.02	1
Educational level arrival		
(ref: no qualification)		
Primary level	0.93	0.84
Secondary or tertiary	0.79	0.79
Speaks host-country language arrival	1.38	1.31
Country (ref: France)		
Italy	1.17	1.13
Spain	2.58*	2.48*
Period (ref: before 1990s)		
1990s	1.33	1.34
After 2000	0.53	0.53
Murid (ref: other religion)	2.58*	2.30**
Legal status (ref: has residence permit)		
No permanent documents at arrival	1.03	0.94
Has male migrants upon arrival	0.68	
Has female migrants upon arrival	0.96	
Has recent migrants upon arrival		0.57
Has longer-term migrants upon arrival		0.77
McFadden's R-squared	0.08	0.09
N	311	311

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

E. APPENDIX for Chapter 8

Table E-1 Access to and types of migrant networks by destination country

	France	Italy	Spain	Total	Sign. diff. between cntrs
Pre-migration ties					
Has pre-established ties at dest.	51%	34%	33%	51%	**
Range	3	2	1	3	
Mean	1.43	1.49	1.10	1.43	
SD	0.70	0.68	0.31	0.70	Spain sign diff **
Type of networks					
Relationship to ego					
Has close family members	28%	22%	16%	28%	n.s.
Has extended kin / friends	33%	14%	17%	33%	**
Gender					
Has men	32%	24%	23%	32%	n.s.
Has women	28%	14%	11%	28%	***
Experience abroad					
Has recent	23%	15%	14%	23%	n.s.
Has more experienced migrants	47%	25%	24%	47%	***
Controls					
Educational level					n.s.
No diplo	23%	25%	34%	26%	
Primary	27%	28%	30%	28%	
Secondary or above	50%	47%	36%	46%	
Period of arrival					
Before 2000	66%	34%	39%	55%	
2000 or after	34%	66%	61%	45%	
Type of migration					***
Marriage migrant	37%	19%	30%	32%	
Reunited	7%	26%	21%	13%	
Couple migration	10%	4%	7%	8%	
Independent	47%	51%	42%	46%	
Has young children abroad	20%	9%	21%	18%	n.s.
No permanent documents	30%	62%	55%	41%	***
Mean duration spell	13.7	8.0	7.9	12.2	France **
N	103	78	103	284	

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

Table E-2 Occupational status (ISEI) of first job, OLS regression (including students)

Variable	M1	M2
Time since arrival (years)	0.46	0.45
Imported	-0.38	-0.13
Joint couple (ref reunited)	3.62	4.14
Independent	4.78	5.49**
Married t-1	-0.37	
Has children < 6 t-1	-0.37	
Age (years)	0.11	0.11
Primary (ref no degree)	3.41	3.39
Secondary or more (ref no degree)	6.17***	6.21***
Speaks language	7.39***	7.55***
Has studied at destination	6.92**	6.75**
No permanent documents	-1.88	-1.84
In Italy / Spain *(ref: France)*	3.27	3.26
Arrived after 2000 (*ref: before 2000)*	1.86	1.93
Has pre-migration ties *(ref: no ties)*	0.2	
Has male pre-migration ties *(ref: no men)*		0.96
Has women at destination *(ref: no women)*		-0.53
Adjusted R-squared	0.16	0.17
N	231	235

$*$ p < 0.10, $**$ p < 0.05, $***$ p < 0.01 Legal status and pre-migration ties are measured at the time of arrival. Those who studied upon arrival are excluded from the analysis.

Table E-3 Type of occupational transition, multinomial regression, OR, Women (18-65)

	SEMI-/ SKILLED JOB		UNSKILLED JOB	
(ref: no change of job)	M1	M2	M1	M2
Time since arrival (years)	1.14***	1.18***	1.06**	1.10**
Imported migration	3.11	2.46	0.54	0.36
Couple migrant (ref reunification)	2.21	2.11	0.44	0.34
Independent	3.74	2.91	1.84	1.32
Has pre-migration ties	1.63		2.91***	
Primary level edu at arrival (ref: no degree)	2.18	1.84	0.94	0.77
Secondary edu or more arrive (ref: no degree)	6.09*	5.00*	0.93	0.77
Speaks language	3.04*	3.87*	1.01	0.99
Italy/Spain	2.88*	2.78*	0.89	0.69
No permanent documents	1.67	1.84	0.77	0.79
Age		0.95		0.95*
Has male pre-migration ties (ref: no men)		2.8		2.53**
Has male pre-migration ties (ref: no women)		1.1		2.57**

$*$ p < 0.10, $**$ p < 0.05, $***$ p < 0.01 Legal status and pre-migration ties are measured at the time of arrival. Those who studied upon arrival are excluded from the analysis.

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