Temporary Migration: A Review of the literature

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Abstract

Over the last decade, a growing body of theoretical and empirical research has attempted to uncover the mechanisms behind return migration, as well as the consequences for the migrant and her immediate personal network (household, community), the destination and the origin countries. This article provides a review of the return migration literature, focusing primarily on the micro-level perspective of migrants and their households. A typology of temporary migration is presented and return migration is placed among other types of non-permanent migratory moves. Different approaches have been proposed by the literature with regard to the identification and measurement of returnees. Finally, the theoretical literature and a selection of empirical findings on determinants, timing, selectivity as well as consequences of return migration are summarized and discussed.
1 Introduction

Until the 1980s, economic models of migration have primarily been based on the assumption that migrants would remain permanently at the destination, unless their migration project had failed. The evidence, however, shows that migration is very often temporary, and does not necessarily reflect a failure at destination. Migrants may return either because the return was already envisaged in the initial migration plan as part of an optimal life-cycle location sequence, or because intentions changed over time, transforming a planned permanent migration into a temporary one.

Early estimates of return migration suggest that up to 70% of the 1971 Latin American immigrant cohort had left the US by 1979 (Jasso and Rosenzweig, 1982). A more recent analysis for the UK estimates that only approximately two thirds of all migrants who arrived in Britain between 1992 and 2002 were still in the country five years later (Dustmann and Weiss, 2007). However, the study also highlights large differences in return rates depending on the region of origin. Africans and Indians return at a much lower return rate compared to e.g. Europeans or immigrants from the Middle East.

These findings on the scale of return migration have triggered an increasing interest of policy-makers from both sending and receiving countries, who consider return migration to be a “triple-win” game for all parties (Agunias and Newland, 2007): receiving countries receive (targeted) labour supply; sending countries benefit from remittances transferred by the migrants while they are abroad, and from their capital and knowledge transfers after the return; and the migrant himself may face less obstacles in the migration process, improved work and living conditions abroad, and may obtain an assistance which facilitates the return and the reintegration in the country of origin.\footnote{E.g. the French “Aide publique a la réinsertion” from 1987; http://info.assedic.fr/unijuridis/index.php?chemin=/txlr/d87844.xml}

The reasoning seems appealing, but the triple-win situation is difficult to achieve. Past experiences have shown that policy approaches to managing migration and return have been to a large extent inadequate, and that the impact of temporary migration is ambiguous. One example is the guest worker program established in Germany in the 1950s and 1960s, which foresaw that the immigration of workers would be strictly temporary. Since no active measures were taken to enforce the return, immigrants stayed and became permanent.
migrants. The perception that nobody left Germany is however equally wrong, since “more than two thirds of the foreign workers admitted [. . . ] have returned” (Böhning, 1984 p.147). It is therefore not easily predictable and controllable if and when migrants leave the host country. Besides, the host country perspective only tells us that migrants do leave at a certain point in time, without tracing the returnees to their home countries, and without providing information on their future activities, earnings and potential repeat migrations. The impact of temporary migration is likely to vary considerably depending on the individual characteristics of migrants, the motives of both out-migration and return, and the socio-economic context and trends in the host and home countries. Effects may also differ between the short- and the long-run, and between different levels of analysis (individual, household, community, and country level) (Ammassari and Black, 2001). Research on development impacts of return must also take into account that some returnees may leave their home country again after some time.

Over the last decade, a growing body of theoretical and empirical research has attempted to uncover the mechanisms behind return migration, as well as the consequences for the migrant and her immediate personal network (household, community), the destination and the origin countries. The following sections will review the existing return migration literature, focusing primarily on the micro-level perspective of migrants and their households. Section 2 presents a typology of temporary migration and places return migration among other types of non-permanent migratory moves. Section 3 addresses the question of how to use different data sources to identify and measure returnees. Section 4 summarizes the theoretical literature and presents a selection of empirical findings on determinants, timing, selectivity and consequences of return migration. Section 5 concludes.

2 Typology of temporary migration

Different classifications of migration types have been proposed by the literature. Figure 1 shows one possible typology, which is based on Dustmann (2000), and Dustmann and Weiss (2007). It distinguishes in the first place between

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2Migration as discussed in this review does not include any short-term moves whereby the migrant does not change her main place of residence, e.g. visits, business trips.
economically motivated moves and other factors, such as political persecution, climate changes or natural disasters, and family-related moves (marriage, family reunification). Focusing on the economic motives, one can further separate the temporary forms of migration from the permanent ones. While the classification by Dustmann and Weiss (2007) takes the perspective of the host country to define permanent and temporary moves, this typology draws the classification from the home country’s point of view. A migration is temporary if the migrant returns at least once to her home country after she first left; it is permanent if she stays abroad. Moreover, it adds the dimension of permanent and temporary returns. Given the lack of data with information about residence and household characteristics before migration as well as after return, return migration has usually been defined and analysed at the highest geographical level - return to the origin country. To better understand motives and consequences of return migration, it would be useful to go into more detail on the features of the return: does the migrant return to the village, town, region from where she departed or not? Does the migrant integrate into the same household, into a different household, or is a new household founded?

In the case of a permanent migration, the migrant can either decide to stay in one single destination country, or to live for some time in one country before moving on to another destination. This form of migration is called transient migration. Whether transient migration exists depends very much on the context in which the migration takes place. Migrations from Mexico, for example, are rarely transient, since its geographical location makes the US the principal destination. Migration from Africa is much more diversified, and migrants from Sub-Saharan African, for example, may stay for several years in Algeria or Libya before crossing European borders (Kohnert, 2007). Migrants may also adjust their migration plans “on the way”, and move to another destination after learning about new opportunities or obtaining new information, e.g. about differences in immigration policies in various destination countries.

One can sub-classify temporary migration depending on whether migrants return to their home country by their own choice. What Dustmann (2000) defines as contract migration describes a situation whereby the migrant cannot freely choose when to return. The return time is exogenously fixed by a working contract or a limited residence permit. The case of student migration is similar to contract migration, if students receive a permit which is limited to
the duration of their study programme. If the return is not enforced, migrants may however overstay their permit. Another type of involuntary return would therefore be the deportation by the host country. Voluntary return occurs if the migrant decides by him-/herself if and when to return, or if the decision is taken by or together with the social network.

Figure 1: Migration typology, based on Dustmann (2000)

The return itself can as well be differentiated according to its permanent or temporary nature. Returnees may decide to stay in their home country, or to migrate again. One speaks of circulatory migration if the migrant moves frequently between the home and a destination country. Circulation is often linked to contract migration, for example if migration occurs regularly in the harvest season. Repeat migrants do not follow a regular migratory pattern, but decide after some time spent in the origin country to depart again, either to the same or a different destination country. A variation of repeat migration can be identified if one sets the household as the level of analysis. Repeat migrations within the household would occur if several household members migrated consecutively.

The typology is certainly not exhaustive, and focuses deliberately on the issue of temporary versus permanent moves. Moreover, many migration types are not exclusive, although they are presented separately for reasons of clarity. Family migration, for example, may also coincide with a secondary economic motivation, and family-related concerns may underlie the return decision. Transient migration may also turn out to be temporary, if a migrant returns back
to her country of origin after having lived in various countries. Given that the return is exogenously determined in the case of contract migration and hence raise fewer questions to be explored, I will focus in the following sections on voluntary returns.

3 Identifying and measuring return migrants

While it is already a challenge to capture the entry of immigrants, it is even more difficult to identify and measure which and when immigrants leave the country. Data is most often collected at arrival or within the country, making it difficult to track migrants across borders. Authors have therefore reverted to indirect measures of return migration. Most often, this implies using repeated cross-sections of census and/or survey data which include information about foreign-born individuals and their year of arrival. One can then compare the resident foreign-born population at the end of a given period (e.g. the decennial census period) with the number of persons who would be expected to be in the country if there was no emigration, adjusting for mortality and naturalization. The resulting difference would give a measure of the out-migration rate, and the method is therefore also referred to as “residual approach”.

This approach has first been applied by Warren and Peck (1980), who estimated that around 1.14 million foreign-born had left the United States between 1960 and 1970 based on Immigration and Naturalization Service (INS; now U.S. Citizenship and Immigration Service) and census data. Jasso and Rosenzweig (1982) refine the method by focusing on the immigrant cohort that arrived in the U.S. in 1971 and estimating lower- and upper-bounds for the cumulative net emigration rate by region of origin as of 1979, taking into account as well the problem of non-reporting of address data by non-permanent immigrants. Lower-bound estimates are based on the survey of income and education data, which taps a larger foreign-born population than INS data, since it includes also some illegal immigrants and so called non-immigrants (e.g. students, business people). The remaining immigrant cohort in 1979 is therefore likely to be larger than according to the upper-bound estimates, the emigration rate lower. Other authors have applied similar approaches, such as Borjas and Bratsberg (1996) and Ahmed and Robinson (1994) for the United States. Dustmann and Weiss (2007) use British Labour Force survey data, a rotating panel conducted
each quarter, to estimate emigration rates for cohorts that arrived in the United Kingdom between 1992 and 2002.

This method involves usually a certain degree of measurement error. Some data sources, such as census data, do not cover all types of immigrant populations (illegal immigrants, visitors, students); the adjustments that have to be made, for example for mortality by age, gender, country group etc. add to the potential bias. Data that is collected in large time lags, such as censuses, do not capture emigration for short-term migrants, whose migration period falls between the two censuses. This implies that circulation between the data collection dates is not captured properly (van Hook et al., 2006). This measure is also rather suited for macro-level analysis of temporary migration, as in Borjas and Bratsberg (1996), who use source-country characteristics to examine the determinants of out-migration by country of origin. Other possible segmentations would be by age, gender and arrival cohort. Dustmann and Weiss (2007) add labour-market characteristics under the assumption that the affiliation to a specific occupational group does not change over the period under examination. Characteristics which are time-varying in a non-systematic manner can not be analysed in this way, since changes can be due to either a selective drop-out of return migrants or to time-variations in individual immigrant characteristics.

An alternative approach takes advantage of the phenomenon of attrition in panel data. When attrition due to emigration of the foreign-born can be separated from other reasons of panel attrition, one can identify those who left. Van Hook et al. (2006) use the U.S. Current Population Survey (CPS) to obtain better estimates for recent arrivals and of selectivity based on time-varying characteristics. The CPS consists of repeated interviews of individuals living at the same address over a period of 16 months. People can be absent at the follow-up interview for three reasons: an individual died, moved within the U.S., or emigrated. In addition, there is a residual group that could not be followed up for other reasons, such as non-response or coding errors. The authors obtain a measure of the emigration rate by averaging the estimated probability of emigration across all foreign-born in the sample.

The German Socio-Economic Panel (GSOEP) is the second data source which has been used to examine return migration based on panel attrition (e.g. Dustmann, 2003a; Dustmann, 2003b; Bellemare, 2004; Constant and Massey, 2003; Constant and Zimmermann, 2003a). Unlike the CPS, the GSOEP tracks
individuals including the foreign-born within Germany over the course of the panel. Internal migrants stay therefore in the sample. In addition, the panel survey, which started in 1984 and oversamples immigrants, indicates “moved abroad” as one of the reasons for attrition. Under the assumption that these individuals are returnees, Dustmann (2003b) finds that 20% of the sample immigrant population in 1984 returned home over the following 13 years.

The problem of both types of measures is that one observes only that an immigrant leaves the host country, and has to assume that this corresponds to a return. It could however well be the case that the migrant moved on to a third country (transient migration). Biases can arise if onward-moving migration exhibits a selection pattern that differs from both return and permanent migration.

A method which avoids this ambiguity is to use return intention data instead of realized returns. Dustmann (2000) argues that the history of return intentions are the optimal data source for modelling the effect of return migration on economic decisions in the host country, such as labour supply, since the economic behaviour is determined by intentions, not by the realizations. Intentions are on the other hand less appropriate to model return determinants and durations, since migrants are likely to adjust their plans over the course of their migration experience (van Baalen and Mueller, 2008).

Return migration has also been analysed from the home country perspective, in particular with regard to determinants of return and economic behaviour after return. This type of research reverts to data on previous migration experiences collected after return in order to identify returnees. The Mexican Migration Project (MMP), a longitudinal data set which has been collecting retrospective data on Mexico-US migration experiences from 1982 on, has been used for several studies investigating the determinants of return, the duration of return and business formations by return migrants (e.g. Massey et al., 1987; Massey and Espinosa, 1997; Lindstrom, 1996; Reyes, 1997; Reyes, 2001; Reyes and Mameesh, 2002). Given that the U.S. is the sole destination for Mexican migrants, Massey and Singer (1995) estimate illegal and legal migrants’ emigration rates from the United States through the analysis of the life histories contained in the MMP. Since Mexican migration is characterized by circulation, each return trip contributes to gross emigration separately and estimated rates are therefore considerably higher than estimates based on the residual approach.
or on panel attrition in CPS data\(^3\).

The MIREM project coordinated by the European University Institute has recently conducted a survey on a sample of approximately 1000 return migrants in the Maghreb countries Algeria, Morocco and Tunisia, which includes questions about the conditions before migration, during the migration period, and after migration (e.g. Gubert and Nordman, 2008a; Gubert and Nordman, 2008b; Stark and Fan, 2007). Cross-section “home country” data sources employed in the analysis of return migration, which however rarely include information on time points before the return, comprise e.g. the Egyptian labour force sample survey and labour market survey (McCormick and Wahba, 2001; McCormick and Wahba, 2003; Wahba and Zenou, 2008), the survey on Tunisian return migrants conducted by the “Office des Travailleurs Tunisiens à l’Etranger” (Mesnard, 2004), a survey on Pakistani return migrants conducted by the ILO and the Federal Bureau of Statistics in Pakistan (Ilahi, 1999), the World Bank Living Standard Measurement Surveys (Kilic et al., 2007 for Albania) and the surveys on Migration and Urbanization in West Africa (REMUAO) (De Vreyer et al., 2008).

If one is interested in determinants and selectivity of return, it is important to establish whether a migration experience or a return can be considered to be permanent. Since most of the observations are likely to be right-censored, i.e. individuals have not migrated or returned at the point of the data collection, but may well do so in the future, it is a challenge to distinguish actual “non-migrants”, “return migrants staying permanently in their home country” and “repeat migrants”. Appropriate econometric methods must be therefore employed in order to account for the censoring present in the data (Bijwaard, 2005; Cameron and Trivedi, 2005).

4 Return migration in theory and empirical evidence

The theoretical and applied economic literature on return migration explores five closely interrelated key questions:

1. The determinants of return migration - Why do migrants return?

\(^3\) See van Hook et al. (2006) for a comparison of estimates of U.S. emigration rates.
2. The selectivity of return migration, including its consequences for the composition and economic behaviour of the migrant population at destination - Who returns?

3. The duration of migration and timing of return - When does the return happen?

4. The consequences of migration and return as regards the labour market, investment and remigration decisions of return migrants themselves, but also concerning the effects at the household, community or even national level.

Some of these decisions may be taken simultaneously by the migrant (and the household), e.g. if to return, when, and what employment to take up after the return. Furthermore, the selection pattern of return migrants with regard to observable and unobservable characteristics will influence occupational choice and earnings after return. The return is likely to be closely linked to the determinants of the migration decision in the first place, since return becomes an option as soon as the migrant has achieved the aim set at the outset of the migration.

4.1 Why do migrants return?

In static neoclassical migration models, the migration decision is based on a cost-benefit analysis by the potential migrant. Given wage differentials between countries, the migrant aims at maximising her individual expected net lifetime earnings by employing her human capital where it renders the highest returns (Sjaastad, 1962; Harris and Todaro 1970). The migration is hence considered to be a permanent event, and the model does not explain why return migration is observed. Ways to reconcile the existence of return migration with the paradigm of earnings-differentials as main migration factor include the following:

- The migration project failed (i.e. the migrant overestimated the expected returns of migrating to a specific destination and/or underestimated the costs due to imperfect information before departure),

- The economic situation at home improved or is expected to improve considerably, leading to a convergence or even reversal of expected wages at the origin and at destination, or
• Human capital accumulated in the host country is transferable and achieves higher (relative) returns at home than at the destination. One example are student migrations, where the level of human capital obtained would situate an individual within the average group in the host country, but would place the returnee among the educational elite at home and may increase expected income at home sufficiently to trigger return (Dustmann, 2000).

If one broadens the concept of utility-maximization beyond the notion of earnings maximisation by including non-monetary aspects, market imperfections or by extending from individual to a group utility, one can find explanations for return even if the wage differential persists. The New Economics of Labour Migration (NELM) literature (Lucas and Stark, 1985; Stark, 1991), which has first been formulated in the context of rural-urban migrations and was later on extended to international migrations, contributes a whole set of new explanations for both departure and return migration. This approach shifts the focus from the individual as utility-maximiser to the role of families, households and even communities in negotiating joint migration decisions and maximising joint utility.

By increasing family income through remittances, household members’ migration can be considered as a risk diversification and coping strategy for the entire household. Migration decisions which might look irrational for an individual migrant, for instance because expected mean income and even variance are the same in both locations, can hence become sensible for the family or group (Stark and Bloom, 1985). This approach also implies that the migrant maintains strong economic and social ties with the origin community while being abroad, since the return is seen as an integral part of the migration project. Economic ties between the migrant and her home community or household take usually the form of transfers, and the first three motives of return which are discussed below are hence closely linked to the phenomenon of remittances sent home by the migrant.

Migration decisions which are triggered by household income maximisation and risk minimization concerns, will entail transfers by the migrant to the household. The remittances and the insurance provided through accumulated savings abroad may allow for higher-risk and high-return investments at home, such as the use of new seeds or the start of a business. Over time, the household is likely to become less dependent on the migrant’s earnings if the investments prove to
be successful, allowing the migrant to return home (Stark, 1991).

Another determinant of migration suggested by NELM is the existence of market imperfections or failures at the origin. The banking, insurance and credit markets tend to be weak in developing countries, and even the existing structures can rarely be accessed by the poor. Given these restrictions, migration is regarded as a second-best solution. Migrants can work abroad to send remittances to be invested by the household (e.g. Adams, 1998). Alternatively, migrants may remain abroad until they have accumulated sufficient savings to provide the capital, or at least the collateral required to obtain a credit for investment at home. Once they have achieved the target-level of savings, they return to their home countries (Stark, 1991; Mesnard, 2004; Yang, 2006).

If the perceived social and economic status depends on the comparison of the own situation with others, e.g. the community one lives in, rather than on the absolute value of wealth, migration may be triggered by the household’s “relative deprivation” status (Stark and Taylor, 1991a; Stark and Taylor, 1991b; Stark and Wang, 2000). The migrant contributes to improving the household’s relative wealth status by sending remittances, and is able to return home as soon as the household has achieved a satisfactory status compared to its reference group, even if the absolute wealth may still be increased. In the context of return, this approach is founded on the joint utility of the household, and assumes therefore that the reference group, which determines the relative wealth status, remains in the home country. While relative deprivation has been primarily regarded as income deprivation, there are recent studies broadening the concept to include land, housing characteristics and ownership of durables to capture the relative deprivation of a household (Quinn, 2006).

A further reason for return migration is a higher purchasing power of the host country currency in the home country. This implies that the Purchasing Power Parity between origin and destination country does not hold and that individuals can take advantage of higher wages abroad by migrating early on in their lives, and of consumption at lower prices after returning to their countries of origin (Stark et al., 1997). As long as savings can be accumulated abroad and transferred home, return may happen even if wages were zero in the home country. This would for example be the case of retirement migration, whereby the migrant returns after the end of her working life in order to dissave in her country of origin.
Stark (1995) and Chau and Stark (1999) present yet another motive of return, which arises from the fact that migration may happen under asymmetric information. Right after the migration, the employer of the migrant in the host country is unable to assess the skill levels of the new employees. In this case, all migrants will receive a pooled wage, which is based on an average skill level. Over time and through monitoring the employees, the information symmetry between employers and employees will be restored and wages will be adjusted to the individual productivity levels. For low-skill migrants, this new wage may not be sufficient to remain in the host country, and some migrants will return.

Moving from the one-generation to an intergenerational perspective, where decisions have effects beyond the individual’s own life cycle, opens up further lines of inquiry about return motives (Dustmann, 2003b; Djajic, 2008). Altruistic parents stay or return depending on what is better for their children. Dustmann (2003b) suggests that the return decision is likely to depend on the sex of the child and of the cultural background of the family. Parents may consider that economic opportunities in the host country are better for sons, the local environment in the home country better for daughters.

Most motives outlines so far can be combined with the assumption of location-specific preferences, according to which migrants prefer consumption at home over consumption abroad (Hill, 1987; Djajic and Milbourne, 1988; Raffelhueschen, 1992). The strength of preferences for the home country depends for example on the migrant’s family situation (whether the spouse or children live in the home or host country), her personal characteristics and perceptions, (e.g. health satisfaction and perceived level of integration in the host society), and country characteristics (climate, culture, mentality etc.). The cost of staying abroad is likely to increase over time, since life is finite and the remaining time to be spent in the home country becomes increasingly valuable. Furthermore, the marginal benefit of higher wages abroad continues to increase, but at a decreasing rate. When costs are equal to benefits, the migrant returns. In the context of locational preferences one can regard temporary migration as an interior solution to the optimisation problem of migration duration, permanent and no migration as corner solutions. Very strong preferences for the home country will lead to no migration, permanent migration will occur if the benefits of migration outweigh costs even at the end of the migrant’s lifetime (Dustman, 2000).
Is the return-decision already taken before the migration even happens? Or does an intended permanent migration transform into a temporary one? The motives outlined above which are based on a joint migration strategy of the household suggest that return is a premeditated outcome of a successful experience abroad, during which migrants work on meeting their goals (i.e., higher incomes and accumulation of savings) while maintaining strong ties with their household at origin, and diversifying the resources of the household through remitting part of their incomes (Galor and Stark, 1990). Return due to failure in the host country, changes in the economic conditions at home and re-establishment of the information asymmetry are more in line with adjustments in intentions over the duration of the migration.

A series of empirical studies have tested the theoretical hypotheses regarding motives of return. An early study on internal migration in the United States by Da Vanzo (1983) broadens the neoclassical human-capital framework to include repeated moves. She uses the 1968-1975 waves of the Panel Study of Income Dynamics in person-year format to test hypotheses regarding the effect of location-specific capital (approximated by home ownership, duration of residence in one dwelling) and imperfect information (education, age, distance, employment status before migration) on return and onward migration versus remaining at the first destination. The estimated coefficients of separate models for repeat moves after one year and longer migration durations, indicate that the “failure” hypothesis applies to those who return shortly after the migration, but not to those who stayed at the destination for a longer time, and that the acquisition of location-specific capital such as housing property deters future moves. The author does however not find that location-specific capital at the origin promotes return. Problems of simultaneity and endogeneity are not tackled, e.g. the possible reverse causality running from the decision to stay (to return) to investment in housing property at destination (at home).

A seminal paper by Massey and Espinosa (1997) tests various theories on the determinants of the annual odds of return from the United States to Mexico based on retrospective data from the Mexican Migration Project (MMP) and (mostly time-varying) community and macro-level data from secondary sources. The authors estimate dichotomous discrete-time event-history model on the years 1965 to 1989, whereby male documented and undocumented migrants are followed from the year of entry into the United States to their return or the
survey date\textsuperscript{4}. The authors find that the odds of returning to Mexico fall with an increasing level of education (particularly for documented migrants) and with migration-specific human and social capital (duration of trip, attainment of an urban job, wife or children in the U.S.). Location-specific physical capital in Mexico, such as ownership of land or housing, makes a return more likely. Some variables indicate that the credit constraints hypothesis is at work, since return is more likely if a bank exists in the origin community and if there is a large proportion of self-employed in the home community. At the same time, return is delayed if the origin community is economically very dynamic, suggesting that more savings have to be accumulated abroad before starting a business at home. That purchasing power considerations matter is suggested by the effect of a rise in inflation in Mexico, which raises the likelihood of return. Increases in the interest rate, which improve the returns to savings the migrant can obtain once at home, are also found to promote return to Mexico. Surprisingly, changes in the binational wage gap, the main factor explaining migratory movements according to the neoclassical theory, have no significant effect on the decision to return or to stay.

Constant and Massey (2002) use the first 14 waves (1984-1997) of the German Socio-Economic Panel (GSOEP) to study return from Germany to Italy, Spain, Turkey, Yugoslavia and Greece. Similarly to Massey and Espinosa (1997), they transform the data in person-year format to estimate logistic event-history models. The findings indicate that location-specific human capital (education gained in Germany or education gained in the home country) is insignificant for return, which goes against the predictions of the human capital theory of migration. Unemployment, irregular or minimal employment and inactivity increase the odds of returning strongly, but holding the employment situation constant, return is not affected by the level of earnings. This result is in line with the hypothesis that return occurs after a failed migration experience and a wrong assessment of the employment opportunities at destination, since it seems to be the lack of access to employment which conditions return. Social attachments in the home country and in Germany prove to be an important predictor of return - having a spouse and children in the home country increases the odds of return, and the return is significantly less likely if they are in Germany. Locational preferences seem to be at play, which represent a psychological

\textsuperscript{4}These observations are right-censored.
cost if migration occurs without the close social network, and point to the role of family ties for return. Remittances transferred home are an indicator of a migration strategy aiming at risk diversification and household income maximisation. The estimated coefficient is positive and significant, what provides support to the NELM theory. In a second step, the authors split the sample into remitting and non-remitting migrants and returnees, since the first may follow a target-income strategy, while the latter may be predominantly driven by life-cycle income maximisation considerations. Indeed, the estimated covariate coefficients differ partly between the two groups, supporting the predictions for target earning migrants and income-maximisation migrants respectively. Some of the human capital variables which were previously insignificant become now significant in the non-remitters model. Though in both models positive, inactivity and unemployment seem to have a stronger effect on return among remitting migrants than non-remitting migrants. Bellemare (2004) estimates a return migration model on the same data set as part of a joint model of labour market participation, earnings and return, and obtains conflictive results. He finds that cumulative remittances do not affect return significantly.

Dustmann (2003b) tests the hypothesis that children in the migrant household at destination influence return migration, and that the effect is different for boys and girls (girls increase odds of return, boys reduce odds of return). The analysis is based on the same data set as in Constant and Massey (2002). Two types of identification problems must be taken into consideration:

- Unobserved factors influencing both the fertility and return decisions: return intentions are observed repeatedly, and the author can apply estimation in differences, cancelling out time-invariant individual heterogeneity.

- Simultaneity in return and fertility plans: instrumental analysis is required and the child’s gender is chosen as the instrument. If children have no causal effect, there should also be no difference by gender; if, however, the estimated coefficient on the gender of the child is significant, it suggests an influence of children in general on the return decision.

The author estimates a probit model, with a binary indicator variable equal to one if the migrant returned over the following 13 years (counting from 1984) as the dependent variable. A second model with return intentions instead of realized returns is estimated with fixed effects. Explanatory variables, all measured
in the first year of the panel, include measures of the parent’s earning advantage in the host country (approximated by education, age at entry, gender, years since migration, origin country dummies), locational preferences (approximated by age at entry and origin country dummies), and the presence as well as the number and gender of children. The censoring problem is not explicitly treated, since the author assumes that the effect of children on return will be strongest in the early years of migration, and that it is therefore unlikely that return would still occur after the 14-year-observation window. The results are in line with the hypothesis and suggest that return decisions should be looked at from an intergenerational perspective. In the case of realized return it is however not clear if children affect the propensity of return or rather the timing of return.

While several empirical studies have investigated the effect of relative deprivation at the household level on departure, there is to my knowledge no equivalent applied research exploring the effect of changes in relative deprivation on the return decision.

4.2 Who returns?

Closely related to the question why to return is another question - who returns? And how do returnees compare to those who stay and those who do not migrate at all? Taking the Roy model as theoretical framework (Roy, 1951), extensive research has been devoted to self-selection in departure. That economic actors “self-select” into migration implies that migrants usually differ from non-migrants with regard to both observable and unobservable characteristics (e.g. ability, motivation, values, risk aversion, access to migration networks), and that the direction of selection also depends on the destination and home country characteristics (Borjas, 1987; Mora and Taylor, 2005). Likewise, research has to account for the potential non-randomness in return migration, which affects the migrant composition at destination and introduces heterogeneity in migrants’ economic behaviour and performance in the host country before and in the home country after return. Not accounting for the selectivity of migration leads to biased estimates of coefficients on variables of interest in empirical studies, e.g. when the impact of return on earnings, poverty or the labour market attainment is analysed. Differences between returnees and non-migrants in outcome variables such as earnings may in fact originate from differences in unobservables, and if their effect is attributed to the variable indicating migra-
tion experience, one obtains a biased estimate if the impact of migration and return. As Borjas and Bratsberg (1996) underline, the cross-section evidence establishing that more recent immigrants have lower earnings than more established immigrants is not necessarily due to a process of economic assimilation over time. Other explanations are that recent generations of immigrants are negatively selected on ability or skill, or that migrants who failed with their migration project returned (suggesting negative selectivity of return), leading to higher average earnings among early immigrants.

Most often, self-selection is set in the context of skill and the effect on earnings of returnees versus permanent migrants or non-migrants is analysed. Three different theoretical approaches have been developed to determine the direction of skill-selectivity in return.

1. Return as a consequence of expectations which have revealed themselves as incorrect. Migrants who fail socio-economically, and who decide to return home are more likely to come from the lower end of the skill distribution. (DaVanzo, 1983)

2. Skill heterogeneity and differences in returns to human capital. This is the most elaborated theory, developed by Borjas and Bratsberg (1996). The authors develop a model, which generates precise hypotheses on the skill selection of migrants and returnees: if the return to skill is lower in the home country than in the host country, migrants will be positively selected, but the least skilled of the emigrant group will return. If, on the contrary, returns to skill in the home country exceed those in the host country, emigrants will be negatively selected and return migrants will come from the group of the relatively highly skilled emigrants. This situation would occur if the return was motivated by higher returns to human capital at home than in the host country. The authors’ theoretical model thus provides an ambiguous prediction for empirical analysis - return selectivity can turn out to be negative or positive depending on the selection pattern of migration, which in turn is conditioned by how skill is rewarded in both home and host country. The degree of transferability of skill between home and host country also influences the selection pattern.5

5Borjas’ selection model - a Roy model - rests on the assumption that the relative rate of return to skills in the home country with respect to the destination country determines the self-
In the same line of thought, Dustmann and Weiss (2007) introduce heterogeneity in skills in a theoretical model and predict that return migrants will have higher levels of a skill type which is more productive in the home country. An example of the effect of self-selection into return on behaviour in the host country and hence characteristics of the migrant pool is given in Dustmann (1999), who models the effect of return migration on language acquisition as a type of location-specific human capital. The model predicts that return migrants, and especially those with a short migration duration, tend to invest less in learning the host country’s language.

The hypothesis of reinstatement of informational asymmetry (Stark, 1995; Chau and Stark, 1999) rests also on the assumption that skills are heterogeneous, and would suggest negative selection. The lower skill migrants return after their true skill has been discovered by employers.

3. The NELM theories, according to which return is pre-planned in the migration project, would suggest that return migrants are rather drawn from the higher end of the skill distribution. They are the most successful ones in attaining income for remittances, and in accumulating savings for investments after return, and may be therefore also those who work the hardest. Galor and Stark (1991) propose that a positive return probability to a low-income country induces a positive selection with regard to work effort, since more savings have to be accumulated over a shorter period of time in order to smooth inter-temporal life-time consumption.

The various theoretical approaches to return provide also predictions with regard to selection on observables, such as the presence of family members and age. The NELM focus on household or group utility maximisation suggests that migrants with family in the home country are more likely to return. The neoclassical cost-benefit hypothesis would also predict a higher return probability, but due to the fact that having the family at home increases the cost

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selection pattern (Borjas, 1987), leading to the prediction that selection of migration will be negative if the return to skill in the home country exceeds the one in the host country. Chiquiar and Hanson (2005) question this prediction (at least with regard to observable characteristics) by using absolute skill-related differences in wage levels instead of relative returns to skill. The differences in levels would indicate differences in labour productivity, what explains that high-skill workers from countries with high returns to skill may still find it advantageous to migrate to a high-productivity, high-wage country.

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of being abroad. Living together with a family member in the host country will reduce the costs of migration and hence the likelihood of return according to the neoclassical paradigm. Under the hypothesis of credit constraints and target-income migration, the presence of a family member and thus a second worker may lead to a faster achievement of the target-income, increasing the likelihood of return as long as other members of the household remain in the country of origin (Constant and Massey, 2002). If return is considered to be the result of a failed migration experience, migrants will return relatively soon after arrival, and hence at a relatively young age if the departure occurs at the average during young adulthood. If migrants accumulate savings abroad during their working life and return in order to take advantage of a higher purchasing power in the home country, the return would occur at a later stage in life. The age of target-income migrants would lie in between these two extremes.

An important amount of applied work has been dedicated to exploring self-selection patterns among returnees. Borjas and Bratsberg (1996) use US census and Immigration and Naturalization Service data to test their hypothesis that return migration intensifies the selection pattern of the immigrant flow. They examine the effect of an interaction between the out-migration rate and source country returns to skill on relative wages of immigrant groups in the US. The returns to skill variable is approximated by inequality in the source country, defined as the ratio of income of the richest 10% to the income of the poorest 20%. Larger income variations tend to coincide with larger variations in returns to education, and the inequality measure used has been found to be highly correlated with returns to education computed by Psacharopoulos (1973). The authors confirm their hypothesis. Holding immigration constant, an increase in the outmigration rate raises relative wages of immigrants if the migrant flow originated in a country with low returns to skill (positive selection in departure, negative selection in return), and reduces relative wages otherwise.

Instead of evaluating wages of remaining immigrants in the destination country to assess the self-selection of returnees, De Coulon and Piracha (2005) place their analysis in the home country context and compare the performance of return migrants to Albania with those who never migrated. More specifically, they ask two questions to investigate selection on unobservable characteristics:

- What would be the earnings performance of returnees if they had chosen not to migrate?
• How would non-migrants perform if they had migrated and returned to Albania?

A first descriptive analysis of the data set on Albanian non-migrants and returnees suggests that return migrants have at the average higher hourly wages, are less likely to be married and more likely to be male than the non-migrants. A larger proportion of returnees is self-employed and lives in urban areas. The authors employ two types of methods to investigate selection effects: a selection model and kernel densities. The selection model is estimated by a 2-step approach, which includes the inverse Mills ratio as selection term in the earnings equation (following Lee, 1983; Nakosteen and Zimmer, 1980) as well as with Maximum-Likelihood estimation (ML). The difference between the two is that the migration decision and the earnings equation are modeled subsequently in the first case and simultaneously with ML. To identify the model, some of the variables included in the migration equation must affect the migration decision, but not directly the earnings outcome. The authors use the number of dependants, the size of the locality where the individual lives, the region, and religion as identifying variables. The average conditional wage of non-migrants, had they chosen to migrate, and the average conditional wage of returnees, had they chosen to stay in their origin country, are computed by applying the estimated parameters of returnees to non-migrants, and of non-migrants to returnees. The second method applies weighted kernel densities to the samples of return and non-migrants to obtain densities of counterfactual wage distributions (following Di Nardo et al., 1996).

In the selection model the selection term turns out to be significant and negative, indicating that return migrants are negatively selected on unobservables. Observable human capital characteristics such as education and age are not significant for the earnings of returnees. The counterfactuals show that return migrants would have performed worse than non-migrants, if they had decided not to migrate. On the other hand, the performance of non-migrants would have exceeded the mean income of returnees, if they had migrated and returned to Albania. One possible explanation offered by the authors is that migration costs are higher for highly skilled, for instance due to a lack of recognition of their formal education, a more lengthy job searches or language requirements, and therefore they prefer to stay in Albania. The semi-parametric approach leads to similar conclusions. That return migrants achieve higher average earnings than
the non-migrants despite the negative selection patterns is attributed to the fact that the migration experience allowed for the set-up of a business, which would have otherwise been impeded by the existence of credit constraints in the origin country (as in Mesnard, 2004). One limitation of the approach chosen by the authors is the assumption that a selection bias exists with regard to departure, but that return migrants represent a random sample of the pool of migrants. If return migrants are themselves self-selected among the migrants, one would have to account for this bias in the estimation.

For the case of return migration from Germany, Constant and Massey (2003) observe in fact that there is little evidence for self-selection into return migration. The authors estimate discrete-time event-history models using GSOEP data, similarly as in Constant and Massey (2002) described above. To analyse selection effects, they estimate earnings of the entire immigrant population at the beginning of the panel in 1984, and compare these with 1984 earnings estimates of a sample of immigrants excluding those who have been found to return later on. The authors find very little statistically significant differences between the two sets of estimates (only with regard to the effect of age and the prestige of the occupation, which would indicate a slightly positive selection of returnees). Contrary to Borjas and Bratsberg (1996), and similar to a study by Lindstrom and Massey (1994) on return of Mexican migration from the United States, they conclude that emigration will not bias the cross-section results on earnings assimilation of immigrants.

Based on the same data source, but applying a different estimation method, Bellemare (2004) finds however that average log earnings of return migrants are approximately 18% below the earnings of permanent migrants, indicating that returnees constitute a selected sample from the bottom of the immigrant income distribution. The author estimates earnings of return migrants and permanent migrants conditional on self-selecting into the labour market and on the return decision (joint estimation of earnings, work and out-migration), and incorporates unobserved time-invariant individual heterogeneity as random effects into the model. The estimated covariance structure of the unobserved components indicates that the individuals with a higher return propensity are also those with a lower probability of participating in the labour market and of achieving lower earnings conditional on working. There is therefore a significant selection effect based on unobservables. The regressors included in the return
migration equation suggest though that there is no selection based on observable human capital characteristics. Education, labour market experience and its square, German language fluency and years since migration are statistically jointly insignificant.\(^6\)

Merkle and Zimmermann (1992) provide an empirical application of the theoretical model by Galor and Stark (1991), which predicts that work effort and hence savings and remittances should increase if the return probability is positive. They use the migrant sample of the GSOEP which includes information on intended migration durations, and estimate three models: an ordinal probit model with the ordinal measure of savings as dependent variable; a Tobit model on the amount of remittances sent, to factor in the problem that the dependent variable contains many zeros; and a bivariate probit to account for the possibility that savings and remittance decisions are taken jointly\(^7\). The results indicate that remittances are negatively related to the intended migration duration, what is in line with the theoretical prediction. The intended migration duration, however, results to be insignificant for the amount of savings.

4.3 When do migrants return?

Provided that one or several of the motives triggering return are present, the next question arises: when do migrants return? The underlying optimization process, and the impact of changes in origin or destination countries depend once again on the assumptions about the type of return determinants at play. Da Vanzo (1983), whose conceptional framework is based on the failure hypothesis and location-specific capital, predicts negative duration dependence in the context of U.S. internal migration. Failed migrants will return soon after arrival, and the loss of home-country-specific capital (e.g. network ties) and gain of host-country-specific capital (e.g. human capital, housing property) will keep

\(^6\)Further papers on self-selection in return include Co et al. (2000), who analyse the wage premium of return migrants to Hungary, taking into account selection into migration as well as selection into the labour market by estimating a double selection model with Maximum Likelihood Estimation; Cohen and Haberfeld (2001) use destination country data to assess the selection pattern of Israeli-born Jews returning from the U.S.; Rooth and Saarela (2007) find positive selection on observable and only very little selection on unobservable characteristics in their study of Finnish returnees from Sweden.

\(^7\)The correlation between the estimated probability to remit and to save is however very low and insignificant, there is therefore no need to employ the bivariate specification.
reducing the likelihood of return the longer the migration lasts. Similarly to the case of failure, return induced by reinstatement of information symmetry will also lead to a relatively short migration duration, depending on how fast the true skill levels are revealed to the employers.

Stark et al. (1997) set the optimization of the migration duration into a context of purchasing power differentials and preferences for home country consumption, where the duration of migration depends on wages abroad and at home, consumption levels abroad and at home, the migrant’s capacity to save while abroad and to transfer savings back home, as well as on life expectancy. The authors predict that the migration duration declines with a rising purchasing power differential, what implies that shifts in either origin or destination country exchange rates can impact the timing of return. The effect of an increase in the foreign wage is ambiguous and contingent on the assumptions about the income elasticity of consumption as well as the specification of the life-time utility function (concave or logarithmic, for example), since increases in the foreign wage can lead to income effects which offset the relative wage effect (Dustmann, 2003a).8

In a setting with constrained credit markets in the home country as in Mennard (2004), the migration duration will increase with a rise in the target-level of savings required for investments at home and with the cost of migration. Again, the effect of higher wages abroad is ambiguous - on the one hand the savings target can be faster attained, but if consumption responds stronger to income changes, the benefit from additional consumption abroad may defer the return.

The effect of time spent in the host country on the probability of return provides an indication of the direction of duration dependence. Most authors find that the probability of return decreases with time. Constant and Massey (2002) observe in their study on return migration from Germany that the coefficient on time since migration results to be negative and time since migration squared is not significant, providing support for the failure hypothesis. However, when separate models are estimated for remitting and non-remitting migrants, the likelihood of return does not depend on time since arrival for the first ones, but declines with time in the case of those who do not remit. Bijwaard (2005) uses

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8With a concave utility function, the utility of further income increases, but at a decreasing rate, while the opportunity cost of being abroad and not at home may increase in time.
a mover-stayer duration model to analyse return migration from the Netherlands, and specifies a piecewise constant baseline hazard (only the effect of time on return) which indicates that the return probability is much higher in the first 9 months after arrival than at a later point in time. Reyes (2001) provides estimates of the survival rate of Mexican migrants to the U.S. based on a discrete-time hazard model using data from the Mexican Migration Project. The probability of return is the highest in the first years after migration, and flattens out after about four years. The time effect differs however considerably by gender and legal status. Over 50% of documented female migrants are likely to remain in the U.S. even after 4 years, while undocumented males tend to have very short migration durations: over 50% are likely to return within the first year of migration. The author also finds that migrants originating from households owning a certain combination of assets (house, car, land or business) stay longer in the United States than those from households without assets. Having a high-wage job is also found to increase the migration duration. By including a year dummy on the introduction of the stricter Immigration Reform and Control Act which came into force in 1986 indicates that durations after the implementation of the act were prolonged, particularly in the case of undocumented migrants. Although the year dummy does not allow for a causal link to the policy change, the results suggest that migrants who would have returned sooner under more liberal immigration schemes offering the possibility of a subsequent remigration, decide instead to stay longer in the United States.

Dustmann (2003a) uses the GSOEP data set to explore empirically the impact of changes in the wage differential on migration durations, conditional on individual characteristics, time dummies and origin country dummies. Wages in the home country are not observed and approximated by years of education before migration, origin country dummies and interactions between these variables. The host country wages are obtained from averaging predicted wages from wage regressions for each individual and over the duration of migration\(^9\). Higher-order terms of predicted wages are included in order to allow for non-linearities in the effect on migration duration, as predicted by the theoretical discussion provided above. The results suggest that there is indeed a non-linear

\(^9\)Wages may be endogenous to the return duration. The authors use parental education as instrument for wages, under the assumption that it is relevant in explaining wage variations, but affects migration duration only through its effects on wages.
(inverse-U) relationship between destination country wages and migration duration: durations first increase with wages, peak at a relatively low hourly wage of 12DM (in 1984 German Mark) and decline at higher wage levels.

The following section explores activity choice after return as a further factor influencing migration duration.

4.4 What happens after the return?

The impact of temporary migration on the well-being of the returnee herself, the household, community and at an aggregate level the development of the home country, depends not only on the migrant’s behaviour during the period of migration (sending of remittances), but also on the social and economic behaviour and activities after return. The returnee may have acquired knowledge, skills and networks and accumulated savings which can be invested in consumption, but also in productive activities and contribute to job creation. Returnees may also change social structures in the home community by fostering the transfer of values or attitudes acquired in the host country, such as reproductive behaviour, gender roles, consumption or housing preferences.

In the economic literature, the achievements of the return migrant are usually placed in the context of the labour market. This review will therefore focus on research that explores the occupational choice after return and the labour market performance of migrants in terms of their earnings and productivity. In the framework of the human capital theory of migration, the return should be followed by an activity where the newly acquired skills can be employed in the most productive way. The occupational status and earnings should hence be upgraded compared to the situation before migration, provided that skills acquired abroad are transferable. The earnings attainment will also depend on the selectivity of return migration. The constrained credit market hypothesis would suggest that returnees (and/or their households) are more likely to be engaged in self-employment. On the other hand, life-cycle income maximisers who want to take advantage of purchasing power differences may choose to be inactive after return. In addition, the individual and collective success of the return to the home country may vary depending on the characteristics of the migrant, of her household, networks, community and even country-level features, the return motive, the migration experience, duration and the timing of return, the degree of transferability of savings and knowledge and the strength and
type of ties the returnee maintained with the home during the stay abroad. At the aggregate level the number and geographical location of returnees play an important role (Ammassari and Black, 2001).

Though to a lesser extent than the departure decision, the return decision is likely to be taken under some uncertainty, and the returnees may face difficulties in their reintegration. One alternative in such a case is to leave the home country again, either to the same destination country or a different one. If the return is only temporary, more complex patterns of repeat migration can emerge.

4.4.1 Occupations and entrepreneurship

Several authors have investigated the hypothesis that inter-temporal utility is maximised by choosing the occupation after return simultaneously with migration duration and consumption/savings levels in both host and home countries. Dustmann and Kirchkamp (2002) propose a theoretical model in which workers decide on return migration and the timing of return together with the activity after return (self-employment, wage-employment, non-participation in the labour market, which enter the utility function and the budget constraint). The authors predict that the returnee chooses self-employment if she migrated at a young age, since the initial sunk costs of a business require a long enough period during which returns are generated. The returnee will become wage-employed if the migration occurred at an intermediate age, and retire, if she migrated at a later stage in life. Comparative statics on the duration of migration show as well that parameters (e.g. wages abroad) are expected to have different effects depending on the occupation envisaged for after the return.

Mesnard (2004) provides another example for the linkages between return decision, duration of migration and activity choice, taking into account origin country characteristics in addition to individual characteristics. She assumes that credit market constraints at home will predominantly affect those who plan to become self-employed after their return. As a consequence, policy changes may have unexpected results on the duration of migration: incentives offered to stimulate investment upon return may even delay the return. Some migrants, who would have otherwise chosen to become wage-employed, change their mind and stay longer in order to accumulate the savings needed in addition to the incentives for starting a business.

Lindstrom (1996) suggests that the existence of attractive investment op-
opportunities in the home region (for which functioning credit markets are one re-
requirement) is a main factor determining migration duration and activity choice
after migration. Migrants from regions which are economically less dynamic
would primarily migrate to accumulate savings for consumption purposes. One
implicit assumption is, however, that migrants actually return to their “home”
community, and not to an economically more dynamic region. The strength of
social ties of returnees and non-migrants also matters for occupational choice.

Wahba and Zenou (2012) propose a theoretical model that provides pre-
dictions on the effect of the quality and number of strong ties (close family)
and weak ties (friends, acquaintances) on the decision to become entrepreneur,
contrasting returnees with non-migrants. The authors suggest that the gain in
human capital through work experience abroad may be partly or entirely offset
by the loss of weak ties at home. One should, however, account as well for the
role of ties maintained with the host country after return, emphasised by the
literature on “transnationality” (Cassarino, 2004). Returnees may be able to
take advantage of these ties and build up business relationships with partners
in countries of destination. Not only entrepreneurship, also returnees’ access to
wage-employment may suffer from the loss of social ties, if information on job
opportunities are mainly channelled through network ties (DaVanzo, 1983). In
countries where discontinuities in the employment history are regarded nega-
tively, returnees may be disadvantaged (Muschkin, 1993).

There is a sizeable amount of quantitative and qualitative empirical work
on the occupational attainment of return migrants, particularly with regard to
the process of jointly determined migration duration and occupational choice,
and the development of businesses through returnees, who decide to become self-
employed. Given the amount of research on the issue, the following paragraphs
will only review a small selection of the articles.

The study by Dustmann and Kirchkamp (2002) tests the theoretical model

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10See for quantitative studies e.g. Ilahi (1999), Arif and Irfan (1997), McCormick and
Wahba (2001), Dustmann and Kirchkamp (2002), Wahba and Zhenou (2012), Woodruff and
(1998), Kilic et al. (2007), Tani and Mahuteau (2008), Gubert and Nordman (2008a), Gubert
and Nordman (2008b), Muschkin (1993) and Lindstrom (1996). Authors who have explored
the issue in a more qualitative way include, for instance, Ammassari and Black (2001), Black et
(1999).
on the simultaneous choice of migration duration and post-return activity, based on a sample of Turkish migrants in Germany, who were interviewed in Germany in 1984 after applying for return assistance, and who were traced and re-interviewed in Turkey two and four years afterwards. The authors’ hypothesis implies for the econometric estimation method that the effect of covariates on duration should be allowed to vary depending on the planned activity (estimate separate duration equations), and that duration and occupation equations should be estimated simultaneously to consider the effect of unobservables which influence both decisions. To avoid additional problems of simultaneity, the authors use as covariates only variables determined before the migration, as activity choice or duration may have influenced characteristics during or after migration. Explanatory variables included are age at migration, two proxies for preference parameters (marital status before migration and number of children born before migration), education and occupational class upon arrival as proxies for the migrant’s wages, and a control for the return aid programme, which could have influenced duration. To identify the model non-parametrically, the authors choose self-employment before migration as instrument to be excluded from the duration equation, arguing that this variable is relevant for the activity choice after return, but influences duration only through its effect on the occupation. The results support the hypotheses on the simultaneous choice of duration and activity, and on the varying effects of covariates on duration in function of the activity choice. Those who intend to become self-employed after return and attain higher wages abroad, return earlier. The preference variables decrease the optimal duration of migration for future non-employed, salaried workers as well as self-employed. A higher age at the time of migration increases the possibility of non-employment after return, and decreases the probability of self-employment. Educated migrants decide rather for wage-employment or self-employment than inactivity, previously self-employed are much more likely to remain self-employed also after return.

Tani and Mahuteau (2008) test the hypothesis brought forward by Dustmann and Kirchkamp (2002) in the context of the Maghreb countries Tunisia, Algeria and Morocco. They use a 2-step method following Lee (1983), estimating first the occupational choice with a Multinomial Logit model and in a second step the durations with selection correction terms. Although they conclude that the migration duration is not determined by subsequent activity choice, the
significance of most of the selection correction terms (apart from unemployed) suggests that the disturbances are indeed correlated.

Descriptive analyses comparing pre- and post migration periods generally suggest that the proportion of entrepreneurs increases from before to after migration and is higher among return migrants than non-migrants (McCormick and Wahba, 2001; Wahba and Zenou, 2008; Mesnard, 2004; Ilahi, 1999). Wahba and Zenou (2012) investigate if returnees to Egypt are in fact more likely to become entrepreneurs (employers or self-employed) than non-migrants, as the descriptive evidence suggests, and explore the role of social ties in the occupational choice (using information about other members of the family migrating to approximate strong ties, and the fact of being from a small community as a measure of the strength of weak ties). They first estimate the probability of being entrepreneur in a simple probit model which includes a dummy for return migrant status. The estimated coefficient is significant and positive, indicating that returnees are indeed more likely to become entrepreneurs. The authors argue, however, that this result may be biased if the return decision and the decision to become entrepreneur are taken simultaneously, or if unobservables drive both the fact of being returnee and being entrepreneur. In a second step they estimate therefore the two decisions in a recursive bivariate probit model. The correlation between the disturbances is negative, and the result indicates that the probability of entrepreneurship for returnees is even higher than suggested by the simple probit model. Moreover, strong and weak ties have a positive impact on non-migrants, but not on returnees, what suggests that social capital got lost during the stay abroad.

In their study of the impact of return migration on household business ownership in Albania, Kilic et al. (2007) do not use a bivariate model, but instrument for return migration in the entrepreneurship model. They examine different aspects of return, in particular duration of migration, destination and differential effects before and after the year 2000 to distinguish recent and less recent returns. They find that the migration experience increases significantly the likelihood of business ownership, especially among returnees from Italy and those who came back to Albania before 2000. The impact seems to arise from the migration experience rather than from unobserved entrepreneurial ability, since the positive coefficient on migration increases after instrumentation. This result is in line with the study by Wahba and Zenou (2012).
Mesnard (2004) explores the occupational choice of returnees by estimating a probit model of occupational choice with the outcomes self-employment and wage-employment, restricted to the sample of working return migrants. To test the constrained credit market hypothesis, she includes savings at the date of return (and savings squared) as main explanatory variable. Control variables include individual and family characteristics. Several econometric problems have to be addressed in the estimation. Firstly, savings at the time of return may be endogenous if decisions about savings and occupation are taken simultaneously. In addition, there may be a selection bias if the sample of return migrants is non-random, and unobserved ability is correlated with the variable of interest, i.e. savings accumulated abroad. The author therefore estimates jointly savings and the probability of being self-employed, instrumenting (i) for savings with a year dummy 1974 which represented a turning point in European host country immigration policies, forcing Tunisian migrants to choose lower-wage destinations such as Libya, (ii) for savings squared with the square of age at return. The findings indicate an inverse-U relationship between savings and the probability of self-employment, confirming the target-income hypothesis. Very low savings represent a barrier to self-employment, and very high savings are more in line with a life-cycle income maximisation strategy than with target-income saving for investment. Savings are found to be exogenous. An earlier paper by McCormick and Wahba (2001) comes to a similar result in the context of return migration to Egypt. The amount of savings from migration increases the likelihood for entrepreneurship of both literate and illiterate returnees. The length of stay abroad, which may reflect skill acquisition, is only significant in the case of literate returnees.

The studies presented so far have examined the occupational choice of returnees, what gives an indication of - but can not necessarily be equated with - a successful reintegration of the returnee, and even less so with a broader developmental spillover effect of return. Being self-employed may not lead to job creation and productivity increases. Self-employment in the informal sector, for instance, is often associated with relatively precarious work and income conditions, and that is where in the poorest countries a majority of jobs are created.\footnote{A recent World Bank report on the Senegalese labour market points out that 97% of new jobs were generated in the informal sector between 1995 and 2004, while the productivity
complement therefore the research on occupational choice.

### 4.4.2 Labour market performance - productivity and earnings

Data which would allow to investigate directly the productivity level of returnees’ businesses is scarce. One exception is the study by De Vreyer et al. (2008), which uses data from the so called “1-2-3 survey”, which was conducted in capital cities of seven West African countries between 2001 and 2002\(^{12}\). The name is related to the three phases of the survey, a first survey on individuals’ socio-demographic and labour market characteristics, a second on the productive characteristics of businesses in the informal sector, and a third one on household conditions. The data enables the authors to identify return migrants as well as the features of their enterprises if they own a business, and to compare the estimated production function of returnees’ and non-migrants’ businesses. The authors use information on value-added, capital (information on replacement cost provided by interviewees), and labour by educational category, as well as a dummy variable indicating the return migrant status to estimate Cobb-Douglas type production functions by Ordinary Least Squares. The results indicate that the return migrant status increases productivity significantly in four of the capital cities, but that the impact is much stronger in case of return from OECD countries than from countries in the region. The findings may however be biased since the authors were not able to control for a possible endogeneity of the migration status.

The earnings attainment of return migrants compared to non-migrants has already been discussed in the context of self-selection. Once corrected for selectivity, earnings differentials should show in how far returnees acquired new knowledge and skills abroad, and if they were able to transfer and apply these after their return to the home country. Returnees could, however, also suffer from a loss of social ties if these matter in the labour market (see, e.g. Kiker and Traynham (1977) for an early example on internal return migration; Barrett and O’Connell (2000), Co et al. (2000), de Coulon and Piracha (2005), Enchaughtegui (1993), De Vreyer et al. (2008)). The evidence on the existence of wage premia for foreign experience is rather mixed. In their study of West

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\(^{12}\)Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal and Togo
African returnees, De Vreyer et al. (2008) find that the difference between non-migrants and returnees’ wages is insignificant in five out of the seven countries, when controlling for other characteristics and correcting for selection into being active in the labour market, though without correcting for potential self-selection into return migration. In two countries, Benin and Togo, returnees are found to achieve significantly higher earnings than non-migrants. Interaction variables show that the impact of migration experience can vary by gender, as the impact in Burkina Faso is insignificant at the average, but significant and negative for men. Similarly, Enchaustegui (1993) finds that return migrants to Puerto Rico do not obtain any wage premium from their stay and experience in the United States. Long stays abroad are even penalized in the home labour market, what the author explains by the fact that Puerto Ricans perform relatively low-skilled jobs, which do not contribute to human capital accumulation. Co et al. (2000) investigate the performance of returnees to Hungary, and introduce a double correction for participation and migration. They find that the migration experience does not influence significantly the earnings of male returnees, but that women who have returned to Hungary earn a premium of approximately 40%. The authors’ explanation is that women who stayed in Hungary tended to experience wage cuts during the period of analysis (beginning of the transition process to a market economy), while those who migrated obtained “market-economy” specific knowledge and skills, which were particularly valued in the home labour market. This hypothesis is supported by a model which distinguishes the effect by destination region. Women who had migrated into OECD countries achieved an earnings premium of 67%, while the effect was insignificant for women who had returned from non-OECD countries.

The literature has mainly concentrated on the return migrant himself to assess the success of the return as well as its development or poverty-reducing impact. Broadening the focus to include the household or even the community would allow to take into account possible spillover effects of return, similarly to the effect of remittances. Examples include expenditures by returnees which stimulate the local economy, (in the housing sector, consumption of local products and demand for local labour), businesses owned not by the returnee herself, but by another member of the household, investments in education of health enabled by the returnee’s savings, or the benefits from social capital acquired by the return migrant (familiarity with other cultures, language skills, contri-
4.4.3 Repeat migration or circulation

In the theoretical and empirical studies presented so far, return has been assumed to be permanent, and the duration of staying abroad to be continuous (Stark, 1996) - but what if this is not the case and returnees decide to leave again? The theoretical and empirical literature on repeat migration is relatively scarce, especially in economics, but the interest in the topic is growing. One example is the MIREM project\(^{13}\), which asks returnees to the Maghreb countries how they feel about their return and about their intentions to depart again. The survey results indicate that only about half of the returnees had the intention to stay and settle permanently in their home country when asked at the time of return, and among returnees who did not return voluntarily this proportion fell below 28%. Questioned for their intentions at the time of the interview, the percentage of permanent returnees declined even further, suggesting that conditions at home may have had changed in the meantime (http://www.mirem.eu/datasets/survey/perspectives). Also the research on Mexican migrants within the Mexican Migration Project (MMP) shows that most migrants accumulated several migration experiences by moving back and forward between the U.S. and Mexico (Massey and Espinosa, 1997).

Constant and Zimmermann (2003a) provide a discussion of the theoretical underpinnings of repeat migration. Similar to the early theories on migration, return migration is often considered to be a one-time event, and the phenomenon of repeated moves appears to be a sign of indecision or of a failed return experience. The authors suggest that repeated moves fit into a rational utility-maximisation framework if they allow to take advantage of opportunities as they arise in either the home or a destination country, or if the migrant has preferences for changes in her location. The authors suggest that repeated moves are a way to minimise risks by maximising the options for action. The repeat migrant will incur lower costs than at first departure, since more and better information is available. In addition, shorter repeated moves limit the loss of origin-specific capital such as social ties, and allow at the same time to build up migration-specific capital and to some extent also host-country specific

\(^{13}\)"Collective Action to Support the Reintegration of Return Migrants in their Country of Origin", supported by the EU and the European University Institute in Florence, Italy
capital. If we consider family-related moves in addition to economic ones, repeat migration may arise for instance if the migrant returns home to find a spouse.

The concept of transnationalism, developed in the 1980s by migration scholars from different disciplines, can provide a framework to understand better the phenomenon of repeat migration (Cassarino, 2004). Migrants are not anymore regarded as being either attached to the home or the host country, but may develop economic, social and political transnational activities (such as migrating back and forth, the sending of remittances, the adherence to associations etc.) which create linkages between origin and destination countries. They may also generate transnational identities, whereby migrants form their identity based on home as well as destination country influences. To distinguish oneself from the home community may however also entail a process of marginalisation in the home society.

Empirical work on repeated moves is relatively limited (except for work on seasonal migration, which is not considered here). Massey and Espinosa (1997) analyse in their seminal paper not only determinants of departure and return from and to Mexico, but also the factors which condition the continuation of the migration experience of documented and undocumented migrants, i.e. repeated moves. Employing a discrete-time event history model, they find evidence that previous migration experience strongly increases the probability of migrating again (by 10 compared to the first departure in the case of undocumented migrants), that documented migrants who achieved a higher-skilled job on the first trip were more likely to migrate again, as well as those whose wife and children had already been to the United States. With increasing education and work experience in Mexico, the likelihood of a further move declines, suggesting a negative selection of repeat migrants. The possession of assets (dwelling, land, business) make additional migrations less necessary and hence less likely. The wage differential between Mexico and the U.S. is not significant for repeated moves.

Constant and Zimmermann (2003a, 2003b) examine repeat migration to a specific host country, Germany, based on the GSOEP data. In the first study, they estimate models on the number of exits from Germany and the number of years a migrants spends out of Germany (in the home country if one assumes that leaving Germany can be equated to returning home). This type of dependent variable requires a count model, and the authors use robust Poisson
regressions. The findings suggest that there is an inverse-U relationship between age and both dependent variables - mid-aged migrants are the most likely to experience a large number of trips as well as a longer duration out of Germany. Education obtained in the home country as well as higher education achieved in Germany reduce the likelihood of circulation. Those with German citizenship are freer to move and found more prone to leave and return to Germany frequently.

In their second paper, Constant and Zimmermann (2003b) employ a different methodological approach to investigate repeat migration. Still based on the German data, they use a discrete-time, discrete-space Markov chain process to study how transition probabilities of repeat migration vary over the lifetime, by gender, education, country of origin, social capital and employment characteristics. In its discrete form, a Markov chain is a sequence of random variables with the Markov property, i.e. that given the present state, future states are independent from past states - history does not matter. Applied in this context, the Markov chain takes two states, 0 and 1, which indicate that an individual lives in the host country Germany or in the origin country. There are four conditional transition probabilities: that an individual is in Germany in the following period, given that she is there currently; that an individual will move to the home country in the following period, given that she is currently in Germany; that she will move to Germany conditional on being currently in the home country; and that an individual who is currently in the origin country will stay there. This approach assumes that individuals are myopic, they maximise utility by deciding on the next state solely based on the current state. The methodology would therefore be concordant with the theoretical hypothesis that repeat migrants take advantage of opportunities as they arise in home or host country, but would agree less with repeat migrations planned as part of a life-cycle utility-maximising strategy. The authors compute the conditional transition probabilities by estimating two discrete-time hazard models on repeat migrants, one for those who are currently in Germany and one for migrants whose current state is “being in the origin country”. The findings on the latter estimation suggest that the transition probability of repeat migration is very high (over 80% at the sample average). The results further indicate that the probability of leaving again for Germany after a return to the home country is relatively high at a young age, decreases then, and rises again after 35 years.
Somewhat surprisingly, German primary and secondary education reduces the likelihood of a repeat move, while vocational training has a positive and significant impact. Migrants who remit have a higher probability of a repeat move, and the migrants from Ex-Yugoslavia are less likely to remigrate to Germany once they returned home. Those who have a spouse at home are less likely to leave again, but the presence of under age children in the household promotes further migration.

Bijwaard (2005, 2008) provides a further example for an empirical study of repeat migration from the host country perspective. In both papers, he uses a mover-stayer duration model to examine the determinants of returns from the Netherlands and of repeat migration into the Netherlands, based on information from the Central Register of Foreigners linked to the population register. The mover-stayer framework takes account of the possibility that some individuals may have a zero probability of repeat migration, and the individual contributions to the likelihood function are conditioned on being a stayer (will never migrate again) or a mover (has a positive probability of repeat migration). In addition, a mixed proportional hazard model is estimated in order to allowing for unobserved individual heterogeneity, which may be correlated over migration events for the same individual. The baseline hazard is estimated as a piecewise constant hazard with eight intervals, and the model is run separately for each of the migration motives contained in the data (labour, family reunification, family formation, and study). The results indicate that the baseline hazard of return is very low, except for the family reunification group in the first five years after leaving the Netherlands. This implies that most migrants do not experience repeat migrations to the Netherlands, which contravenes the findings by Constant and Massey (2003) for Germany.

5 Conclusion

While the possibility of return is increasingly acknowledged in the theoretical and empirical economic migration literature, there are several questions which have only received limited attention.

Gender-related differences are gaining terrain in the analysis of departure in the context of the “feminisation of migration” with more women migrating independently, but are not very present in the return migration literature. In
fact, gender is not included as explanatory variable in many of the studies reviewed. The rather loose definition of return is another issue: the analysis often regards the leaving of the host country as return (which may be in fact transient migration to another host country), or the return to the country from which the migrant originated. A closer look at the return destination may be important for the impact analysis of return. Is the migrant returning to the origin village, or to another region, or even the capital city? The New Economics of Labour Migration puts emphasis on the notion of household-level migration decisions, but how is the household structure evolving with migration and return? Does the returnee come back to the initial household, are ties kept, or are new households founded after return? Especially empirical impact studies, but also studies on determinants and timing of return are still anchored very often in a framework which focuses on the individual. One question to be asked is, for instance, if savings brought back by the migrant are pooled, and represent hence a function similar to remittances, or if the returnee takes decisions on her own.

The work by other disciplines such as anthropology and sociology on the role of subjective factors, may also suggest different hypotheses. According to economic theory of migration, a failure would usually lead to return. Qualitative studies suggest, however, that migrants may be too ashamed if they are not able to satisfy the image of a successful returnee bringing money and gifts home. The migrants may prefer not to ask their network for support or to return and keep on struggling abroad instead (Galloway, 2008; Osella and Osella, 2000). The existence of relative deprivation at the origin has been put forward as a theoretical explanation for departure and return, but there are so far no empirical studies investigating the effect of changes in the relative status of households on return.

Given the limited availability of data, empirical research has so far concentrated on certain countries and regions. There is very little quantitative evidence on return to Sub-Saharan Africa, for example. Lack of longitudinal data has made it so far difficult to examine more complex forms of temporary migration, such as repeat or transient migrations. The examples reviewed show as well that results are often contradictory or ambiguous. Even studies using the same data set may reach different conclusions depending on the estimation method, and the level of complexity taken into account with regard to the presence of se-
lectivity, simultaneity in decisions, or censoring and truncation (e.g. Bellemare, 2004 versus Constant and Massey, 2002; McCormick and Wahba, 2001 versus Wahba and Zenou, 2012).
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