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GENDER AND REMITTANCES: EVIDENCE FROM GERMANY

Elke Holst, Andrea Schaefer, and Mechthild Schrooten

ABSTRACT

This study focuses on gender-specific determinants of remittances in Germany. The conceptual approach considers gender roles and naturalization to be crucial in the immigrant's decision to remit. For the empirical investigation, the authors use data from the German Socio-Economic Panel (SOEP) study for the years 2001–6. The findings show, first, that individual income differences in the country of residence cannot sufficiently explain why foreign national women remit less than men in absolute terms. Second, men who are naturalized citizens remit far less than men who are foreign nationals. Thus, in the group of naturalized German citizens, gender differences in the amount of remittances disappear. This can be explained by the fact that acquisition of citizenship makes family reunification in Germany more likely. Third, network structures in the country of origin might help to explain differences between men and women and between foreign nationals and naturalized citizens in the amount remitted.

KEYWORDS

Remittances, gender, foreigners, naturalized residents

HEADER: TRANSNATIONAL NETWORKS AND REMITTANCES

INTRODUCTION

Feminist critique has shown how gender roles and a gender-specific division of labor have shaped the migration process (Carlota Ramírez, Mar García Domínguez, and Julia Míguez Morais 2005). Remittances play a role in this process, as sending money home makes women important players in transnational networks.¹ This in turn can provide them a higher degree of social independence (United Nations International Research and Training Institute for the Advancement of Women [UN-INSTRAW] 2006). In the 1990s, a growing strand of literature began analyzing household characteristics (for Nicaragua, see Edward Funkhouser [1992]) and family ties (Jacob Mincer 1978; Brenda Davis Root and Gordon F. De Jong 1991) as important aspects of migration. Sending remittances is often theorized as an altruistic act or as the result of informal family contracts for insurance and investment. In the latter case, remittances are seen as a tool for risk diversification and reduction within a transnational household (for Botswana, see Robert E. B. Lucas and Oded Stark [1985]; for broader accounts, see Mark R. Rosenzweig [1988]; Oded Stark [1995]; Bernard Poirine [1997]; and Andrew D. Foster and Mark R. Rosenzweig [2001]; for Guyana, see Reena Agarwal and Andrew W. Horowitz [2002]). There are strong arguments that these contracts are determined by culturally specific expectations based on gender roles, transnational network structures, and the legal status of the migrant. However, to

date, very few theoretical studies have examined the link between remittances, gender, the structure of the transnational networks, and citizenship (for a broader account, see Thomas Faist [2000]; for the United States, see Ewa Morawska [2002]). Taking these dimensions into account here, we offer some empirical insights into the remittance decisions of immigrants living in Germany. As of 2010, Germany had about 7.2 million foreign nationals, of whom almost 50 percent are women (Statistisches Bundesamt Deutschland 2010, 2011a). At the same time, Germany sends more remittances than most countries, despite having a decreasing number of immigrants. It has been reported in the literature that foreign national men living in Germany remit more than foreign national women, even after controlling for income (Lucie Merkle and Klaus F. Zimmermann 1992; Ursula Oser 1995; Elke Holst and Mechthild Schrooten 2006).² Here, we want to go one step further and examine the effects of the immigrant's legal status and the structure of the transnational network: both may help to understand how men and women decide to send remittances, and whether these decisions have a gendered dimension. We use data from the German Socio-Economic Panel (SOEP), which include rich information on foreign nationals and naturalized German citizens for the years 2001–6.

RESEARCH INSIGHTS

Standard theoretical economic considerations of migration and remittances neglect differences in women's and men's migration patterns and remittance decisions (Lucas and Stark 1985; Edward Funkhouser 1995; Stark 1995). However, a growing number of applied studies focusing on immigration from Latin America and Asia have stressed that “migration is a profoundly

gendered process” (Shawn Malia Kanaiaupuni 2000: 1312; United Nations Development Fund for Women [UNIFEM] 2008). This process is mainly due to the divisions of paid and unpaid labor between men and women prevalent in a society (Susan Himmelweit 2002; Shelley Wright 2002). The gendered process of migration often disadvantages women, who are paid less due to the lower value ascribed to their (household) experience and abilities.³ In this case, it can be assumed that the economic returns of human capital, as measured, for example, by education, depend on the degree of gender division of labor in the household and the devaluation of women’s work in the labor market in the country of residence.

Since the 1980s, there has been a growing body of empirical literature seeking to understand how immigrants send money home and to describe their patterns of remittance behavior: who sends what (and how much) to whom, how often, using what channels, and how the money is “spent” by the recipients⁴. Nevertheless, the data sets, methods, and empirical results of these studies vary widely. Many aspects of migration — the motivations, risks, and norms affecting men’s and women’s behavior — differ along culturally specific lines (Lisa Pfeiffer, Susan Richter, Peri Fletcher, and J. Edward Taylor 2008).

A study on Thailand provided further insights based on the recognition that migration decisions are not made by individuals, but conditioned by membership within households (Sarah R. Curran 1995). Complex negotiations are carried out between family members, and the results depend on the resources available to each family member. Cultural expectations associated with gender are both reproduced and transformed within the family. Even earlier studies, such as that by Sherri Grasmuck and Patricia R. Pessar (1991) on Mexican and Dominican migrants, showed that migration is not only an adaptive reaction to external economic conditions but also the result of a gendered interaction within households and family and friend networks. Pierette

Hondagneu-Sotelo (1994) presented similar arguments in her work on Mexican immigrants in the US. In the case of the Philippines, Rhacel Salazar Parreñas (2001) demonstrated that even after migration, migrant women provide emotional care. Nevertheless, often the households left behind undergo an economic restructuring process as shown in the case of Mexico (Agustín Escobar Latapi and Mercedes Gonzáles de la Rocha 1995). These kinds of insights on gender-specific migration patterns have emerged from several empirical studies on remittances focusing on gender-specific strategic behavior (Alejandro Portes 1997; Patricia R. Pessar and Sarah J. Mahler 2003; Nicola Piper 2005; Ramírez, Domínguez, and Morais 2005; Ninna Nyberg Sørensen 2005; Jørgen Carling 2008). Lucas and Stark (1985) found, in their seminal work on remittances, that women in Botswana show a higher probability of remitting than men. Up to now, only a few country-specific studies have concluded that women remit more than men (Lucas and Stark 1985; United Nations Population Fund [UNPFA] and International Organization for Migration [IOM] 2006). Leah Karin VanWey (2004) shows that in the case of immigrants from Thailand, women are more likely to remit than men due to religious and cultural norms expressed in gender roles. On a more general level, one important finding is that men seem to remit mostly to their wives, while female migrants often send remittances to the people taking care of their children (Amaia Pérez Orozco and Denise Paiewonsky 2007; Amaia Pérez Orozco, Denise Paiewonsky, and Mar García Domínguez 2008). When a man immigrates, leaving his wife behind in his country of origin, she is often left with the responsibility of taking care of her children and parents. When a woman immigrates, those staying behind to care for children or parents are typically other women, either family members or friends. Studies on the remittances of Filipino, Latin American, Caribbean, and West African immigrants empirically support these considerations by showing that women migrants tend to remit to a wider circle of

family members than men (for the Philippines, see Moshe Semyonov and Anastasia Gorodzeisky [2005]; for Mexico, see Telésforo Ramírez García [2009]).

First steps beyond the traditional models of remittances: Concepts and hypotheses

Traditional theoretical models of remittances tend to view migration as portfolio diversification within a given transnational network (for overview, see Hillel Rapoport and Frédéric Doquier [2005]) and assume remittances to be based on altruism, investment, and insurance decisions. In light of empirical findings that remittances tend to have highly complex motivations, more recent articles have considered remittances based also on intra-network contracts aimed at income-risk reduction (Jennie Hokander 2008). Since migration is costly, the possibility of migrating may depend on financial support from the family and friends network in the country of origin. In addition, migration is risky and fraught with uncertainty. Typically, temporary migration as well as unsuccessful long-term migration is followed by remigration. In both cases, the network of family and friends in an immigrant's country of origin is likely to provide support and assistance with reintegration. The support provided by this network may include financial resources as well as care and other forms of nonfinancial assistance. In return, the immigrant's remittances offer those left in the country of origin additional income, which can serve as insurance against negative income shocks (for the Dominican Republic, see Bénédicte de la Brière, Elisabeth Sadoulet, Alain de Janvry, and Sylvie Lambert [2002]). Thus, remittances can be understood as part of a contract that has to be fulfilled by the immigrant or his or her successors after emigration. We assume that the contract is usually enforced over time by cultural norms.

Our basic hypothesis results from the fact that migration to Germany comes mainly from low-income countries. Cursory evidence suggests that immigrant women tend to send less money home solely because of the gender pay gap in the country of residence. At 23 percent, the raw gender pay gap in Germany is one of the highest in the European Union. It has remained quite stable over the past decade (Statistisches Bundesamt Deutschland 2011b). Additionally, the cultural context may be an important factor. In the majority of Western societies, men are seen as breadwinners and therefore expected to bear the bulk of responsibility for supporting the household financially. This corresponds to findings from international studies reporting that on average, women have more limited financial resources to remit than men (United Nations Division for the Advancement of Women 2009). Therefore, we can derive our first hypothesis: *immigrant men remit higher amounts of money than immigrant women (Hypothesis 1).*

This gender discrepancy in the amount of remittances might be explained by the legal status of the migrant and the structure of the transnational network. Many foreign nationals do not have full access to the social security system in their country of residence and may therefore need to return home. In addition, due to their legal status, foreigners might face pressure from law enforcement to return to their home countries. In contrast, naturalized citizens normally have full rights, including social security, in their country of residence. Family reunification in the country of residence is much easier for naturalized citizens than for foreigners. Consequently, citizenship has far-reaching implications – not only for the individual immigrant but also for his or her entire network of family and friends. Naturalization makes chain migration more likely, which again changes the network structure in the country of origin and makes remittances less necessary. For men and women, settling down and becoming a citizen of the adopted country lowers migration-specific uncertainty and risk, as well as the pressure for return migration. In

such a case, immigrants may retain ties with only part of their network in their country of origin or only with particular individuals (for South Africa, see Dorrit R. Posel [2001]). This applies particularly if immigration takes place for compelling personal reasons such as separation, divorce, or domestic violence. Consequently, we assume that the legal status of the immigrant provides an important key to understanding patterns of remittance behavior. If this is true, gender differences in remittances should diminish or disappear because men who are naturalized German citizens have their close family members with them in their country of residence, making remittances less necessary. Therefore, we assume that *in the group of naturalized citizens men and women do not significantly differ (statistically) in the amount they remit (Hypothesis 2).*

However, within such a context, the links between gender effects and the structure of transnational networks might matter. After moving abroad, the immigrant belongs to a transnational network consisting of two different subnetworks: the network in the country of origin and the network in the country of residence.⁵ As mentioned above, it is well documented in international comparative research that men typically provide financial support to spouses and children left in the country of origin. Women, on the other hand, either take younger children with them or leave them with other members of their network of family and friends in the country of origin. Consequently, they tend to send money to the caregivers, who are usually women. In addition, the position of the immigrant within the network seems to matter – the amount of remittances depends on whether they are sent by a daughter, wife, mother, or head of household (Curran 1995). A study based on South African data also established that

“Women’s mobility varied according to their position in the household. Married women could not move at will – their husband’s power in this regard was clearly

apparent. Unmarried women were freer to move, but depended on their position and conditions within the household. They are frequently constrained by their roles as care-givers – responsibility for children, the sick and disable, and for old (grand)parents” (Alison Todes 2001: 17–8).⁶

Therefore, *the amount of remittances depends on the relative position of the immigrant in the transnational network (Hypothesis 3)* – in other words, remittances depend in a gender-specific way on the existence and structure of social and familial networks in the country of origin.

DATA, SUBGROUPS, VARIABLES, AND METHOD

As shown above, the multifaceted process of migration and remittances requires scholars to consider a complex set of individual-level factors: human and social capital, gender, citizenship status, and transnational networks. In the following, we use variables from a large representative household survey, the SOEP (2001–6), to test the hypotheses formulated above for Germany.⁷

Immigrants with and without German citizenship

In 2001, there were about 7.3 million foreign nationals (residents without German citizenship) living in Germany (around 9 percent of the German population) – 3.4 million of them women (Statistisches Bundesamt Deutschland 2011a). The number of foreign nationals in Germany has decreased and was at around 7.2 million in 2006. The main groups of foreign nationals in

Germany in 2006 are Turkish (26 percent) and former Yugoslavian (14 percent; Statistisches Bundesamt Deutschland 2011a). During the last two decades, the rate of women immigrating to Germany has increased. Women make up about half of all foreign nationals living in Germany, although the proportion of women varies substantially by country of origin.

Due to the legal requirements for citizenship, many of the foreign nationals with residence in Germany did not actually immigrate – they were born in Germany with foreign citizenship as children of immigrants. Up to the year 2000, the citizenship of a child born in Germany was determined solely by the parents' citizenship: a law effective in 2000 permits German citizenship to be conferred on children born in Germany even if neither parent is German. A precondition is that one parent has been a legal resident of Germany for eight years and has permanent residency. While some foreign nationals were born in Germany, many naturalized Germans have a family background of migration or even immigrated themselves: in either case, they were born with foreign citizenship and attained German citizenship later in life. In general, applications by foreign nationals for German citizenship have been declining in recent years. In 2001, 178,098 (2.4 percent) of all foreign nationals residing in Germany received citizenship by naturalization; this number declined in 2006 to 124,566 (1.7 percent of all foreign nationals). About half of these applications were from women. In total, naturalized Germans make up about 10 percent of the German population (Statistisches Bundesamt Deutschland 2011a).

This composition of the German population is also reflected in the SOEP data set, allowing us to compare gender differences in remittances among different groups of immigrants in Germany by current citizenship status: a) foreign nationals and b) naturalized German citizens.⁸ Residents with foreign citizenship were born in or outside of Germany (also referred to

in the following as “foreign nationals”), “naturalized German citizens” were born with foreign citizenship but later acquired German citizenship. We call the two groups together “immigrants” because both have histories involving migration and/or experienced a change in citizenship status.

The data reveal that about 15 percent of our SOEP sample members belong to one of these two groups of immigrants (Appendix Table A1).⁹ The total sample contains 19,800 observations for 5,201 immigrants, of whom 2,651 are women.¹⁰ More than half of the observations concern foreign nationals. Citizens of Turkey and the former Yugoslavian countries make up more than half of all observations of foreign nationals in our sample.

Measuring remittances, networks, human capital, and other personal characteristics

To capture data on remittances, defined as individual international (formal or informal) financial transfers by immigrants (see Ninna Nyberg Sørensen [2004]), we use the retrospective question in the SOEP questionnaire: “Have you personally provided payments or support during the last year (2001) to relatives or other persons outside of your household? How much in the year as a whole? Where does the recipient live? In Germany or abroad?”¹¹ All respondents are asked to state whether they transferred money, to whom, and how much. If they did not make any transfers, they check the box: “No, I have not given any payment or support.” Their answers provide individual information, not only about who makes transfers but also on the amount transferred. Our dependent variable is the “amount of remittances” converted to or measured in euro. Table A1 in the Appendix shows the numbers of foreign nationals and naturalized German

citizens, as well as the share of remittances in the years 2001–6. We include only respondents age 18 and over. Distinguishing the different groups reveals that about 9 to 12 percent of naturalized German citizens and 11 to 16 percent of foreign nationals send money home (see Table A1).¹²

Based on our theoretical framework, and considering the aforementioned findings from the literature, we use several independent and control variables. Our theoretical framework is based not only on the notion that citizenship status has an impact on remittances, but also on the idea that the structure of the transnational network matters. Thus, indicators for network in the country of residence include the number of adult household members as well as the number of children age 14 and below in Germany. To define the relative position of the immigrant in the transnational network, we also include information on the structure of the family and friend network in the country of origin: We obtain this from the SOEP question, “Do you have family members or close friends in the country of origin you (or your family) come from? Persons in native country: Who are they?”¹³ The answer options allow respondents to report the existence of parents or grandparents, children, siblings, a spouse, other relatives, and/or friends abroad.¹⁴

As suggested by Sørensen (2004), and described in Holst and Schrooten (2006), we included several control variables, such as age of respondents to measure life cycle effects,¹⁵ years in education to capture the role of employment selectivity, whether the respondent is currently married or not to capture the applicability of social transfers and social responsibility for a broader family, and also the labor income, as the power to remit depends on the available monetary resources. Since single-earner households may have different remittance patterns than multiple-earner households, we included not only the monthly individual net labor income, but also the additional monthly household net income weighted to control for scale effects.¹⁶ Since

the effect of the duration of stay might differ between elderly and younger immigrants, we use the relative duration of stay. Remigration plans of immigrants, on the other hand, reflect the immigrants' desire to return to the country of origin, and should increase remittances. Given that most immigrants in our sample come from Turkey or the countries of the former Yugoslavia, it seems essential to include dummy variables for these indicators of substantial differences in institutional regulations as well as cultural and religious differences between the immigrant groups.

The empirical models used in this study are guided by the theoretical considerations outlined above and attempt to explain the transfer amount given using a Tobit model with a random effects specification to control for unobserved heterogeneity as indicated in equation (1) in the next section: $\ln(\text{value of remittances})_{it} = \beta_1 \text{age}_{it} + \beta_2 \text{age}_{it}^2 + \beta_3 \text{women}_{it} + \beta_4 \text{married}_{it} + \beta_5 \text{years in education}_{it} + \beta_6 \ln(\text{monthly individual income})_{it} + \beta_7 \ln(\text{monthly additional household income}) + \beta_8 \text{household size in Germany}_{it} + \beta_9 \text{child below 14 years in household in Germany}_{it} + \beta_{10} \text{relative duration of stay}_{it} + \beta_{11} \text{remigration plan}_{it} + \beta_{12} \text{Turkey}_{it} + \beta_{13} \text{Former Yugoslavia}_{it} + \beta_{13}(\text{grand})\text{parents abroad}_{it} + \beta_{13}\text{children abroad}_{it} + \beta_{13}\text{siblings abroad}_{it} + \beta_{13}\text{spouse abroad}_{it} + \beta_{13}\text{other relatives abroad}_{it} + \beta_{13}\text{friends abroad}_{it} + \mu_i + \varepsilon_{it}$. The Appendix (Table A2) provides a description, means, and standard deviations of individual-level control, dependent, and independent variables – separately for all foreign national men and women and for naturalized German citizens – in the empirical analysis.¹⁷

Estimation method: The random effects Tobit model

We use pooled cross-sectional panel data because only few immigrants report that they remit. About 10 percent of all immigrants in our pooled sample reported sending remittances, as shown in Table A1 in the Appendix. For these respondents, we included the amount of remittances. Those who did not remit were assigned a zero: therefore, the data set contains many zeros. Since we attempt to explain the transfer amount given, one way to tackle this problem of many zeros is to use a Tobit model (James Tobin 1958), which has been applied in previous studies on transfers (Merkle and Zimmermann 1992; Edgard R. Rodriguez 1996; Mathias Sinning 2007; François-Charles Wolff, Seymour Spilerman, and Claudine Attias-Donfut 2007; Sencer Ecer and Andrea Tompkins 2010). The Tobit approach seems appropriate because it was also developed for situations where the dependent variable cannot take values lower than a particular limit (in our case zero). In the Tobit model we will only observe the level of remittances, R_{it} , which are $R_{it} > 0$, that is, the immigrant remits only if his or her remittances, R_{it}^* , are positive:

$$R_{it}^* = x_{it} \beta + \mu_i + \varepsilon_{it} \quad (1)$$

where R_{it}^* is a latent variable that is observed for values higher than zero and that captures the individual's (i) propensity to remit a positive quantity in period (t); x_{it} is a matrix of the explanatory variables mentioned in the former section; μ_i is a vector of time-invariant unobservable factors determining remittances; and ε_{it} a vector of stochastic disturbances. The latent variable R_{it}^* underlies an observed dependent variable. Both are equal when the latent variable is greater than zero, but the observed variable is zero when the latent variable is negative. This corresponds to a corner solution in the utility maximization program, where the individual's optimal value of the dependent variable is negative, but nonnegativity constraints force the value to be zero. Under these assumptions, ordinary least squares (OLS) parameter

estimates are downward-biased and inconsistent, while Tobit estimates are consistent and asymptotically normal.¹⁸

Our sample encompasses a six-year observation period; thus we have to take into account the time character of our data.¹⁹ Using the Breusch–Pagan test after OLS justifies running random effects models. With the random effect specification, it is assumed that the explanatory variables are uncorrelated with the unobserved individual effects. However, it is not possible to prove this assumption since this requires being able to estimate fixed effect Tobit models.

EMPIRICAL RESULTS

Before turning to remittance behavior, we first analyze the basic motivation behind migration to Germany with a cross-sectional comparison over two years, 2001 and 2006. We focus on the question of whether remitting money forms a crucial motivation behind the decision to migrate. In contrast to standard studies (World Bank 2011), we find that remittances are not the main driving force behind migration to Germany (Table 1).²⁰ In addition, we find gender-specific differences. Many more women than men migrate to Germany for family reunification. Furthermore, only 6 percent of the immigrant women reported that “earning money and supporting family” was a major motivation for migration in 2006. The corresponding figure for men was 10 percent in 2006.²¹ The results underline our expectation that standard theoretical economic models lack determinants for explaining remittances from Germany. Furthermore, since family reunification and the quality of life in Germany are important factors behind

migration, theoretical models based on networks and integration may well explain remittances better than standard economic arguments.

PLEASE INSERT TABLE 1 (HALF PAGE)

We proceed in three steps: First, we discuss gender and legal status differences in amount of remittances based mainly on descriptive statistics (Table 2). Second, we want to obtain insights into network effects in amount of remittances for foreign nationals and naturalized German citizens. We estimate an extended standard model, as described above, by adding indicators for transnational network (Table 3, Models A and B).²² We test our hypotheses on gender differences in the two groups, foreign nationals and naturalized German citizens. Third, we present separate estimates of the amount of remittances for women and men in each immigrant group using the network model. We want to check for gender-specific differences resulting from the position of the immigrant in his or her transnational network (Table 4 and 5, Models C, D, E, and F).²³ For all models, we report the coefficients of the latent regression model,²⁴ statistical significance, standard errors, the marginal effects,²⁵ and some statistics for the model fit. Our dependent variable for all models is the natural log of the annual amount of remittances. One example for interpreting the marginal effects: Each year of education raises the amount of remittances by 8.6 percent (see Table 3 for foreign nationals).

Gender and legal status differences in the amount of remittances

As Table A1 in the appendix reveals, the percentage of the sample of women remitting, at least up to 2004, is, at a little under 50 percent, only slightly lower than that of men. The gender differential in absolute numbers over all six years is statistically significant at a conventional level.

Table 2 provides some basic information about the average and median of the annual amount of remittances sent by men and women in 2001 and 2006, separately for foreign nationals and naturalized German citizens. In general, foreign nationals remit much more than naturalized German citizens. Obviously, the legal status of the immigrant has a major influence on the decision to remit. This fits to our expectation that remittances decrease in the case of naturalized German citizens, for whom family reunification in Germany is much easier, and whose close family members are directly or indirectly covered by the German welfare system.

PLEASE INSERT TABLE 2 (HALF PAGE)

In both groups, women remit a much lower amount than men. Using the raw data, the sample average of the amount of remittances over all six years is about 710 euro higher for male than for female foreign nationals (and about 366 euro higher for male naturalized German citizens).²⁶ However, women – both foreign nationals and naturalized German citizens – remit a higher share of their personal income than men, as shown in columns five to eight of Table 2. In 2006, the median remittance–income relation, given by the division of annual remittances by annual individual labor income, was 6.5 percent for foreign national women and 4.5 percent for foreign national men. Although naturalized residents with German citizenship remit smaller amounts of money, the gender differential in the median remittance–income relation shows a

similar pattern, although on a lower level: 3.2 percent for women and 2.0 percent for men in 2006. These results put the lower absolute amount of remittances for women into a new perspective. Obviously, immigrant women in Germany remit relatively more than men when having their own money at their disposal. Thus, although women remit more of their individual labor income, they actually remit less in absolute terms than men. One explanation might be that women generally earn less than men in the country of residence. In addition, we know from international studies that women tend to make more nonmonetary and social remittances than men. Women more often remit food, clothes, and household items, and also provide a greater variety of types of support (VanWey 2004). Women also tend to be less involved in investment projects, as they often have less access to the formal economy. Despite the fact that we do not have sufficient data to prove these assumptions for Germany, they have to be considered when discussing and interpreting monetary remittances.²⁷ However, in order not to introduce a bias toward labor migration and keeping enough observations for an efficient estimation (see endnote 28), we concentrate on the absolute amount remitted by any immigrant and control for individual labor income and additional household income in the country of residence.

PLEASE INSERT TABLE 3 (FULL PAGE)

Not all of the basic explanatory variables are relevant and statistically significant for both groups, foreign nationals (model A) and naturalized German citizens (model B), but most of them have the expected sign (Table 3). For both groups, we can show that the higher the education and income of the immigrant, the higher the amount remitted. These status indicators are positively related to the amount of remittances, although the magnitude of the effects is

trivial. The relative duration of stay, whether the immigrant is married, and/or whether he or she comes from Turkey or the former Yugoslavia are relevant in magnitude and statistically significant for both groups of immigrants. Results show that the longer the immigrant lives in Germany and the more likely the chain migration of additional family members, the lower the amount remitted. Indeed, we see that those foreign nationals who plan to return to their country of origin send 16 percent more money abroad than those who want to stay in Germany. Moreover, marital status has an important impact on the amount remitted: married people remit about one-third more than single or unmarried people. Further, foreign nationals from Turkey remit on average 56 percent more and naturalized German citizens from Turkey remit 68 percent more than other nationalities (except those from former Yugoslavia). For foreign nationals, the age of the respondent is positively associated with the amount remitted, while its squared term indicates that, in line with relative duration of stay, there is a decay effect nevertheless.

More importantly, foreign national women remit on average 25 percent less than foreign national men – even after relevant factors such as individual labor income and additional household income are controlled for (Table 3 Model A). Therefore, our first hypothesis seems to be confirmed in the group of foreigners in Germany: The results indicate higher remittances for foreign national men than for foreign national women given that all other explanatory variables are taken at their means. Does this hold true for naturalized residents? In the concept and hypothesis section, we argued that the legal status of the immigrant would provide an important key to understanding patterns of remittance behavior. One important issue was that family reunification in the country of residence is much easier for naturalized citizens. Having close family members in the country of residence should substantially decrease the breadwinner obligations – especially for men – to support family members in their country of origin.

Therefore gender differences in remittances should diminish or disappear for naturalized German citizens. This hypothesis was already confirmed in our descriptive results, where we found that men remit a much lower amount when naturalized, while women's remittances decrease to a much lesser degree. In our estimation – keeping all other factors constant – we find that women who are naturalized German citizens remit on average 18 percent less than men, although not at a statistically significant level (Table 3, Model B).²⁸ Thus, the other factors explain the raw data difference in the amount of remittances between men and women. This confirms Hypothesis 2, which states that gender effects on remittances are not as important in the group of naturalized German citizens. We can therefore assume that the acquisition of the citizenship dominates the overall decision to remit.

Gender differences in the effect of networks on the amount of remittances

Family relationships play an important role in the amount to be remitted, both for foreign nationals and naturalized German citizens, but vary in relevance depending on the quality and structure of the transnational network (Table 3, Model A and B). With an increased number of adults in the immigrant's household in Germany, the amount of remittances decreases in both groups, although on a low level. Basically, we find that having a close family network in the country of origin, consisting of parents, grandparents, and children (as well as other relatives) leads to higher remittances. Foreign nationals with children abroad remit on average 90 percent more than those without children. However, among foreign nationals, if a spouse is present abroad, the amount remitted is higher than in case of parents or children.²⁹ For naturalized

citizens, not only close family members but also siblings and friends play a role as recipients of remittances, whereas the spousal relationship is statistically insignificant. Thus the composition of the transnational network has an obvious impact on the amount remitted.

So far, we have performed separate analyses of the network and gender effects for immigrants with different legal statuses, including a dummy variable for women in the estimation.³⁰ The drawback to this approach is that the coefficients on each of the other conditioning variables are constrained to be the same. An alternative approach is to estimate separate regressions according to gender. Our results suggest that when taking all selected independent and control variables into consideration, for both foreign national women and men, the transnational network is a main driver behind the amount remitted. In terms of the family network in Germany, the results suggest that the more family members are in Germany, the smaller the amount remitted. This is especially true for underage children living in Germany: Each additional child in Germany lowers the amount of remittances for foreign national women by 22 percent and for foreign national men by 19 percent. However, we find not only that the amount of remittances depends on the relative position of the foreign national in the transnational network but also that there are differences in the impact of the structure of the network abroad on remittances among men and women. In the subsample of foreign national women, it is apparent that those with parents, grandparents, and/or children remit about 57 percent more. Having members of the extended family, such as uncles, aunts, and so on, living abroad has a positive effect on remittances but not of such a high magnitude. In contrast, for foreign national men, parents and grandparents play a less important role. Foreign national men remit the most if they have children abroad; this effect is significant at the 1 percent level and has the greatest value, although also quite high standard errors. However, men support spouses and also other relatives

living abroad. Thus, not only for women but also for foreign national men, close kinship is the main driver behind the majority of remittances.

PLEASE INSERT TABLE 4 (FULL PAGE)

The structure of a transnational network certainly plays a different role for foreigners and naturalized citizens, as shown in Models E and F of Table 5. The marginal effects reveal that among women who are naturalized citizens, those with friends and siblings abroad give significantly more than those without friends or siblings. Among naturalized citizen women with friends abroad, the amount of remittances increases by 61 percent, and for those with siblings abroad by about 41 percent. In contrast, men who are naturalized German citizens remit on average about 89 percent more if they have children abroad but only 45 percent more if they have aunts, uncles, nephews, nieces, or other relatives abroad. Both effects are significant at the 10 percent level. Therefore, our third hypothesis that *the amount of remittances depends on the relative position of the immigrant in the transnational network* is supported by our empirical findings. Thus, men still tend to support their close relatives more than women, who tend to also support friends or siblings. This is in line with the roles men often play as breadwinners for the close family. In general, for naturalized German citizens, the impact of the transnational network is less important than for foreign nationals, thus suggesting that structural factors such as income, education, or length of stay are the main drivers behind remittances for that group.

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CONCLUSION

This study has focused on gender differences, citizenship, and the structure of the immigrant's transnational network, to explain the determinants of remittances from Germany. We have shown that relative to their income women remit more than men. However, in absolute terms women remit less than men in Germany.

Through our empirical analysis, we have shown that acquisition of German citizenship has a huge impact on the absolute amount of remittances and makes gender differences in remittances disappear. However, turning to the effects of network structure in the country of origin, we see clear gender effects. Foreign men remit the most if they have spouses and/or children abroad. This is in line with their typical roles as breadwinners for their close family. For foreign women having grand(parents), children, and other relatives abroad is crucial for the amount to remit. When a woman immigrates, women family members or friends typically stay behind to care for family members and friends. Turning to immigrants with German citizenship, again we find gender-specific results: for men, the existence of close relatives in the country of origin explains remittances. Women, in contrast, send money home if friends or siblings are still living there. These gender differences in amount of remittances have huge implications for both the country of origin and the country of residence. So far, the existing gender pay gap and gender-specific access to the labor market in Germany are reflected in the comparably low amount of remittances sent by women. Thus, the gender patterns and pay gap are exported.

This study can be considered a first step in the analysis of remittances from a gender perspective. We have only just begun to gain a deeper insight into this issue. Our descriptive

results indicated that women remit a higher percentage of their income in Germany, but this is still a lower absolute amount compared to men. This is in line with the existing literature (Agarwal and Horowitz 2002; Semyonov and Gorodzeisky 2005). We see interesting possibilities for future research on the relative importance of remittances for both genders' disposable income. Deeper analysis could also give a more comprehensive view of women's participation in remittances. Still, many studies indicate that migration and remittances themselves have important effects on a woman's relative position in the transnational network (Carlota Ramírez 2005; Rachel Connelly, Kenneth Roberts, and Zhenzhen Zheng 2010). This issue also needs more attention when analyzing the impact of remittances on women's position in society. Furthermore, the in-depth analysis of links between gender-specific remittances and changes in citizenship status points to a potentially interesting direction for future research. Overall, the comparison of gender-specific transfers within transnational and national networks is a promising field for future analysis.

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TABLES

Table 1 Reasons to migrate to Germany for all immigrants by gender for the years 2001 and 2006 (SOEP; in percent)

Year	2001		2006	
Gender	Women	Men	Women	Men
Reasons:				
Family reunification	24	18	25	19
Better life	15	16	14	15
Just want to live in Germany	15	13	15	14
Live in freedom	12	14	12	14
Poverty in the country of origin	8	9	8	9
War in the country of origin	8	9	7	8
Earn money in Germany and support family (remittances)	6	11	6	10
other reasons (not classified)	11	11	12	11
Total	100	100	100	100
Total (N)	1,354	1,257	1,018	864
Valid cases (N)	787	692	590	478

Notes: Results are not weighted; multiple responses and close-ended question.

Source: SOEP v26, own calculations.

Table 2 Amount of remittances sent abroad and remittance–income relation by subgroup and gender for the years 2001 and 2006 (SOEP)

Year	Amount of remittances				Remittance–income relation			
	Mean		Median		Mean		Median	
	(euro)				Mean		Median	
	2001	2006	2001	2006	2001	2006	2001	2006
<i>Foreign nationals</i>								
Women	1,545	1,539	1,023	1,000	16.7	19.6	7.5	6.5
Men	2,153	3,165	1,023	1,500	11.6	22.9	4.4	4.5
<i>Naturalized German citizens</i>								
Women	831	968	511	500	26.4	9.9	3.8	3.2
Men	1,634	1,034	767	600	4.5	7.8	3.1	2.0

Notes: Respondents older than age 18 living in private households; results are weighted for

mean. Remittance–income relation is calculated by dividing annual remittances by annual individual labor income; respondents without labor income (without remittances) have been excluded. On average over all six years, foreign women transferred one-fifth of their annual income, naturalized women about 12 percent of their annual income, foreign men about 13 percent of their annual income, and naturalized men about 5 percent of their annual income. The gender differential in absolute numbers over all six years is statistically significant at the 1 percent level with a chi2 value of 13.415 for foreign nationals and a chi2 value of 7.365, statistically significant at the 1 percent level for naturalized German citizens.

Source: SOEP v26, own calculations.