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Bringing Home the Money: Xenophobia and Remittances -The Case of Germany

Berlin, April 2008

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ISSN: 1864-6689 (online)

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# Bringing Home the Money: Xenophobia and Remittances The Case of Germany

by Elke Holst\*

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#### **Abstract**

The determinants of migrants' remittances are the subject of this study based on German SOEP data (2001-2006). In contrast to previous studies we analyze the motives for remittances not only for foreigners but also for the broader group of individuals with a personal migration background. Major findings are: First, concerns about xenophobia lead to higher remittances. Second, income and gender has no impact on the probability to remit. Third, the acquisition of German citizenship is positively related to the amount remitted. All in all, remittances seem to be part of a personal financial allocation scheme for risk reduction.

JEL-classification: F22, J61, D10

Keywords: Remittances, immigrant workers, household behavior

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#### 1 Introduction

In 2006, remittances from Germany amounted to more than ten billion euro, making Germany one of the top ten countries worldwide in remittances. The amount of remittances reported in the balance of payments statistics is growing and in some countries even surpasses official development assistance, indicating a substantial increase in migrants' payments to their families abroad during the last decade. Given the huge sums of money in question and the equally significant potential economic impacts, remittances are currently considered as important driving force behind migration (The World Bank 2005; IMF 2005).

From a theoretical perspective remittance are usually analyzed from the angle of international labor economics and the economics of migration. Seminal work was done by Lucas and Stark (Lucas/Stark 1985; Stark 1995), who looked at remittances in the context of the new economics of labor migration (NELM). In recent years, three strands of literature have emerged. The first is a set of theoretical models focusing on the personal motives of the remitter. These models are based on the factors of altruism, inheritance perspectives, and strategic motives. The second is a set of models that consider the decision to migrate and to remit as a part of an intra-family loan arrangement. This idea is supported by the fact that migration costs often exceed the financial resources of the migrant and in many cases can only be financed by the family (Rosenzweig 1988). Some authors argue that the intra-family loan actually takes the place of an efficient domestic financial sector (Poirine 1997). In this context, migration offers the possibility for portfolio diversification, while the intra-family arrangement offers insurance against income uncertainty. More recent theoretical models combine different motives, for example, altruism and insurance (Foster/Rosenzweig 2001).

Germany is one of the major immigration countries in the European Union. However, there have been only a few studies, concentrating mainly on the 1980s and 1990s, that address the determinants of remittances from Germany directly. One important finding is that remittances of guest workers (immigrants with foreign citizenship) depend on their remigration plans (Merkle/Zimmermann 1992; Oser 1995). Studies analyzing remittances in the context of savings support this view (Sinning 2007). A recent analysis shows that with respect to remittances migrants are not a homogenous group: people from former Yugoslavian countries remit significantly more than others (Holst/Schrooten 2006).

Remigration plans might be affected by the legal framework of migration and the acquisition of the German citizenship. In 2001, the German government introduced an Immigration Act (*Zuwanderungsgesetz*) to ease the naturalization process.<sup>1</sup> It was followed by a leap in the number of applications for citizenship among immigrants. However, the number of naturalized migrants remains far behind the number of people qualifying for naturalization. This finding is in sharp contrast to the experience of other major immigration countries such as the US and France (Constant/Zimmermann 2007). Interestingly, however, citizenship acquisition is also important in studying migration patterns: German citizenship exerts a strong influence on the probability of returning to one's country of origin, as it enables immigrants to travel freely to and from Germany and therefore to engage in multiple migration (Constant/Gataullina/Zimmermann 2007). In this context, remittances could be used as part of a personal or household scheme for international risk allocation and insurance.

This paper fills at least three analytical gaps. First, and in contrast to existing studies, we analyze the determinants of cross-border transfers focusing on the broad group with personal migration experience (migrants). Second, we examine our findings in light of the determinants of cross-border transfers by foreigners. Third, we check for the concerns of migrants and foreigners regarding hostility towards foreigners and minorities in Germany. The analysis is based on the data provided by the German Socio-Economic Panel (SOEP).<sup>2</sup>

The paper is organized as follows. Chapter 2 gives some insights into the determinants of remittances from a theoretical point of view. In Chapter 3 we explain the data set, the general estimation approach as well as the variables employed are explained. The results of the econometric models are discussed in Chapter 4. The conclusions (Chapter 5) present not only policy recommendations but also potentially fruitful directions for further research.

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<sup>&</sup>lt;sup>1</sup>Immigrants can apply for German citizenship after eight years of residency in Germany, with numerous exceptions allowing the naturalization process to begin as early as three years after arrival if one is married to a German citizen. Additional requirements for naturalization are a demonstrated ability to guarantee one's own subsistence and the subsistence of his or her dependents without recourse to benefits, possession of adequate knowledge of the German language, and knowledge of the legal system, the society and the living conditions in Germany, and no criminal record. (Constant/Zimmermann 2007).

<sup>&</sup>lt;sup>2</sup> See SOEP 2001.

# 2 Theoretical considerations

Seminal work on remittances was done by Lucas and Stark (1985), who developed microeconomic models based on extensive field work and data collection. Nowadays, two types of economic models can be distinguished. First, there are models that focus on the migrant's utility function and thus on individual decisions. Second, there are models that argue on the basis of an intra-family contract, taking the migrant's household of origin as the important decision-making unit.

In the first group, the basic model relies on altruism. With altruism, the utility function of the migrant depends not only on her own consumption, but also on the utility of the relatives left behind (Lucas/Stark 1985; Stark 1995). Their utility again is a function of consumption, which depends on the income either generated at home or received in the form of remittances, as well as their degree of altruism. One important implication is that the transfer cannot increase with the recipient's income.<sup>3</sup>

A second class of models emphasizes the migrant's family as the important decision-making unit. Within this context, migration and remittances are considered to result from social interactions. The most important approaches take the insurance motive or investment motive into account (for an overview see Rapport/Docquier (2005)). The basic argument is the existence of an intrafamily contract, either to reduce uncertainty or to finance investment. Usually a family with two members living for two periods is assumed. For each member the income  $I^1$  is given in period 1, the income in period 2 is random and amounts to  $\underline{I}^h$  with probability p and  $\overline{I}^h$  with probability (1-p). It is assumed that  $\underline{I}^h < \overline{I}^h$ . This framework allows the formulation of a function of expected utility E(V) which depends not only on the income and the probability to realize a certain income but also on the degree of risk aversion v with v > 0, v'' < 0

(3) 
$$E(V) = I^{1} + p v (\underline{I}^{h}) + (1-p)*v* (\overline{I}^{h})$$
.

It is assumed that migration reduces income uncertainty.

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<sup>&</sup>lt;sup>3</sup> Other models focusing on the individual utility function of the migrant underscore the argument of payment for services at home (exchange) (Cox 1987) or strategic behavior (Stark 1995; Stark/Wang 2002).

However, migration specific transaction costs (t) range between

(4) 
$$I^1 < t < 2*I^1$$
.

Since t has to be shared by the potential migrant and the non-migrant there exists a set Pareto efficient contracts which have to fulfil the following condition

(5) Max 
$$E(V^{m}) + \lambda [E(V^{h}) - V^{h}].$$

Important factors are the share of migration costs covered by the migrant and  $\lambda$ , the relative bargaining power of the non-migrant. In general, these kinds of models consider the family to reduce uncertainty and therefore to be a substitute for a smoothly functioning insurance and financial sector in the remitter's home country. Models using the insurance motive point out that the risks at home and the risks in the foreign country are not correlated.<sup>4</sup> Models relying on the investment motive argue that migration costs related to the creation of human capital and education are covered by the family through an intra-family loan (Poirine 1997). Within such models, better-educated migrants transfer more than low-skilled migrants because of their more demanding responsibilities.<sup>5</sup>

In practice however, it can be assumed that remittances are not driven by a single motive. Some recent theoretical models therefore combine different motives, for example, altruism and insurance (Foster/Rosenzweig 2001). Nevertheless, these models often suffer from the fact that the different motives cannot be discriminated completely. Furthermore, remittances made out of altruistic motives might induce "spillover effects," given that some services or investment opportunities are offered specifically to migrants.

All in all, the theoretical models seem to focus on a particular kind of migrant: the short-term, target-oriented worker who has a strong personal identification with her family of origin and who expects to return rather than settle in the host country. During the last decade, however, patterns of migration have changed dramatically (Massey/Sana 2005). Many migrants have settled in the

<sup>&</sup>lt;sup>4</sup> Migration and remittances are considered to be a component of intra-family allocation decisions, mainly compensating weaknesses in the domestic social security system and financial sector.

<sup>&</sup>lt;sup>5</sup> In practice, of course, the strength of personal ties between the remitter and the recipient also plays a large role within the altruism model, as VanWey (2004) indicates. Galor and Stark (1990) demonstrate that the positive probability of immigrants to return to their home countries positively affect remittances (see also Docquier/Rapoport 2005 for a review).

host country, and many have still maintained strong ties to their former home countries. Members of this group are often considered as "transnationals" (transnational persons), living in a host country but maintaining social and economic ties to home (Glick Schiller 1999). Remittances may be one component of the economics of this kind of transnational life (Guarnizo 2003). In this context, personal attachments and the level of integration into the societies of both host and home country play a role.

#### 3 Remittances: Data

The German Socio-Economic Panel Study (SOEP) provides data on private households and individuals. In our analysis we use data from the years 2001-2006 on the individual level. The SOEP is the most important data source for the study of individual remittances and transfer behavior in Germany. In this survey, participants answer a broad range of questions concerning their socio-economic status and demographic characteristics.<sup>6</sup>

The dependent variables are the "probability to remit" as well as the "amount of remittances". Cross-border transfers to relatives and friends living in the home country are not only made by foreigners. Many Germans with personal migration experience send money back to their country of origin as well. Fortunately, the structure of the SOEP data set enables us to analyze the remittance behavior of both foreigners and naturalized migrants. Therefore we distinguish between the broader group of migrants, i.e. people with personal migration experience, and the smaller group of foreigners. Based on the relevant theoretical arguments and findings from the literature, the following independent variables are used:

#### Income

• To capture the influence of the migrant's income, we construct the net household equivalent income which makes it easier to compare persons in households with different numbers of members. According to the theoretical literature, remittances increase with the migrant's per

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<sup>&</sup>lt;sup>6</sup> Since we focus on the determinants of the amount of remittances, which are defined as personal cross-border transfers by migrants, a retrospective question in the SOEP questionnaire is crucial: "Have you personally given payments or support during the last year to relatives or other persons outside of your household? How much in the year as a whole? Where does the recipient live? Germany – Abroad" For details see: SOEP questionnaires.

capita income— a finding reported in all microeconomic models. Therefore, we expect this variable to show a positive sign.<sup>7</sup>

# Age and duration of stay

- According to the theoretical literature, the age of the remitter plays an positive role. However, beyond a certain age this tends to decline. This finding is reported in many empirical studies<sup>8</sup> and often explained by the assumption that personal ties in the recipient countries become more distant with age. The variable "age squared" is used to control for these non-linearities. In accordance with the existing literature we expect a positive sign of the variable age and a negative one in the case of the variable age squared.
- The variable "age divided by years" reflects the influence of the years spent in Germany on remittances. The variable takes the value of 1 if the migrant has spent his or her whole lifetime in Germany. The value of the variable increases with the difference between age and years spent in Germany. This variable can be taken as a proxy for the influence of the duration of the stay in Germany (relative to the age of the migrant). According to the construction of the variable we expect a positive sign which is in line with the findings from several previous empirical studies showing that remittances decrease with the length of the stay abroad.

#### Education

• The value of the migrant's human capital is reflected in years of education. According to theoretical models relying on altruism as well as on intra-family-investment schemes, better education leads to higher transfers. Therefore a positive sign is expected here.

#### Gender

• Many empirical studies report a significant influence of gender on the amount of remittances. While Lucas and Stark (1985) found in their seminal work on remittances that women show a higher propensity to remit, more recent studies have produced the opposite finding (Oser 1995). Here we use a dummy variable to check for the gender effect here. The variable "gender" is 1 in the case of a female remitter and 0 in the case of a male remitter.

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<sup>&</sup>lt;sup>7</sup> The net household equivalent income is constructed to tackle the scale effects in a household with more than one person. Consider a net income of 1,000 Euro and a household consisting of four persons: two adults and two children. Here, the net household equivalent income is calculated by taking the factor 1 for the first adult, the factor 0.5 for the second and the factor 0.3 for each child. In sum we get 2.1. Now the net household income is divided by this sum, so we get a net household equivalent income of 476.19 Euros, which is a per capita value.

<sup>&</sup>lt;sup>8</sup> See for example Merkle/Zimmermann (1992).

#### **Marital status**

• Several empirical studies come to the result that married migrants send larger amounts of remittances abroad (Merkle/Zimmermann 1992; Sinning 2007). Therefore we expect a positive sign of this dummy variable.

# Integration, fears and remigration plans

- One important determinant of the amount of remittances is the household size of the migrant in the host country. The more members of the household live in Germany, the more Germany can be considered the locus of family life. Therefore, and in line with the theoretical models and empirical findings, we assume that the amount of remittances decrease with increasing numbers of members in the migrant's household in Germany. In addition the acquisition of German citizenship can be interpreted as an indicator for integration into German society leading in turn to lower remittances.
- Personal contacts to the home country form one important basis for remittances. Here we assume that visits to the country of origin are an important indicator for such personal attachments. Therefore, we expect such visits to exercise a positive impact on the amount of remittances.
- Concerns about xenophobia might make Germany less attractive to migrants. Here we check whether these concerns influence the decision to remit. We expect that migrants with fears of xenophobia remit more and therefore assume that the variable shows a positive sign.
- In addition, the migrant's plan for return migration may influence the decision on remittances. Therefore we expect a positive sign in the case of future return migration plans.

# **Nationality**

• Many studies show that nationality, country of origin and the specific migration background might influence the remittances and transfer behavior. A migrants previous citizenship and the country of origin of a migrant captures numerous of non-observable determinants of remittances. First, the institutional and legal differences governing a stay in Germany differ depending on the migrant's country of origin. Within the group of foreigners, we differentiate between Turkish, former Yugoslavian and other foreigners using dummy variables. This distinction appears interesting because of the large size of these groups and the fact that former Yugoslavians might have left their country and family under special circumstances due to the Balkan war. Today they are under relatively heavy pressure to return home. These factors might manifest themselves in higher remittances. However, the country of origin not only defines the specific institutional

setting of migration; it may also provide insights into income differences between the remitter and the recipient that are not captured directly by the data set, since it enables us to look at average income differences between that country and Germany. These differences are relatively high in the case of Russia, where many of the so-called "Aussiedler" and "Spaetaussiedler" (Ethnic Germans) lived before migration. Considerable income differences exist alsoe in the case of Turkey and Ex-Yugoslavian countries. Nevertheless, since nationality/origin delivers only a proxy for existing income differences between the remitter and the recipient. Therefore the results of the estimation have to be interpreted with care.

After excluding all observations with missing values on one of the variables used in the analysis, the panel data set contains 4 151 observations for the years 2001-2006 in the case of migrants and 2 879 observations for foreigners. Because not all immigrants remit, the data set contains many zeros. To deal with this issue, in analyzing the determinants of the amount of remittances we perform estimations of Tobit models, which enable us to analyze the determinants of the positive amount in relation to socio-economic variables. For all panel models, Hausman statistics are calculated to determine whether to choose random effects method over fixed effects models. Although random effects models do not control for omitted characteristics of the individuals, our objectives were to include stable covariates such as country of origin or gender of the individual and to increase the efficiency. The models take both within and between individuals variation into account and therefore display less sampling variability than fixed effects models. In analyzing the determinants of the probability to remit we use probit models.

#### 4 Empirical Results

The fact, that one person remits can be interpreted as an indicator for the existence of personal ties to the home country. As the descriptive statistic shows about one fifth of the migrants currently living in Germany send money home. What determines the probability to remit? What affects the amount of remittances? Here, we analyze the remittance behavior of the broad group of migrants (people with personal migration experience, including those with German citizenship) and compare these findings with those on the smaller group of foreigners. The first

two columns of the table show the estimated impact of the independent variables on the probability to remit. Columns 3 and 4 show the results for the amount of remittances.

## 4.1 The probability to remit

One of the most important findings is that the probability to remit is neither governed by the net household equivalent income nor by gender. Married and employed migrants face a higher probability to remit. Household size in Germany affects the probability to remit negatively. While people from former Yugoslavia countries show a higher propensity to remit the reverse is true for Italians. The variable age divided by years, which is used as an indicator for the relative length of stay in Germany, shows that a shorter stay in Germany results in a higher probability to remit. Over time remittances are decreasing. In addition, personal remigration plans and visits to the country of origin lead to a higher probability to transfer money abroad. All these findings are true for the two groups, migrants and foreigners.

Focusing now on the group of migrants, it becomes clear that age as well as education matter. These variables have a positive impact on the probability to remit. In addition, "(Spaet-) Aussiedler" most of who are migrants from former Soviet states show a higher probability of making transfers to their countries of origin, many of which are low-income economies.

# 4.2 What determines the amount of remittances?

According to our results, the amount of remittances is significantly correlated with the majority of explanatory variables. Many of our empirical findings support the view that remittances can be at least partly considered as insurance and international risk diversification.

The most important difference between our and previous studies is that the amount of remittances is linked to concerns about xenophobia. We find this for foreigners and migrants. Second, we can show that migrants who have acquired the German citizenship remit more. This might be due to the fact, that the acquisition of the German citizenship enables them to multiple entries and therefore to multiple migration periods. This view is supported by the finding that (short) stays in younger years lead to higher remittances, i.e. the variable age divided by years shows a positive sign. Taking a closer look at the general impact of citizenship it becomes clear that migrants from former Yugoslavia remit significantly more than others. It can be assumed that changes in the

legal setting of immigration play a crucial role and might be explained at least in part by the relatively high pressure to return to home for former. This interpretation is supported by the fact that Italians are relatively reluctant concerning the amount remittances – Italians as EU citizens are facing no pressure for return migration all at.

In accordance with the theoretical arguments presented above we show that there exists a positive relationship between the age of the remitter and the amount transferred. Also in line with the literature, we find that this relationship is not linear. According to our results females remit less than males. Marriage and years of education have a positive impact on the amount of remittances. Personal links to the country of origin matter: Remigration plans and visits to the country of origin lead to higher remittances.

Now we turn to the remittance behavior of the smaller group of foreigners. In doing so, several of the explanatory variables turn out to be insignificant but show the expected sign. In particular, it must be noted that we could not reveal statistically significant effects on the amount of remittances transferred by foreigners for income and personal remigration plans. In contrast to many existing studies on the determinants of remittances we find a linear relationship between the age of the foreigner and the amount remitted.

#### **5 Conclusions**

The results presented do at least partly support the theoretical arguments on the insurance and international risk diversification function of remittances. The study shows that one important factor affecting remittances might be the degree of integration into the society of the hosting country and the concerns about xenophobia. To create sustainable migration patterns, the linkages between migration and social integration will become more and more important in the future. A successful migration policy should give foreigners a clear perspective concerning family reunification, naturalization and the legal status of the next generation. Such a framework would also enable the migrant to make efficient allocation decisions also on remittances.

This study can be considered a first step toward the analysis of remittances in the new institutional framework of migration implemented in Germany during the last decade. The link between remittances, acquisition of the German citizenship and xenophobia points to one potentially interesting direction for future research. In addition, deeper investigation of the

potential motivations of migrants might be possible using the tools of experimental economics (Fehr/Fischbacher/Rosenbladt/Schupp/Wagner (2002)).

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**Table 1: Empirical Results** 

| 1                                | Probit     |           | Tobit      |           |
|----------------------------------|------------|-----------|------------|-----------|
|                                  | Foreigners | Migrants  | Foreigners | Migrants  |
| Age                              | 0.030      | 0.048     | 0.459      | 0.398     |
|                                  | (0.90)     | (1.83)*   | (2.71)***  | (3.49)*** |
| Age Squared                      | -0.000     | -0.001    | -0.005     | -0.004    |
|                                  | (1.18)     | (2.06)**  | (2.83)***  | (3.16)*** |
| Gender (female=1)                | -0.138     | -0.111    | -1,876     | -1,166    |
|                                  | (1.14)     | (1.12)    | (3.16)***  | (2.69)*** |
| Martial Status (married =1)      |            |           |            |           |
|                                  | 0.522      | 0.659     | 0.604      | 1,366     |
|                                  | (2.96)***  | (4.57)*** | (0.73)     | (2.25)**  |
| Education in years               | 0.028      | 0.044     | 0.303      | 0.410     |
|                                  | (1.20)     | (2.39)**  | (2.66)***  | (4.96)*** |
| Employed                         | 0.666      | 0.511     | 4,041      | 3,100     |
|                                  | (4.96)***  | (4.77)*** | (5.65)***  | (5.92)*** |
| Net household equivalent income  | ` ′        | , ,       | , ,        | , ,       |
|                                  | 0.128      | 0.054     | 0.894      | 0.969     |
|                                  | (1.05)     | (0.60)    | (1.41)     | (2.22)**  |
| Household size in Germany        | ,          | ,         | ,          | ,         |
|                                  | -0.142     | -0.152    | -1,535     | -1,322    |
|                                  | (2.88)***  | (3.76)*** | (5.84)***  | (6.87)*** |
| Turkish                          | 0.016      | 0.050     | 0.090      | 0.534     |
|                                  | (0.10)     | (0.33)    | (0.12)     | (0.79)    |
| Ex-Yugoslavia                    | 0.715      | 0.754     | 3,210      | 3,239     |
|                                  | (4.49)***  | (4.67)*** | (4.13)***  | (4.50)*** |
| Italian                          | -1,057     | -1,039    | -5,301     | -4,790    |
|                                  | (4.33)***  | (4.22)*** | (4.93)***  | (4.86)*** |
| German with migration background | (1.55)     | , ,       | (1.55)     | (1.00)    |
| 8                                |            | 0.194     |            | 1,355     |
| WG                               |            | (1.28)    |            | (2.01)**  |
| "(Spaet-)Aussiedler"             |            | 0.678     |            | 3,708     |
| Age/Years in Germany             |            | (4.29)*** |            | (5.24)*** |
|                                  | 0.034      | 0.041     | 0.097      | 0.178     |
|                                  | (1.94)*    | (2.51)**  | (0.92)     | (2.07)**  |
| Remigration plans (yes=1)        |            |           |            |           |
|                                  | 0.217      | 0.266     | 0.810      | 1,049     |
|                                  | (2.05)**   | (2.72)*** | (1.43)     | (2.19)**  |
| Visits to the country of origin  |            |           |            |           |
| (yes=1)                          | 0.358      | 0.340     | 2,150      | 1,347     |
|                                  | (1.93)*    | (2.86)*** | (2.11)**   | (2.29)**  |
| Concerns about xenophobia        |            |           |            |           |
|                                  | 0.254      | 0.235     | 2,002      | 1,780     |
|                                  | (2.12)**   | (2.35)**  | (2.94)***  | (3.48)*** |
| Constant                         | -4,474     | -4,673    | -29,504    | -31,222   |
|                                  | (3.92)***  | (5.34)*** | (4.97)***  | (7.57)*** |
| Observations                     | 2879       | 4151      | 2851       | 4115      |
| Log Likelihood                   | -877.32    | -1369.02  | -2375.79   | -3817.37  |
|                                  |            |           |            |           |

<sup>\*10%</sup> level, \*\*5% level, \*\*\*1% level. Source: SOEP 2001-2006. Own calculations.