A behavioural approach to remittances analysis

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Selected Paper prepared for presentation at the International Association of Agricultural Economists (IAAE) Triennial Conference, Foz do Iguaçu, Brazil, 18-24 August, 2012.

Abstract

This paper approaches the migrant's motivation to remit from a new, behavioural perspective. We apply the well-established Theory of Planned Behaviour (TPB) using a structural equation model for the first time for this specific research question. Our micro-dataset stems from a 2009/10 survey, covering Albanian migrants from Kosovo living in Germany as well as their home-country households. More than 90% of Kosovar migrants living in Germany remit. However, little is known about their underlying motivations. Our analytical results show that the migrant's attitude and norms are decisive for the remitting behaviour. The common socio-economic approach lacks explanatory power backed by theory.

Keywords

Kosovo, Germany, remittances, structural equation modelling, Theory of Planned Behaviour

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Introduction

Over the past 50 years Kosovo has experienced a striking outpouring of people. The main reasons for leaving were the poor living conditions and missing decent employment opportunities, particularly in rural areas. Doubtlessly, remittances are the main economic link between migrant and family members remaining at the origin. Money earned in the host country is sent (in part) back to the area of provenance. Indeed, up to 90% of Kosovar migrants remit (Mustafa et al., 2007). In 2009, remittances contributed about 11% to the gross domestic product (GDP) of Kosovo (UNDP, 2010). Clearly, this flow of remittances has implications for both the sending and receiving households. As remittances flows to rural areas are stronger than to urban, their financial impact is expected to be particularly high there (UNDP, 2010). This leads us to the question: which factors stand behind the decision to remit? The socio-economic motives of remitting are generally well researched, especially for classical developing countries such as in Latin America, East Asia, or sub-Saharan Africa. Yet, for transition economies and especially for Kosovo, empirical evidence is still patchy (Duval and Wolff, 2010). Only Havolli (2009) presents empirical results on the determinants of remitting for Kosovo.

Analysing the determinants of remitting is challenging, because it does not exists a single, all-embracing theory explaining remitting behaviour. Rapoport and Docquier (2006) describe six different theoretical settings on the micro-level to explain remitting.[1] Model designs are chosen according to the motive in centre of the analysis and the available data. Consequently, the socio-economic approaches in empirical literature are difficult to compare. Furthermore, the decisions about whether or not and about how much to remit are imbedded in implicit, cognitive decision making processes. It is very unlikely that these processes can be represented satisfactorily based on the set of typical socio-economic variables. We therefore suggest using the Theory of Planned Behaviour (TPB). This theory relies on behavioural constructs, attitudes, norms and behavioural control, to explain certain behaviour. Standard socio-

[1] They subdivide these motives into two groups according to how the decision about remitting is made: individual decision by the migrant (altruism, exchange, inheritance, and strategic motive) and family arrangement (insurance and investment motive).

economic determinants are implicitly included in the constructs of the model. By doing this, the TPB does not contradict the common socio-economic approaches, but adds the cognitive dimension to the analysis. As the TPB relies on clearly defined empirical procedures and has been tested in a wide range of research fields, including economic applications, comparability to models developed in future research will be facilitated.

The methodological approach of this paper is innovative in three ways. First, it widens the standard socio-economic viewpoint by using a theoretical framework borrowed from social psychology. Applying the TPB for the first time in the analysis of remitting allows us to analyse remitting from the behavioural perspective without ignoring the socio-economic one. Second, to the best of the authors' knowledge, the statistical method, structural equation modelling (SEM), has not yet been used in analysing remitting. Third, our empirical approach has innovative elements as it explicitly considers the migrants as well as the home-country households.

The contribution is organised as follows: first, some general background information on migration and remitting is given. Afterwards we establish the link between Kosovo's rural areas, migration, and remittances. Thereafter, we explain in detail why a new approach to the analysis of remittance determinants is needed. This is followed by a brief introduction into the TPB and by presenting details regarding the data analysed and the analytical model applied. After elaborating and discussing the results of the SEM, conclusions are drawn.

Remittances – theoretical background and recent empirical evidence

Remittances are considered the major economic link between migrants and their families in the country of origin (Taylor, 1999). Carling (2008: 597) calls it the "dyad of a potential sender and receiver". Remittances flow predominantly from high income to low and middle income countries, which is reverse to the migrant stream. Global remittances have grown steadily over the past 20 years and have become a major source of international capital for many developing regions. From 1991 to 2009, the volume of global remittances continuously grew from 72.5 billion US$ to 416.1 billion US$. For 2010 they are estimated to be

325.5 billion US$ (World Development Indicators and Global Development Finance, 2011).[2] Consequently, global remittances increased by almost 6 times during the past 20 years. This recent and sharp increase in remittances is one of the reasons for the renewed and rising interest in remittance issues.

Remittances are considered a crucial source of financial support that directly increases the income of the remittances receiving families. As remittances flow mainly to low and middle income countries, they are often given as example for positive effects on acute poverty at the household level (Adams and Page, 2005). Evidence on distributional effects remains ambiguous; it seems to depend on the local settings, type of migration and the communities' migration history (Stanton Russell, 1986; Stark et al., 1986; Barham and Boucher, 1998; Taylor, 1999 in Osaki 2003; Acosta et al., 2008; Giannetti et al., 2009). Certainly, the long-term economic effect of remittances on the receiving household and community depends strongly on how the remittances are used. Empirical evidence confirmed repeatedly that remittances are predominantly spent on consumption, rather than being invested in the local farm or nonfarm sector (Oberai and Singh, 1983; Massey and Parrado, 1994 in Osaki 2003; Koc and Onan, 2006; UNDP, 2010). These consumption goods tend to be imported goods. Consequently, they support the development of the local economy only to a limited extent.

Studies on the determinants of remitting, including this contribution, aim at exploring why migrants remit.[3] They usually employ socio-economic characteristics of potential senders and/or receivers. For the migrants, empirical analyses commonly include: the migrants' gender, age, marital status, composition of household, income, education, time since arrival, and migration cost. For the home-country household socio-economic determinants for remittances may be: household size or dependency ratio, age and

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[2] The World Bank confirms this development in the *Migration and Remittance Factbook 2011*, however, at a lower overall level. They estimate an increase of remittances only to developing countries from 55.2 billion US$ to 307.1 billion US$ between the years 1991 to 2009. Remittances to developing countries are almost 75% of the global remittances in 2009. For 2010 they are estimated to be 325.5 billion US$. Official development aid (ODA) rose from 57 billion US$ in 1995 to 120 billion US$ in 2009. Thus, remittances to developing countries in 2009 are about the 2.5 fold of ODA (World Bank, 2011: 21).

[3] The action of remitting involves a two-step decision making process. In the first step the migrant decides whether or not to remit at all. And in the second step the decision is made about how much is remitted. However, for both decisions the same determinants apply (Carling, 2008).

education of household head, number of migrants in home-country household, income and/or wealth, and negative short-run income shocks (Rapoport and Docquier, 2006; Hagen-Zanker and Siegel, 2007).

On the side of the migrants, the majority of studies finds a positive relation to remittance sending behaviour if the migrant is male and married, and with increasing age and educational level. Rising income usually also has a positive impact on remittances. For the time since arrival, however, evidence is unclear. Banerjee (1984) and Funkhouser (1995) find a significant and negative impact of the migration duration for India and El Salvador and Nicaragua. Conversely, Durand et al. (1996) and Lucas and Stark (1985) find significant positive impacts for Mexico and Botswana. An increasing number of dependent family members is found to have a negative impact on the amount remitted (Dustmann and Mestres, 2010; Ulku, 2010).

On the side of the home-country household, the impact of the household size and its dependency ratio on the amount remitted is positive. The higher the number of migrants, who have left, the lower are the remittances per migrant. Negative income shocks in the home-country household, which call for financial support, have a positive impact on remittances. Age and education of the home-country household head and the income or wealth level have an unclear effect on remittances. Aggarwal and Horowitz (2002) find a negative, significant relation for remitting to Guyana, while Germenji et al. (2001) indicate a positive, significant one for household heads older than 50 years in Albania. Ulku (2010) reports a positive relation between home-country households being poor and the migrant's remittances for Turkish migrants in Germany.

Labour migration from Kosovo to Germany

Since the recruitment agreement ('*Anwerbeabkommen*') between Western Germany and Yugoslavia in 1968, Kosovar labour migrants left their origin to work as so called guest workers ('*Gastarbeiter*') in Germany. The '*Gastarbeiter*' programme was the reply to the strong growth of the German economy accompanied by increases in demand for labour in the 1960s. The term '*Gastarbeiter*' implied that the immigrant workers would return to their home country once their contract terminated, which in reality

was not the rule. Additionally, since the beginning of the 1990s, an unusual outpouring of thousands of people has taken place all over the Balkan Peninsula due to adverse political, economic and social conditions (King and Vullnetari, 2003; Zimmermann, 2005; ESI, 2006). In fact, between 1990 and 2000, over 10 million persons out of a total population of some 80 million in the Balkan Peninsula relocated (Parsons et al., 2005). Serbia (including Kosovo)[4] is among the top-10 emigration countries worldwide in terms of numbers of migrants relative to overall national population (World Bank, 2008; Duval and Wolff, 2010). It is estimated that out of 2.18 million Kosovars, almost 470,000 (20%) live abroad (ESI, 2006; Mustafa et al., 2007; Vathi and Black, 2007; Statistical Office of Kosovo, 2010).

Remittances to Kosovo

Kosovo is an outstanding country in Europe not only with regard to migration but also with regard to remittances flows. Remittances contribute about 11% of Kosovo's GDP in 2009, this is an financial inflow of 505.6 million € (UNDP, 2010; World Bank, 2010). [5] According to Carling (2008) Kosovo is the country that is most depending on remittances in Europe. Whether labour migration is a curse or blessing for the economy is still debated. On the one hand, it reduces local unemployment; on the other hand, it may lead to a brain drain, as qualified workers are most likely to migrate first. It is clear, however, that Kosovar emigrants played a key role in ensuring the survival of the people in Kosovo during the war and the economic recovery afterwards (Balaj, 2001; Dedushaj, 2008).

This means that remittances are doubtlessly important at the micro level. The migration-cum-remittances livelihood strategy is a popular household sustenance strategy (Oberai et al., 1989; Koester, 1997; Afsar, 1998; Barham and Boucher, 1998; Barjaba, 2000; King and Vullnetari, 2003; Knerr and Winnicki 2003; Rossi-Longhi, 2009). Migration of one family member within an intra-familial arrangement is thought to

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[4] As Kosovo has declared independence from Serbia only in 2008, the availability of 'national' statistics is still limited.

[5] As in the global perspective, the remittances going to Kosovo exceed by far the ODA payments. Serbia (including Kosovo) is among the five largest recipients of ODA from OECD. Serbia received 1.3 million US$ in 2006.

significantly increase overall household income and help to overcome negative income shocks. Almost 90% of the home-visiting migrants surveyed by Mustafa et al. (2007) stated that they send remittances to their families. Remittances are sent either in cash or in kind whereby in cash usually exceed in kind remittances. Their contribution to average household income is estimated to be around 15%. As especially rural areas in Kosovo are struck by poverty, it is not surprising that 70% of all migrants come from rural households (World Bank, 2007). About 20% of the Kosovar population receives remittances; again the majority of the recipients (70%) lives in rural areas. Remittances contribute to reduce poverty on the one side, but they also contribute to increasing inequality in Kosovo's rural areas as better-off households receive relatively more remittances (World Bank, 2007).

Relatively little is known about the determinants and the motivation behind remitting in Kosovo (Funkhouser, 1995; Lianos, 1997; Duval and Wolff, 2010). So far, only Havolli (2009) analysed the determinants for remitting in detail. results show that the migrant's income has a positive, significant impact on remittances. The same holds true for age and the time spent in Germany, however, at a decreasing rate. Moreover, rural migrants tend to remit more than migrants from urban areas. Educational level of the migrant as well as marital status does not play a significant role.

A new approach to the analysis of remitting

The motives for remitting are so far largely analysed from the socio-economic perspective. In doing so, socio-economic data on migrants, on home-country households, or, however rarely, on both is used. But does the socio-economic perspective provide sufficient insights to fully understand remitting behaviour?

As the overwhelming majority of remittances are made within families, they are non-anonymous transfers. Alba and Sugui (2009: 19) call them the "manifestation of underlying and possibly multidimensional relationships" between the migrant and the home-country household. Therefore, they are likely to underlie other than socio-economic factors. Classical, economic models make rather rigid assumptions about the actors which are supposed to be *homines oeconomici* with homogenous preferences, perfect information, zero transaction costs, and absence of risk (analog to Fischer et al., 1997 in De Jong 2000).

The behavioural perspective offers a less rigid approach in the assumptions. A more general, behavioural approach seems thus promising.

De Jong (2000: 307)[6] refers to research about migration decisions as "dynamic research focus because [it] capture[s] the process of evaluating future outcomes of alternative decisions." Likewise Funkhouser (1995) concludes that behavioural aspects play a key role in remitting and that these behavioural factors are the driving forces behind the differences in remitting behaviour across countries. Carling (2008: 586) recognises that socio-economic determinants do not suffice to explain remitting and emphasises that remitting takes place in a normative setting: "Moral values play an important role in migrants' transnational activities, including remittance sending. In some settings, migrants experience substantial pressure to remit and relatives at home feel entitled to support. Variation in these factors limits possibilities for generalization about remittance motives." Consequently, there is a loud call for a new approach to analysing the determinants of remitting by including influencing factors derived from a psychological point of view.

As a first attempt to answer to this call for new approaches, this article looks from the behavioural perspective on the determinants of remitting. One well established and suitable framework is the TPB of Ajzen (1991). The TPB was originally developed in the field of social psychology, but has been applied and tested successfully in various scientific disciplines in the meantime. Nevertheless, so far it has received no attention in the area of remittances research. By its nature, the TPB is predetermined to be empirically modelled in the framework of a SEM.

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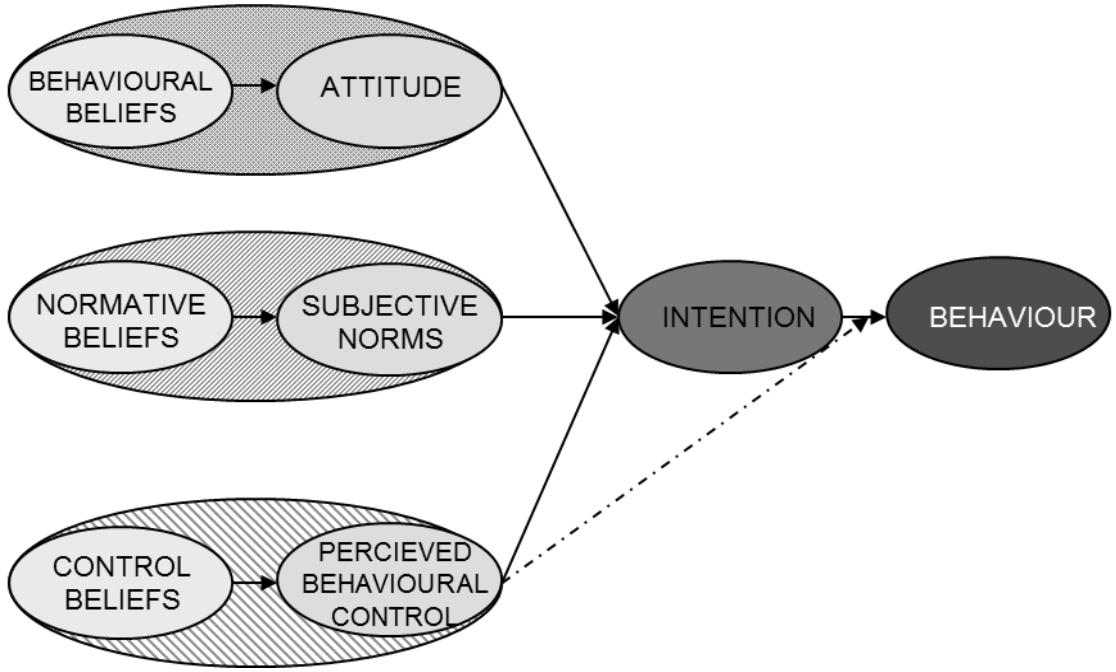
[6] The decision to migrate within Thailand was analysed from the behavioural perspective by De Jong (2000). The major findings of this study are that noticeably different expectations about the migration outcome, household demographic characteristics, and capital endowment of the migrant are significant determinants of migration intentions of men and women. Furthermore, De Jong finds perceived family migration norms to be a strong determinant of migration decisions.

Theory of Planned Behaviour

The TPB is an enhancement of the Theory of Reasoned Action (Fishbein, 1967; Ajzen, 1991; Fishbein and Ajzen, 2010) developed in social psychology. It states that the performance of a person's behaviour is preceded by the intention to perform this action. The intention in turn is predetermined by the *attitude* of that person towards the outcome of the behaviour, the *subjective norms* surrounding the behaviour and its outcome, as well as the *perceived behavioural control* of the person over the action. Direct measures and so called belief composites shape the attitude, subjective norms and the perceived behavioural control (Figure 1).

Figure 1 The Theory of Planned Behaviour



Source: adapted from Ajzen (1991)

The intention indicates "how people are willing to try [and] how much effort they are planning to exert, in order to perform the behaviour" (Ajzen, 1991: 181). The positive or negative evaluation of the action and its outcome is expressed in the attitude. Subjective norms are the perceived social pressure concerning the action. The perceived own capability to perform the action is conveyed in the perceived behavioural

control. Belief composites are accessible and salient beliefs about the behaviour, the norms and the control over the behaviour. The three belief composites consist of two components each. First, behavioural beliefs (A_B) consist of the belief of the likelihood of a certain outcome of the action (*b*) and the evaluation of this outcome (*e*). Second, normative beliefs consist of the beliefs of the decision maker about normative expectations of others on the behaviour (*n*) and outcome, and the motivation to comply with the opinion of these peers (*m*). Third, control beliefs comprise the existence of factors that inhibit or facilitate the performance of the behaviour (*c*) and the perceived power of these factors inhibiting or facilitating the behaviour (*p*) (Ajzen, 1991; Wauters et al., 2010).[7]

Behavioural beliefs: $$A_B \propto \sum_{i=1}^{n} b_i e_i$$

Normative beliefs: $$SN_B \propto \sum_{j=1}^{p} n_j m_j$$

Control beliefs: $$PBC_B \propto \sum_{k=1}^{q} c_k p_k$$

Source: Ajzen 1991.

The belief composites are assumed to not have a direct impact on the intention to remit, because they influence the *perception* of whether a specific behaviour and the respective outcome are good or bad, how strong norms surrounding the behaviour and the outcome are and how easy or difficult it is to perform the behaviour.

Generally, the more favourable the three main elements are for the behaviour the stronger is the intention and the more likely is the performance of the behaviour. Quite intuitively, a positive attitude including positive beliefs on the behaviour and its outcome increase the likelihood of performance. If the potential actor believes that others think the behaviour is something good and that s/he should perform

[7] The indices *i*, *j* and *k* indicate the number of possible factors of the belief composites.

the action, s/he is more prone to become active. In case the individual in question perceives the feasibility of the action as difficult, s/he might refuse to even give a try to the action.

Carrying these intuitions forward to remitting behaviour, we hypothesise that if the migrant thinks that remitting in general is a good thing and if the migrant expects that remitting has positive outcomes for him/her, this will increase the intention of remitting. In case the migrant feels the expectation of her/his peers to remit and it is important for him to comply with these expectations, this has a positive effect on the intention. Furthermore, as soon as the migrant believes to be capable to remit and anticipate no major obstacle or even facilitating aspects, s/he will most likely have a more positive intention to remit.

Although the TPB stems from social psychology, when looking closely at it, the economic paradigm of utility maximisation can be nonetheless found: it is inherent to the latent constructs. Two examples: (1) When evaluating the expectations about the outcome of remitting, which shape the attitude of the migrant towards remitting, the expectations with the highest utility is valued the most positive. (2) Furthermore, the migrant evaluates the motivation to comply with a norm according to his utility: If the negative consequences from breaking the norm exceed its benefits, his motivation to comply will be higher than vice versa. Consequently, the TPB by no means contradicts the common way of analysing the determinants of remitting, but it offers new insights to the subject.

Strictly following the theoretical approach of the TPB factors that have shown significant impact on the remitting decision in earlier empirical works are not supposed to have any direct impact on the intention to remit and the actual performance of remitting. Yet, acknowledging the consistence of earlier empirical findings on the determinants of remitting, we chose to add them to the core behavioural model. We group these determinants into two sets according to their hypothesised impact: one set with assumed positively influencing factors and one with assumed negatively influencing factors. Each set consists of attributes of the migrant as well as of the home-country household.

Data

The primary data on which we apply the TPB model are derived from two structured survey rounds that were conducted in Germany and Kosovo between September 2009 and March 2010. The aim of the surveys was to collect detailed information of the migrants on the one hand and on the origin households on the other. In that it is accounted for the two-sidedness of remitting. The questionnaire for the Kosovo-Albanian migrants[8] has questions on their socio-demography, on their living and working conditions in Germany, their remitting behaviour, and their social connection to the country of origin. The home-country household questionnaire includes information on the socio-demography of the home-country household, the migration history of the household members, farming and farm assets, non-farm employment strategies and the living standard. The sample to be analysed with the help of a structural equation model contains 217 cases.[9] The inclusion of the Albanian migrants into the survey was subject to the following conditions: (1) they must have lived in a farm household in Kosovo before coming to Germany and (2) only labour migrants were interviewed, no war refugees.

The consideration of the two-sidedness in our study-design is an exceptional feature of this study. Usually, only one side of the coin is interviewed: either the migrant or the household. Or, both are interviewed at the same time, e.g. when the migrants spend the holidays at the relatives' home. Leaving out one side of the remitting dyad in the interview phase leads to a problematic lack of information in the analysis of remitting determinants, whereas interviewing the migrant in the presence of the relatives may lead to biased information. When visiting the family in the country of origin, migrants are often under pressure to show to the ones left behind that their life as a migrant was a story of success and that they have become 'rich' in Germany. It is hard for the migrants to admit that it is not as easy as expected to live and work as a

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[8] Albanians represent the largest ethnic group in Kosovo (92%), 8% of the population are Serb, Bosniak, Gorani, Roma, Turk, Ashkali, or Egyptian (CIA, 2011). For this reason, the sample includes only Albanian migrants.
Except for one, all respondents were male. Therefore, we will refer in the following with male pronouns to the migrants.

[9] The overall sample contains 240 observations. The analysed sample is smaller, due to a number of non-matching interviews of migrants and households, missing values and outliers.

migrant in a foreign country. Hence, we think that our approach leads to a more complete and true picture of the circumstances of remitting.

Additionally, the migrant questionnaire contains a comprehensive module for the application of the TPB. Ajzen (2006) gives clear advice on how to construct a TPB questionnaire. He strongly recommends conducting pre-interviews with the target group in order to identify the proper salient beliefs of the target group. For this study, 13 pre-interviews were done with Kosovo-Albanians on which the implemented questionnaire is based. All items in the questionnaire module on TPB were to be rated on a seven-point Likert scale by the respondent.

The TPB analyses a behaviour that will take place in the near future, in our case fixed to the next three months after the inquiry. As cross-sectional data is analysed, no statement about the effective behaviour of the migrant can be done. This means that the impact of intention on the actual behaviour cannot be measured. However, information about the remitting behaviour of the past year was collected and is analysed in the following section together with an overview of the demographic and socio-economic characteristics of the migrant households in Germany and the corresponding home-country household.

Characteristics and past remitting behaviour of respondents

This section provides a brief overview of the demographic and socio-economic characteristics of the migrant households in Germany and the corresponding home-country household.

The migrant households are described in Table 1. They are on average 40 years old and have attended 11 years of education. Only 20 migrants (9% out of 217 interviewed migrants) have achieved their highest degree of education in Germany. The average duration of the migrant's stay in Germany is 19 years. A typical migrant household consists of four persons; the number of dependents (children and elderly persons) and persons in working age in the households are almost balanced. Two thirds of the migrants work in waged employment, 16% are self-employed, 6% unemployed, and 9% are pensioners. The modal value of the monthly income classes for the whole migrant household is between 2,501 and 3,000 Euro. Only 5 migrants (2%) have not sent remittances in the preceding year. Annual remittances in cash and in

kind average out at 4,740 Euro (median: 4,000 Euro). Thus, remittances represent almost the income of two months of the household. The largest group of migrants (52%) has siblings in the country of origin, 38% have parents and 10% have other relatives such as their wife, in laws, cousins, or uncles and aunts.

Table 1 Characteristics of Kosovar migrant households in Germany

	Mean	St. dev.	Median
Age of migrant	43	10.7	40
Years of education	10.7	2.34	12
Migrants who attained highest education in Germany	20 (9%)		
Household size	3.66	1.65	4
Dependency ratio	1.07	0.56	1
Monthly household income class	6 (2,501 - 3,000 Euro)		6 (2,501 - 3,000 Euro)
Remitters	212 (98%)		
Remittances (annual amount in Euro)	4,740	3,586	4000
Time since migration	19	8.68	17
Employment status			
• Waged employed	148 (68%)		
• Self-employed	34 (16%)		
• Waged and self-employed	3 (1%)		
• Unemployed	12 (6%)		
• Pensioner	20 (9%)		
Parents at origin	82 (38%)		
Siblings at origin	114 (52%)		
Other relatives at origin	21 (10%)		

Source: Own calculation.

Note: For income class the mode is shown. For the migrants who attained the highest education in Germany, the remitters, the migrants' employment status and the relatives at the origin frequencies are displayed. Other relatives include wife, parents in law, nephew/niece, uncle/aunt, cousin.

The size of the home-country households range on average between five and six persons; again, with an almost balanced ratio between members in working age and dependents (see Table 2). The average age of the household head is 51 years. In Kosovo traditionally several generations live under one roof and the eldest male member is the head of the household. The household head went on average 9 years to school, i.e. less than the migrant. Less than half (42%) of the household heads work in waged nonfarm employment, 33% in farming, 15% are pensioners, 9% run a nonfarm family business, and 1% are unemployed. The average annual household income amounts to 9,900 Euro, amounting to 1,820 Euro per

capita. From 16% of the households more than one migrant has left. The average of received total remittances amounts to 4,800 Euro remittances (median: 3,500 Euro). They contribute with 52% to the largest extent to overall household income. Nonfarm income adds 32%, while farm income adds only 11%. Social transfers account for 5% of the household income. Remittances are predominantly spent for everyday consumption, healthcare, schooling, and savings.

Table 2 Characteristics of home-country households in Kosovo

	Mean	St. dev.	Median
Age of household head	51	13.4	51
Years of education of household head	9	8.4	12
Household size	5.45	1.64	5
Dependency ratio	1.09	1.01	0.67
Total income (annual in Euro)	9,927	7,266	8,200
Composition of household income:			
• Share of farm income	11%	0.12	8%
• Share of nonfarm income	32%	0.26	33%
• Share of transfers	5%	0.10	0%
• Share of remittances	52%	0.23	51%
Total number of migrants	1.16	0.36	1
Total remittances received (annual amount in Euro)	4,802	3,756	3,500
Employment status			
• Waged employed	89 (42%)		
• Self-employed	19 (9%)		
• Farm work	69 (33%)		
• Unemployed	3 (1%)		
• Pensioner	32 (15%)		

Source: Own calculation.

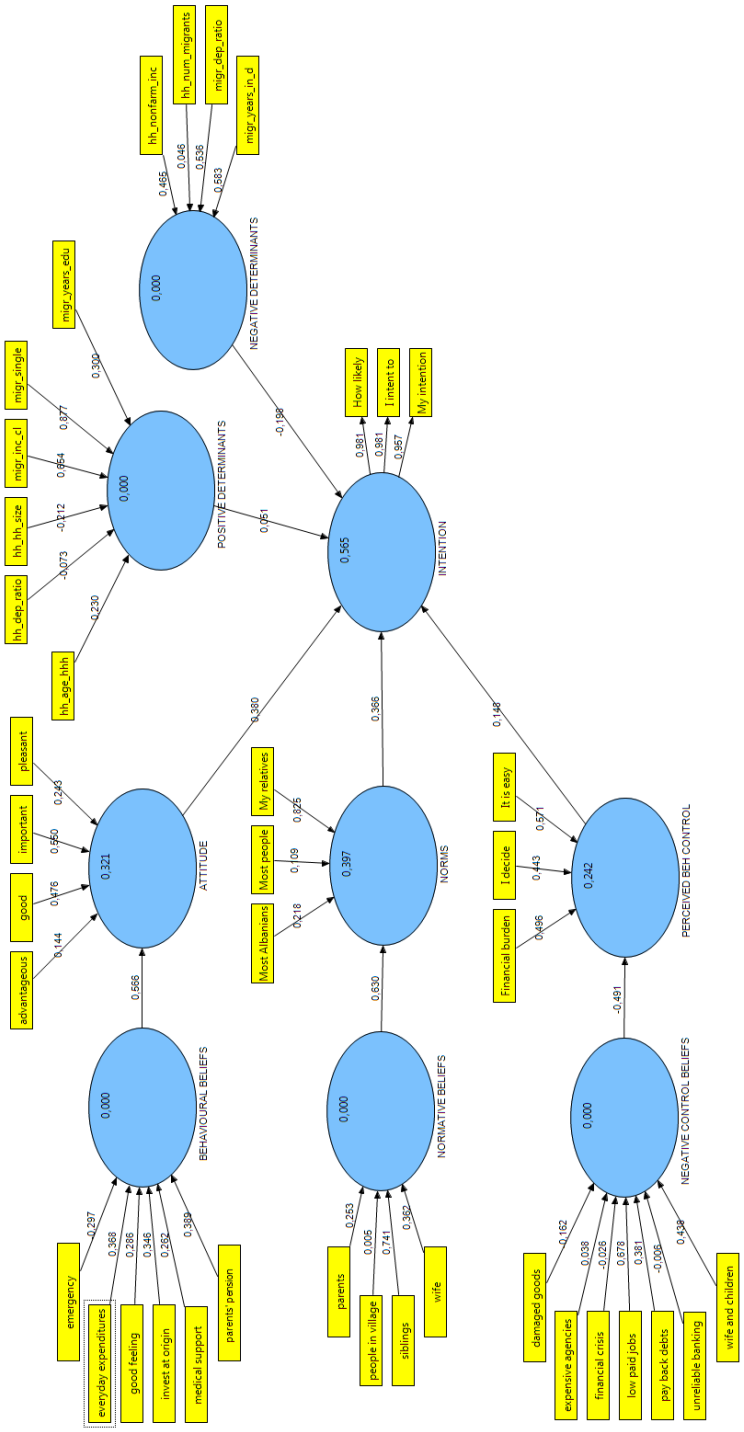
Note: Consumption includes expending remittances on household consumables, medical care, etc.; investment on founding of nonfarm family business, purchase of land, agricultural machinery or input and the like; activities include savings, vacation, or family festivities.
For remittances expenditure and employment status frequencies are displayed.

Method

Our TPB approach measures to which extent the intention to remit of Kosovar migrants living in Germany depends on the attitude, the subjective norms and the perceived behavioural control. As these are hard to measure directly and are composed of several aspects each, commonly applied multivariate regression analysis is not appropriate for estimating causal relations within the TPB. The strength of SEMs is that they can analyse unobservable, so called latent, variables. Consequently, SEM is the appropriate method for analysing the relationships within the TPB. As this method is new in the field of remittance analysis, it will be explained in a more detailed way than it is usually done for more common methods.

A SEM consists of (1) a measurement model and (2) a structural model. (1) In the measurement model the latent variables are measured with the help of directly measureable questionnaire items, so-called indicators. Latent variables, also called latent constructs, are represented graphically by ovals and indicators by rectangles (see Figure 2). The direction of the relationship is shown by arrows. For the relationship between the indicators and their latent construct there are two possible directions: the direction from the indicator to the construct represents the *formative* way to operationalize, the direction from the construct to its indicators represents the *reflective* way. Reflective indicators mirror the value of the latent construct. If the value of the construct changes, all indicators change. The indicators in this case are interchangeable and should be highly correlated. The strength of relationship between the latent variable and the reflective indicator is called factor loading. Formative indicators, in contrast, cause the value of the latent construct. Each indicator individually contributes to the value of the latent variable. Formative indicators are not highly correlated in general. Its impact on the latent construct is called weight. (2) In the structural model the relationship among the latent constructs is estimated based on ordinary least squares estimation (OLS). The strength of the relationship between a latent construct and an indicator or between two latent constructs is expressed in the path coefficients (Bliemel et al., 2005).

Figure 2 Results of structural equation model for TBP with PLS



Source: Own calculation.
Note: N=217
SmartPLS results applying factor weighting scheme, standardised results.

For estimating the SEM two methods are available: covariance based SEM (CBSEM) and variance based SEM (VBSEM). For CBSEM the application LISREL dominates the empirical studies, while VBSEM is applied in PLS.[10] There are four distinct differences between the two methods: (1) the definition of the latent variables, (2) the distributional assumptions on the data, (3) type of optimisation of the results, and (4) the way the data is analysed (Scholderer and Balderjahn, 2005). These four differences will be explained in the following: Latent variables in LISREL can be understood as factors in the factor analysis, and in PLS as principle components from the principle components analysis. Values for the latent variables in PLS are explicitly estimated, while in LISREL they are not. LISREL implies a multivariate normal distribution for latent variables and indicators. "Violation of this assumption may distort the standard errors of the path coefficient and parameters of the measurement model" (Ringle et al., 2009: 3). However, in socio-economic data, this requirement is hard to fulfil. Conversely, PLS makes no assumption about distribution of data. The downside of disregarding the distribution of data is that inference testing of estimation results cannot be made. Yet, with the help of resampling techniques like bootstrapping or blindfolding, standard errors for model estimates can be calculated. LISREL aims at a global optimisation of the estimation results, while PLS seeks local optimisation. This means that LISREL targets at adjusting the implied covariance matrix as close as possible to the observed one. Parameters are estimated with the help of maximum likelihood. This procedure requires far larger sample sizes to achieve reliable results than PLS. In opposition, in PLS the parameters are estimated with the target to maximise the explained variance of the dependent variable and the measured construct. This is done for each structural equation separately and following the principle of the least squares. As this leads to a reconstruction of the observed data, PLS delivers better predictions than CBSEM (Reinartz et al., 2009). Furthermore, in CBSEM only reflective indicators can be operationalized, i.e. the latent construct influences causally the indicators. The case of inversed causality, that means formative indicators, this approach is not able to explain the covariances of all indicators (Chin, 1998).

[10] LISREL is an acronym for linear structural relations. It stands for a method of CBSEM as well as a software package, which was developed by Jöreskog in the 1970s. PLS is a method which is applied in the software package smartPLS.

In our case we decided to apply variance based PLS for the following reasons: first, the sample size of the analysed data is just above 200 cases. This is around the critical size for application of covariance based SEM estimations and it is questionable whether robust result can be achieved. The critical sample size in PLS for the degree of complexity of our model is around 90.[11] Second, the data is not multivariate normal distributed. Figures for skewness and kurtosis in Table 3 close to zero would indicate a normal distribution of the data. However, none of the variables shows a normal distribution. We attribute this to the fact that only 36 cases (17%) reported that that they rather do not intend to remit money or goods within the next three months.[12] Consequently, it can be expected that the data is skewed towards the opinion of those who do intend to remit. As already mentioned, multivariate normal distribution is among the strongest assumptions of CBSEM. When applying VBSEM , this assumption can be relaxed (Bliemel et al., 2005). Third, it is assumed that the indicators causally determine the latent variable and not vice versa, except for the construct "intention". This means that the latent variables are operationalized formatively.[13] From a theoretical point of view, reflective indicators must be exchangeable with regard to content, which is not the case for the belief composites and the direct measures of attitude, norms and perceived behavioural control. Only the indicators for the intention are semantically that close that they can be exchanged. But formative indicators[14] cannot be estimated with LISREL. For these reasons, the data was analysed using smartPLS (Ringle et al., 2005).

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[11] We estimate the results with the path-weighting scheme for which Chin (1998: 311) states that the sample size should be ten times either the number of latent variables or ten times the number of indicators of the largest latent construct, whichever is larger. However, this rule of thumb is to be treated cautiously. Still, with 200 cases the sample size for our model lies well above the required 90 cases. With increasing sample size and increasing number of indicators per construct the accuracy of estimation of PLS improves. PLS results are thus consistent at large (Nitzl, 2010).

[12] Mustafa et al. (2007) estimate that 88% of the migrants remit to their home-country household. Consequently, approximately 12% do not remit, which is close to our findings.

[13] Formative indicators need to reflect all aspects of the construct which they shape. A certain degree of omitted variable bias is common in empirical analysis and thus also likely to occur here.

[14] Generally, the SEM can be estimated with unstandardized or standardised data. Diamantopoulos et al. (2008: 11) state that a formative model on its own is underidentified. The one way to overcome this problem is to estimate the model with standardised data. This is done in this case.

Our model is illustrated in Figure 2. It includes Ajzen's TPB variables but also additional classical socio-economic variables. In Table 3, descriptive statistics of the indicators included in the SEM are presented. Due to the phrasing of the indicators for *control beliefs*, the construct was renamed to *negative control beliefs* in order to prevent the recoding[15] of the questionnaire items and the resulting problems in interpretation.

Results of the structural equation model

The estimation results are depicted in Figure 2. Table 4 shows the wording of the indicators. Details on weights of the indicators can be found in Table 3 and on the path coefficients in Table 5. For PLS no statistical inference testing is possible because of the soft distributional assumptions made about the data analysed. However, the results of several quality criteria are provided in the annex to check the validity of our model. The validation follows Chin's (2010) guideline. Starting out with the measurement model we will evaluate afterwards the structural model.

[15] By recoding ordinally scaled items the numeric values of the variable are changed into the opposite value. In our case 7-point Likert scales are used. A value of 7 would be recoded to 1, 6 to 2, 5 to 3, and 4 would remain unchanged. However, by recoding the interpretability of the variable is diminished or sometimes even impeded (Möser, 2009). Thus, recoding usually involves a loss of information in the variable. This is why we refrained from recoding.

Table 3 Descriptive statistics and indicator weights

Indicator		N	Mean	Median	Skewnes	Kurtosis	Weight	Sign.
Intention	In intend to…	217	5.42	7	-1.06	2.47	0.98	***
	How likely is…?	217	5.36	7	-1.01	2.36	0.98	***
	My intention…	217	5.67	7	-1.30	3.07	0.96	***
Attitude	relevant	217	2.60	3	-3.07	12.95	0.55	***
	advantageous	216	1.65	2	-0.85	2.85	0.14	***
	pleasant	215	2.24	3	-1.86	5.83	0.24	***
	good	215	2.83	3	-3.33	15.39	0.48	***
Behavioural beliefs	good felling	210	40.80	49	-1.40	3.98	0.29	***
	everyday	216	42.93	49	-1.92	5.74	0.37	***
	emergency	216	46.00	49	-3.86	18.88	-0.30	***
	parent's pension	208	40.42	49	-1.59	3.84	0.39	***
	invest at origin	215	34.50	49	-0.70	1.80	0.35	***
	medical support	214	44.58	49	-2.66	9.61	0.26	***
Norms	Most people	217	5.89	7	-1.62	4.21	0.11	**
	My relatives	217	5.61	7	-1.28	3.10	0.83	***
	Most people	217	6.66	7	-3.79	18.56	0.22	***
Normative beliefs	My parents	215	24.33	21	0.05	1.09	0.25	***
	My siblings	210	41.37	49	-1.60	4.45	0.74	***
	The people in village	216	21.01	18	0.62	2.52	0.01	
	My wife	214	40.91	49	-1.60	4.28	0.36	***
Perceived beh. control	It is easy	216	5.52	7	-0.99	2.64	0.57	***
	Financial burden	216	4.40	4	-0.16	1.88	0.50	***
	I decide	215	5.25	7	-0.85	2.23	0.44	***
Negative control beliefs	wife and children	217	20.08	16	0.46	1.80	0.44	***
	pay back debts	217	21.44	21	0.44	1.81	0.38	***
	financial crisis	217	23.57	21	0.35	2.02	-0.03	
	low paid jobs	217	7.14	3	2.36	7.87	0.68	***
	damaged goods	217	3.21	1	4.41	22.17	-0.16	*
	expensive agencies	215	17.28	7	1.04	2.71	0.04	
	reliable banking	207	4.19	1	3.79	19.38	-0.01	

Source: Own calculation.

Note: Missing values remain under 5% of the data. Hair et al. (2006) state that missing data under 10% does not raise any problems to the analysis. 98 Migrants stated not to have parents at the origin. For these cases, we assumed that parents do not have any influence on the intention to remit and assigned a value of one to norm_bel_1 (normative beliefs about the parent's influence on remitting).

Significance levels obtained with bootstrapping with 1000 cases and 500 samples, thresholds for N=200 in student t-distribution: 1% = *** (z >= 2.345), 5% = ** (z >= 1.972), 10%= * (z >= 1.653).

Table 3 – *continued* **Descriptive statistics and indicator weights**

		Indicator	N	Mean	Median	Skewness	Kurtosis	Weight	Sign
Positive	determinants of remitting	HH_age_hhh	217	52	52	0.08	2.17	0.23	***
		HH_dep_ratio	217	1.09	0.67	1.57	5.74	-0.07	
		HH_hh_size	217	5.45	5	0.85	4.76	-0.21	**
		Migr_inc_cl	214	6	6	-0.19	2.47	0.65	***
		Migr_single	217	0.14	0	2.04	5.17	0.88	***
		Migr_years_edu	215	10.70	12	-1.72	5.58	0.30	***
		Migr_dep_ratio	217	0.87	1	1.59	6.39	0.54	***
Negative		HH_num_migr	217	1.16	1	1.89	4.57	0.05	
		HH_nonfarm_inc	217	0.32	0.33	0.21	1.91	0.47	***
		Migr_years_in_d	212	18.98	17	1.16	4.19	0.58	***

Source: Own calculation.

Note: Significance levels obtained with bootstrapping with 1000 cases and 500 samples, thresholds for N=200 in student t-distribution: 1% = *** (z >= 2.345), 5% = ** (z >= 1.972), 10%= * (z >= 1.653).

Table 4 Description of indicators

Indicator	
Intention	I intend to…
	How likely is it for you to…?
	My intention is to…
Attitude	irrelevant – very important
	disadvantageous – advantageous
	unpleasant – pleasant
	bad – good
Behavioural beliefs	good feeling – important
	help relatives with everyday expenditures – important
	help relatives in case of acute need – important
	contribute to pensions of parents – important
	my relatives invest at origin – important
	my relatives can afford medical support – important
Norms	Most people in Germany think that I should…
	My relatives at the origin expect me to…
	Most Albanians that I know do…
Normative beliefs	My parents at the origin would appreciate, if I would…
	My brothers and sisters at the origin would appreciate…
	The people in my village at the origin would appreciate…
	My wife would appreciate…
Perceived behavioural control	It is easy for me to…
	The financial burden of … is low for me.
	In our household in Germany I decide about…
Control beliefs	My wife and my children live with me in Germany. – difficult
	I have to pay back debts here in Germany. – difficult
	The economic situation in Germany has worsened recently due to the financial crisis. – difficult
	Albanians find in Germany only low paid jobs. – difficult
	Goods are often damaged or lost when sent to the origin. – difficult
	Sending money through agencies like Western Union is very expensive. – difficult
	With the development of the banking system transfers have become less reliable. – difficult

Source: Own data.

Note: The behaviour is defined according to Ajzen's (2006) TACT-scheme is "to remit/remitting money and/or goods to the origin within the next three months" and can be inserted instead of the place holder "…" in the above listed items.

Table 4 – *continued* – Description of indicators

Positive determinants	Age of origin household head	HH_age_hhh
	Dependency ratio of origin household	HH_dep_ratio
	Income class of migrant household	Migr_inc_cl
	Size of origin household	Hh_hh_size
	Dummy =1 if migrant is single	Migr_single
	Years of education of migrant	Migr_years_edu
Negative determinants	Dependency ratio of migrant household	Migr_dep_ratio
	Number of migrants who left the origin household	HH_num_migr
	Share of non-farm income of home-country household	HH_nonfarm_inc
	Number of years which the migrant spent in Germany	Migr_years_in_d

Source: Own data.
Note: The behaviour is defined according to Ajzen's (2006) TACT-scheme is "to remit/remitting money and/or goods to the origin within the next three months" and can be inserted instead of the place holder "…" in the above listed items.

Table 5 Path coefficients

Latent construct	Intention	Attitude	Norms	Perceived behavioural control
Attitude	0.38 ***			
Behavioural beliefs		0.57 ***		
Norms	0.36 ***			
Normative beliefs			0.63 ***	
Perceived behavioural control	0.15 ***			
Control beliefs				-0.49 ***
Positive determinants	0.05 **			
Negative determinants	-0.20 ***			

Source: Own calculation.
Note: Significance level: 1% = ***. 5% = **. 10%= *

The overall validity of the SEM is at a satisfactory level.[16] There are differences across the latent constructs: while behavioural beliefs and attitude, as well as normative beliefs and norms perform generally well, negative control beliefs and perceived behavioural control as well as the selected positive and negative socio-economic determinants show a lower, but still acceptable, level of overall validity.

In the following we will first go through the measurement model looking at each single construct in detail. We will follow the logic of the TPB and go from the belief composites to the direct measures and to the intention. As the indicators derived from the TPB all have the same measurement scale (7-point Likert-scale) the interpretation of their weights is straight forward. Subsequently, we will look at the results from the positive and negative socio-economic determinants of remitting. As their indicators are not identically scaled, the indicator weights are more difficult to interpret. It is preferable only to interpret the signs of the weights. Afterwards, we will display the results of the structural model.

Measurement model

The ***behavioural beliefs*** are shaped by the beliefs about the outcome of the behaviour and the subjective evaluation of this outcome (Ajzen, 1991). In our case we proposed outcomes collected in the pre-interviews to the respondents, asked for the likelihood of their occurrence, and asked how important that outcome is for the migrant. The product of these two values is the indicator value of the respective behavioural belief.

Six remitting outcomes and their evaluation were proposed: (1) paying for medical support needed at the origin ('medical support'), (2) assistance for the relatives at the origin in emergency cases ('emergency') and (3) supporting the origin family's everyday expenditures ('everyday expenditures'), (4) feeling good when remitting ('good feeling'), (5) support for investments at the origin ('invest at origin'), and (6) the contribution to the parents' pension ('parents' pension'). All indictors are significant. Against our

[16] For simplicity, at this stage the validity of the model is only described in short. In the Annex a detailed validation of the SEM is attached.

expectation, the weight for the help in case of emergency has a negative sign. Very likely, it is easier for the migrant to support the family at the origin at a regular base than unexpectedly and probably in a higher amount in case of an emergency. The support for daily expenses, contribution to the parents' pension, and the investment support show the highest weights, implying that these indicators shape the behavioural beliefs construct the strongest.

Apart from the impact from the behavioural beliefs, the ***attitude*** construct is constituted by four semantic differentials composed of opposite adjectives describing remittances: (1) important – unimportant, (2) advantageous – disadvantageous, (3) pleasant – unpleasant, (4) good – bad. The differentials important – unimportant and good – bad have the strongest direct impact on the attitude towards remitting.

"***Normative beliefs*** are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing a given behaviour" (Ajzen, 1991: 195). It is composed of the normative belief strength and the motivation to comply with this norm. As referent persons we identified the parents and the siblings of the migrant, the wife of the migrant, and the origin village community as a whole in the pre-interviews. Only the perceived expectations of the origin community do not have a significant impact on the normative beliefs of the migrant on remitting. One could argue that the reason for the insignificance may stem from the (too) broad definition of the indicator. However, the villages in Kosovo's rural areas are small and the villagers know each other well. Thus, 'the people in my village' are not a diffuse but a concrete group for the migrant of whose expectations he is aware. Consequently, their normative impact on the remitting decision is not eminent. The family ties play a stronger role compared to the origin community. The perceived expectations of the siblings of the migrant have the strongest impact on the normative beliefs. This shows that the family context plays the dominant role in normative beliefs of remitting. This is intelligible as in Kosovo family ties are known to play a very important role in everyday life.

Subjective norms reflect the migrant's perception how people, whose opinion matters to him, think about the behaviour and behave themselves. The construct is dominated by the perceived expectations of the relatives at the origin. Consequently, the finding that close relatives play a leading role in the normative

beliefs is confirmed in the direct measures for subjective norms. Other Albanians living in the surrounding of the migrant and their remitting behaviour may serve as a role model and exert indirect social pressure on the migrant (Carling, 2008). Indeed, we find that the behaviour of other Albanians plays a role.

Control beliefs are the beliefs about "the presence or absence of requisite resources and opportunities" (Ajzen, 1991: 196) to perform the behaviour. They may be based on own experience of performing the behaviour or on second-hand information from the family, friends, etc. The product for the negative control beliefs consists of control belief strength and control belief power. Seven indicators were included to explain the construct of control beliefs. Most of these indicators are formulated negatively; in order to avoid loss of information through recoding (see footnote 15), we decided to leave the indicators negatively formulated opposite to all other constructs. Consequently, the indicators of this construct describe inhibiting factors of sending remittances: (1) the fact that goods reach the origin often damaged when sent there ('damaged goods'), (2) high costs for sending money through agencies ('expensive agencies'), (3) the influence of the global financial crisis ('financial crisis') on the migrant's possibilities to remit, (4) the conviction that Albanians get only low paid jobs in Germany ('low paid jobs'), (5) the financial indebtedness of the migrant in Germany ('pay back debts'), (6) the little reliability of financial transfers in the developing banking system of Kosovo ('unreliable banking'), and (7) the fact that the wife and children of the migrant live in Germany ('wife and children'). The effects of the financial crisis (2007-2009), the possibility of loss and damage when sending goods to the origin, the cost of remitting through agencies, and the unreliable banking do not show a significant impact on the control beliefs. Against this finding, when asking the migrant directly for the expected consequences of the global financial crisis on the amount remitted to their relatives at the origin, more than half of the respondents stated that they expect to remit less.[17] When comparing the value of goods sent to the origin with the amounts remitted, it becomes clear that in kind remittances play a secondary role: the migrants sent on average goods with a

[17] Likert-scaled item (1 to 5): When considering the global financial crisis I expect to remit (1) tremendously less (6% of respondents), (2) less (53%), (3) the same amount (37%), (4) more (1%), (5) much more (0%) to my relatives at the origin.

value of 930 Euro (median: 800 Euro) while cash transfers summed up on average to 4,000 Euro (3,000 Euro). Furthermore, also for goods being sent to the origin, private modes of transport are preferred over transportation services. These are possible reasons why problems in sending goods are not significant in the SEM. However, the insignificant results for remitting through agencies and bank transfer are not surprising: Remitting in cash is most popular among the migrants, while transferring through a financial service provider is rather out-of-favour.[18] The strongest impact on control beliefs has the conviction that Albanians do not have access to sufficiently remunerative employment in Germany. Indeed, in our sample the largest share of migrants works in the construction sector (17%), in catering (6%), and in the transport sector (8%). Obviously, they work in rather low-paid sectors, often on an irregular basis, and very likely as unskilled workers.[19] Furthermore, if the family lives with the migrant in Germany, this is a strong inhibiting factor for remitting.[20] In contrast, having close relatives at the origin might fuel the intention to remit. This is straight forward as the expenditures for everyday life in Germany compete with the remittances sent to the origin. In this logic also repayment of debts competes with the remittances and plays a significant role in the perception of control over remitting.

Perceived behavioural control comprises factors that facilitate the performance of remitting. All three indicators enumerated in the preparation of the questionnaire strongly determine the perceived control over remitting: (1) the migrant perceives the financial burden of remitting to be low ('financial burden'), (2) the migrant is the one in the household to make the decisions about remitting ('I decide'), and (3) the migrant generally perceives remitting as an easy task ('It is easy'). From this list of indicators, the perception that remitting is an easy task has the greatest impact. Interestingly, remitting is perceived as

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[18] Among the migrants, 164 take the remittances in cash with them when they visit the origin household, 155 give cash amounts to relatives and friends to take them to the origin household, 54 migrants transfer money through money sending agencies, 20 migrants use bank transfers, and 2 transfer money through cheques. As multiple answers were allowed, the sum of answers exceeds the sample size.

[19] In the sample 105 working migrants (48%) stated to have attended professional training. Only 24 out of the 105 migrants (23%) work in the profession in which they obtained the highest professional training. Clearly, the majority of the migrants works as unskilled workers.

[20] Out of the 217 interviewed migrants only 35 live alone in Germany. Among these migrants are ten whose wives live in Kosovo without children and three whose wife and children live at the origin.

'easy' across all income classes although remitting should be more difficult for households with low incomes. This holds also true for the perception of remittances as (no) financial burden.

All typical ***positive socio-economic determinants of remitting*** show significance in our model except for the dependency ratio of the home-country household ('hh_dep_ratio'). Consequently, the ratio of economically dependent and independent family members does not have an impact on the intention to remit. Interestingly, the weight of the home-country household size ('hh_hh_size') has a negative sign against the expectation and previous empirical findings. All other weights are positive. For the age of the home-country household head ('hh_age_hhh') this result does not astonish as contributing to the parents' pensions is evaluated as a positive outcome by the migrant. A higher income class ('migr_inc_cl') simply increases the financial capability of the migrant to remit to the relatives at the origin. Thus, also this result is intuitive and has been proven in many other empirical studies. Against Havolli's (2009) results for Kosovo the educational level of the migrant ('migr_years_edu') has a positive and significant impact. The same holds true for the marital status of the migrant ('migr_single'), which also did not show significance in Havolli's results. This finding confirms results from our control beliefs construct: if the migrant's family does not live with him in Germany or if he is single, his motivation to remit is higher.

In the construct containing the ***negative socio-economic determinants of remitting*** only the number of migrants who have left the home-country household ('hh_num_migr') is not significant. All other indicators are significant: the share of non-farm income of the home-country household ('hh_nonfarm_income'), the dependency ratio in the migrant household ('migr_dep_ratio'), and the number of years that the migrant has spent in Germany ('migr_years_in_d'). The share of nonfarm income indicates the wealth level of the home-country household. As farming is small scaled and little remunerative in Kosovo, local nonfarm employment supplements the household income substantially. Indeed, nonfarm employment contributes on average 51% to the origin household income in our sample. It is assumed that the financial independence from remittances increases with rising contribution of nonfarm income, which in turn lowers the migrant's intention to remit. Our results confirm this assumption. In a migrant household with a high dependency ratio, expenditures for everyday life compete

with remittances, which in turn reduces the intention to remit. The longer the migrant lives abroad, the more he grows away from his roots and the lower is his intention to remit.

Structural Model

Among the three central latent variables, attitude, subjective norms and perceived behavioural control, the two former ones have the strongest and almost the same impact on the intention to remit. The path coefficient and the effect size f^2 of the attitude on the intention are slightly higher.[21] But the predictive relevance Q^2 as well as the relative impact for prediction q^2 of the norms construct are higher than those for the attitude.[22] This may be due to the fact that the norms construct achieves a better level of explanatory power than the attitude. In sum, these two constructs play the predominant role in shaping the intention to remit. Perceived behavioural control plays a secondary role: the path coefficient and the test statistics show lower values. In other words, if the migrant believes that remitting is a good thing and expects that it has positive consequences and if he feels that it is expected from him to remit, the intention to remit is strengthened.

The attitude of the migrant towards remitting plays the strongest role in predicting the intention to remit. This is because the migrants value remittances to be very important. Furthermore, the contributions to the pension of the parents and to everyday expenditures of the home-country household are particularly appealing to the migrants. The normative setting of remitting comes a close second. The nuclear family and its expectations are perceived as strongest influencing factors by the migrants. Perceived behavioural control plays an inferior role. Generally, the migrants do not perceive remitting as a heavy burden. Still,

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[21] The effect size f^2 indicates the size of the effect of an independent construct on the dependent one. An effect size lower than 0.02 is very weak, above 0.15 moderate and above 0.35 substantial (Cohen, 1988).

[22] The predictive relevance Q^2 shows how the observed values are reconstructed by the model. Predictive relavance lower than 0.02 is very weak, above 0.15 moderate and above 0.35 substantial. The relative impact of the structural model on the observed values can be assessed with the q^2 (Henseler et al., 2009).

the limited accessibility of better-paid jobs by Albanians in Germany and the presence of the migrant's wife and children in Germany are perceived as obstacles in remitting behaviour.

The 'classical' determinants of remitting add additional information to the construct of intention to remit. However, their contribution is limited as the effect size f^2 is below 0.1. Accordingly, the standard way of analysing the motives for remitting neglects large part of explanatory power. The actual behaviour of remitting is preceded by an inherent, cognitive decision making process which is reproduced by the TPB. Yet, the TPB takes up indirectly socio-economic influencing factors.

As so far the TPB has not been applied in remittances research, we are not able to compare our results with others. However, the strong influence of subjective norms conforms to the generally very tight family relations in Kosovo. They play traditionally a very strong role in the Albanian culture. In societies where social cohesion has decreased, family ties gain tremendously in importance (Kasarjyan, 2010). One of the symptoms of weakening social cohesion is the reduction of social capital, which has been experienced throughout the transition countries. Paldam and Svendsen (2002) attribute the slow economic development in transition countries after the collapse in the beginning of the 1990s to the lack of positive social capital in these countries. Exactly these adverse conditions have led to an outpouring of people from the Balkan Peninsula, specifically Kosovo. Indeed, Kosovo has experienced fundamental events within the past 20 years: break-up of Yugoslavia in 1991, the wars from 1992 to 1995 destabilising the Western Balkans and especially the Kosovo war in 1999, the interim governance of the international forces in the meantime, and the foundation of a sovereign state in 2008. No doubt, with the deterioration of societal order, social cohesion, and social capital family ties increased in importance. In the traditionally large families of Kosovo these disruptions made the feeling of belonging together and solidarity even stronger among the family members. Family members support each other through remittances even across borders in a normatively designed frame.

Conclusions

This contribution analyses the motivation behind remitting based on the behavioural approach of the TPB. In opposite to the classical procedure, namely regressing a set of socio-economic variables on remittances, we introduce a new approach and methodology which was, to our best knowledge, not used for this research question before. Stemming from social psychology, the TPB represents a well-established and tested behavioural theory. Compared to available studies on the topic, it offers additional insights to the intention to remit in that it captures three cognitive constructs: attitudes, norms, and subjective control. Methodologically we implement the TPB in PLS VBSEM using smartPLS. This allows us to add complementary constructs depicting and testing some of the classical socio-economic variables to identify the determinants of remitting. Yet, we stress that the TPB implicitly covers socio-economic variables, e.g. in its control variables. Consequently, applying the TPB to remitting behaviour increases the dimensionality of the analysis without contradicting to the common socio-economic approaches. Indeed, the results show that it is applicable also to our research question, i.e. to determine the intention to remit.

The attitude towards remitting and subjective norms were identified to be the strongest driving forces in the intention to remit, while perceived behavioural control plays only a secondary role. A remittances supportive attitude, meaning that migrants consider remitting and its consequences as important, arises particularly if the contribution to the pension of the parents at the origin and the contribution to everyday expenditures of the home-country households matter. In shaping the subjective norms, it could be shown that the nuclear family, i.e. wife, parents, siblings, plays the predominant role. Kosovar migrants in the diaspora keep strong social ties to their origin. This goes along with the feeling that their relatives expect them to remit. In order to fulfil these perceived expectations and to prevent sensed negative consequences, the migrant remits. We interpret this social pressure as an indication that remitting is not motivated purely by altruistic reasoning.

The factors depicted by perceived control over remitting reflect inhibiting and facilitating factors of remitting as perceived by the migrant. The fewer limitations a migrant sees in the actual remittance

transaction, the higher is the probability that he will actually remit. Among important limitations as identified in our analysis is the lacking accessibility of well-paid jobs in Germany.

The classical determinants included in the model show the explanatory contribution of the commonly applied determinants. In fact, compared to the overarching cognitive constructs, they contribute only little explanatory power to the model. This underlines that behavioural approaches explaining remitting should become part of the common toolbox. Still, also the socio-economic variables show a significant impact. The income level of the migrant household, the migrant's marital status and education and the age of the home-country household head have a positive significant impact. The share of nonfarm income in total origin household income, the time since migration and the dependency ratio of the migrant household have a negative impact on the intention to remit. Remarkably, neither the size of the origin household nor its dependency ratio has shown significance in the model. Consequently, the composition of the home-country is not important in predicting the intention to remit.

This contribution is the first one to analyse the determinants of remitting from a behavioural perspective. For further justification of choosing this approach and verification of the results more studies focussing on the behavioural aspects of remitting need to be done. They will allow the comparison of results and further progress in achieving a clearer view on the determinants of remitting.

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Annex

Validation of the structural equation model

The presentation of the results will start with the validation of the estimation. As for PLS no statistical inference testing is possible, several quality criteria will be checked. In doing so we will roughly follow Chin's (2010) guideline. Starting out with the measurement model we will evaluate afterwards the structural model. The estimation results are depicted in Figure 2.

In the ***measurement model*** we will evaluate first the reflective construct for intention, then the formative constructs of attitude, subjective norms and perceived behavioural control. A reflective, latent construct like intention is convergent valid if the indicators relate only to that one construct and have a strong relationship among each other. Cronbach's α and the composite reliability give information on the convergent validity of the intention to remit (Table 6). Both values are with over 0.95 well above the critical threshold of 0.7. Thus, the convergent validity is very good (Henseler et al., 2009). If the common variance of the latent construct and the indicators is larger than the common variance of that construct with other constructs, this is the average variance explained (AVE), the intention to remit has good

Table 6 Validation of reflective construct "Intention"

	Indicator reliability	Convergent validity		Discriminant validity		
Indicator	Factor loadings	Cronbach's α	Composite reliability	Average variance extracted (AVE)	Fornell-Larcker-criterion	R^2
Aspired value	>0.7	>0.7	>0.7	>0.5	AVE > FLC	
Source			Krafft et al. (2005)			
Intention		0.97	0.98	0.95	0.59	0.57
In intend to…	0.98					
How likely is…?	0.98					
My intention…	0.96					

Source: Own calculation.

discriminant validity. The AVE should be larger than 0.5, which applies for our model. Additionally, the AVE should be larger than the maximum squared correlation between the independent latent constructs and the intention (Fornell-Larcker-criterion). The norms-construct has with 0.59 the largest correlation with intention, which lies significantly under 0.95. Furthermore, if the factor loading from the constructs on the reflective indicators is larger than 0.7, the latent variable explains more than 70% of the variance in the indicator and has good explanatory power (Bliemel et al., 2005) (Table 7). The lowest factor loading from intention is 0.96. Low crossloadings of the reflective indicators on other latent constructs in the model prove discriminant validity. The indicators should optimally load highest on their own construct and not on another one. In Table 6 we can see, that the indicators for the intention clearly load highest on the latent construct intention. The empirical results for all afore mentioned goodness of fit statistics of the reflective indicator intention are consequently on a satisfactory level.

Table 7 Crossloadings of reflective indicators

Indicator	Intention	Attitude	Behav. beliefs	Norms	Norm. beliefs	Perceived behav. control	Control beliefs	Positive deter-min.	Negative determin.
In intend to…	**0.98**	0.54	0.50	0.58	0.47	0.32	-0.38	0.33	-0.33
How likely is…?	**0.98**	0.54	0.49	0.57	0.46	0.33	-0.36	0.35	-0.33
My intention …	**0.96**	0.58	0.57	0.59	0.49	0.28	-0.33	0.30	-0.32

Source: Own calculation.

After having checked the goodness of fit of the reflective indicator, we will now move to the formative ones. The estimation process of the latent variable scores in the formative measurement model is based in the second step on OLS. Consequently, multicollinearity among the formative indicators would bias the path coefficients. The indicators were tested for multicollinearity with the variance inflation factor (VIF) and the conditional index. Diamantopoulos and Winklhofer (2001) establish a critical threshold for the variance inflation factor (VIF) at ten. Henseler (2009) also gives the threshold of ten for the VIF. However,

he notes that any VIF considerably larger than one has to be treated carefully. The conditional index should lie below 30 (Henseler et al., 2009). The maximum VIF we encountered is 2.52 in the norms construct (Table 8). The highest conditional index of 29 was detected in the behavioural beliefs construct. Consequently, both statistics lie below the critical threshold. Nonetheless, multicollinearity may marginally affect the estimation results. The significance of the weights of the formative and reflective indicators on the latent construct is tested by bootstrapping.[23] The bootstrapping estimation results are divided by their respective standard error. The result is a student t-distributed test statistic. If the test statistic is larger than 1.653 a ten per cent significance level is achieved, if it is larger than 1.972 a five per cent level and if larger than 2.345 a one per cent significance level for a sample size of 200 cases. In the constructs normative beliefs, control beliefs, and in positive and negative determinants for remitting insignificant indicators are contained, which will be discussed in the next section.

Table 8 Validation of formative constructs: Multicollinearity

Latent construct	Max. VIF	Conditional index
Aspired value	<10	<30
Source	Henseler et al. (2009)	
Attitude	1.47	19.70
Behavioural beliefs	1.93	29.00
Norms	2.52	22.11
Normative beliefs	1.18	8.80
Perceived behavioural control	1.39	10.07
Control beliefs	1.49	11.59
Positive determinants	1.06	15.55
Negative determinants	1.08	11.74

Source: Own calculation.

[23] Bootstrapping is a resampling method. We took 500 subsamples with 1000 cases each (Chin, 1998).

Looking at the ***structural model***, all path coefficients (Table 5) show significance after bootstrapping at the one per cent level, except for the path from the positive determinants to the intention which is significant at the five per cent level. All path coefficients have the expected sign. The R^2 of the latent constructs indicates how much variance of the construct is explained by the model (Table 9). Chin (1998) classifies R^2 over 0.67 as substantial, around 0.33 as moderate and below 0.19 as weak explanatory power. "If certain inner path model structures explain an endogenous latent variable by only a few (e.g. one or two) exogenous latent variables, "moderate" R^2 may be acceptable." (Henseler et al., 2009: 303ff). With R^2s between 0.24 and 0.57 the explanatory power of the model is thus tolerable. The effect size f^2 measures the impact of one construct on another. Cohen (1988) considers an f^2 under 0.02 as weak, around 0.15 as moderate and above 0.35 as substantial effect. Attitude and norms have a close to substantial effect on the intention to remit. Whereas perceived behavioural control and negative determinants of remitting have a lower moderate and the positive determinants have a weak effect on the intention to remit. Stone-Geisser's Q^2 is the synthesis of function fitting and cross-validation (Henseler et al., 2009). Q^2 indicates in how far the model is able to predict values of the endogenous latent variable's indicators. It is obtained from the blindfolding procedure which is another resampling technique. A negative Q^2 implies no predictive relevance and vice versa a positive Q^2 implies predictive relevance indeed (Chin, 2010). The larger the value of Q^2 is the more relevant is the construct for the prediction of indicator values (Krafft et al., 2005). All values for Q^2 are found positive and lie between 0.12 for perceived behavioural control and 0.43 for behavioural beliefs. Thus, all constructs have predictive relevance, however, at different levels. Additionally, the q^2-statistic represents the relative impact of the structural model on the observed indicators for each latent variable (Chin, 2010). Similar to f^2, q^2 larger than 0.35 indicates a large, around 0.15 a moderate and lower than 0.02 a small relative impact (Henseler et al., 2009). The estimation results show that perceived behavioural control has the lowest and rather weak relative impact in the prediction of its indicators with q^2=0.04. Whereas, norms have the strongest relative impact with q^2=0.31.

Table 9 Validation of structural model

	Explanatory power	Effect size	Predictive relevance		Mediation effect	
Latent construct	R^2	f^2	Q^2	q^2	z-value	VAF
Aspired value	> 0.67 strong ~ 0.33 moderate < 0.19 weak	> 0.35 strong ~ 0.15 moderate < 0.02 weak	>0 predictive relevance <0 no predictive relevance	> 0.35 large ~ 0.15 moderate < 0.02 small	>2.35	1: perfect med. 0: no med.
Source	Chin (1998)	Cohen (1988)	Chin (2010)	Henseler et al. (2009)	Sobel (1982)	Eggert et al. (2005)
Intention	0.57		0.41			
Attitude	0.32	0.27	0.14	0.22		
Behav. beliefs			0.43		10.69 ***	0.67
Norms	0.40	0.24	0.27	0.31		
Normative beliefs			0.36		10.92 ***	0.85
Perceived behav. control	0.24	0.05	0.12	0.04		
Control beliefs			0.24		-4.67 ***	0.25
Positive determinants		0.01	0.13	0.14		
Negative determinants		0.07	0.30	0.24		

Source: Own calculation.
Note: Significance levels for N=200 in student t-distribution: 1% = *** (z >= 2.345). 5% = ** (z >= 1.972). 10%= * (z >= 1.653).

When analysing causal relationships, latent constructs may not only influence the dependent variable directly, but through another latent construct. In this case the effect of one construct on the dependent variable is mediated by a third one. Exactly this is presumed in the TPB: the belief composites are assumed to have an indirect effect on the intention mediated by the direct measures. Whether this structure can be found in our sample needs to be examined. There are two measures to explore whether a mediating effect exists. First, the calculation of the z-score to identify mediation effects at all. The z-score follows the t-distribution. With the same thresholds as for evaluating the significance levels of weight, factor loadings and path coefficients, one can reject the null hypothesis that the direct effect of the construct in question

either does not exist or is insignificantly low. And second, the variance accounted for (VAF) shows how much of the effect from the independent variable on the dependent variable is attributed to the mediating variable (Krafft et al., 2005). In our model all three mediating effects are significant at the one per cent level. However, the strength of the mediating effect differs across the three main predictors for the intention to remit. For norms the mediating effect is the strongest, followed by attitude which is pursued by perceived behavioural control. Subsequently, the theoretically assumed structure of the model by the TPB could be confirmed for our application.

If the strength of the causal relation between an exogenous and an endogenous variable is influenced by one or more additional latent construct(s), moderating effects exist in a SEM. In order to test for moderating effects, the standardised latent variable scores of the independent and the mediating variable and their products are regressed on the latent variable scores of the dependent variable. If the product is significant, moderating effect exist (Henseler and Chin, 2010). In our model we can rule out presumptions of moderations, none of the moderating products of attitude, subjective norms or perceived behavioural control showed significance.

The overall validity of the SEM following the TPB is consequently at a satisfactory level, although there are differences across the latent constructs. While behavioural beliefs and attitude, normative beliefs and norms perform generally well, control beliefs and perceived behavioural control and positive and negative determinants show a lower, however, still acceptable, level of overall validity.