

Revisiting the motivations behind remittance behaviour: Evidence of debt-financed migration from Afghanistan

CRAIG LOSCHMANN*
MELISSA SIEGEL♦

Abstract

In an insecure environment like Afghanistan it is believed that many families consider establishing household members at different geographic locations, frequently abroad, as a way to hedge against risks to a sustainable livelihood. With this in mind, this study examines whether such a migration strategy rests on remittance transfers as an alternative source of income, exploiting the way in which migration is financed as a discriminating factor. Our results show remittance transfers are lower for debt-financed migrants, and the influence of certain individual and household characteristics are in line with what we would expect if altruism is the dominating motivation. In light of this finding, we speculate that the sending of household members abroad as a risk-coping strategy may be less about having an alternative source of income and more about having an alternative location to escape to if the security situation happens to take a turn for the worse.

Keywords: Migration; remittance behaviour; debt; risk-coping; Afghanistan.

Introduction

Within the overall discussion concerning migration and development, the issue of remittance sending is of great interest for both academics and policy-makers alike. Cross-border transfers to low-income countries of origin have shown resilient growth in the face of the recent economic downturn, providing further proof of its significance for many households throughout the developing world (Aga et al., 2013). Still, any potential positive impact on household welfare is not automatic and likely very much related to what motivates money to be sent in the first place. A migrant remitting under the pretense of paying for a family member's education for example has different implications than if it were for building a house in preparation for an eventual return. It is with this in mind that a plethora of empirical analysis has been

* Maastricht Graduate School of Governance (MGSoG), Maastricht University, and UNU-MERIT, Maastricht, the Netherlands. E-mail: c.loschmann@maastrichtuniversity.nl

♦ Maastricht Graduate School of Governance (MGSoG), Maastricht University, and UNU-MERIT, Maastricht, the Netherlands. E-mail: melissa.siegel@maastrichtuniversity.nl.



carried out over the years looking to identify the determinants of remittance behaviour. While these studies' findings have helped advance our understanding of the issue, there still remains a great deal of ambiguity when it comes to less scrutinized forms of migration flows from environments characterized by systematic insecurity.

In this study we investigate the motivations behind remittance behaviour of Afghan migrants, utilizing the way in which migration is financed as a discriminating factor. In line with the theoretical underpinnings of the new economics of labour migration where migration is understood as a household strategy, we look at whether the costs of migration are covered by taking on a loan and the influence this has on the remittance behaviour of the migrant once abroad. In this way we are able to infer whether remittances are the product of debt-financed migration in light of an implicit contractual agreement between migrant and household of origin suggesting a household risk-coping strategy. To the best of our knowledge, such an indicator used to distinguish remittance motivations has been employed only in a few other cases (Brown, 1997; Gubert, 2002), and never in a (post-) conflict environment similar to that of Afghanistan.

Exploring the underlying determinants of remittances is well-understood to be highly sensitive to the local contextual environment, with the Afghan setting being unique for a number of reasons. Most salient is the fact that Afghanistan ranks near the bottom of the list in terms of overall human development (UNDP, 2013). The most recent National Risk and Vulnerability Assessment (NRVA) for 2011/2012 estimates some nine million people, or 36 percent of the population, living in absolute poverty (CSO, 2014). Clearly this abject impoverishment is closely related to conflict which has plagued the country for over three decades. As a result, large portions of the population at one time or another were left no choice but to take refuge outside the country, predominately in neighbouring Pakistan and Iran. While the fall of the Taliban in 2001 led to a massive return, the uncertainty of underdevelopment and insecurity persists leaving many to consider their alternatives if the situation takes a turn for the worse once more. It should come as no surprise then that many families make the decision to have one or more household members at different geographic locations, frequently abroad, as a way to hedge against a possible negative shock to their livelihood. Still whether there is evidence of such a migration strategy, or whether it rests on remittance transfers as an alternative source of income, remains to be seen.

The remainder of the article is structured as follows. We first review the relevant theoretical and empirical literature regarding the motivations to remit, followed by a presentation of our dataset and the descriptive depiction it reveals. We then go on to explain the empirical strategy employed before turning to the results. Finally, we conclude with a brief summary of our findings.

Existing literature

Prior to any discussion concerning the motivations to remit, it is helpful to first reflect on the determinants of migration given it is a prerequisite for remittances being sent. Traditionally migration theory originates from neo-classical economic thought focusing exclusively on the earnings gap between two locations. From this perspective, an individual moves to a destination if it maximizes expected utility based on a simple cost-benefit calculation (Harris and Todaro, 1970). Therefore the decision to migrate depends predominately on certain individual characteristics determining where s/he will be most productive and earn the highest income including age, experience, education, skills and the like (Massey et al., 1993).

Looking beyond merely the individual however, the new economics of labour migration hypothesizes that the decision to migrate is not taken by just the potential migrant but within a larger social context typically incorporating the household or greater family. Migration therefore is driven by a collective effort to not merely maximize income, but also minimize risks to income generation (Stark and Bloom, 1985; Taylor and Dyer, 2009). As such, migration is viewed as a means by which the household is able to increase capital assets, diversify sources of income and provide income insurance. Naturally then remittances enter the picture as one such channel through which the migrant is able to contribute to household well-being.

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Stemming from the general premise of the new economics of labour migration, the contemporary debate around the determinants of remittances began in earnest with the seminal paper by Lucas and Stark (1985), "Motivations to Remit: Evidence from Botswana". Here the authors go beyond the previously unqualified presumption that migrants send money merely because they care for those left behind, and provide a systematic theory of remittance behaviour determined by one of three possibilities: "pure altruism", "pure self-interest" or "tempered altruism/enlightened self-interest". It is from this framework that the majority of contemporary empirical work on the subject builds.

Under the first motivation, "pure altruism", migrants are understood to derive utility from their family's well-being. As such, remittance behaviour¹ is expected to be increasing with migrant income² and decreasing with household income net of remittances, both of which are commonly found throughout the empirical literature (Hagen-Zanker and Siegel, 2007). Beyond the influence of migrant and household income however which alone fail to exclu-

¹ Remittance behaviour here is used to indicate both the propensity to remit as well as the amount remitted. While some authors argue that both decisions may be made separately with possible different variables determining each, we follow Amuedo-Dorantes and Pozo (2006: 240) who contend, "it is difficult to conceive of factors that affect the decision to remit money home, but do not influence the amount remitted by the immigrant".

² Because of data limitations, migrant income is commonly proxied by other migrant characteristics which are likely to influence the migrant's income function including age, level of education, time abroad, etc.

sively identify altruism in comparison to others explanations, a common approach is to model the influence of other relevant factors including the presence of more than one migrant from the same household, household size and duration of time abroad. Regarding the former, Agarwal and Howoritz (2002) compare single migrant to multiple migrant households in Guyana, under the hypothesis that if altruism is the main driver of remittance behaviour than it should be decreasing in the presence of other migrants given responsibility to care for those back home is spread evenly among all family members abroad. Ultimately their finding of a negative relation between multiple migrant households and remittance behaviour provides support for such a notion, and has been corroborated elsewhere (Naufal, 2008). As for household size, remittance behaviour motivated by altruism is expected to be increasing with the greater number of family members there are to care for, and has been found in number of cases (Agarwal and Howoritz, 2002; Gubert, 2002; Osili, 2007). For the duration of time abroad, the “remittance decay” hypothesis expects remittance behaviour under altruism to be decreasing over time due to an assumed weakening of social ties between migrant and household. Even though “remittance decay” is found in certain cases (Holst and Schrooten, 2006; Vargas-Silva, 2006), remittance behaviour is also commonly seen to follow an inverted-U curve in that it initially is increasing as migrants become more established at destination and thus have greater capacity to earn and send, and only later declines as social contact wanes (Carling, 2008).

Under various forms of “pure self-interest”, migrants are understood to send money without the well-being of the family explicitly in mind but rather as the name indicates considering only their own personal benefit. A migrant with aspirations to inherit may be one such case implying the opposite of the altruism hypothesis in that remittance behaviour should be increasing with household wealth, something Lucas and Stark (1985) themselves found evidence of in the case of Botswana. Alternatively, remittance behaviour driven by self-interest may be witnessed when money is sent in order to acquire physical assets like land, housing, livestock and the like in preparation for an ensuing return. Therefore when possible it is convenient to include whether the migrant intends to return and the effect this has on remittance behaviour, as shown in certain cases which support the self-interest explanation (Brown, 1997; de la Briere, 1997).

Lastly under “tempered altruism/enlightened self-interest”, remittances are seen as “part of an intertemporal, mutually beneficial contractual arrangement between migrant and home” (Lucas and Stark, 1985: 904). This would be the case for instance if remittances were driven by a desire to repay the family for an initial investment in education or costs associated with migration. Remittance behaviour therefore would be expected to be increasing in light of such formal or informal past economic exchanges including a loan to migrate, a finding which has been found in certain contexts (Brown, 1997; Gubert, 2002). Alternatively, if migration of a family member is a strategy to diversify sources of income and thus reduce risk, then money sent home can be under-

stood as a form of co-insurance for both migrant and household. The family back home for example might help support the migrant during the initial stage abroad and possible periods of unemployment, while the migrant offers assistance to the household if they happen to endure a negative shock to their income-generating capabilities. The common approach to measure co-insurance includes focusing on the influence of the migrant's risk level or a fluctuation, or shock, to household income. For the former, Amuedo-Dorantes and Pozo (2006) use an indirect measure of migrant income risk and find robust evidence that remittance behaviour is increasing with uncertainty in the host country pointing to both family and self-insurance. Batistas and Umblis (2012) use a more direct measure of migrant income risk and similarly find remittance behaviour increasing with migrant risk aversion which again points to self-insurance. For the latter, Lucas and Stark (1985) find evidence of remittance behaviour increasing with a drought in the case of Botswana, while Pleitez-Chavez (2004) supports such a finding when exploiting data on negative household income shocks in El Salvador.

Table 1 sums up the predicted relationship between remittance behaviour and certain key characteristics of both the migrant and household at origin under all three motivation scenarios. While not exhaustive, each characteristic is commonly incorporated into the dozens of empirical analyses undertaken since Lucas and Stark (1985). The underlying objective has been to use these factors in order to identify one dominant motive from the others. Still, in reality it is very likely that a mixture of motives of varying degree exists within the same individual, not to mention heterogeneous individuals within a local context, or adjust over time (Rapaport and Docquier, 2006). Indeed Lucas and Stark highlight the combination of altruistic and self-interested factors which allow for any arrangement between migrant and household as characterized by "tempered altruism/enlightened self-interest" to be self-reinforcing. Therefore even though a single explanatory determinant is sought out, it is important to keep in mind the inherent interdependencies between motives.

In regards to context, even though the environments of the studies just cited vary migration in each is noticeably characterized by labour flows towards either the US or Western Europe with little consideration given to other forms of migration patterns or (post-) conflict settings. Certain studies however do provide insight into the remittance behaviour of refugees which allow for a better understanding of migrant to household transfers when situated within a paradigm of insecurity. Al-Ali et al. (2001) for instance analyze the transnational behaviour of both Bosnian and Eritrean refugees in Western Europe and notice that while many do send money home, most appear to do so because of social pressure either by their own households or by the community at large. Lindley (2009) looks at Somali refugees in London, finding similar evidence that while many do remit, it seems less because of a pre-migration strategy to diversify income and more because of post-hoc considerations for those left behind and what Riak Akuei (2005) calls "unforeseen burdens".

Table 1: Theoretical Relationships

Motivation	Pure Altruism	Pure Self-Interest	Tempered Altruism/ Enlightened Self-Interest	
<i>Description</i>	<i>Utility derived from household well-being</i>	<i>Aspirations to inherit or investment in assets</i>	<i>Repayment</i>	<i>Co-insurance</i>
Migrant Income	+	+	+	-
Household Income	-	+	+/-	-
Household Size	+			
Negative Shock to Household Income	+			+
Migrant Intent to Return		+		
Migrant Risk Level				+
Multiple Migrants from Household	-			
Time Abroad	+ then -		-	

Overall, it is clear in reviewing the literature that no generalized empirical finding emerges given the considerable differences in analytical approach and migration context under study. And while it appears refugees may be less inclined to send remittances as part of an explicit household strategy, this may not be the case for those not officially considered refugees but are still in essence compelled to leave their place of origin due to uncertainty or lack of livelihood opportunities. In this regard it is important to keep in mind the fine line between voluntary and involuntary movement, which is finer still in a fragile setting like that of Afghanistan.

Methodology

Data and Descriptive Statistics

The data used in this analysis originates from an Afghanistan household survey collected for the IS Academy “Migration & Development: A World in Motion” project.³ Even though a purely random sample throughout the country was not possible due to the limitations of conducting fieldwork in certain high-risk areas, particular attention was paid to capturing the diversity of the population in order to increase the representativeness of the sample. In this regard five provinces: Kabul, Herat, Balkh, Nangarhar and Kandahar were chosen because of their highly populated urban centers, geographical dispersion and varied profiles of migration. Within each province urban, semi-rural and rural communities were stratified as a way to capture different socio-economic groups, and these communities were then identified to be eligible for enumeration at random. Ultimately, the survey captures detailed infor-

³ Funding for the project was provided by the Dutch Ministry of Foreign Affairs and the International Organization for Migration. For more information, see the project homepage: <http://mgsog.merit.unu.edu/ISacademie/index.php>.

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mation regarding migration, remittance behaviour and much more for a total of 2,005 households in 100 communities.

Table 2 provides a summary of the descriptive statistics for our sample. The final dataset used in this analysis incorporates 210 migrants aged 15 and older who were identified as living abroad for at least two months at the time of survey. Of that total 136 remitted within 12 months of the survey taking place, sending an average total amount of US\$1,242. For our purposes, just over half of all migrants, 53 percent, financed their journey through either formal or informal loans from family or friends, similar to the 52 percent when looking at remitting migrants only.

Table 2: Descriptive Statistics (sample means and standard deviations)

Variable	Description	All Migrants (n=210)	Remitting Mi- grants (n=136)
Independent Variables			
Remit	Dummy indicating migrant remitted in the past 12 months	0.6476 (0.4789)	1.0000 (-)
Remit Total	Log of the total amount sent (in USD)	4.0056 (3.2122)	6.1851 (1.5471)
Dependent Variables			
<i>Migrant Characteristics</i>			
Debt-Financed Migration	Dummy indicating migration was financed through a loan	0.5333 (0.5001)	0.5221 (0.5014)
HH Head	Dummy indicating migrant is the household head	0.0524 (0.2233)	0.0441 (0.2061)
Son of HH Head	Dummy indicating migrant is the son of household head	0.6810 (0.4672)	0.7426 (0.4388)
Brother of HH Head	Dummy indicating migrant is the brother of household head	0.1952 (0.3973)	0.1838 (0.3888)
Married	Dummy indicating migrant is married	0.3238 (0.4690)	0.3015 (0.4606)
Age	Age of migrant	25.4667 (8.7731)	25.2206 (7.9932)
Secondary Education	Dummy indicating migrant has at least secondary attainment	0.1143 (0.3189)	0.1250 (0.3319)
Employed	Dummy indicating migrant is employed at destination	0.4952 (0.5012)	0.5809 (0.4952)
Time Abroad	Number of years at destination	2.2020 (1.7377)	2.4632 (1.6814)
<i>Household Characteristics</i>			
HH Income	Log of average monthly household income per capita excluding remittances (in USD)	2.7784 (1.1686)	2.6576 (1.15136)
HH Size	Number of household members	8.8000 (2.4137)	8.9632 (2.2324)
Other Migrants	Number of other migrants from the same household	0.6286 (1.2699)	0.4338 (0.9002)

Beyond those factors to be used in our empirical model, we also have basic information regarding the purpose and regularity of remittances being sent which helps to provide context. Of those migrants that transferred money home, 56 percent said they did so without any particular reason in mind while another 25 percent did so to be spent on daily needs, nine percent on ceremonies like wedding or funerals, seven percent on debt payments and two percent for healthcare or education. As for regularity, ten percent of migrants

sent money every month while another 38 percent every six months, 28 percent every year and 25 percent irregularly.

Empirical Approach

Our main objective is to highlight the relationship between remittance behaviour and an implicit risk-coping household arrangement, indicated by debt-financed migration. The empirical strategy therefore incorporates identification at both the extensive and intensive margin, and includes a range of individual and household characteristics that have been recognized in the literature to likely influence remittance behavior. The basic equation of interest expressing remittance behavior is:

$$\text{Remit}_i = f(\text{Debt_Mig}_i, X_i, Y_i, Z_i)$$

where Debt_Mig_i indicates whether migration was financed by taking on a formal or informal loan from family and friends; X_i indicates characteristics of the individual migrant; Y_i indicates characteristics of the receiving household at origin; and Z_i indicates control variables including migrant destination, ethnicity, district type and province.

In estimating this equation however, it is necessary to take into account that a substantial portion of our sample, 35 percent, do not remit. Therefore because the distribution of our dependent variable, remittance behaviour, is both of a discrete and continuous nature an OLS estimation would lead to biased and inconsistent results. In order to deal with this censored dependent variable we employ a zero-censored tobit model expressed by the following equation:

$$\text{Remit}_i = \alpha_0 + \beta_1 \text{Debt_Mig}_i + \beta_2 X_i + \beta_3 Y_i + \beta_4 Z_i + u_i$$

where:

$$\begin{aligned} \text{Remit}_i &= \max(0, \text{Remit}_i) \\ u_i &\sim N(0, \sigma^2). \end{aligned}$$

As indicated, the standard tobit model assumes linearity of the latent variable and censors the amount remitted to equal zero if the migrant does not remit. While another option is to use a two-step Heckman selection model, there is little theoretical or empirical evidence to assume different factors influence the propensity to remit and the amount remitted, making this type of specification highly sensitive to identification exclusion (Gubert, 2002; Amuedo-Dorantes and Pozo, 2006). The zero-censored tobit model on the other hand allows the same covariates to influence both functions while assuming normality and homoscedasticity of the residuals.

Results

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Table 3 provides the estimates of the tobit model for the total amount remitted over the past year. Apart from the coefficients along with robust standard errors, the marginal effects for the probability of remitting and the amount remitted if remitting are also presented. As a matter of parsimony, the control variables used in the model are not reported.

Table 3: Tobit Estimates for the Total Amount Remitted

	Coefficient	Robust SE	Marginal Effect: Probability of Remitting	Marginal Effect: Amount Remitted if Remitting
<i>Migrant Characteristics</i>				
Debt-Financed Migration	-0.9341*	(0.5583)	-0.0731*	-0.5623*
HH Head	2.0071	(2.2068)	0.1212	1.3588
Son of HH Head	4.0752**	(1.8257)	0.3700**	2.1980**
Brother of HH Head	2.8767	(1.8938)	0.1757**	1.9404
Married	-0.1910	(0.8351)	-0.0152	-0.1139
Age	0.0290	(0.1907)	0.0023	0.0174
Age Squared	0.0005	(0.0028)	0.0000	0.0003
Secondary Education	0.0713	(0.8901)	0.0056	0.0429
Employed	2.6682***	(0.8539)	0.2090***	1.6030***
Time Abroad	3.1172***	(0.5394)	0.2462***	1.8676***
Time Abroad Squared	-0.3502***	(0.0791)	-0.0277***	-0.2098***
<i>Household Characteristics</i>				
HH Income	-0.9861***	(0.2506)	-0.0779***	-0.5908***
HH Size	0.2927**	(0.1333)	0.0231**	0.1754**
Other Migrants	-1.0507***	(0.3909)	-0.0830**	-0.6295***
Observations	210			
Uncensored Observations	136			
Adj. R-Squared	0.1252			

Note: Control variables not reported include *Migrant Destination, Ethnicity, District Type and Province*. Significance Levels: * p<0.10, ** p<0.05, *** p<0.01.

Looking first at our principal variable of interest, we notice remittance behaviour is decreasing with debt-financed migration and the result is statistically significant at the ten percent level. Indeed, those migrants who took on a formal or informal loan to help pay for their trip are on the margin seven percentage points less likely to send remittances in the first place. And when they do send, the level of remittances is 0.56 less of the log total amount. This finding runs counter to the hypothesis that remittances may be part of a risk-coping strategy which involves debt-financed migration. While this may indicate debt-financed migrants are simply less capable of sending remittances because they originate from poorer households in the first place, a simple mean difference test of household income between the groups shows no significant difference.

Regarding those characteristics of the migrant which are statistically significant, we observe sons of the household head are 37 percentage points more likely to send money home and send 2.20 more of the log total amount. Similarly, brothers of the household head have a higher propensity to remit, yet there is no statistical significance in terms of amount. Not surprisingly remittance behaviour for those migrants who are employed abroad is likewise in-

creasing, even though factors related to earnings potential including age and educational level are statistically insignificant. Lastly, the relationship with duration of time abroad appears to follow an inverted-U curve, with migrants early on showing an increasing propensity to remit at a higher level, before tapering off in the long run as indicated by the squared term.

Turning to household characteristics, we observe that a higher per-capita income is associated with a slightly lower propensity to remit by the migrant at a lower level, while in a similar vein larger households are more likely to receive remittances at a higher level. Additionally, remittance behaviour is decreasing with the number of other migrants from the same household also abroad, as likelihood of sending remittances drops eight percentage points for each additional migrant while absolute level declines 0.63 of the log total amount.

Conclusion

In this study, our goal has been to unpack the motivations behind remittance behaviour of Afghan migrants by utilizing the way in which migration is financed as a discriminating factor. Our conjecture is that if remittances are sent as part of a household risk-coping strategy based on an implicit contractual agreement, then we should see a positive relationship between remittance behaviour and whether the costs of migration are covered by taking on a loan. No such evidence however is found in the results of our empirical analysis. On the contrary, a debt-financed migrant is in fact less likely to send remittances and to send less in absolute terms when remitting.

What is more, the effects of certain individual and household characteristics of interest are in line with what we would expect if altruism is the dominating explanation. Aside from the fact that remittance behaviour is increasing with migrant employment and household size and decreasing with household income, relationships which by themselves fail to unambiguously explain remittances through altruism, the fact that remittance behaviour is decreasing in the presence of more migrants from the same household indicates altruistic motivations. Furthermore, the inverted-U relationship regarding time abroad suggests remittance behaviour increases in the early stages abroad as migrants adapt to their environment and increase their potential to earn, and only later declines as social contact with those at origin begins to fade.

Even though we do not find evidence that Afghan migrants in our sample send remittances as part of a household risk-coping arrangement, this is not to say that migration of a household member in and of itself is not part of any such strategy. Given the realities of the situation in Afghanistan, sending a household member abroad may be less about having an alternative source of income and more about having an alternative location to escape towards if the security situation takes a turn for the worse. Such a thought is particularly relevant in light of the withdrawal of international troops by the end of 2014 and the understandable concern for a rise in insecurity which is widely believed to

follow. Moreover, given the shortage of remittance senders available in our dataset it is necessary to reflect on these results with caution. In particular, the low number of households acknowledging receipt of remittances is not uncommon in such an environment and may represent under-reporting. Still, if such under-reporting is systematic it should not fundamentally alter the results found in the analysis.

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