

Remittances and financial inclusion –

An empirical analysis of their relationship based on evidence from Honduras

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List of abbreviations

<i>AHIBA</i>	<i>Asociación Hondureña de Instituciones Bancarias</i>
<i>ATM</i>	<i>Automated Teller Machine</i>
<i>BCH</i>	<i>Banco Central de Honduras</i>
<i>CNBS</i>	<i>Comisión Nacional de Bancos y Seguros</i>
<i>EE.UU.</i>	<i>Estados Unidos de America</i>
<i>FACACH</i>	<i>Federación de Cooperativas de Ahorro y Credito de Honduras</i>
<i>GDP</i>	<i>Gross Domestic Product</i>
<i>GLM</i>	<i>Generalized Linear Model</i>
<i>HDI</i>	<i>Human Development Index</i>
<i>HL Test</i>	<i>Hosmer Lemeshow Goodness-of-Fit Test</i>
<i>IMF</i>	<i>International Monetary Fund</i>
<i>INE</i>	<i>Instituto Nacional de Estadística</i>
<i>LAC</i>	<i>Latin America and the Caribbean</i>
<i>MFI</i>	<i>Microfinance Institution</i>
<i>MLE</i>	<i>Maximum Likelihood Estimation</i>
<i>MTO</i>	<i>Money Transfer Operator</i>
<i>NELM</i>	<i>New Economics of Labor Migration</i>
<i>NGO</i>	<i>Non-Government Organization</i>
<i>PPP</i>	<i>Purchasing Power Parity</i>
<i>Redmicroh</i>	<i>Red de Instituciones Microfinancieras de Honduras</i>
<i>USA</i>	<i>United States of America</i>
<i>USD</i>	<i>United States Dollar</i>
<i>WOCCU</i>	<i>World Council of Credit Unions</i>

Chapter 1

Introduction

The research design chosen for this empirical study is complex, combining two, albeit closely connected, research questions with three types of data, collected specifically for this research and two different methods of data analysis. The objective of this work is to produce new insights and to present results on the subject under study: The relationship between remittances and financial inclusion in Honduras.

1.1 Research questions

This research project is located at the junction of two broader areas of research, which will be presented in detail in the literature review in Chapter 2. Finance and development or research on financial inclusion on the one hand investigates how the development of the financial system in terms of breadth and depth for example relates to the development of a country in terms of growth for example (Levine 2005; Zhuang et al. 2009; Beck 2011). On the other hand, at an individual level it often analyses whether or how access to the financial system can be beneficial or not to individuals or firms (Demirgüç-Kunt et al. 2008; Bannerjee and Duflo 2010).

Research on remittances and development, as the second research area, analyses how remittances, that is, the money migrant workers send home to their families from abroad, affects the development of the receiving countries or how this money affects the well being of the individual recipients and their families (OECD 2005; De Haas 2007; Ratha 2007). Both topics are high on the agenda for researchers and practitioners working on issues of international development and poverty reduction; nevertheless, not much research has been conducted yet at the intersection between these two areas, which in practice are very closely connected, since in many countries remittances are primarily paid out via the financial system.

The regional focus of this research is on Honduras as a country case study. The Honduran context has generally been characterized by high outflows of migrants in the last few decades, receiving important levels of remittances, but also by relatively low levels of financial inclusion. Compared to other countries in the region, which have received more attention especially in remittances research, few studies have focused on Honduras specifically. The relevance of this research for the country case study Honduras can be derived, on the one hand, from the importance these issues have for this country and, on the other, from the positive developmental effects they can produce. Both of these points will be stressed more closely throughout the study in Chapter 2 and Chapter 3.2 in particular.

The following two research questions will be addressed and analyzed by this study:

Research question 1: Which factors determine financial inclusion among the receivers of remittances in Honduras?

Research question 2: How do remittances affect access barriers to finance and which factors currently prevent or promote the financial inclusion of the receivers of remittances in Honduras?

The two concepts that are applied in this study, financial inclusion and access barriers to finance, are closely connected. While financial inclusion refers to the actual use of financial services, such as holding an account, access barriers to finance are those obstacles that prevent people from accessing and using financial services (Demirgüç-Kunt et al. 2008). Access barriers can have their origin on the demand side, for example the level of (financial) education and income of an individual, or on the supply side, for example the product features and pricing of financial products, but may also be related to context factors, such as the general economic situation of a country or its financial regulation. This discussion will be continued in greater depth in Chapters 2, as well as Chapters 3.3 and 3.4.

The focus of the first research question is on the receivers of remittances and essentially compares how those individuals, who use financial services in Honduras and therefore are financially included differ from those who do not. This first research question is more narrowly focused on remittances receivers from one Honduran bank and looks primarily at demand side factors. The second research question takes a sector-wide approach by including evidence from different Honduran financial, and other relevant institutions, taking into account demand, supply, and context factors. Although the focus of the second research question is also on the financial inclusion of the receivers of remittances it does include some interesting aspects regarding the financial inclusion of the senders of remittances.

Due to the nature of the research questions, which are located between two broader areas of research, this study draws on different theoretical concepts, which will be defined and contextualized throughout the study, especially in Chapter 2 and Chapters 3.3 and 3.4, respectively.

1.2 Data and methods applied

Since household surveys in Honduras, which are regularly carried out by the National Statistical Institute, do not provide the detailed information necessary to carry out a meaningful analysis of remittances and financial inclusion and no other stand-alone survey on these topics exists for Honduras, the researcher decided to collect her own data in order to contribute to this field of research. While the process of collecting data is very complex and time-consuming, it also provides the opportunity to collect exactly the information needed for the analysis and gives better control over the quality of the data.

Three different types of data were collected for this research: Standardized interviews with remittances receivers from one Honduran bank, qualitative expert interviews with representatives from the Honduran financial sector, and observational data collected mainly from the websites of financial institutions, which provided additional relevant information for this research. The data sets complement each other since they provide demand and supply side information, but also different points of view from a macro, meso and micro perspective. The complete process of data collection will be presented in Chapter 3.1.

To analyze the first research question, standard quantitative methods were applied in the form of a binary logistic regression model, where a measure of financial inclusion is a dependent variable and a series of socioeconomic and other relevant variables are independent variables. For the second research question a less common path was taken, at least when it comes to economic research, by connecting all three types of data and applying a mixed method approach for the sector wide analysis. This research therefore combines distinct approaches to analyzing data that were collected specifically for this research project for a country where these issues are of high relevance, but little research exists.

Following this short introduction, Chapter 2 will provide an overview of the relevant literature in the two main research fields that are connected to this study: Finance and development, as well as remittances and development. It also presents current research at the intersection of finance and remittances, thus putting the work presented here into context and identifying the contribution of this study to the existing body of research.

Chapter 3 constitutes the main part of this study and is divided into four sections. Section 3.1 explains in detail the data that were collected for this study and how they were collected and prepared for analysis. This is followed by a presentation of the Honduran context in section 3.2, which describes the regional setting for the empirical analysis and also underlines the importance of these topics for Honduras. The following two sections present the empirical analysis of the data and the results that were obtained. Section 3.3 contains the quantitative analysis of remittances receiver interviews, presenting results for the first research question on the determinants of financial inclusion among remittances receivers. Section 3.4 makes use of all the available types of data through a mixed-method approach, presenting results for the second research question concerned with the effect of remittances on access barriers to finance and the factors that promote or prevent financial inclusion of remittances receivers in Honduras.

Chapter 4 presents the final conclusions from this research project, identifies areas for further research, and generally wraps up this study. A complete bibliography of all the sources used during this research will be included in Chapter 5 and will be followed in Chapter 6 by a detailed annex containing all tables and other relevant documents and materials.

Chapter 2

Literature review: Finance, remittances, and development

2.1 The finance and development nexus

Finance and development, as well as the drive for financial inclusion as their policy expression, are important topics on the global agenda. This is evidenced, for example, by the Financial Inclusion 2020 initiative, which brings major donors, such as the United Nations and the World Bank, as well as many private stakeholders, such as Citibank and Visa, to the table to promote a roadmap for achieving financial inclusion by the year 2020. Another recent initiative is the Alliance for Financial Inclusion, which was founded in 2008 and includes members from more than 90 countries working together to advance its mission of accelerating the adoption of proven and innovative financial inclusion policy solutions.¹ Why does financial inclusion remain important and high on the global agenda?

From a macro perspective there is an increasing amount of evidence for a significant and positive relationship between finance and growth (Levine 2005, Beck 2011, Demirgüç-Kunt et al. 2008), with some authors even arguing for a causal relationship (Christopoulos and Tsionas 2003; Calderon and Liu 2003). Other authors have also found evidence for a positive relationship between financial development and poverty reduction (Zhuang et al. 2009, Jalilian and Kirkpatrick 2001, Honohan 2004). Obviously these are not uncontested positions, but they do reflect the greater part of research results.² The theoretical foundation for this positive relationship is found in Schumpeter's "creative destruction", where resources are allocated to efficient newcomers (Beck and de la Torre 2006), as well as in the basic functions of the financial system, such as generating information about investments and allocating capital, monitoring investments, facilitating the diversification and management of risk, mobilizing and pooling savings, as well as in easing the exchange of goods and services that contribute to economic development and growth (Levine 2005). The theoretical argument relating financial development to poverty reduction is based mainly on the idea that access to finance allows people to accumulate assets and invest into productive projects, which can raise their incomes (Honohan 2004).

After World War 2, in the early days of international development politics, state-led development was on the agenda. Financial systems in developing countries were usually controlled by their governments, through subsidized interest rates and capital controls. State-owned banks were seen as being necessary to direct credit towards farmers and producers, often through funding received from international development agencies (World Bank 2005). The focus was on lending and not on deposit collection since it was essentially believed that people were too poor to save and needed resources to generate

¹ More information on these initiatives can be found online at:

<http://www.centerforfinancialinclusion.org/fi2020> and <http://www.afi-global.org/>.

² An example of a study that finds a negligible and for some countries even negative relationship between financial development and growth is: Ram, R (1999), Financial development and economic growth, additional evidence, *Journal of Development Studies*, Vol. 35, pp. 164 - 174.

income (Vogel and Adams 1996). The drive for financial market liberalization started in the 1970s with contributions by McKinnon (1973) and Shaw (1974), who argued against financial repression. The change towards the financial market paradigm took place some years later, in an environment characterized by a general move towards more privatized and liberalized economies. In development finance discontent increased with the impact of directed credit, which much too often was given to political elites rather than to small-scale producers and which was characterized by low payback rates and generally had few results to show for itself (Roodman 2012). New insights into the functioning of credit markets were provided by Stiglitz and Weiss (1981), who showed that, because of asymmetric information and moral hazard, credit was rationed even at market equilibrium. Hence, people were excluded from the financial system, but directed credit was not providing a satisfactory solution for this problem.

Although different institutions providing financial services to poorer populations have essentially existed for over a century, such as cooperatives and savings banks, a new form of finance for the poor emerged in the 1980s and 1990s (Roodman 2012). Microcredit Non-Government Organisations (NGOs) applied innovative lending mechanisms, such as group lending, focusing primarily on poor women and their small scale businesses. The idea of poor entrepreneurs working their way out of poverty with a small loan was very attractive to donors and fit the Zeitgeist of economic thinking. Microcredit took off and 2005 was proclaimed the Year of Microcredit by the United Nations and in 2006 Muhamad Yunus received a Nobel Peace Prize for this idea together with the Grameen bank, which he had founded (Roodman 2012).

Research results and practical experience soon made clear that poor people need a diversity of financial products and services, not just credit (Rutherford 1999; Matin et al. 2002). So the focus shifted from microcredit to the more diverse approach of microfinance and later on to financial inclusion, which is oriented at providing a range of financial products, such as deposit accounts and insurance, to the poor (Ledgerwood and Gibson 2013). The most well-known approach in microfinance, group or solidarity lending, was not suitable for all social contexts; thus, other lending mechanisms such as individual credit and village banking were introduced (Roodman 2012). There was also a shift from Microfinance NGOs to a full range of institutions, including cooperatives, savings banks, and even commercial banks, that, through strategies of downscaling provided financial services to the poor (UNCDF/DESA 2006), making it difficult at times to identify and distinguish microfinance providers. An important contribution by Ströh (2010) convincingly shows, how this diversity of institutions and approaches is crucial for attending to the diversified financial management needs of current and potential microfinance clients. A final development of the past few years is a notable drive towards commercialization of microfinance, including the emergence of specialized microfinance investment funds with the objective to fulfill both a social and a profitable mission (Dieckmann 2007).³

³ "Commercialization of microfinance generally refers to the application of market-based principles and to the movement out of the heavily donor-dependent arena of subsidized operations into one in which microfinance institutions 'manage on a business basis' as part of the regulated financial system" (Christen and Drake 2002: 4).

Recently, microfinance has been questioned on several grounds: Two impact studies, based on experimental evidence, provided -- at best -- very mixed results on the impact of microcredit, generating a broad discussion about its effectiveness as a tool to fight poverty (Banerjee et al. (2013); Karlan and Zinman (2009)). This discussion is now continuing with an additional study showing more positive impacts, but basing results on a very different method of evaluation (Khandker and Samat 2014). Several countries with extensive microfinance activities have experienced crises due to over indebtedness of microcredit clients, which has led to serious political backlashes against microfinance (Roodman 2012).⁴ A third topic under discussion is questionable business practices, which was published by a former employee of a microfinance investment fund (Sinclair 2012).

One convincing argument in favor of microfinance and financial inclusion is that without it poor people must rely on their own funds to invest in their education, become entrepreneurs, or take advantage of promising growth opportunities (Demirgüç-Kunt et al. 2008). Being poor means not having much money at your disposal, which seriously limits the possibilities of this population. Important recent research based on the financial diary method, provides better information on the complex financial lives of the poor and the different formal and informal methods and strategies they use for saving, borrowing, consumption smoothing and investment (Collins et al. 2009). This knowledge is of great help for designing useful financial products and services for the poor and together with a change of paradigm in evaluation methods towards experimental evidence, it seems the focus is now on determining when and how finance for the poor can be helpful and under which circumstances impact can be reached.⁵ Notably, the drive for financial inclusion has been accompanied by a series of (technological) innovations, such as mobile money and correspondent banking (Ledgerwood and Gibson 2013), and a special focus has also been placed on the importance of financial literacy as a prerequisite to understanding and effectively using financial tools (see, for example, Xu and Zia 2012; Master Card Foundation 2011).⁶

Financial inclusion is typically defined as the proportion of individuals and firms that use financial services (IFC/The World Bank 2014: 1). It is not the same as access to finance because a person can have access to finance but choose not to use financial services and in that sense voluntarily excludes him or herself from the financial system (Demirgüç-Kunt et al. 2008). A person, who is involuntarily excluded from the financial system, in contrast,

⁴ Andhra Pradesh, a southern Indian state, and Nicaragua present two examples of regions, where over indebtedness of clients, as well as high microcredit interest rates, led to state interventions, as well as a no payment movements, where clients as a group decided not to pay their loans back to financial institutions.

⁵ Examples of studies include work on Commitment Saving (Ashraf et al. 2006; Brune et al. 2011), Group vs. Individual Liability (Gine et al. 2009); The impact of business training (Karlan et al. 2006); The impact of improved personal identification (Gine et al 2011).

⁶ The terms financial literacy and financial capability are sometimes used interchangeably, but they do have different implications: "*Financial literacy is primarily concerned with the knowledge of how to best manage one's finances. It endeavors to impart information and cultivate understanding while also affecting behavior. Financial capability similarly includes information and knowledge elements, but is distinct in that its core emphasis is on attitude and behavior change*" (World Bank Institute, available online at: <http://wbi.worldbank.org/wbi/content/africa-regional-dialogue-financial-literacy-and-capability>).

may face a variety of access barriers. Although there is no uniform classification of these access barriers, most studies identify more or less the same relevant issues.⁷ Beck and de la Torre (2006), for example, classify access barriers based on different types of limitations: Geographic limitations, that is, how far the nearest branch is from where you live, socioeconomic limitations, which include high costs, credit rationing, financial literacy, discrimination, and documentation, and, finally, limitations in opportunity, when talented newcomers with profitable projects lack collateral and connections to receive financing. An in-depth discussion of access barriers to finance will follow in Chapter 3.4.

A major obstacle for advancing the understanding of access to finance and financial inclusion has been a lack of coherent data on these issues since household surveys typically do not supply the type of information or detail of information that is needed (Honohan 2004a). Recent efforts by multiple institutions have focused on collecting better data from both the supply side and the demand side. For supply-side data on financial inclusion, data from regulators or financial institutions on their geographic outreach and on the number of accounts or clients they serve are gathered directly (CGAP 2010; IMF 2013). Not all institutions that provide financial services to the poor are supervised by national regulators, however, and therefore many inconsistencies and information gaps remain. Demand-side data implies surveying people on their demand and use of financial services. This can either be done by adding additional question or modules to household surveys or by implementing stand-alone surveys on these issues (Honohan 2004a). Recently, there have been considerable efforts in both directions (Demirgüç-Kunt and Klapper 2012; World Bank 2009; World Bank 2010). Many questions about the measurement of financial inclusion remain, though, since voluntary exclusion is difficult to identify (Beck and de la Torre 2006) and knowing how many people hold an account does not imply knowing, whether these accounts are used or how useful they actually are. Nevertheless, important advances are being made, which help us to better understand the determinants of financial inclusion at both the country and the individual level (Allen et al. 2012; Chaia et al. 2009; Kumar 2005). This research aims to complement these efforts by providing evidence on the determinants for financial inclusion of remittances receivers in Honduras, based on data collected specifically for this research project.

⁷ Different classifications of access barriers can be found in: Honohan, Patrick (2004), *Measuring Microfinance Access: Building on existing cross-country data*, Paper prepared for the UNDP, World Bank and IMF Workshop, *Data on the Access of Poor and Low Income People to Financial Services*, Washington, DC, October 26, 2004; Beck et al (2006) *Banking services for everyone? Barriers to Bank Access and Use around the World*, World Bank Policy Research Working Paper 4079, World Bank Washington D.C.; Ellis et al (2010), *Investigating the impact of access to financial services on household investment*, Overseas Development Institute, UK.

2.2 The remittances and development nexus

International remittances, the money migrants send home to their families from abroad, have grown steadily over the last few decades.⁸ After a dip during the financial crisis in 2009 they resurged totaling at USD 404 billion worldwide in 2013 (World Bank 2014). In some receiving countries particularly in Central Asia and Latin America remittances are as high as 15 - 50% percent of GDP (World Bank 2014). At the beginning of the new millennium donors seem to have "discovered" remittances as a new source of finance for development, which is evidenced by a whole series of flagship reports published on this topic (Ambrosius et al. 2012).⁹ Remittances have even been discussed as a new mantra for development (Kapur 2004). The attractiveness of remittances is, for one, that they go directly to poor people, without passing through donors offices and government bureaucracies, providing additional income to their receivers without creating the governance problems sometimes associated with official aid (Ratha 2007). At the macro level their contribution is seen in the potential to stabilize the capital account of receiving countries because they do not create liabilities in the future and, contrary to other sources of external finance they are more stable or even countercyclical (Fritz et al. 2012).

As has been observed by Ambrosius (2012), a shift in paradigm from a more negative view of the development effect of remittances rooted in the structuralist school of thought to a more positive view of their development effects has taken place in recent years. The pessimistic view on migration and remittances, based on the historical-structuralists paradigm, emphasized how the outflow of migrants broke down traditional and stable village economies, leaving passive and non-productive communities behind, where remittances did not spur local development because they were spent on consumption, rather than on productive investments (De Haas 2007). This was in line with a generally negative view of the insertion of developing countries into the world economy, which was believed to create dependency rather than development (Frank (1967); Cardoso and Faletto (1979)).

A different and more nuanced perspective on migration, remittances, and development was introduced by the New Economics of Labor Migration (NELM) literature (Bloom and Stark 1985; Stark and Lucas 1988; Stark 1991). This approach models migration and remittances as an intra-household decision and therefore departs from the unrealistic view of purely individual welfare maximization (Rapoport and Doquier 2005). Motives for sending remittances can lie between pure altruism (to support ones family back home) and pure self interest (to secure access to inheritance) and may reflect mutually beneficial, informal contracts between household members, with the objective to provide each other with income insurance or to geographically pool risk (Taylor 1999). This approach provided for a more optimistic view of the developmental effect of migration and remittances and a

⁸ Part of this growth may be simply due to changes in measurement and not due to a real increase in remittances flows (Fritz et al. 2012; Clemens and McKenzie 2014).

⁹ See, for example: The World Bank (2006) Global Economic Prospects - Economic Implications of Remittances and Migration; OECD (2005) Migration, Remittances and Development; UNDP (2007) Informe sobre Desarrollo Humano México 2006 - 2007 - Migración y Desarrollo Humano; UNDP (2009) Overcoming barriers - Human Mobility and development.

fairly large body of literature has since set out to verify the existence and consequences of these different motives for sending remittances (see, for example, Agarwal and Horowitz 2002; Yang and Choi 2007).

At the macroeconomic level research on remittances has focused on various issues, such as the macroeconomic determinants of remittances (Vargas-Silva and Huang (2005); Coulibaly (2009); Adams (2008)), the countercyclical behavior of remittances (Frankel 2009; Sayan 2006), and the effects of remittances on the real exchange rate and the likelihood of receiving countries to suffer from Dutch Disease effects (Amuedo-Dorantes and Pozo (2004); Rajan and Arvind (2005); Lartey et al. (2008)). Another major focus of macroeconomic research has been concerned with the effect remittances have on economic growth in the receiving country. While several studies have found a positive impact of remittances on growth, especially for Latin America (Ramirez and Sharma (2008); Garcia-Fuentes and Kennedy (2009), Fajnzylber and López (2008)), other studies find no or even negative effects on growth (IMF (2005); Barajas et al. (2009)). A study by Clemens and McKenzie (2014) offers an explanation for the difficulty of determining the real growth effect of remittances by pointing out that the rise in remittances may come from a change in measurement and not a change in real financial flows. A final set of studies analyzes the effect of remittances on poverty levels and inequality in receiving countries. While there seems to be more agreement on the potential of remittances to lower poverty (Acosta et al. (2008); Yang and Martinez (2007)), there is ambiguous evidence for its effects on inequality. A regional study on Latin America found that remittances have a tendency to lower inequality (Fajnzylber and López (2008)), while a study on Africa (Anyanwu 2011) found the opposite to be true for this region. This contradiction might be explained by an inverted U relationship between remittances and inequality, where early in the migration history inequality increases, while later through the sending of remittances it decreases (Koechlin and Leon 2005; Docquier and Rapoport 2003).

Many recent studies at the microeconomic level have found direct positive effects of remittances based on their spending in education (Cox-Edwards and Ureta 2003, Amuedo-Dorantes et al. 2008, Acosta 2006; Alcaraz et al. 2010; Osorio 2010), health (Amuedo-Dorantes and Pozo 2009, Drabo and Ebeke 2010, Valero-Gil 2008, Hildebrandt and McKenzie 2005) or microenterprise (and other) investment (Woodruff 2007, Bjuggren et al. 2010). Although the majority of the findings of these microeconomic studies are positive, some studies have found negative effects, at least for educational attainment and business ownership (Köllner 2013, Amuedo-Dorantes and Pozo 2006).

Apart from the direct development effects of remittances, based on how they are spent, there are also indirect effects, such as the effect of migration and remittances on labor market supply and further multiplier effects in the economy (Ambrosius 2012). A majority of studies seem to find that migration and remittances tend to lower market labor participation of the receiving households (Kim 2007; Hanson 2007; Justino and Shemyakina 2012). A study from Moldova, though, shows that this does not necessarily imply that remittances receivers consume more leisure, but rather they might be investing more in higher education (Görlich et al. 2007). A study by Acosta (2007) found that while labor

participation is lower in remittances receiving households, self-employment and business ownership is in effect higher.

2.3 Remittances and financial development

An additional indirect development effect that has not yet received much attention in research is the effect remittances have on financial development or, to put it differently, the access that remittances receivers have to the financial system and whether remittances can serve as a vehicle to foster financial inclusion. A priori remittances could either be a substitute for financial services or they could, in contrast, improve receiving households' access to finance (Ambrosius 2012).

A small, but growing body of research is being carried out at the junction between remittances and financial development. Studies in this area often take a macro approach and focus on the effect of remittances on the development of the financial system and its connection to economic growth. There are two opposing views as to how remittances contribute to economic growth in this context. A paper by Guliano and Ruiz-Arranz (2006) finds that remittances boost growth in countries with less developed financial systems by providing an alternative way to finance investment and help overcome credit constraints. In contrast, Mundaca (2008) reports for Latin America and the Caribbean that financial intermediation tends to increase the responsiveness of growth to remittances. Under these circumstances, increased financial inclusion of remittances receivers will foster growth in receiving countries. A contribution by Fritz et al. (2012) suspects that the high level of informal remittances in countries with poorly developed financial systems may produce the surprising results presented by Guliano and Ruiz-Arranz.

A number of empirical studies for different countries or regions have analyzed the relationship between remittances and financial development and mostly show positive results. A study from El Salvador finds that remittances have a positive effect on financial inclusion by promoting deposit accounts, but do not seem to have the same effect on credit (Anzoategui et al. 2011). A study for Mexico shows that remittances have an important impact on ownership of savings accounts and the availability of borrowing options (Ambrosius 2012). Another study on Mexico finds that remittances are strongly associated with greater banking breadth and depth, increasing accounts per capita and the ratio of deposits to gross domestic product (Demirgüç-Kunt et al. 2009). A cross-country study on 99 developing countries finds strong support for the notion that remittances promote financial development in developing countries (Agarwal et al. 2006). Outside of the Latin American continent, a paper on Sub-Saharan Africa finds that remittances promote financial development (Gupta et al. 2007). There are also studies, albeit fewer, that find a negative relationship between remittances and financial development. Examples include studies for Azerbaijan and Kirgizstan, as well as Turkey (Brown et al. 2011; Akkoyunlu 2012).

Most micro level research on the relationship between remittances and (micro)finance is based on case study evidence. A study by Orozco (2008) presents an in-depth analysis of six microfinance institutions in Latin America and how they are linking remittances transfers to

financial products. Research by Stiegler (2013) looks at the potential for financial inclusion of remittances through three transnational governance initiatives in Mexico. A series of studies led by the World Bank investigates specific remittances corridors, from the first mile, where remittances are sent, to the intermediary stage, to the last mile, where they are received, analyzing their potential for financial inclusion along the way, while taking regulatory, institutional, and technological factors into account (Hernández-Coss 2005; Cheikhrouhou et al. 2006; Endo et al. 2009). Market research carried out by Acción (2008) looked at how different types of remittances vary in their potential for financial inclusion. Segmenting the market by stage in the immigration life cycle can help determine how remittances are used and what financial products can be offered. This is based on the idea that motives for sending remittances, apart from supporting the family back home, may change during the life cycle. Early on migrants might be concerned with paying off migration-related debt, followed by improving or acquiring a house, while questions of returning home or staying affect motives for sending remittances in a later stage.

Finally, interesting new evidence on remittances and finance has been provided by recent experimental research. Ashraf et al. (2010) use a randomized field experiment to investigate the importance of migrant control over the use of remittances and found that the treatment that offered migrants the greatest degree of control over savings at a bank in their home country had the highest impact on savings accumulation, as compared to groups offered less or no control over savings. These results are supported by another randomized study which offered migrants the possibility to save in the US and found that it raised savings, suggesting that issues of control affect intra-household resource allocations (Chin et al. 2011). A study from Ireland reported that increased communication between migrants and their families increased the values of remittances, also attributing these results to enhanced migrant control and trust (Batista and Narciso 2013).

2.4 Positioning of the research questions

The aim of this research is to enhance our understanding of the relationship between remittances and financial inclusion in two ways. Firstly, it connects to the literature on financial inclusion, especially to those studies that investigate the determinants of financial inclusion by providing evidence on the factors relevant for the financial inclusion of remittances receivers in Honduras. In its analysis it takes into account the socioeconomic characteristics found in studies on determinants of financial inclusion of the general population as well as factors related to migration and transnational families, which have been described by the NELM approach, and issues such as monitoring, control and communication, which have recently been addressed in experimental research. The second objective of this work is to analyze the relationship between remittances and access barriers to finance, which have been described by the literature as relevant obstacles for meeting the goal of financial inclusion. Through the combination of quantitative and qualitative data the present study describes how, in the Honduran context, remittances relate to access barriers to finance and which factors, such as the economic context, regulatory environment, as well as institutional, and individual level characteristics can prevent or promote their contribution to the financial inclusion of remittances receivers and senders.

Chapter 3

Empirical evidence from the case study Honduras

3.1 The Data

The research carried out in this thesis draws on three basic sources of data: (1) Standardized interviews with remittances receivers, (2) Expert interviews with relevant players from the Honduran financial market, and (3) Publicly available information from financial and other institutions. All three sources of data were collected by the researcher herself during field study between January 2012 and August 2013 in Honduras.¹⁰

This subchapter will explain the different data sources in detail, how and when they were collected, which problems were encountered along the way, and how these problems were dealt with. It will also explain how the data were prepared for analysis and which tools and methods were used during this process. It will make clear which kinds of questions these data can and cannot answer and where the qualities, but also the limitations of the datasets lie.

3.1.1 Standardized interviews with remittances receivers

All interviews with remittances receivers were carried out in cooperation with ProCredit Bank Honduras.¹¹ ProCredit is a specialized small and medium enterprise finance bank that operates in 22 countries worldwide and has its head quarters in Frankfurt, Germany. ProCredit is still a relatively small player in the Honduran market and only started to operate there in the year 2007. Nevertheless ProCredit pays out an interesting amount of remittances, over 7.5 million USD in 2013, and does so based on a contract with one of the leading remittances service providers in Honduras and the world: Western Union. ProCredit has a total of 12 branches in 6 different *departamentos*¹² and is therefore able to offer its products and services in large parts of Honduras, but also notably in more urban parts of the country.¹³

¹⁰ Publicly available information was consulted again just prior to finishing the thesis to be able to include any relevant updates.

¹¹ ProCredit kindly cooperated with the researcher during this research project, giving the researcher access to their data, their staff, organizing focus groups and data collection at their branches, as well as financing part of the data collection through hiring interviewers. In no way did ProCredit ever try to influence the orientation of the research project or the results. When consulted, ProCredit staff provided opinions and inputs during several steps of the implementation of the research project, but the researcher was always free to conduct the research in the way she deemed to be the most appropriate.

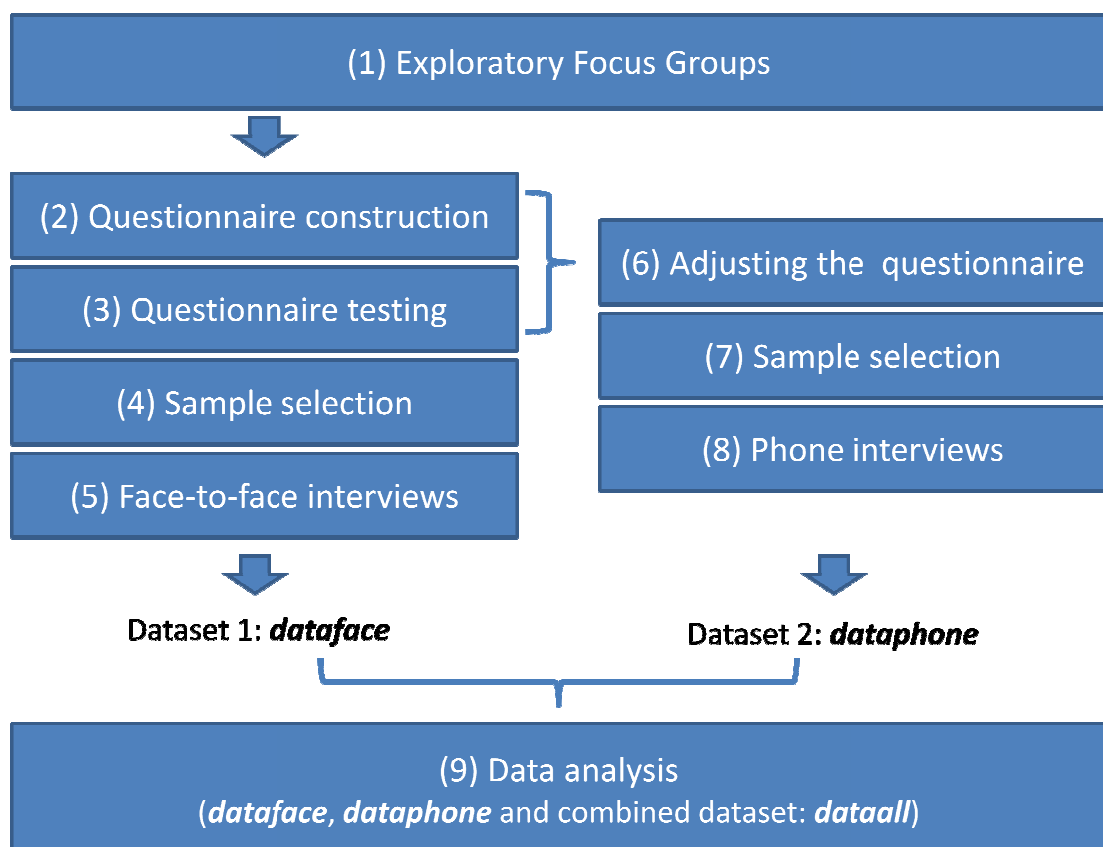
¹² Departamento (Spanish pronunciation: [departa'mento]) is the Spanish term for a department. As a country subdivision it can be found in several countries of Latin America. (www.wikipedia.org, consulted on 05.06.2014).

¹³ For a more in depth analysis of the Honduran financial market and the different institutions offering remittances as one of their services, please refer to Chapter 3.2.

A total of 679 interviews with remittances receivers were conducted using two different interviewing methods: face-to-face interviews at three different ProCredit branches and phone interviews based on a random sample taken from the list of customers who used the remittances service at a ProCredit branch between January and June 2013. In all 264 face-to-face interviews were conducted, which are more in depth, covering a wider range of questions and more detailed response options per question. Additionally, there are 415 phone interviews based on a somewhat shorter and more condensed questionnaire. The phone interviews are a random and representative sample of users of the remittances service at ProCredit, while the face-to-face interviews represent a non-probability sample of those people using the remittances service at ProCredit at the time of interviewing and who were willing and had the time to participate.¹⁴ The two datasets were analyzed individually but have also been combined into a complete dataset, which has been cleaned up for possible double entries.¹⁵

The following graph gives an overview of the data collection process and the interconnection between the two datasets and will be followed by a description and explanation of each step in the data collection process:

Graph 3.1.1: Data collection process



¹⁴ The data collected for this research are neither panel data nor the result of a randomized experiment and therefore no causal claims of the type: x is a cause for y can be made. These data are meant for correlational analysis, by which conclusions can be drawn about probabilities and likelihoods of certain results.

¹⁵ A description of how the datasets were combined will be provided in section 3.1.1.2 of this chapter.

3.1.1.1 The data collection process

Step 1: Exploratory focus groups

To begin the process of data collection and with the objective of getting to know the population of this study better, get an early grasp of important issues and receive input for the questionnaire design, two exploratory focus groups with remittances receivers were conducted in two different cities: Tegucigalpa and El Progreso.¹⁶ The essential objective of focus groups is to identify a range of points of view around the research topic and to gain an understanding of these topics from the participants point of view (Hennink 2007).

The focus groups were organized by ProCredit staff and 15 people were selected and invited via the corresponding ProCredit branch. Participants were chosen based on a prior good relationship with the bank and a resulting expected likelihood of participation. Therefore participants in the focus groups by no means are representative of ProCredit clients or remittances receivers as a whole. Although incentives and convenience were taken into account when organizing the focus groups, participation was relatively low, with 4 and 8 participants, respectively.¹⁷ Considering that this was an exploratory step within this study, it was decided not to conduct more focus groups although participation was low.

As a means of documentation and for later analysis both focus groups were videotaped. Participants were informed about this and gave their written consent prior to the beginning of the session.¹⁸ In addition, hand written protocols were prepared by a note taker. The focus groups were conducted by the researcher herself and lasted about 1 hour each.¹⁹ A discussion guide was prepared especially for the focus groups, which included questions and probes on the topics of remittances and financial inclusion (with an emphasis on savings).²⁰

Some relevant and interesting takeaways from the focus groups were:

(a) A diversity of motives for sending remittances exist, which include paying off debt, investing, paying for education, or simply to provide spending money for a family member. Sometimes beneficiaries can decide themselves what the money should be spent on, while at other times the sender sends the money for a specific purpose.

¹⁶ "A focus groups discussion is a unique method of qualitative research that involves discussing a specific set of issues with a pre-determined group of people" (Hennink 2007).

¹⁷ As an incentive and as compensation for their time, participants received a meal (supper or lunch depending on the hour of day) and the hour of the focus group was chosen so as to accommodate the individual schedule of participants. The first focus group was carried out in the evening followed by dinner. Based on the feedback received by the participants that because of security worries about being out in the evening they would have actually preferred to participate during the day, the second focus group was carried out during the day and was followed by lunch. ProCredit had previously suffered low participation at a number of their events, which is most likely due to: security worries, bad and insecure public transport, and high opportunity costs, among others.

¹⁸ A copy of the consent form that was used for the focus groups can be found in Chapter 6.2.

¹⁹ The focus group in El Progreso, Yoro with 8 participants lasted exactly 1:10:33, while the focus group in La Florencia, Tegucigalpa lasted 53:22.

²⁰ A copy of the discussion guide that was used for the two focus groups can be found in the Annex in Chapter 6.2. The objective of the discussion guide is to act as a memory aid and assist the moderator in managing the discussion (Hennink 2007).

(b) Beneficiaries acknowledge the hard work and sacrifices the senders make to be able to send them their money, but also claim that senders sometimes have wrong or unrealistic expectations about what can be achieved with the money they send.

(c) In general senders and beneficiaries communicate frequently, but these long distance relationships are not without friction and most every participant seemed to be able to share an anecdote where trust between a sender and a receiver of remittances had been lost.

(d) Attitudes towards savings and financial inclusion are very positive in general, even though saving and financial planning seem to be perceived as something that cannot necessarily be fulfilled in the present, but represent more the material of dreams for the future.

Step 2: Constructing the questionnaire

"The heart of a survey is its questionnaire" is the first line of the chapter on questionnaire design in the Handbook of Survey Research (Krossnick and Presser 2010: 263). Without doubt the questionnaire is a crucial instrument for an investigation, and research has shown that the questionnaire itself, its construction and wording can have significant effects on the results of a study (Kalton and Schuman 1982).

The first and most important aspect that was taken into account when designing the questionnaire for this research was to firmly base it on best practices, since *"Survey results depend crucially on the questionnaire that scripts this conversation (...). To minimize response errors, questionnaires should be crafted in accordance with best practices"* (Krossnick and Presser 2010: 263). This task at times may seem easier than it is because *"A questionnaire is more than a simple list of questions"* (Dillman 2008: 161). There are several important aspects that need to be taken into account, when designing a questionnaire.²¹

One of the first concerns is obviously the wording and the general design of the questions. Conventional wisdom points towards the use of simple words, easy to understand sentences, with a focus on avoiding ambiguity, while being specific and concrete and asking only about one thing at a time (Krossnick and Presser 2010). But there are more decisions that have to be made, for example concerning whether questions are left open for the respondent to answer or whether closed answer options are given. If the questionnaire contains closed answer options, then a decision has to be made on whether people can choose one or various of these options. Often the answers to questions will include some sort of a rating system, which needs to be designed carefully and if questions require quantification by the respondent, then it is important to take into account whether participants will actually be able to recall this type of information and for which timeframe they will be able to recall it (Porst 2008; Fowler and Consenza (2008)).

The above mentioned issues were taken into account when designing the questionnaire for this research: Knowing in advance that at least parts of the population under study would have very little or even no formal education, emphasis was put on simple wording and

²¹ Copies of both versions of the original questionnaires can be found in Chapter 6.2.

language, making sure through pretesting that it was easily understood.²² As far as question design, most questions were designed with closed answer options, and those giving an open answer possibility usually ask for a numerical answer. An open question was added at the end of the questionnaire, which allowed participants to voice their concerns about the survey or any other issue they wanted to mention. Only one question in the questionnaire applies a rating system, but several of the questions require the participants to recall incidents over a certain time period. These questions in particular presented challenges, because they are prone to recall error.²³ Pretesting helped to identify the best solutions for these questions.²⁴

"Survey results may be affected not only by the wording of a question, but by the context in which the question is asked. Thus, decisions about the ordering of items in a questionnaire — fashioning a questionnaire from a set of questions — should be guided by the same aim that guides wording decisions — minimizing error" (Krossnik and Presser 2010: 291). Questions that are placed at the beginning of the questionnaire need to be closely related to the topic of the survey so that participants can easily make a connection between the questions and the topic (Krossnik and Presser 2010). Otherwise participants might feel "lost" or "cheated" and can have a higher probability of drop out (Porst 2008). On the other hand, error rates might be higher for questions that are placed at the beginning because participants may have not yet made a connection with the survey. Questions that come later in the survey might suffer from fatigue. In addition it is important that the questions are ordered in a coherent way and build upon each other (Krossnik and Presser 2010). Special attention needs to be taken for sensitive questions because these might cause the participants to change their attitude towards the survey or give answers that are not truthful.

The order of the questionnaire questions for this research was decided according to the issues mentioned above. Since the survey deals with issues related to remittances and financial inclusion these topics were the ones placed at the beginning of the questionnaire. Personal questions about the participants were placed towards the middle and end. Three knowledge questions on financial literacy were purposefully put last in the questionnaire because they can cause high levels of frustration among the participants when they find themselves not able to answer them and could therefore affect the participants' motivation and his or her willingness to answer further questions.

The topics of this research are quite obviously sensitive for the population under study in at least two different ways: Survey questions related to income are usually considered sensitive and can therefore produce higher nonresponse and measurement errors (Tourangeau and Yan 2007). In addition since most Honduran migrants do not have legal

²² The concept and process of pretesting the questionnaire will be explained in step 3 of this chapter.

²³ Definition recall error: Many questions in surveys refer to happenings or conditions in the past, and there is a problem in both remembering the event and of associating it with the correct time period (OECD Online Glossary of Statistical terms; <https://stats.oecd.org/glossary/detail.asp?ID=4551>; consulted on 29.04.2014).

²⁴ The concept and process of pretesting the questionnaire will be explained in step 3 of this same chapter.

residence in their country of destination many live with constant fear of deportation.²⁵ Their family members know this and are often very reluctant to answer questions on migration and remittances since they fear that this information could be used to find and deport their family member. In order to deal with sensitive issues in this research, some questions were avoided altogether, such as asking directly for the amount of remittances that respondents receive or asking directly for their income level. Where possible substitute questions were used such as creating a small multi-dimensional poverty index as a proxy for income level.²⁶ Furthermore, when available, administrative data were used, although this was only possible for the dataset *dataphone*, which means that these specific variables are not comparable between datasets.²⁷

Another concern with the questions in a questionnaire is whether these actually measure, what they are supposed to measure. The error resulting from the measurements not being exact or when the question in the questionnaire does not produce an appropriate measure for the construct that is supposed to be measured is called specification error or measurement error of low validity (De Leeuw, Hox and Dillman 2008). Concerns might be very low, when it comes to more factual questions, like year of birth or height, but are very relevant for more complex issues. In the questionnaire used for this research there are two constructs in particular that might suffer from this type of error: The poverty level index, which is based on four different questions to form a poverty index that ranks people according to their likelihood of being poor. The second construct is that of financial literacy, where a series of three questions is used to rank people based on their financial knowledge.²⁸ With the objective of reducing possible measurement error and with the aim of building on existing knowledge, some of the questions in the questionnaire were therefore either copied or adapted from other survey instruments.²⁹

One final aspect that had some influence on the questionnaire were two issues relevant to ProCredit bank, namely, the satisfaction of their clients with their products and services and finding out about the participants' interest in saving in the future.³⁰

²⁵ The last specialized household survey on migration and remittances in Honduras in the year 2007 found that over 60% of Hondurans currently living abroad are so called "indocumentados", which means they have no legal status in their country of destination (BID/INE Migración y remesas internacionales 2007). This number is probably still underreported and might actually be higher.

²⁶ The construction and content of the poverty index will be explained in Chapter 3.3.2.

²⁷ This was the case for example with the variables amount and frequency of remittances received, since they were taken from administrative data available in the sample frame, which was used for the *dataphone* dataset and which is not available for *dataface*.

²⁸ The measurement of financial literacy in this survey will be explained in Chapter 3.3.2.

²⁹ All three questions related to the level of financial literacy were adapted from a survey instrument on financial literacy used by the World Bank and Russian Trust Fund. (<https://www.finlitedu.org/>) Some of the personal questions concerning use of electricity, work and income and housing were taken directly from the Honduran Annual Household Survey (Encuesta Permanente de Hogares de Propósito Multiple - EPHPM (www.ine.gob.hn)).

³⁰ ProCredit did not influence the wording, order or content of the questionnaire in any relevant way, but provided comments and feedback on earlier versions and together with the researcher it was decided to add a question concerning the satisfaction of clients with ProCredit products and services at the end of the questionnaire.

Step 3: Testing the questionnaire

"Testing is the only way of assuring that the survey questions written, do indeed communicate to respondents as intended" (Campanelli 2008: 176). The rationale behind testing a questionnaire is based on insights from cognitive psychology about how people answer survey questions, which point out that several important steps are involved in answering survey questions, from comprehending the question, retrieving the information from long-term memory, making a judgment about the information needed to answer the question, to finally responding the question (Collins 2003).

Several methods exist to test a questionnaire, which range from expert reviews, to testing the questionnaire on a small sample to see if any of the questions cause trouble, to newer cognitive methods (Campanelli 2008). The two basic cognitive methods that have been developed with the objective of pretesting the questions in a questionnaire are the think-aloud approach and probing. Probing, which is the main method that has been applied for testing the questionnaire in this research, involves the interviewer asking specific questions or probes which are designed to elicit how the respondent went about answering the question (Campanelli 2008). This approach has been coupled with paraphrasing, which involves respondents being asked to paraphrase the survey question or rephrase it in their own words (Campanelli 2008).

The researcher carried out three cognitive interviews with remittances receivers at one of the nonparticipating branches of ProCredit, applying both probing and paraphrasing methods.³¹ Each interview lasted about one hour and aimed at analyzing how participants understood the survey questions and how they went about answering them. Especially problems concerning recall error could be identified through this method, but several answering options in closed questions were also added as a result. In addition to the cognitive interviews the questionnaire received a review on content from fellow Ph.D. students who were working on similar topics and several members of ProCredit staff checked the questionnaire to assure the correct use of the Spanish language.

Step 4: Sample Selection

The face-to-face interviews were conducted as targeted individual surveys as proposed by Millis, Orozco, and Raheem (2008) using the ProCredit branches as points of presence. Even though this type of nonprobability sampling³² does not allow the same kind of generalization to be made to a larger population, as do probability samples, they can be much more efficient in collecting data on receivers of remittances and their preferences. By applying this method, remittances receivers can be targeted directly, which obviously

³¹ All three cognitive interviews were carried out at ProCredit's Kennedy Branch on February 12, 2013.

³² Definition of nonprobability sample: A sample of units where the selected units in the sample have an unknown probability of being selected and where some units of the target population may even have no chance at all of being in the sample. Forms of nonprobability sampling are numerous, such as voluntary samples (only responses of volunteers are used), quota samples and expert samples (OECD Online Glossary of Statistical Terms; <https://stats.oecd.org/glossary/detail.asp?ID=5066>; consulted on 29.04.2014).

makes this type of data collection much more cost efficient than trying to capture a large enough sample of remittances receivers through a representative household survey (Millis et al. 2008). Obviously, this type of data collection, which only targets remittances receivers, will not allow for any comparative analysis between remittances receivers and nonreceivers.

The three branches for the survey (Choloma, Santa Fe/Tegucigalpa and, Choluteca) were selected based on the following criteria:

Geographic variety: Include three branches from three different *departamentos* and regions of the country as to be able to provide a geographic variety in the sample.

High level of remittances: To be as cost efficient as possible and make good use of the interviewers time only branches that pay out over 150 transactions per month were taken into consideration.

No other current disturbances at this branch: The branch needs to be well established and have no relevant restructuring or other processes going on at the moment of interviewing that could interfere with the process.

Graph 3.1.2: Map of Honduras with location of ProCredit branches (branches where interviews were carried out are marked in red)



There are no fixed rules for the sample size in a nonprobability sample, but rather it depends on the research question, availability of time and funds, and the judgment of the researcher to decide how many observations are necessary to produce relevant results. In this case, however, the aim of the data collection was to collect as large a sample as possible, considering the availability of time and funds, so as to be able to present results that are based on a solid and large dataset, although there was awareness of the biases that would be present in this sample due to the sample selection method.

Step 5: Face-to-face interviews

Face-to-face interviews were chosen as a data collection method because they were thought to be the best method to establish trust and receive cooperation from the population under study, considering the sensitivity surrounding the issues of this research. Interviews at the three participating ProCredit branches, Choloma, Santa Fe/Tegucigalpa and Choluteca were carried out between March and April of 2013. One interviewer was hired for each ProCredit branch. A *Manual for Interviewers*, including a description of interviewing procedures, codes of conduct, and background information on the questionnaire was prepared and handed out to each interviewer when they received a day-long training in interviewing practices by the researcher who traveled to each branch for this purpose.

During the visit of the researcher in each participating branch, the procedure for the interviews was established with the branch manager and staff, that is, deciding where the interviewer would sit, how staff could help to bring possible candidates for interviews to the interviewer, or how they could help the interviewer to identify suitable candidates. The attendance of interviewers was supervised by the branch manager, while the researcher supervised the work of the interviewers via telephone by calling them frequently to ask how things were going and whether they had encountered any trouble during interviews. In addition, each interviewer received a phone card so they could freely call the researcher when experiencing any kind of problem.

Based on budget constraints, interviewers could only be hired for the half day and it was decided in accordance with ProCredit staff and based on their first-hand experience, that more people could be targeted in the morning than in the afternoon.

Table 3.1.1: Results from face-to-face interviews

Branch	Santa Fe, Tegucigalpa	Choluteca	Choloma
Interviewing period (Number of actual interviewing days)	04.03. - 27.03.2013 (20 days)	06.03. - 27.03.2013 (18 days)	06.03. - 06.04.2013 (21 days)
Total number of Interviews	121	86	58
Total number of remittances paid out in this time frame*	354	264	350
Response Rate	34.1%	32.5%	16.6%

*Since some people receive remittances more frequently than once a month the actual number of clients is probably somewhat lower.

Based on the type of sampling and the organization of the interviewing process, some specific biases are present in this sample. The first and most obvious is a regional bias because the sample does not include participants from all ProCredit branches, but only 3 out of 12 branches. To mitigate this effect it was ensured that branches from different parts of the country were included in the sample. Since interviews were only carried out during the morning, there likely is a bias in the sample because people who come into the ProCredit branch in the morning could be different from those people coming into the

branch in the afternoon. This is a reasonable assumption as people who enter in the late afternoon could, for example, have a higher likelihood of being employed.

Nonresponse bias is an important issue in most if not all surveys and deals with the bias created, when targeted people do not participate in the survey, either because they cannot be reached or because they refuse to participate (Lynn 2008). "*To minimize refusals, the survey researcher should: (a) increase (and emphasize) the benefits of taking part, (b) reduce (and de-emphasize) the drawbacks, and (c) address legitimate concerns of sample members*" (Lynn 2008: 48). Several measures were taken to lower nonresponse in the survey and to be able to interview the largest amount of people possible³³: (1) Local interviewers were hired and interviews were carried out inside the bank branches to create high levels of trust in the legitimacy of the survey;³⁴ (2) Within the branches a private place for the interview was provided and participants were promised confidentiality; (3) Participants were included in a raffle of two mobile phones, which took place after the face-to-face interviews were completed; and (4) Insofar as possible and reasonable, sensitive questions were avoided or placed towards the end of the questionnaire.

Step 6: Adjusting the questionnaire

Although the first round of interviewing concluded successfully, some obvious concerns about the biases and response rates remained. After additional resources were secured to carry out a second round of interviewing, the researcher decided to change the interviewing method from face-to-face interviews to phone interviews for several reasons:³⁵ Phone interviews are usually more cost effective, mainly because they require fewer interviewers and no mobilization. For the same reasons, phone interviews tend to be much quicker and produce results faster. Because they are typically administered in a centralized way, that is, out of a central location, it is much easier to supervise interviewers and implement a functional system of quality control during the interviews (De Leeuw 2008).

On the negative side, response rates tend to be lower in phone interviews since it is much easier to hang up a telephone than to walk out on an interviewer. In face-to-face interviews, the interviewers have more possibilities to keep the interview going. "*In face-to-face situations interviewers can use nonverbal cues (e.g., smiles, nods) to motivate*

³³ A debriefing conversation with the interviewers brought up the following issues and conclusions: Non-response was more often based on the fact that people did not want to wait for their turn at interviewing, when another customer was being interviewed, than actual refusal to participate. Interviewers themselves calculated that they had interviewed approximately 6 out of every 10 possible candidates. Interviewing inside the bank branch, having information on the goals of the study and being able to offer an incentive (raffle) to the participants helped to convince people to participate.

³⁴ Local interviewers were thought to be especially important considering that most Honduran migrants abroad do not have a legal residence and therefore fear deportation. A foreign interviewer (such as the researcher herself) could have created a high level of distrust in the study objectives leading to very low participation.

³⁵ One of the main reasons for not applying a phone survey in the first place are the very high crime rates in Honduras, which include blackmailing via telephone as a very popular crime, which makes people very cautious about strangers calling them. How this situation was dealt with will be explained in step 8 of this chapter.

respondents and keep the flow of information going. Furthermore, interviewers can monitor and react to respondents' nonverbal expressions. In telephone interviews these tasks are more difficult; nonverbal communication is impossible and interviewers must be alert to attend to auditory information" (De Leeuw 2008: 115).

In a face-to-face interview it is also easier to convince the participants of the legitimacy of the cause of the research and therefore motivate them to participate and continue. Interviewers can present documents proving the legitimacy and present their ID cards and other helpful documentation. In phone interviews this possibility does not exist (De Leeuw 2008). Owing to the changes that were produced by switching the data collection method, several changes needed to be made to the questionnaire that was applied during the phone interviews.

De Leeuw recommends keeping the questionnaire for phone interviews short, the questions simple, and the answering options limited. She also points out that the introductory text becomes crucial in phone interviews (De Leeuw 2008). Based on these recommendations the following adjustments were made:

- (1) The introductory text was shortened, emphasizing the legitimacy of the cause, promising confidentiality and presenting the opportunity for participants to be part of the raffle.
- (2) The questionnaire was shortened by 8 questions from a total of 33 to 25 questions, although not all of these questions applied to each participants. On average each participant got asked 18 - 20 questions.
- (3) Answering options were reduced and simplified.
- (4) Average interviewing time was reduced from 10 - 15 minutes to approximately 5 - 10 minutes.

Step 7: Sample selection

Contrary to the sampling method applied during the face-to-face interviews, a probability sample was selected in this second round of data collection that applied simple random sampling.³⁶ With this method generalizations can be made to remittances receivers at the ProCredit bank level without having to take as many biases into account as previously with the nonprobability sample. In simple random sampling, we assume that our sample is randomly chosen from the entire population of interest and that every set of n elements in the population has an equal chance of being selected into our sample (Lohr 2008). Obviously the population of interest in our case are remittances receivers at ProCredit bank and results from this sample will not be generalizable to remittances receivers in Honduras as a whole. In contrast to what we find in household surveys, where the unit of interest is the household, the unit of interest in this sample is the individual remittances receiver.

³⁶ Definition probability sample: A probability sample is a sample selected by a method based on the theory of probability (random process), that is, by a method involving knowledge of the likelihood of any unit being selected, (OECD Glossary of Statistical terms; <http://stats.oecd.org/glossary/detail.asp?ID=2134>; consulted on 29.04.2014).

As is usually the case with telephone interviews, there are some concerns about coverage of the sample frame, because for a certain part of our population of interest no phone numbers are available. People with phone numbers might be considerably different from the people without phone numbers, resulting in bias.³⁷ The sampling strategy for the phone interviews was based on a simple random sample, but for practical reasons the sample had to be divided into a client group and a non-client group and proportional samples were taken from each subgroup.³⁸ The sample frame was a list of all people that had received at least one remittance at any ProCredit bank branch between January and June 2013 for whom telephone numbers were available. These people were either clients or not of ProCredit.

The starting point for constructing this sampling frame was a list of all remittances that were paid out at any ProCredit bank branch between January and June 2013. This list consisted of a total of 21,020 individual remittances. To generate a list of the population, this list was then cleaned for double entries, that is, for those people who had received more than one remittances payment during this time frame and converted so that it was now based on the remittances receivers and included each person once that had received remittances at least once at any ProCredit branch between January and June 2013 with a listing of how many remittances they had received during this period.

In a second step all remittances receivers for whom no telephone number was available were eliminated from this list. This was only the case for nonclients because by Honduran law a bank must have the contact details of their clients.³⁹ When cleaning the list, it became clear that there was a considerable amount of nonclients without contact details, so a decision was made to make use of the next two months and try to update the contact information of nonclients.⁴⁰

So as to not lose any time, sampling and interviewing were started off with the client subgroup for which contact information was available. The calculated sample size needed was 363 interviews, when taking into account a confidence level of 95% and a 0.05 confidence interval.⁴¹ The total sample size was divided relative to the proportions of clients and nonclients in the sample frame and a sample size of 104 interviews with clients and 260 interviews with nonclients was defined. Random samples were drawn from the

³⁷ Definition bias: An effect which deprives a statistical result of representativeness by systematically distorting it, as distinct from a random error which may distort on any one occasion but balances out on the average (OECD Glossary of Statistical Terms; <https://stats.oecd.org/glossary/detail.asp?ID=3605>; consulted on 29.04.2014).

³⁸ Clients are those people who receive remittances at a ProCredit bank and also have an account at the bank. Non-clients are those people who receive remittances at ProCredit bank but do not have an account at ProCredit. These people might still have accounts at another financial institution.

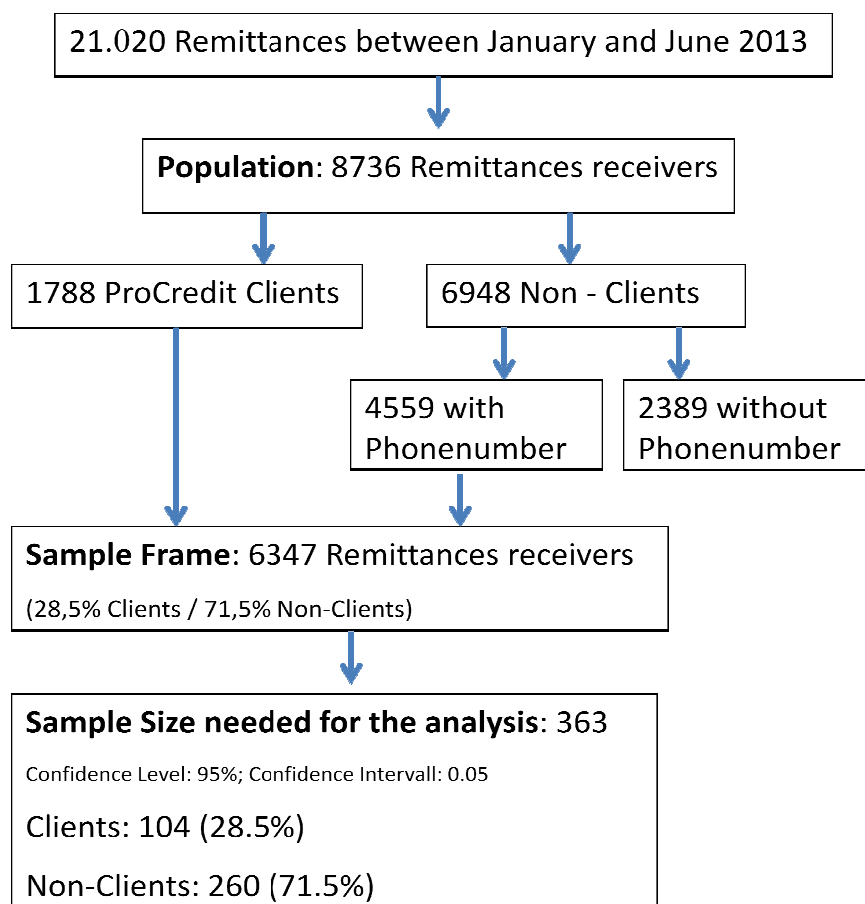
³⁹ Based on "Know Your Client" rules applied by Honduran banking supervisor (CNBS) financial institution need to register new clients with a copy of their ID card, address, phone number and source of income (http://www.cnbs.gov.hn/files/uif_pdf/Programa_Cumplimiento.pdf).

⁴⁰ For this purpose all branches were informed that they were to ask remittances receivers, who were not clients at the bank to update their contact information.

⁴¹ The sample size was calculated using a publicly available sample size calculator provided by the Australian National Statistical Survey (<http://www.nss.gov.au/nss/home.nsf/pages/Sample+size+calculator>). The following data were entered into the calculation: Population size: 6347; Confidence level 95%; Confidence Interval: 0.05.

sample frame using the random number generator in Excel.⁴² In anticipation of a high nonresponse, there was considerable oversampling.

Graph 3.1.3: Sampling strategy



Step 8: Phone interviews

The telephone interviews took place in July and August of 2013. The interviewer who had carried out the interviews at Santa Fe branch in Tegucigalpa was rehired and worked out of an office at the ProCredit head offices. The interviewer received specific training for telephone interviewing based on an adapted manual produced by the researcher. Training included extensive practice interviews and the complete process of interviewing was supervised by the researcher who was present during interviews. As a change to the previous practice, the interviewer now worked full days and therefore it was also possible to interview in the afternoon.

Owing to the available administrative information on remittances receivers from ProCredit, it was possible to at least personalize the interviews to some degree. *"Because the list usually contains auxiliary information, such as names and addresses, personalization of the*

⁴² A random list (sample) based on a sample frame provided in an Excel spread sheet can be created by using the RAND function in Excel.

interview makes the survey seem more like a face-to-face interview than the random digit dial survey" (Steeh 2008: 225).

Table 3.1.2: Results of phone interviews

Sample Frame	6373
Sample taken*	1200
Number of completed interviews	415
Response rate (average)	34.6%
Number of declined participations	115
Number of no contacts	670

*In anticipation of a high level of nonresponse the sample was generously oversampled

It has already been mentioned that the topics of this study are considered sensitive and that it is important to convince participants of the legitimacy of the survey to get them to participate. Another specific issue with phone interviews in Honduras and a cause for low response rates are the very high crime rates, which make people very cautious. Specifically blackmailing via telephone has become a very popular crime and was thought to likely affect the success of interviewing.⁴³

The following preventive measures were taken as an attempt to lower nonresponse in the phone interview sample: (1) Contact details of nonclients were updated prior to interviewing; (2) Mobile phones and phone credit were raffled off among participants; (3) Insofar as possible and reasonable, sensitive questions were avoided in the questionnaire or placed at the end; (4) Interviews were carried out from a land line rather than a mobile phone number⁴⁴; (5) Various attempts to call at different hours of the day were made; (6) A promise of confidentiality at all times was given to participants; (7) A local interviewer was used.

The number of completed interviews reached 415 and was well above the calculated sample size of 363. A remaining problem was the high level of nonresponse, which is mainly due to not being able to contact many of the individuals in the sample. Nonresponse rates were higher among clients than among nonclients, which is most likely due to the fact that nonclient contact details were updated just prior to interviewing.⁴⁵

⁴³ A newspaper report from 2013 states that Honduran authorities receive a new report of blackmailing every 12 hours. Unreported cases are probably a lot higher though, since due to fear many people don't report to authorities. (<http://www.elheraldo.hn/csp/mediapool/sites/ElHeraldo/Sucesos/story.csp?cid=621810&sid=293&fid=219>)

⁴⁴ This aspect was especially important to create trust. As has been mentioned before blackmailing via telephone has become a very popular crime in Honduras and is almost always carried out via mobile phones. A land line indicates that whoever is calling is registered with the Honduran phone company and this is what people expect from a bank.

⁴⁵ Even though contact details for all ProCredit clients existed, many eventually turned out to be outdated. Reasons may include: (1) Mobile phones are frequently stolen; (2) People change their

3.1.1.2 The preparation for data analysis

Step 9: Preparation for data analysis

The last step before the actual data analysis was tabulating and preparing the two datasets for data analysis. The individual interviews were entered into Excel spreadsheets. Each interview received a code, making it possible to maintain anonymity while being able to trace back the original interview.

(a) Tabulating and combining the datasets

The two datasets were tabulated individually and named after the data collection method: **dataface** and **dataphone**. The **dataface** set consists of $n = 264$ individual interviews and includes a total of 52 variables for each individual. Many of these variables are available only for subsets of the sample, such as the subset of financially included individuals for example. In consequence not all of these variables were included in the regression analysis, but most variables were taken into account in descriptive statistics. The **dataphone** set is larger with $n = 415$, but has fewer variables for each individual at 43. A total of 21 variables of this dataset were included in the regression analysis. The two datasets were also combined into a single dataset named **dataall**. **Dataall** was cleaned for possible double entries, eliminating individuals who shared all of the following characteristics: gender, year of birth, schooling, work, and branch used. A total of 4 cases were eliminated from the complete dataset. Obviously **dataall** is the largest sample with $n = 675$, but also has a more limited number of variables since it only includes those variables that are comparable between the two datasets, which is a total of 18 variables.⁴⁶

(b) Assessing nonresponse and coverage error

As mentioned before, nonresponse is present in almost every survey, although the degree of nonresponse may vary considerably from survey to survey (Lynn 2008). The problem with high nonresponse is that the sample might not be representative of the population anymore as answers from a considerable number of the individuals who were selected for the sample originally are missing (Lynn 2008). Although some recent studies have found that nonresponse bias may not actually be as important an issue as has been previously thought, it is still considered best practice in surveying to achieve as low a nonresponse rate as possible (Groves 2006).

The problem of nonresponse is quite similar to the problem of coverage. "*Coverage error occurs when the sampling frame does not include parts of the population of interest, for example when a frame of telephone numbers does not include nontelephone households*" (Lohr 2008: 98). This is exactly what occurred in this study by applying a telephone survey that could obviously only be applied to those individuals in the population that actually had

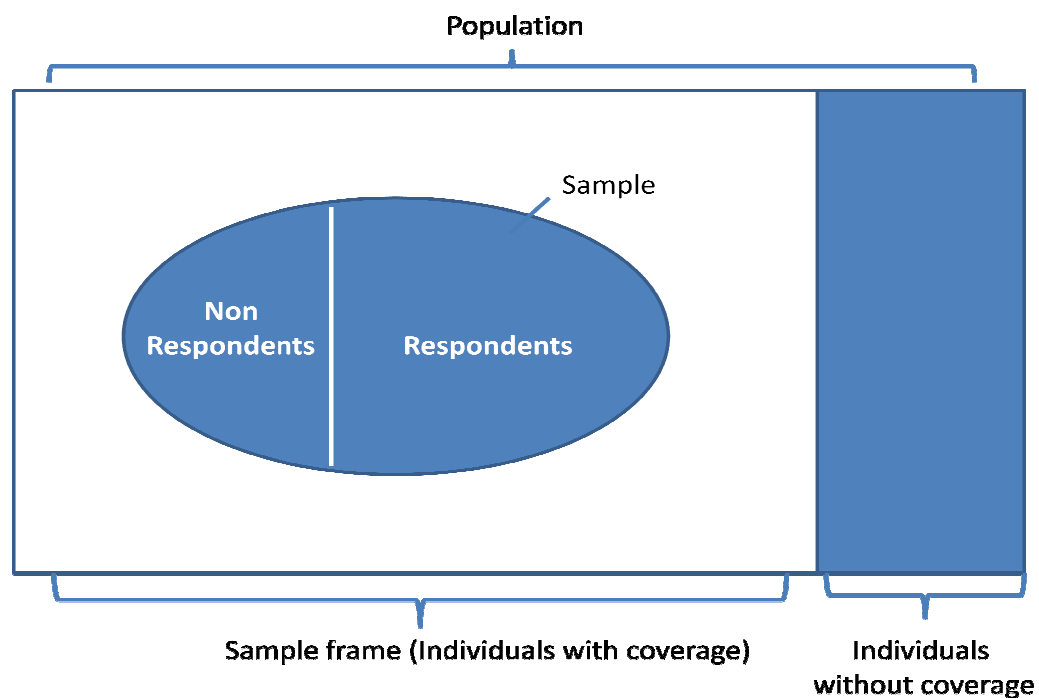
phone number after falling victim to a crime carried out via telephone; and (3) People switch phone company and only recently legislation was introduced in Honduras which allows people to carry along their phone number. Also some phone numbers had been blocked by the phone company, probably because the owner of the phone did not pay outstanding bills.

⁴⁶ A list of all variables with a description can be found in Chapter 3.3. Remittances receivers and inclusion into the financial system: What matters?

a phone number. So the sample cannot be representative of the whole population unless some adjustments are made.

The following graph illustrates the relationship between the concepts: The sample frame is smaller than the population because there are people who, due to coverage issues, cannot be included in the sample frame. In addition, the sample actually collected and used for data analysis is smaller than the sample originally taken from the sample frame because of nonresponse.

Graph 3.1.4: Illustration of the relationship between population, sample frame, sample, coverage and nonresponse



Source: Authors own elaboration

There are many reasons why nonresponse occurs in a survey, from failing to contact a person, failing to be able to communicate with a person due to language barriers, or the person not being able to participate due to health reasons, up to the refusal of an individual to participate in the survey (Lynn 2008). Many measures can and should be taken to lower nonresponse before and during the survey and concrete measures that have been taken during this research were mentioned earlier.⁴⁷ In addition, there are also methods of dealing with nonresponse after data collection when preparing the data for data analysis.

Nonresponse is generally separated into two types: unit nonresponse, where no information at all is available on the individual in the sample and item nonresponse, which refers to a situation where the information collected from an individual in a sample is incomplete (Banda 2003).

⁴⁷ A list of the measures that were taken during data collection to lower nonresponse can be found in Step 8: Phone Interviews of this Chapter.

Item nonresponse, which is also simply called missing data in the literature, arises for a number of reasons: An interview respondent is unwilling to answer a question or does not understand it and can therefore not answer it or some data might simply have been lost during data preparation (Ibrahim et al. 2005). Biases in the analysis might occur if those units with missing data differ systematically from those without missing data (Ibrahim et al. 2005). Nevertheless, the most common way to deal with missing data is still to simply delete those cases and perform what is known as a complete case analysis, which is probably also due to the fact that this is the default option in most standard software packages (Ibrahim et al. 2005). This research will also be based on a complete case analysis, meaning that those interviews with missing values will be eliminated during the regression analysis.

Unit nonresponse, when all data are missing for an individual in the sample because the interview was never actually performed, is usually dealt with through weighting procedures. "The weighting process essentially involves creating a new variable, say w , for each respondent (labeled i) in the sample that will be referred to as the weight associated with the respondent. The weight can be interpreted as the number of individuals in the target population represented by the sample respondent" (Biemer and Christ 2008: 317). In general a certain amount of information is needed on nonrespondents to be able to carry out these types of weighting procedures.⁴⁸ Therefore in this research weighting adjustment (for nonresponse and coverage) will only be carried out for the dataset *dataphone*, since this dataset was based on a sample frame that included a certain amount of administrative data on each individual in the frame.

The distributions between the dataset *dataphone* and the whole population for three possible weighting variables, gender, age, and geographic region are presented in Table 3.1.3.⁴⁹ As can be appreciated from the table, the distributions are very similar, especially for the gender variable.

Table 3.1.3: Distribution of three possible weighting variables between the dataset *dataphone* and the total population

Variable	Dataphone (n = 415)	Total Population (n = 8736)	Difference
Gender	Male: 29,16% Female: 70,84%	Male: 29,37% Female: 70,63%	- 0,21% 0,21%
Age	Young (<20 - 40): 57,00% Middle (41 - 60): 34,89% Old (61 - >80): 8,11%	Young (<20 - 40): 59,16% Middle (41 - 60): 34,02% Old (61 - >80): 6,82%	- 2,16% 0,87% 1,29%
Geography	Northcoast: 45,78% Center South: 54,22%	Northcoast: 43,68% Center South: 56,32%	2,10% -2,10%

The situation is very similar in the case of coverage error: As was illustrated in graph 3.3, a total of 6948 nonclients were included in the population, but for 2389 of these nonclients

⁴⁸ In a representative household survey weighting variables may simply be taken from another representative survey.

⁴⁹ A detailed distribution of the weighting variables for nonresponse and coverage can be found in Chapter 6: Annex (Table 6.1.1 and Table 6.1.2).

(34.4%) telephone numbers were not available; therefore, they could not be included in the sampling frame. There are obvious reasons to assume that people who own a telephone might be different from those that do not: They may have a higher socioeconomic status, may live in more urban areas, and could also likely be younger on average. Based on the basic administrative information that is available for nonclients both with and without phone numbers, a comparison of the distribution of the following three variables gender, age and geographic region is once again possible.⁵⁰ Table 3.1.4 shows that the distributions are very similar here as well. The difference for the geography variable is minimal and in the case of the gender variable there is actually no difference between sample and population.

Table 3.1.4: Distribution of weighting variables between the non client sample (*dataphone*) and the total non client population

Variable	Sample Non clients (n = 288)	Total population of Non clients (n = 6948)	Difference
Gender	Male: 30,21% Female: 69,79%	Male: 30,21% Female: 69,79%	0% 0%
Age	Young (<20 - 40): 58,51% Middle (41 - 60): 34,04% Old (61 - >80): 7,45%	Young (<20 - 40): 61,13% Middle (41 - 60): 32,84% Old (61 - >80): 6,03%	- 2,62% 1,20% 1,42%
Geography	Northcoast: 45,49% Center South: 54,41%	Northcoast: 45,37% Center South: 54,63%	0,12% - 0,12%

Since the distributions of the weighting variables among samples and populations in the case of both nonresponse and coverage error are very similar, weighting adjustment will probably not alter the results of the regression analysis in a profound way. Nevertheless, adjustment weighting was performed for two variables in the case of nonresponse (age and geography) and for one variable in the case of coverage (age).⁵¹ The results for the unadjusted and for the adjusted dataset *dataphone* are reported in Chapter 3.3.

3.1.2 Interviews with experts from the Honduran financial sector

3.1.2.1 The expert interview as a method in social sciences

Expert interviewing is a qualitative research method that usually relies on an interview guide for the data collection process. The objective of expert interviews is to reconstruct especially exclusive, detailed, or comprehensive knowledge about special topics or practices, but as most qualitative research methods it is oriented to explicit knowledge (Pfadenhauer 2005).⁵² Expert interviews have become very popular in the social sciences

⁵⁰ A detailed distribution of the weighting variables for nonresponse and coverage can be found in Chapter 6: Annex (Table 6.1.1 and Table 6.1.2)

⁵¹ A table containing the adjustment weights that were applied for nonresponse and coverage can be found in Chapter 6: Annex (Table 6.1.3 and Table 6.1.4).

⁵² Explicit knowledge is knowledge that can be expressed in words, numbers, and symbols and stored in books, computers, etc., while implicit or tacit knowledge is knowledge that you do not get from being taught, or from books, etc. but get from personal experience, for example, when working in a particular organization (Cambridge Dictionaries Online <http://dictionary.cambridge.org/> consulted on 05.06.2014).

and most researcher use them at some point during their empirical investigations, although the position and importance of the expert interviews within the research design, the way interviews are carried out, and how they are analyzed may vary considerably (Bogner and Menz 2005a). Their popularity is likely based on the fact that it is a very efficient and low-cost method for data collection (which is especially true for sensitive research topics), it is relatively easy to identify experts and secure their participation in and motivation during interviews, and, finally, experts generally have higher levels of education and social competences, which presumably makes interviewing them easier (Bogner and Menz 2005a).⁵³

Interestingly and contrary to their popularity, the methodological foundation of expert interviews as a research method is still not solidified (Bogner and Menz 2005a).⁵⁴ Compared to other qualitative research methods, they have received relatively little attention and often are not found as a separate method in textbooks on qualitative research methods, which once again may be due to their low theoretical-methodological foundation (Bogner und Menz 2005a; Meuser und Nagel 2005). Although there is a small amount of literature on how to access experts and how to carry out the interviews, Meuser and Nagel (2005) find a lack of methodological foundation especially for the process of data analysis in expert interviews. Historically, expert interviews have been recognized more for their contribution at an explorative stage of research, but in recent years they have increasingly been used as a central research method in studies on industry, education, and the labor market.⁵⁵ Obviously expert interviews are more than just "informative discussions", which can be applied in just any methodological way to collect knowledge and opinions (Bogner und Menz 2005a). Expert interviews require a great amount of thought about context, underlying interests, and stakes since it is naive to believe one will simply collect objective information this way (Bogner und Menz 2005a).

In their discussion on expert interviews as a research method, Bogner und Menz (2005b) distinguish three types of expert interviews: exploratory expert interviews, systematizing expert interviews, and theory-generating expert interviews. The prominence of expert interviews in the social sciences probably stems from its function as a tool for exploration, which is used in the early stages of both quantitative and qualitative research (Bogner und Menz 2005b). Systematizing expert interviews, which are applied in this research, focus on practical knowledge that is based on experience, which is available through reflection and can be communicated spontaneously by the experts. The expert is seen as a type of advisor who has access to specific knowledge that the researcher does not have access to. This

⁵³ Obviously these positive aspects about expert interviews do not remain uncontested in the discussion. Bogner and Menz also pose the question, of whether expert interviews are not too tempting and whether it is naive to believe that they will be able to produce objective and relevant data for research (Bogner and Menz 2005a).

⁵⁴ The methodological debate about expert interviews, which took place in the 1990s and early 2000s, is described in several of the contributions in: Bogner, Littig, Menz (Hrsg.) (2005), *Das Experteninterview, Theorie, Methode, Anwendung*, 2. Auflage, VS Verlag für Sozialwissenschaften, Wiesbaden.

⁵⁵ Examples of studies applying expert interviews as a central research method: Gärtner et al (2014), *Kollektive Lohnverhandlungen und der Gender Wage Gap*, IAB Discussion Paper 14/2014; Kern, H. & Schumann, M. (1984), *Das Ende der Arbeitsteilung? Rationalisierung in der industriellen Produktion*. München: Verlag C.H. Beck.;

knowledge is collected through a relatively differentiated interview guide (Bogner und Menz 2005b). The ability to compare topics among the data is of relevance for the analysis of expert interviews and in the context of multidimensional research methods (triangulation), the systematizing expert interview has evolved into a central element (Bogner und Menz 2005b).

An expert is a person who has area specific knowledge or skills based on years of experience (Mieg und Näf 2005). In some sense, the status of an expert is assigned by the researchers and limited by a specific research question. Often the experts are not found at the highest level within an organization; more commonly they are found on the second or third level (Meuser and Nagel 2005). Experts are not interesting because of their personal biography, but because they are experts within an organization or institution and therefore have access to and knowledge about the specific areas they work in. Therefore, the exclusive experience and knowledge generated through the responsibilities, tasks, and activities of experts are the objectives of the expert interview (Meuser und Nagel 2005). Three central dimensions of expert knowledge can be distinguished: their technical knowledge, practical knowledge about processes, and the knowledge of interpretation (Bogner und Menz 2005b).

Meuser and Nagel (2005) distinguish two positions of expert interviews within the type of research design where they have a central role and are not used for exploratory purposes only. In the first case, experts are the focus of the research. In the second case, experts are a complementary unit to the focus group of the study and the interviews have the objective to generate information on the context and conditions for the actions of the actual focus group. In this second case, expert interviews are one source of data among others. This is the case for the present research, where sector-wide expert interviews from the financial sector complement data from remittances receivers at one particular financial institution. The experts from the financial system provide information on the context and conditions concerning remittances and financial inclusion, based on the fact that they have a different position in the system, different points of view based on their professional experience, and generally have access to different information than remittances receivers.

As has been mentioned before, expert interviews are usually based on an interview guide and they can range from being very open to being somewhat standardized. Meuser and Nagel (2005) point out that even though this might sound contradictory, an interview guide secures the open character of the interview. Obviously, the interview guide cannot be used as a straitjacket, but when applied correctly it can help the researcher to focus and orient the interview. The work required to produce the interview guide ensures that the researcher will not be an incompetent discussion partner during the interview. It also helps to keep the interview on track thematically and not discuss topics that are irrelevant to the research question. Although more open interviews are the rule, standardizing parts of the interview can be helpful when the objective of the interview is to collect a certain amount of facts and data (Meuser und Nagel 2005).⁵⁶

⁵⁶ Meuser and Nagel do mention that research interests, which are purely oriented at collecting data and facts from experts, should consider applying a (semi) standardized written questionnaire and perhaps not use expert interviews as a method (Meuser and Nagel 2005).

3.1.2.2 Sample selection

In the context of this research, 11 expert interviews were carried out with representatives of financial institutions, associations of financial institutions, and supervisors of the Honduran financial system.⁵⁷ The interview partners (or experts) were those individuals in charge of remittances within their respective organizations since these should be the people with practical knowledge and experience concerning remittances and the financial system.⁵⁸ With the objective of collecting a variety of points of view and gaining a sector-wide appreciation of the relationship between remittances and financial inclusion, different types of institutions, such as commercial banks, microfinance institutions, money transfer operators, associations of financial institutions and regulators, were all included in the sample.⁵⁹

The other aspect that was taken into account when selecting the sample was to make sure to include the major players in the market and, thus, the financial institutions that were interviewed constitute an estimated 80% share of the Honduran remittances market.⁶⁰ Since the market for paying out remittances in Honduras is highly concentrated in commercial banks, they represent the largest share of the institutions in the sample.⁶¹

Table 3.1.5: Institutional sample for expert interviews*

	Commercial Banks	Cooperatives	Microfinance Institutions
Financial institutions	✓ (5)	—	✓ (1)
Associations of financial institutions	✓ (1)	✓ (1)	✓ (1)
Supervisors of financial institutions	✓ (1)	✓ (1)**	✓ (1)***
Money Transfer Operators	✓ (1)	—	—

*The numbers in this table add up to more than 11, since the same supervisors are in charge of supervising all three types of institutions and since one commercial bank operates their own MTO. Thus one interview covered aspects of the bank, as well as the MTO. ** Cooperatives are only supervised on a voluntary basis *** Those MFIs that pay out remittances are all supervised by financial regulators

⁵⁷ The originally intended sample for expert interviews included a total of 15 institutions. One commercial bank, one MTO, and one cooperative were not willing to participate in an expert interview with the researcher. In addition, the researcher decided not to interview Banco ProCredit since she feared that the close cooperation during data collection may not have produced an original point of view.

⁵⁸ Some of the institutions that were interviewed did not have a person specifically assigned to the topic of remittances. Therefore, in the case of smaller institutions, it was generally the Managing Director that gave the interview. In the case of one commercial bank an interview partner was assigned by the head of the international department.

⁵⁹ A detailed description of the Honduran financial system and the different types of institutions will follow in Chapter 3.2 The Honduran Context.

⁶⁰ This is based on 2006 data published in Endo et al. (2009), since it was not possible to establish updated market shares during this research. Nevertheless expert interviews and other sources point strongly towards the fact that the positions of the institutions within the Honduran remittances market have not changed considerably.

⁶¹ More and detailed information on remittances in Honduras and the Honduran financial system is presented in Chapter 3.2 The Honduran Context.

3.1.2.3 Data collection

The expert interviews were carried out by the researcher herself between June and September 2013. In general, institutions were first contacted via telephone to identify the relevant contact person and to find out his or her contact details. Then, an email was sent to the contact person, asking for an interview, explaining the purpose of the research, the type of knowledge the researcher is looking for from the expert, and the estimated duration of the interview. It was also mentioned right from the beginning that interviews will need to be audio recorded for later analysis. If no answer was received by the institution within the following 2 weeks, the contact person received a follow-up phone call by the researcher.⁶²

Expert interviews were carried out based on an interview guide that was developed by the researcher specifically for this research project.⁶³ Based on the recommendations for developing an interview guide presented by Kruse (2009), questions were specific but open with the aim of serving as stimuli for the discussion. Questions were simple and clear and did not include any alternative answer options. There were no suggestive and no provocative questions. Besides a stimulus question for discussion, the interview guide also included a short mention of the topics that needed to be discussed as well as smaller and neutral questions that could be used to maintain the conversation. As suggested by Mieg and Näg (2005), the interview guide helped the researcher to make sure that all the research topics and questions were treated completely and specifically enough during the interviews. The interview guide was tested with a person working at a financial institution whose mother tongue is Spanish to make sure all questions were formulated correctly and easily understood.

All of the interviews were audio recorded, for which interview partners gave their written consent.⁶⁴ They were assured that the information they gave during the interview would be treated with confidentiality and if parts of their interview were published during the research, there would be no direct connection with their name or the institution they worked for, but just a mention that they were part of the expert pool interviewed during data collection.⁶⁵

3.1.2.4 Data analysis

As was mentioned before, there is very little literature specifically on data analysis of expert interviews. This research follows the structure for data analysis of expert interviews presented by Meuser and Nagel (2005). These authors state that the objective of analyzing expert interviews is to find common ground, shared knowledge, and representative statements by comparing expert contributions. It is therefore the common knowledge of

⁶² In the case of one institution an official letter was written asking for an interview, which was followed up by email communication to identify the right person and time for interviewing.

⁶³ A copy of the original interview guide can be found in Chapter 6.2 Annex.

⁶⁴ A copy of the consent form can be found in Chapter 6.2 Annex.

⁶⁵ The rationale behind offering an extensive amount of confidentiality for expert interviews is based on the fact that financial institutions and especially commercial banks are very reluctant to share internal information. The researcher hoped that the promise of confidentiality would make interview partners more inclined to share relevant information for this research.

the experts as an aggregate that forms the object of interpretation, and the thematic comparison makes it possible to filter out the common views as well as the divergences among the expert pool (Meuser und Nagel 2005). The strategy that is applied for analyzing expert interviews is exploratory and thematically oriented, in contrast to a sequential orientation, which is commonly applied in the data analysis of other qualitative interviewing methods. Therefore, the structure of the analysis is closely related to the topics and themes proposed in the discussion guide. The shared institutional context of the expert pool assures that the interviews are comparable (Meuser und Nagel 2005).

The first step in the data analysis process is transcribing and paraphrasing the expert interviews, which were audio recorded during the interview sessions.⁶⁶ Contrary to other qualitative interviewing methods, transcribing the complete interview is not the common case for expert interviews (Meuser und Nagel 2005). Those statements that are directly relevant for the research question are transcribed, while other passages that provide additional relevant content for answering the research questions are paraphrased. The decision as to which parts are transcribed and which parts are paraphrased is always based on the guideline provided by the research question (Meuser und Nagel 2005). In the next step the paraphrased sections of the interview receive titles, which are representative of the content of the paraphrase and where similar passages can be bundled under one common title (Meuser und Nagel 2005). It is now possible to carry out a thematic comparison of the expert knowledge by creating categories that contain the relevant information and positions from the interviews. These categories should obviously be closely connected to the research question, providing a logical and relevant basis for the analysis. Common positions can now be exemplified through single statements and different views on a topic can be visualized by listing and contrasting the different positions. In the final step of the data analysis, one can then move away from the original interviews by formulating generalized statements, interpreting the content, and systematizing the content through the creation of typologies (Meuser und Nagel 2005).

The process of analyzing the expert interviews in this research consequently started off with transcribing and paraphrasing the relevant content from the expert interviews. Categories were defined in accordance with the research question, which focuses on access barriers to finance and how they are affected by remittances. Relevant content from the interviews was connected to one of the access barriers to finance, which are defined by the literature, or assigned to an open category, which included other relevant information on remittances and financial inclusion (such as historical, contextual, or regional information) provided in the interviews. This classification of expert knowledge into categories made it possible to identify common (as well as divergent) positions on the effects that remittances have on access barriers to finance and specifically also on the factors that can promote or prevent the financial inclusion of remittances receivers.

⁶⁶ According to the Macmillan Online Dictionary to transcribe means *"to write, type, or record something exactly as it was said"* and to paraphrase means *"to express what someone else has said or written using different words, especially in order to make it shorter or clearer"* (<http://www.macmillandictionary.com/> accessed 12.09.2014).

3.1.3 Publicly available data

A final source of data that were collected for this study are publicly available data on financial institutions and the financial system in Honduras. These data were collected by consulting the websites (and documents published on their websites) of financial institutions and other relevant organizations, such as regulators and associations of financial institutions. The information collected is usually concerned with the products and services that financial institutions offer, the contracts and relationships they maintain with other institutions, as well as their strategies and position within the financial system and the remittances market. In this sense the publicly available data enriches the information received through expert interviews. As a source, the consulted websites are listed together with the date on which they were last accessed and can be found in Chapter 6: Annex (Table 6.1.5). In those cases where the website did not offer the type of information the researcher was looking for, financial institutions were consulted via email asking about specific data and information and whether the financial institution would be willing to share it with the researcher.

3.2 The Honduran context

This subchapter will introduce the Honduran context, where empirical work for this research took place. It will present a short overview of the economic and social situation in Honduras, specifically looking at migration and remittances and their relation to relevant macroeconomic indicators. It will also give an overview of the Honduran financial system, the state of financial inclusion in Honduras, and remittances within the financial system, as far as possible with the data that are available.

3.2.1 Overview of the economic and social situation

Honduras is located in the middle of the Central American isthmus, neighboring with Guatemala, El Salvador, and Nicaragua, and is classified as a lower middle income country with a GDP per capita of 3880 USD in 2012 (World Development Indicators 2014).⁶⁷ It is one of the poorest countries in the Western Hemisphere, regionally ranking just above Nicaragua and Haiti (World Fact Book 2014). In 2009 nearly 32.6% of the population lived on \$2 a day or less (PPP levels)⁶⁸ and Honduras is among those countries in the world with the least equality, with a GINI Index of 56.95 in 2009 (World Development Indicators 2014).⁶⁹ Poverty in Honduras is more prevalent in the rural areas than urban areas. The Human Development Index (HDI) has grown continuously over recent years and with an HDI of 0.632 Honduras ranked 120 in the year 2013 (UNDP 2013).

The population estimate for Honduras for July 2014 was over 8.5 million people, with over 50% of this population being younger than 24 years of age (The World Factbook 2014). The low levels of education and inefficiency of the education system remain one of Honduras' main obstacles to development. Although school enrollment is high, drop-out rates are also high, as are grade repetitions. In 2011 the adult literacy rate was 85.12% (The World Fact Book 2014).

Although main line use of telephones remains relatively low, communications have become very important, as evidenced by a soaring use of mobile phones. 7.37 million lines were in use in 2012 (The World Factbook 2014). Additionally there are an estimated 731,700 Internet users, ranking Honduras at 109th worldwide (The World Factbook 2014).

The recent history of Honduras has been marked by political instability with a coup d'état taking place in 2009. President José Manuel Zelaya Rosales was ousted by the military after moving to the left politically during his term and replaced by congress with a member of his own party, Roberto Micheletti. Honduras has returned to the democratic path with two internationally recognized presidential elections taking place since then, but there is still a considerable divide within the society about the future path of the country (Oettler and Peetz 2010). The economic cost of the political crisis, which coincided with the global financial crisis, can be recognized in many of the macroeconomic indicators.

⁶⁷ Purchasing power parity (PPP) value at current international USD.

⁶⁸ The poverty headcount ratio at \$2 a day (PPP) for Honduras lies at 29.84%.

⁶⁹ In the ranking published by the World Fact Book online Honduras has the eighth highest GINI Index out of 140 countries worldwide (<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html> consulted on 06.06.2014).

Table 3.2.1: Macroeconomic indicators 2007 - 2013

	2007	2008	2009	2010	2011	2012	2013*
Annual growth rate	6.2%	4.2%	- 2.4%	3.7%	3.7%	3.3%	3.9%
Imports (growth rate)	10.9%	2.4%	- 27.7%	10.2%	7.9%	5.7%	6.0%
Exports (growth rate)	2.5%	0.9%	- 12.1%	6.0%	5.3%	3.8%	4.8%
Current account balance (USm\$)	- 1,116	-2,128	-516	-955	-1,152	-1,300	-1,398
Inflation	8.9%	10.8%	3.0%	6.5%	5.6%	5.4%	6.0%
Fiscal deficit	-3.1% / GDP	- 2.5% / GDP	- 6.2% / GDP	- 4.8% / GDP	- 4.6% / GDP	- 6.0% / GDP	na
Net public debt (% of GDP)	19.2	21.7	25.9	29.1	29.7	29.3	29.0
Exchange rate (Lempira /1 USD)	18.90	18.90	18.90	18.90	18.92	19.53	20.51
Lending interest rate	16.6%	17.9%	19.5%	18.9%	18.1%	17.8%	17.8%
Recorded unemployment	3.1%	3.0%	3.2%	5.1%	4.8%	4.4%	4.1%

Sources: Banco Central de Honduras, Programa Monetario 2013-2014; Economist Intelligence Unit, Country Report Honduras, February 2012 * EIU estimates for 2013

An additional issue that has put the country back in recent years are the soaring crime levels due to illicit drug trafficking, gang violence and political instability. Honduras has one of the highest murder rates in the world, with the two largest cities, Tegucigalpa and San Pedro Sula, ranking among the Top 5 most violent cities worldwide (Consejo Ciudadano para la Seguridad Publica y Justicia Penal 2013). Another problem of the country is widespread corruption, which is evidenced by the fact that Honduras currently ranks 140 out of 177 countries on the Corruption Perception index published by Transparency International (Transparency International 2013).

In the 2013/2014 edition of the Global Competitiveness Report published by the World Economic Forum, Honduras ranked 111 out of 148 countries in competitiveness, going down three levels in the ranking from the previous year (World Economic Forum 2014). The origin of the Gross Domestic Product (GDP) by sector was 57.8% in services, 28.2% in industry, and 14% in agriculture. The labor force participation by sector is 40% in agriculture, 40% in services, and 20% in industry (World Fact Book 2014). Main export products include: Coffee, bananas, apparel, palm oil, shrimp and lobster, while the main import commodities are: Machinery and transport equipment, industrial raw materials, chemical products, fuels, and foodstuffs (BCH 2013). The most relevant export partners are the USA (34.5%), Germany (11.6%), and other Central American Countries, while the major import partners are once again the USA (44.3%) and the other countries of Central America (World Fact Book 2014).

3.2.2 Migration from Honduras

In 2010 the National Statistics Institute of Honduras (INE) applied a migration and remittances module as part of its household survey. Based on this survey there are 238,669 Hondurans who have migrated abroad, of which 88% have migrated to the USA (INE 2011). This number is actually lower than the number calculated based on the migration and remittances module carried out in 2007, which estimated 246,420 migrants abroad (INE 2008). This could either be a reflection of the difficult economic situation in the United States of America (USA) and other important destinations for Honduran migration, such as Spain, which might have led migrants to return to their home country or reflect the increasing number of deported Hondurans.⁷⁰

Nevertheless, it is also likely that international migrants are continuously underreported in official surveys based on the fact that many of them are not legal residents in their country of destination, which makes this a sensitive and difficult topic to investigate. A study based on the American Community Survey 2010 concludes that there are currently 522,581 Honduran immigrants in the USA, in addition to 207,646 American born people of Honduran origin, totaling over 730,000 individuals (CEMLA 2011). This is close to an estimate presented by the Honduran Central Bank, which lies at 700,000 and bases its calculation on the remittances income that the country receives (Endo et. al 2009). These numbers would mean that around 8% of the Honduran population is currently living abroad.

As has been shown by a number of studies, international migration often takes place in chains, with one migrant attracting more of his family and community members. This leads to a concentration of migrants from a certain country (or even region within a country) in certain regions of their host country (Endo et al. 2009). In this case over 50% of Honduran migrants live in the following 4 US States: Florida, Texas, California, and New York. Another interesting observation is that 48.8% of the Honduran migrants entered the USA recently, that is in the year 2000 or after (CEMLA 2011). In 1998 Honduras was hit by a devastating hurricane that claimed many lives and destroyed large parts of the country and was also the starting point of an accelerated out migration (Reichman 2013).

There are more male Honduran migrants (63.2%) than female Honduran migrants (36.8%). On average, migrants are young, over 50% being between 15 and 24 years of age. Levels of schooling are generally low, where 76.2% of migrants have no or only elementary school level education. Nearly 90% of migrant families state search for employment as the main reason for migration (INE 2011). Looking at the Honduran population in the USA: 49.8% of Honduran migrants have no high school diploma; only migrants from El Salvador have a lower level of education among Central American and Caribbean migrants. The three main employment sectors for Honduran migrants in the USA are: Construction (24.5%), Food, hotel, and recreation services (14.8%) and Administrative services (11.9%) (CEMLA 2011).

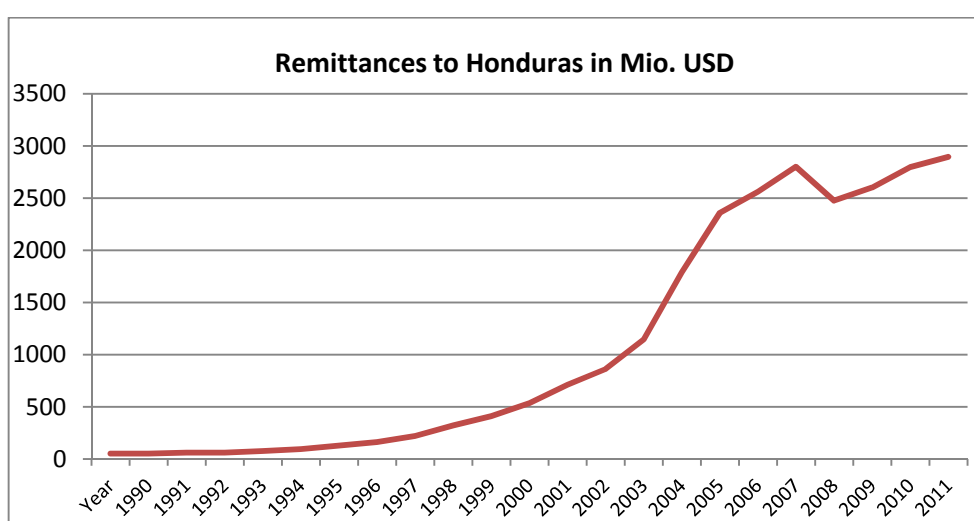
⁷⁰ Based on the data collected by the *Centro de Atención al Migrante Retornado (CAMR)* more than 70,000 Hondurans were deported from the USA and Mexico in 2013. El Herald newspaper from 31.03.2013
<http://www.elheraldo.hn/csp/mediapool/sites/ElHeraldo/Pais/story.csp?cid=584804&sid=299&fid=214>.

Only slightly above ten percent of Hondurans in the USA work in high-skilled and medium-skilled jobs, meaning that the vast majority is employed in the low-skilled sector. This number is considerably higher though for migrants who were younger than 17 years old at the time of their arrival (Niimi and Özden 2009).

3.2.3 Remittances to Honduras

Remittances to Honduras have grown steadily from the early 1990s to 2008, then they dipped in 2009, which is likely explained by the global financial crisis and political instability in Honduras. As of 2010 they started to grow again and in 2011 surpassed 2008 values.

Graph 3.2.1: Remittances to Honduras between 1990 - 2011



Source: BCH (2007); BCH(2007a); BCH (2013)

The importance of remittances for the Honduran economy is evidenced by ratios of remittances to relevant economic indicators:

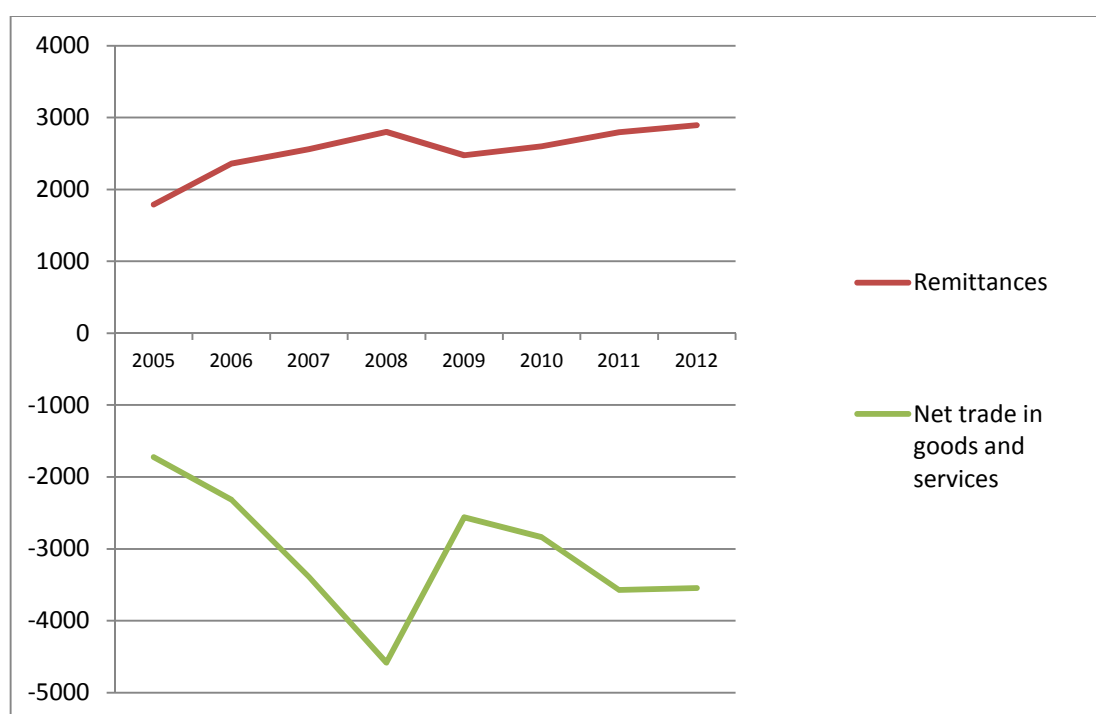
Table 3.2.2: Ratio of remittances to economic indicators (2011)

Ratio	Percentage
Remittances / GDP	16.64%
Remittances / Export of Goods and Services	36.37%
Remittances / Foreign Direct Investment	539.96%
Remittances / Official Development Assistance	414.85%

Source: Authors calculations based on data for Honduras 2011 from the World Development Indicators

The following graphs shows the relationship between remittances and the net trade in goods and services. Essentially, remittances have led to a growth in international reserves, which have allowed the country to maintain a large trade deficit over the course of the last few years.

Graph 3.2.2: Remittances and net trade in goods and service 2005 - 2012



Source: World Development Indicators (2014)

The formerly mentioned module on remittances and migration states that nearly 20% of all Honduran households receive remittances. Of these households 53.7% have a male head of household, while 46.3% have a female head of household. As far as the education levels of these heads of household 55.5% have primary level education, 5.3% have higher education, while 16.2% have reached no formal level of education at all. When looking at the relationship between sender and receiver of remittances 38% of senders are sons and daughters of the receiver, 17.6% are brothers and sisters, 15.2% are fathers or mothers and 11.1% are spouses. Of remittances receivers 67.2% are female, while 32.8% are male (INE 2011).

Mostly, remittances are spend on consumer goods: 91.2% of the people interviewed for the migration and remittances module stated that they used remittances for daily consumption, 38.8% said that they used them for medical expenses, 34.2% for education expenses, while 14% pay off debts, 9.7% save their remittances, and 7.1% spend them on housing (INE 2011).⁷¹ In the case of Honduras, remittances represent nearly 50% of the recipients income, showing how important they are at the household level (Acosta et al. 2008). Concerning the poverty levels of remittances receivers, contrary to what might be expected, it is not just the poorest households that receive remittances. In the case of Honduras it is people from the bottom quintile, but also the top income quintile that receive most remittances, therefore showing a U-shaped distribution, which is likely related to a positive selection into migration, meaning that migrants are more educated than non-migrants (Acosta et al. 2008).

⁷¹ The results for this survey question add up to more than 100% because the questionnaire allowed interviewees to give multiple answers.

3.2.4 The financial system and financial inclusion in Honduras

The Honduran financial system consists of both supervised and unsupervised financial institutions that offer loans, deposits, and other financial products and services to the public. The Honduran supervisor, the *Comisión Nacional de Banca y Seguros (CNBS)*, is in charge of the regulation and supervision of commercial banks, state-owned banks, *sociedades financieras*⁷², as well as of deposit-taking microfinance institutions called *organizaciones privadas de desarrollo financiero (OPDF)*. Credit and savings cooperatives in Honduras have their own regulatory entity, although in recent years several cooperatives have participated in a voluntary supervision process with CNBS (CNBS 2013). Additionally, there are also a considerable number of non-deposit-taking microfinance institutions that are not currently supervised.⁷³

Table 3.2.3: Financial Institutions in Honduras (2012/2013)

Type of institution	Number of institutions	Number of branches	Loans (Volume)	Deposits (Volume)
Commercial Banks	17	1224 (2013)	9070.4 mio USD (2012)	8688.4 mio USD (2012)
State owned Banks	1	44 (2013)	84.7 mio USD (2012)	53.4 mio USD (2012)
Sociedades Financieras	10	97 (2013)	260.5 mio USD (2012)	151.8 mio USD (2012)
Cooperatives	85	286 (2013)	620.8 mio USD (2012)	559.1 mio USD* (2012)
Microfinance institutions (OPDF)	5	67 (2013)	53.8 mio USD (2012)	1.1 mio USD (2012)
Microfinance institutions (other)	16	85 (2012)	69.9 mio USD (2012)	-----
Total	133	1803	10160.1 mio USD	9453,8 mio USD

* Total savings and shares in 2012 (WOCCU 2012)

Source: WOCCU 2012, CNBS 2013, Mix

Market 2013

The financial system as a whole has been relatively stable over the last few years, even throughout the politically and economically challenging years of 2008 and 2009. Honduras experienced its last episode of a banking crisis between the years 1999 and 2002, when several smaller banks were closed. Nevertheless, these are classified as minor to moderate crises, mostly due to solvency issues of individual financial institutions (Jácome H. 2008). The deposit-taking sector of the financial system as defined by CNBS is highly dominated by

⁷² *Sociedades financieras* are deposit-taking financial intermediaries, that must comply with fewer requirements, but also have fewer permitted operations than commercial banks.

⁷³ Microfinance institutions according to this definition are NGOs that lend money to poor and unbanked populations. It is not an exclusive term though since there are multiple other institutions in the Honduran financial system that are registered either as commercial banks (Bancovelo, Banco ProCredit), *Sociedades financieras* (ODEF, Finca, Finsol) and OPDFs, which also perform microfinance operations.

private commercial banks with a market share of 93.6% in loans and 97.7% in deposits.⁷⁴ Sector growth between 2011 and 2012 was 15.9% in loans and 8.2% in deposits (CNBS 2013). Financial intermediation as a contribution to GDP is expected to grow around 5% in 2013, which is one percent point higher than the overall expected GDP growth of around 4% (BCH 2013). While commercial banks are clustered in urban areas, microfinance institutions and especially cooperatives operate in more rural regions. Honduran cooperatives, for example, conduct over 50% of their business in rural areas (Endo et al. 2008).

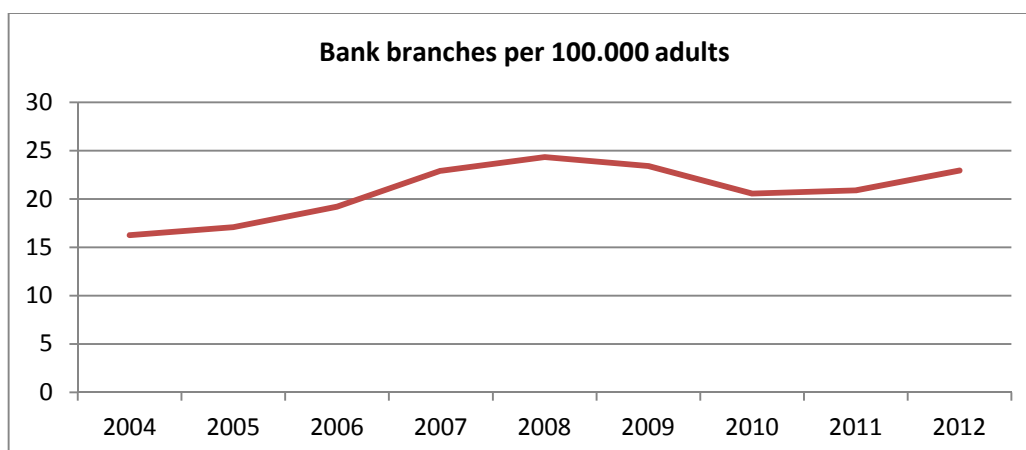
Financial inclusion can be measured either based on information from the supply side or the demand side.⁷⁵ The CGAP Financial Access Report 2010 is based on supply side information received from banking supervisors and provides the following facts for Honduras: As far as financial inclusion through commercial banks, there are 758.02 deposit accounts and 335 loans per 1000 adults (CGAP 2010). Both indicators place Honduras in the bottom third of Latin American countries. The outreach indicator states that there are 1.47 bank branches per 100,000 people (all of which are located in urban areas), which is the lowest outreach for all Latin American countries (CGAP 2010). Additionally there are 31.58 deposit accounts, as well as 4.17 loans per 1000 adults at state-owned development banks. The report has no data for cooperatives since only some cooperatives are voluntarily supervised by CNBS in Honduras and in the case of microfinance institutions, there is only an outreach indicator available stating that there are 1.25 microfinance branches per 100,000 adults. ATM outreach is 23.38 per 100,000 adults or 9.38 per 1000 square kilometers, which once again places Honduras in the bottom third of Latin American countries (CGAP 2010).

Supply side data published by the International Monetary Fund (IMF 2013) shows trends for some financial inclusion indicators over the last few years and shows a positive trend in financial inclusion for Honduras: Based on these data the number of deposit accounts per 1000 people grew from 600 in 2004 to 809 in 2012. The same is true for the commercial bank branches: Although the number of banks in Honduras only increased by one between 2004 and 2012, the number of bank branches increased from 639 to 1154. Finally, also the number of ATM machines has grown from 188 to 1205. Obviously these absolute numbers are also a reflection of population growth and not just of a deepening of the Honduran financial system. A better appreciation of the expansion of commercial banks can be achieved by looking at the number of branches per 100,000 adults (IMF 2013).

⁷⁴ The deposit-taking sector of the financial system as defined by CNBS includes commercial banks, state-owned banks and *sociedades financieras*. It does not include OPDFs or cooperatives.

⁷⁵ There are essentially two ways to collect information on financial inclusion: Data can either come from the supply side, which means financial institutions or banking supervisors are surveyed and provide information about the number of institutions, accounts, loans, and their respective volumes. A second option is surveying the population about the financial services they use, which can either be done as a module within a household survey or through specialized surveys on financial inclusion. Both options have their advantages and shortcomings: While surveying the supply side can only provide information about the use of financial services and not the access and provides no additional information about account holders, surveying the demand side can produce higher levels of error.

Graph 3.2.3: Commercial bank branches per 100.000 adults between 2004 - 2012



Source: Graph based on data from IMF (2013)

Information on the cooperative sector can be found through the World Council of Credit Unions, which states that in 2012 there were 85 savings and credit cooperatives in Honduras with over 750,000 members. The penetration rate, which is calculated by dividing the total number of reported credit union members by the economically active population age 15-64, lies at 14.65%, which is at the high end for Latin American countries (WOCCU 2012). The microfinance institutions that are members of the Honduran Association of Microfinance Institution (Redmicroh) currently have nearly 40% of their funds invested in rural areas and in 2012 comprised a total of 213,926 clients (Redmicroh 2013).⁷⁶

A different approach to providing information on financial inclusion is based on the demand side. The newly composed Global Findex Database provides information on financial inclusion for countries worldwide. In their analysis of the Global Findex Database Demirgüç-Kunt and Klapper (2012) find that 21% of the Honduran adult population holds an account at a formal financial institution. For the lowest income quintile only 15% of the population hold an account. The study finds a gender gap in account ownership for Honduras since only 15% of women are account owners. Of the adult population 9% saved in the last 12 months using a formal account, while 2% used a community based method. Another 7% received a loan from a formal financial institution, while 11% borrowed money from family or friends. Furthermore, 5% of adults hold a credit card, 2% are currently paying off a mortgage, and 1% of the adult population is currently paying for health insurance (Demirgüç-Kunt and Klapper 2012).

When comparing these data to other countries in the region it becomes apparent that the levels of financial inclusion in Honduras are relatively low. In Latin America and the Caribbean (LAC) 39% of adults hold an account at a formal financial institution, while the worldwide average lies at 50%. In the lowest income quintile in LAC 21% have an account. For the region there is a 9% gender gap, which is actually lower in the case of Honduras (Demirgüç-Kunt and Klapper 2012).

⁷⁶ The Honduran Association of Microfinance Institutions (Redmicroh) also includes commercial banks, sociedades financieras and OPDFs that dedicate themselves to microfinance. It currently has 26 affiliates, of which 2 are commercial banks, 3 are *sociedades financieras*, 5 are OPDFs, and the rest are non-deposit-taking NGOs, commonly referred to as OPDs.

The Honduran government has recently approached financial inclusion from a consumer protection point of view by passing legislation in 2011 which gives CNBS the authority to strengthen transparency, financial culture, and customer service in supervised financial institutions.⁷⁷ In 2012 the inter-institutional committee that was created based on this legislation launched a program for financial education, which explicitly states higher levels of financial inclusion as one of its goals. Activities of this program have included the creation of informative brochures, workshops on financial education, participation in TV programs to explain issues of financial education to a broader public, as well as cooperation agreements with Honduran universities (CNBS 2013).

There are also some recent and innovative developments within the Honduran financial sector that are likely to have an impact on financial inclusion in Honduras. Agent banking was recently introduced by the largest commercial bank, Banco Atlántida, offering basic banking services through neighborhood stores and gas stations (Endo et al 2009).⁷⁸ These new points of service will essentially allow commercial banks to get closer to underserved and more rural populations. Mobile money is another innovative approach that is currently being developed by Banco Atlántida and Tigo, the leading mobile phone provider in Honduras (IFC 2012).⁷⁹ While the levels of financial inclusion in Honduras are still relatively low, mobile phone penetration is very high, making this a promising new field for financial inclusion.

3.2.5 Remittances in the Honduran financial system

The aforementioned module on migration and remittances reveals that over 40% of remittances' recipients receive their transfer on a monthly basis. While 20% received between 1000 USD and 2000 USD in the last 12 months, around 18% each received between 200 USD and 500 USD, 500 USD and 1000 USD, and 2000 USD and 5000 USD (INE 2011). According to the same survey 74% of recipients receive their remittances through money transfer operators (MTOs), while 21.3% receive them through banking channels, totaling over 95% for these two formal transmission channels (INE 2011).⁸⁰ This high

⁷⁷ Resolución GE No. 1631/12-09/2011 "Normas para el Fortalecimiento de la Transparencia, Cultura Financiera y Atención al Usuario Financiero en las Instituciones Supervisadas"

⁷⁸ Agent banking: *Also known as correspondent banking, this is a model for delivering financial services whereby a bank partners with a retail agent (or correspondent) in order to extend financial services in locations for which bank branches would be uneconomical.* Agents can be both banking (small banks) and non-banking correspondents (post offices, gas stations, and mom-and-pop shops). Agent banking is a delivery channel that holds high potential for closing the location gap (Financial Inclusion Glossary published online at www.centerforfinancialinclusion.org/glossary).

⁷⁹ "Mobile money is the provision of financial services through a mobile device. This broad definition encompasses a range of services, including payments (such as peer-to-peer transfers), finance (such as insurance products), and banking (such as account balance inquiries)." Donovan, Kevin (2012) Mobile Money for Financial Inclusion, Chapter 4, In: World Bank. 2012. Information and Communications for Development 2012: Maximizing Mobile. Washington, DC: World Bank. DOI: 10.1596/978-0-8213-8991-1; website: <http://www.worldbank.org/ict/IC4D2012>. License: Creative Commons Attribution CC BY 3.0).

⁸⁰ Since MTOs generally partner with financial institutions in Honduras it is difficult for the receiver to distinguish, whether he or she is receiving his or her money through the financial institution or the MTO. Essentially both have partnered to transfer and pay out the remittances.

number of formal transfers is backed by another study which states that 94% of remittances in Honduras are paid out through formal channels (CEMLA/MIF 2008).

In the early days of Honduran migration most remittances were sent through informal channels via so called *viajeros*, people who traveled back and forth between the USA and Honduras, collecting money from migrants and paying it out to their family, while charging a commission. The first major money transfer company to enter the Honduran market was Western Union in 1997 through a contract with one of the biggest banks of the country, Banco de Occidente. Other large money transfer companies, such as Money Gram and Vigo followed, also through contracts with Honduran financial institutions and by the early 2000s most commercial banks and many other financial institutions, such as cooperatives and microfinance institutions, paid out remittances (Endo et al. 2009). Although some money transfer operators also manage an individual agent network in Honduras, mostly they rely on the financial system as their agent network.

In the year 2010 legislation was passed which gives CNBS the authority to supervise money transfer operators.⁸¹ As a consequence, MTOs had to establish themselves as so-called *sociedades remesadoras* and register and report regularly to CNBS. In 2013 there were 7 money transfer operators registered in Honduras, handling over 946 million USD in remittances (CNBS 2013). Not all of the MTOs that transfer money to Honduras are registered in the country though. The estimated market leader, Money Gram, for example, is not formally constituted in Honduras and works exclusively through contracts with local financial institutions. The same is true for other international players such as Ria and Dolex. In general the Honduran MTO market seems to be highly dominated by two of the world leaders in money transfers, Money Gram and Western Union.⁸² They both have an important network of commercial banks and even *sociedades financieras*, cooperatives, and OPDFs as their payout network. Western Union lost an important partner recently when Banco de Occidente switched to a partnership with Money Gram after working with Western Union for nearly 15 years (Endo et al. 2009). The local MTO with the largest share in the market is Giros Latinos, followed by Ficohsa Remesas.

Because of the aforementioned payout system, where not all the MTOs that transfer money to Honduras are actually registered as MTOs in Honduras and because it is only the registered MTOs and not the financial institutions that have to report on remittances to CNBS, it is very difficult to establish actual market shares in remittances pay out for Honduran financial institutions. A study based on data provided by the Honduran Central Bank in 2006 gave 2 commercial banks (Banco de Occidente and Banco Atlántida) over 50% of the market share, while the largest 6 remittances-paying commercial banks shared over 90% of the market (Endo et al. 2009).

⁸¹ Reglamento para las Autorización y Funcionamiento de las Sociedades Remesadoras de Dinero.

⁸² Money Gram is the second largest money transfer company, which currently has a network of over 334.000 agents worldwide and over 1 billion USD revenue in consumer-to-consumer transactions. (Money Gram Annual Report 2012) The world's largest money transfer company is Western Union, which also includes Vigo and Orlandi Valuta-branded services, which as of 31 December 2013 are offered through a combined network of more than 500,000 Agent locations in 200 countries and territories and over 100,000 ATMs. In 2013, The Western Union Company completed 242 million consumer-to-consumer transactions worldwide (http://corporate.westernunion.com/Global_Organization.html consulted on 09.06.2014).

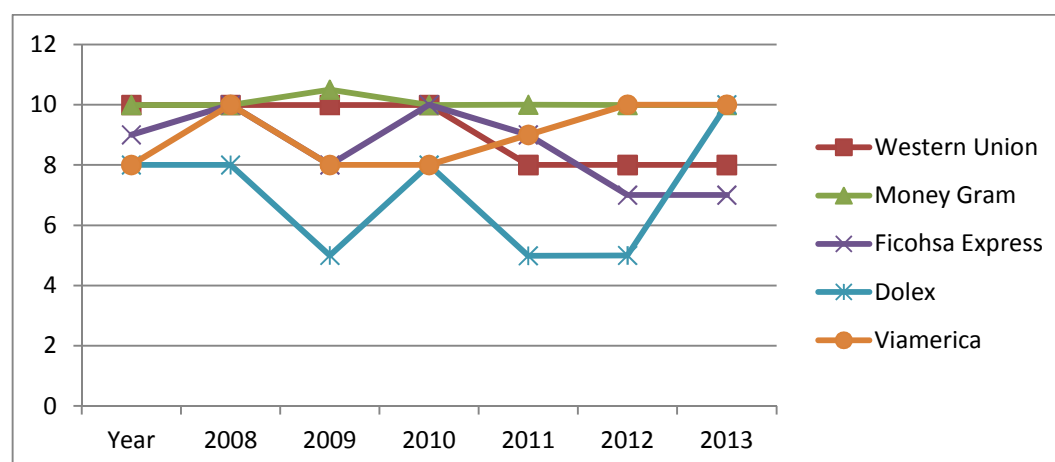
Table 3.2.4: MTO service providers registered with CNBS in 2013

No	Name	Number of offices	Paying agents	Amount paid out in 2013
1	CORELSA (Western Union)	8	9 Commercial Banks 3 Sociedades Financieras 10 Cooperatives 4 OPDF 8 Stores 37 Individual Persons	13,875,665,398.53 Lps.* (636.5 Mio. USD)
2	Giros Latinos	1	5 Commercial Banks	4,090,910,986.36 Lps. (187.7 Mio. USD)
3	Ficohsa Remesas	1	2 Commercial Banks	1,001,171,994.37 Lps. (45.9 Mio. USD)
4	Remesadora Centroamericana	1	1 Store	606,645,949.08 Lps. (27.8 Mio. USD)
5	Hermano Lejano (EHLEXSA)	1	1 Commercial Bank	529,689,881.00 Lps. (24.3 Mio. USD)
6	Servigiros	1	2 Cooperatives 3 Individual Persons	519,067,324.04 Lps. (23.8 Mio. USD)
7	Transremesas**	1	-----	2,934.28 Lps. (134 USD)
	Total	14	85	20.623.154.467,66 Lps. (946.0 Mio. USD)

Source: CNBS (2013) Note: Data on the amount paid out in 2013 is data provided by the MTOs, but has not been verified in situ by CNBS. * Lps. stands for the local currency Honduran Lempira ** Transremesas went out of business in the year 2013.

The general cost structure of remittances consists of fees charged by the MTO and sometimes by the paying agent, as well as an exchange rate margin, since by law remittances have to be paid out in local currency.⁸³ The fee charged by MTOs for sending 200 USD from the USA to Honduras has ranged between 5 to 10 USD over the last few years and has been somewhat volatile.

Graph 3.2.4: Fee (in USD) for sending 200 USD from the USA to Honduras charged by main MTOs (first quarter of each year) 2008 - 2013



Source: The World Bank - Remittances Prices Worldwide (<https://remittanceprices.worldbank.org/en>)

⁸³ This rule is maintained in the Ley Monetaria (Cemla/MIF 2008).

There are no official data about how many remittances receivers have been financially included in Honduras. A study from 2008 finds that nearly 90% of remittances are paid out in cash and only about 10% are deposited directly into accounts (CEMLA/MIF 2008), but these numbers do not reveal, whether money paid out in cash is later deposited into an account and also does not indicate how many remittances receivers actually hold an account. Nevertheless, there is evidence of a general interest and effort by financial institutions to include remittances receivers in the financial system by creating specialized financial products and through specialized marketing for this market segment. Table 3.2.5 gives an overview of the financial institutions that pay out remittances in Honduras, their relationships with MTOs, and whether they market specialized financial products for remittances receivers. The discussion of the relationship between remittances and the financial sector in Honduras will be continued in greater depth in Chapter 3.4.

Table 3.2.5: Financial institutions in Honduras that pay out remittances

Name	Type	Number of Branches*	Money Transfer Operators	Specialized financial products and services (including raffles and specialized marketing)
Banco Atlántida	Commercial Bank	183	MoneyGram, Hermano Lejano Express, Vigo, UniTeller., Envíos de Valores la Nacional, Intermex Wire Transfer, Dolex Dollar Express, Viamericas., Bancomer Transfer Services, Transfat Remittance, RIA Financial Services	Yes
Banco de Occidente	Commercial Bank	170	Money Gram, Giros Latinos, Honduras Express, Casa de Cambio Lempira, others	Yes
Banpaís	Commercial Bank	173	Western Union, Giros Latinos	Yes
Banco Azteca	Commercial Bank	112	NA	NA
Banco Continental	Commercial Bank	108	Western Union / Vigo	NA
BAC Credomatic	Commercial Bank	94	Money Gram	Yes
Banco Davivienda	Commercial Bank	63	Money Gram	Yes
Banco Ficohsa	Commercial Bank	59	Money Gram, Wells Fargo, Sigue, Ria, Ficohsa Express, Dolex, Girosol, Pacific, Transfast, Uniteller,	Yes
Banco de los Trabajadores	Commercial Bank	46	Western Union	NA
Banhcafe	Commercial Bank	50	Western Union / Ficohsa Remesas	NA
Banco Ficensa	Commercial Bank	30	Western Union	NA
Banco Popular	Commercial Bank	24	Western Union	Yes
Banco ProCredit	Commercial Bank	12	Western Union	No
Cooperativas de Ahorro y Credito de UniRed	Cooperatives and self owned	140	Western Union, Money Gram, Girolatinos, Vigo, Uniteller, Remesas, Bac, Servigiros	Yes

ODEF	Sociedad Financiera (MFI)	32	Western Union, ServiGiros	NA
Finsol	Sociedad Financiera (MFI)	13	Western Union	NA
Finca	Sociedad Financiera (MFI)	18	Western Union	NA
FAMA	OPDF (MFI)	15	Western Union	NA
Hermandad de Honduras	OPDF (MFI)	16	Western Union	NA
Credisol	OPDF (MFI)	7	Western Union	NA

Source: Publicly available information collected by the author for this research

3.3 Remittances receivers and inclusion into the financial system:

What matters?

This chapter will present the results of the analysis of the standardized remittances receiver interviews, which were carried out in cooperation with ProCredit Bank Honduras in the year 2013. The complete data collection process was presented in Chapter 3.1 and will therefore not be repeated here.

3.3.1 Introduction

The question that drives this research is at the junction between financial inclusion and remittances and is concerned with the variables that determine financial inclusion among remittances receivers. How important are individual level characteristics such as age, poverty level, gender, education, and financial literacy? And what is the importance of issues related to the migrant family and their remittances, such as the type of relationship between sender and receiver, the number of years of receiving remittances, as well as who decides how the money is allocated and how this decision is monitored?

A number of studies have investigated the factors that determine financial inclusion of the general population (not just remittances receivers) at the country level. A recent study based on the Global Findex Database finds that national income explains 73 percent of the variation in the country-level percentage of adults with a formal account around the world; yet, when looking at the poorest 50% of the population it can only explain 15% of the variation, suggesting that national income (that is, the development of the country) can only explain a far smaller portion (Allen et al. 2012). In a Framing Note for the Financial Access Initiative, Chaia et al (2009) find a moderate to strong positive correlation between usage levels of financial services and per capita income across countries and a weak positive relationship between use of financial services and urbanization. Kendall et al. (2010) conduct basic cross-country regressions and, controlling for income and population density, find that the best predictors of deposit account and loan penetration as well as branch penetration are measures of the development of physical infrastructure, including electricity consumption and phone line density. Additionally, lower inflation and the presence of explicit deposit insurance are associated with greater deposit penetration.

Only few studies seem to have focused on the factors that determine financial inclusion at the individual level, which is probably due to a lack of data.⁸⁴ A study from rural south India found education to be the most significant variable explaining account ownership (Cnaan et al. 2012). A study from Brazil suggests that socioeconomic characteristics such as income and education are significant for financial access. However, this study did not find a significant gender bias for all measures of financial inclusion (Kumar 2005). Allen et al. (2012) find in their global study that people with higher incomes are more likely to have an

⁸⁴ In general household surveys do not provide much information on the use of financial services, which is required for an analysis of the variables affecting financial inclusion. As a consequence, this means that data need to be collected to be able to carry out such an analysis, which is generally costly and time-consuming.

account, men are more likely than women, and higher education leads to more account ownership. Adults are more likely to hold an account than very young adults.

The individual level characteristics that affect the likelihood of remittances receivers to be included in the financial system could be related to income and education, as was the case with the studies on financial inclusion of the general population mentioned above. However, there are other factors specific to migrant families which may also influence the relationship between remittances and financial inclusion. Ashraf et al. (2010) used a randomized field experiment to investigate the importance of migrant control over the use of remittances and found that the treatment that offered migrants the greatest degree of control over savings had the highest impact on savings accumulation at the partner bank and as compared to other groups offered less or no control over savings. These results are supported by another randomized study which offered migrants the possibility of saving in the US and found that it raised savings, suggesting that issues of control affect intra-household resource allocations (Chin et al. 2011). A study from Ireland found that increased communication between migrants and their families increases the values of remittances, also attributing these results to enhanced migrant control and trust (Batista and Narciso 2013).

This research complements the aforementioned studies by presenting results on the variables that predict the likelihood of financial inclusion based on individual and family-level characteristics for remittances receivers in Honduras. Significant variables are identified through a binary logistic regression model and presented for two datasets: *dataphone* and *dataall*. This main analysis will be followed by additional descriptive statistics in order to further explore the relationship between remittances receivers and financial institutions, with the objective of gaining a deeper understanding and a more complete picture of this complex relationship.

3.3.2 Empirical methodology

3.3.2.1 Estimation model

Financial inclusion is often measured through proxies such as account ownership. "*Accounts are a key measure of financial inclusion because essentially all formal financial activity is tied to accounts*" (IFC/The World Bank 2014: 41). Reasons for choosing account ownership as a proxy for financial inclusion are that it is easily comparable across countries and that it provides mechanisms for both payments and savings, which are likely to be more universally demanded than credit (Allen et al. 2012). However, using account ownership as a proxy for financial inclusion obviously has some disadvantages since it does not tell us whether the account is being used actively and it also does not necessarily cover those clients who use other products and services, such as credit or insurance. Therefore, this study applies a broad measure of financial inclusion as the outcome measure which

includes all people who indicated in the surveys that they use at least one financial product, such as a bank account, credit, or insurance product.⁸⁵

Financially included (finclud): This variable indicates whether the respondent answered positively, when asked, if he or she owned an account at a financial institution or used a credit or insurance product. It includes not only ProCredit clients, but also people who received remittances at ProCredit bank, but indicated that they hold an account or use a financial product at some other financial institution.

Since the outcome measure in this study is a binary variable and is coded to take either 0 (not financially included) or 1 (financially included) as a value, a binary logistic regression model has been applied. This model measures the relationship between a categorical dependent variable and one or various independent variables that can be either categorical or continuous. The logistic regression model is a type of generalized linear model (GLM) which applies maximum likelihood estimation (MLE) to estimate values for the unknown parameters that maximize the probability of obtaining the observed set of data (Hosmer and Lemeshow 2000).⁸⁶

$$Y(X_i) = \ln\left(\frac{P_i}{1 - P_i}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_m X_m$$

$$\text{with the logistic function: } P_i = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x)}}$$

and where:

Y is the binary outcome variable

X_i is a vector of explanatory variables, with $i = 1, 2, \dots, m$

β_j is the parameter of the logistic model, with $j = 0, 1, 2, \dots, m$

3.3.2.2 Explanatory variables

A series of socioeconomic variables describing the individual characteristics as well as variables related to the migrant families and their remittances were included as predictors in the model, which in accordance with economic theory and other empirical work were estimated could have an effect on financial inclusion among remittances receivers. The

⁸⁵ The variable *account ownership (account)*, which included only those people who indicated that they owned a savings or current account at a financial institution, as a narrow measure of financial inclusion was also tested during data analysis, leading to the same main results obtained when applying the variable *financially included (finclud)* as a broad outcome measure.

⁸⁶ The logistic model is very flexible since some of the key assumptions from linear regression, such as a linear relationship between X and Y, homoscedasticity, and normally distributed error terms are not valid here (Mayerl and Urban 2010).

majority of these variables were collected through the surveys carried out in cooperation with ProCredit Bank Honduras, but some were also available through ProCredit administrative data.⁸⁷

The variable *gender* indicates whether the respondent is male or female and takes the value 0 for male respondents and the value 1 for female respondents. Considering that most studies on financial inclusion find men more likely to own an account than women, I expected this variable to have a negative relationship.⁸⁸ *Age* and *Agesquare* were both included as predictor variables since other empirical studies have found the use of financial products to first rise and then fall with increasing age.⁸⁹

The *school* variable indicates the years of schooling necessary to reach the highest degree respondents declared they had accomplished. According to the Honduran education system and the available types of degrees that are attainable, the following answer options were possible: 0, 1, 6, 9, 11.5, 14, or 17 years of schooling. In accordance with other studies on financial inclusion I expected the years of schooling to be positively related with the measure of financial inclusion.⁹⁰

The *work* variable indicates whether the respondent is employed and receives an income or whether he or she receives an income through self-employment. The variable *workhours* specifies how many hours a day the respondent spends either employed or self-employed. The options are: full-time, half-time, or less than half-time. I expected both variables to be positively related to financial inclusion since employed people are more likely to receive their payment through a financial institution and even self-employed individuals are more likely to need a financial institution to carry out some basic transactions for their small business.

The *poverty* variable is an index constructed with the objective to measure the likelihood of respondents of being poor. It does not measure poverty as an absolute value and does not intend to classify respondents as either poor or not poor based on some cut off measure.⁹¹ The poverty index was chosen for this research because it is notoriously difficult and complex to establish the income level of a relatively poor and informal population⁹² and because asking for income directly in surveys is a sensitive issue.⁹³ This index captures four dimensions that are likely related to the poverty level of respondents: (1) years of schooling, (2) work, (3) energy source used for cooking, and (4) material used in the construction of the walls of the house respondents live in. Although this index is constructed in a rather simple manner, taking only four dimensions of possible deprivation

⁸⁷ A table containing a description and sources for all explanatory variables can be found in Chapter 6. Annex (Table 6.1.6).

⁸⁸ Compare, for example, Allen et al. (2012), as well as Demirgüç-Kunt and Klapper (2012).

⁸⁹ Compare Allen et al. (2012).

⁹⁰ Once again compare results in Allen et al (2012), as well as Demirgüç-Kunt and Klapper (2012).

⁹¹ A typical cut-off measure that has been used to define who is poor is the 1\$ or 2\$ a day measures, which are listed among the World Development Indicators.

⁹² Poor people often have a variety and variability of income sources, as well as complex lending and borrowing relationships and informal ways of documenting different incomes, making it very difficult to establish a fixed value such as monthly income, for example.

⁹³ This matter was discussed in Chapter 3.1, which covers the process of data collection.

into account, the idea is inspired by recent and more complex efforts to use multidimensional measurements of poverty, with the objective of being able to more realistically assess the deprivation of poor people (Alkire and Santos 2010). This index runs from a minimum value of 4 to a maximum value of 13 and the details of construction can be found in Chapter 6. Annex (Table 6.1.7). I expected the poverty rank to be positively related to the measure of financial inclusions, which means the higher a respondent scores on the poverty rank (the less likely he or she is to be poor) the more likely he or she is to be financially included.

The variable named *finlit* is also a ranking variable and specifies how many of the possible three financial literacy questions respondents were able to answer correctly. The questions asked respondents to perform some basic calculations of interest rates and percentages and also included a knowledge question related to the financial term "devaluation". Similar to the poverty index, the idea is to rank respondents based on their knowledge of finance. The questions were inspired by questions used in a much larger questionnaire on financial literacy, which was applied by the World Bank in Russia and adapted to the Honduran context.⁹⁴ I expected the level of financial literacy to be positively related to the measures of financial inclusion and expected the relationship to be stronger than with the variable *school*.

The *branch* variable is not a socioeconomic characteristic but, since it provides a geographic dimension to the data, is still included as a control variable in the analysis. It specifies at which branch the respondents pick up their remittances. Since all but one of the ProCredit branches are in large urban centers and one is in a smaller urban center, an urban/rural distinction unfortunately cannot be made by using this variable. There are no expectations about how this variable will relate to the measure of financial inclusion.

The *years* variable indicates for how many years the remittances receiver has been receiving remittances. It is a continuous variable that runs from just one month to over 20 years. I expected this variable to relate positively to financial inclusion, that is, the longer a person has been receiving remittances, the more likely he or she is to be financially included.

Both the *frequency* and the *amount* variable come from administrative data and not from the surveys and are therefore only available in the *dataphone* dataset. In this sense they must to be taken with some caution because they indicate how often and which average amounts of remittances people received at ProCredit bank between January and June 2013. They do not tell us whether people received remittances during this time at other financial institutions, which is definitely a possibility. In addition, the timeframe of measurement for this variable is relatively short, although available data on remittances in Honduras indicate that remittances are generally sent on a very regular basis.⁹⁵ The expectation is that both variables will relate positively to financial inclusion, that is, people who receive remittances

⁹⁴ The complete survey instrument on financial literacy used by the World Bank and Russian Trust Fund is available on the following website <https://www.finlitedu.org/>.

⁹⁵ The "Modulo de Migración y Remesas" 2010 collected by the National Statistic Institute of Honduras indicates that around 70% of recipients of remittances receive their transfer with a frequency of once a month or higher.

more frequently and who receive higher amounts are more likely to own an account or use some other financial product.

The variable *numsenders* indicates from how many different senders the same person receives remittances. The results from the survey range between 1 and 4 different senders. The variable is then specified to indicate the relationship between the sender and the receiver. Categories include *parent, child, spouse, other family, and friend*. These variables can either take 0 or 1 as a value, with 1 indicating the correct relationship.

The next variable is called *decision* and indicates who makes the decision concerning how the remittances are spent. The answer options are: *sender, beneficiary, or together*, when both sender and receiver decide together how the funds should be allocated. Hypotheses concerning the relationship between this variable and the measure of financial inclusion are based on the idea that the sender, rather than the beneficiary of remittances, is more likely interested in the money being saved for the following reasons: (1) For the sender the remittances are part of their working income and not money they received as a gift. Therefore, they might be more interested in seeing the money saved and invested, rather than just consumed; (2) If the receivers save part of the remittances and invest successfully, at some point they become less dependent on the sender. Based on this hypothesis I expected a higher likelihood of financial inclusion when the sender decides how the remittances are allocated.

The *monitoring* variable indicates whether the remittances receiver informs the sender about how the money he or she received was spent or allocated. This variable takes the value 0 when the sender is not informed and the value 1 when the sender is informed. In line with the arguments mentioned above and in line with the recent studies on remittances and control presented above I expected a positive relationship between financial inclusion and monitoring.

The final variable is called *communication* and describes how often senders and receivers communicate per month via telephone. This variable is only available for the *dataphone* dataset. Results range from less frequently than once a month to more frequently than once per day. Based on the hypothesis mentioned earlier that senders might be more interested in the money being saved than receivers, I expected a positive relationship between the frequency of communication and measures of financial inclusion because frequent communication is a sign of a closer relationship, which most likely gives the sender more possibilities to influence and monitor the allocation of remittances.⁹⁶

⁹⁶ Obviously most of the measures describing the relationship between remittances senders and receivers (such as the *decision, monitoring* and *communication* variables) only present one point of view since in this particular research only the receivers and not the senders of the remittances were interviewed. In addition, these measures are subjective in the sense that it is not observed behavior, but rather the behavior (concerning decision, monitoring, etc.) that is perceived by the remittances receiver.

3.3.3 Results

The summary statistics presented in Tables 6.1.9 and 6.1.10 give an overview of the data, and the univariate analysis of explanatory variables in the logistic regression framework provide a first indication of the relationship between financial inclusion and remittances receivers at ProCredit Bank in Honduras. Table 6.1.11 shows the results from the univariate analysis of financial inclusion as an outcome measure and the explanatory variables for the dataset *dataphone*.⁹⁷ Several of the individual-level characteristics have positive and statistically significant relationships with financial inclusion, such as poverty level, work, and workhours, as well as with the level of financial literacy. Of those variables related to remittances and the migrant family, years of receiving remittances and the average amount of remittances received have significant relationships with financial inclusion, as well as the beneficiary making the decision about the allocation of the money.

In the next step of the analysis, I further examined the relationship between financial inclusion and the explanatory variables listed above, based on a multivariate logistic regression model. The model was selected with the intention to identify the most parsimonious model that still explains the data based on the results from the univariate analysis. Variable selection was carried out through the stepwise procedure of backward elimination, where variables, which do not contribute to the model are sub sequentially dropped, as proposed by Hosmer and Lemeshow (2000). The overall fit of the model was assessed through a Likelihood Ratio Test and by applying the Hosmer-Lemeshow Goodness-of-Fit Test. It is important to state at this point that with the type of data used in this study the results can only be interpreted as significant relationships and not as causal relationships.⁹⁸ Results will be presented for two datasets: *dataphone* and *dataall* and will be followed by the weighted results for the dataset *dataphone*.

Table 3.3.1 presents the summary of the logistic regression analysis for the dataset *dataphone*. There are two highly significant predictors of financial inclusion at the 0.001% level: the poverty level index and years of receiving remittances. The poverty level has a positive relationship, meaning that the less likely a respondent is poor, the more likely he or she will be financially included. With every unit change in the poverty index (which runs from 4 to 13), the odds of owning an account go up by 27%.⁹⁹ When the poverty level index is excluded from the analysis and, instead, the individual components work and schooling are included, it becomes apparent that income from work is a better predictor than years of schooling. The second highly significant predictor, years of receiving remittances, also shows a positive relationship, meaning that the longer a person has been receiving remittances, the more likely he or she is to be financially included. The odds of being financially included go up by 10% with every year of receiving remittances. The third significant predictor at the 0.01% level is the average amount of remittances received, once again, this is a positive relationship, indicating that the odds of being financially included go

⁹⁷ All tables not inserted directly in the text can be found in Chapter 6. Annex

⁹⁸ Since this research is neither based on data derived from an experiment nor panel data, no change in variables can be observed and therefore no causes for these changes can be identified. The data provided here allows for correlational research, which analyzes the likelihoods of certain outcomes.

⁹⁹ The coefficients resulting from a logistic regression analysis are exponentiated to produce the odds ratio levels.

up by 0.2% with an additional average dollar of remittances received. As was mentioned before, the amount variable might suffer from some measurement problems which must be taken into account when interpreting this result. None of the other individual-level characteristics, such as gender or age, are significant predictors nor any of the other family-related variables, such as monitoring, decision making, or the relationship with the sender.

Table 3.3.1: Summary of logistic regression analysis results for financial inclusion in *dataphone*

Variable	Coefficient	Standard Error	z value	Pr (> z)
<i>poverty</i>	0.236	0.060	3.929	0.000 ***
<i>years</i>	0.096	0.028	3.402	0.001 ***
<i>amount</i>	0.002	0.001	3.021	0.003 **

Significance levels: '***' 0.001 '**' 0.01 '*' 0.05

The Likelihood Ratio Test for the overall fit of the model produced a Chi-Square statistic of 53.57 with 3df, which is associated with a p-value of $p < 0.05$, indicating that this model fits the data better than the null or intercept-only model. The Hosmer-Lemeshow (HL) Goodness-of-Fit test produced a p value of $p = 0.21$, indicating a satisfactory model fit, since lack of fit in the HL Test is associated with a p value of $p < 0.05$. Table 6.1.12 shows the expected and observed frequencies produced by the HL Test, which indicates how well the model is able to categorize the binary outcome correctly.

As expected from the distribution of the samples and populations, when assessing nonresponse error and coverage error in Chapter 3.1.1.2 the weighting procedures based on age and geography for the dataset *dataphone* did not alter the results.¹⁰⁰ As can be seen in Table 6.1.13 and Table 6.1.14, which present the adjusted results for nonresponse and coverage, respectively, poverty level and years of receiving remittances remain highly significant predictors for financial inclusion, as well as the average amount of remittances received.

Table 3.3.2 presents the summary of the logistic regression analysis for the dataset *dataall*. Results are closely related to those of the *dataphone* dataset. The likelihood of being poor and years of receiving remittances are both still significant predictors of financial inclusion. A unit change in the poverty index raises the odds of financial inclusion by 19%, while an additional year of receiving remittances raises the odds of financial inclusion by 7%. Once again, work is a stronger predictor within the poverty index than schooling. Additionally in this dataset, the financial literacy level is also positively related to financial inclusion, meaning that respondents who were able to answer more questions correctly on the financial literacy test were more likely to be financially included. Every additional question (out of the 3 total questions) answered correctly raised the odds of being financially included by 38%. A final significant predictor of financial inclusion in this dataset is receiving remittances from one's child. In interpreting these results, the particular features of the dataset *dataall* need to be taken into account, which combined interviews based on two different interviewing methods: phone interviews and face-to-face interviews.

¹⁰⁰ For information on the distribution of the weighting variables and the weights that were applied, please refer to Chapter 3.1.1.2..

Table 3.3.2: Summary of logistic regression analysis results for financial inclusion in *dataall*

Variable	Coefficient	Standard Error	z	Pr (> z)
<i>poverty</i>	0.177	0.050	3.502	0.000 ***
<i>years</i>	0.065	0.021	3.084	0.002 **
<i>finlit</i>	0.326	0.109	3.012	0.003 **
<i>child</i>	0.503	0.218	2.303	0.021 *

Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1

The Likelihood Ratio Test for the overall fit of this model produced a Chi-Square statistic of 50.49 with 4df, which is associated with a p-value of $p < 0.05$, indicating that this model also fits the data better than the null or intercept-only model. The Hosmer-Lemeshow (HL) Goodness-of-Fit test produced a much smaller p value of $p = 0.09$. Considering that this p value is still above the critical $p < 0.05$, I did not detect lack of fit for this model, but this drop very likely reflects the lower overall quality of the *dataall* dataset.

Most studies on financial inclusion find income level or some other proxy of income, such as the poverty index used in this study, to be a predictor of financial inclusion and in this sense the results of this study are fully in line with current research results.¹⁰¹ The fact that the average amount of remittances received is positively related to financial inclusion is also straightforward in the interpretation, in the sense that people who receive higher amounts of remittances more likely will have some funds left over to deposit in an account and, therefore, may also be more eligible for credit products. Possible issues with measuring this variable were mentioned earlier and need to be taken into account when interpreting this result. In contrast to results from other studies, this research does not find a gender effect, where being male or female predicts whether someone will likely be financially included. This result could be interpreted as a positive sign towards gender equity in financial inclusion and might be related to the fact that financial institutions focusing on microfinance or small and medium enterprises, such as ProCredit, have specifically been targeting women as clients for some time now.

Another interesting result is the fact that receiving income through work is a stronger predictor than the level of education, which is measured through years of schooling, since other studies on financial inclusion have found different results.¹⁰² This result may simply underline the strong connection between income and financial inclusion, but may also reflect the fact that (formal) employment and receiving your payment through a financial institution as a consequence can be a strong vehicle for financial inclusion. In this sense, financial inclusion is not necessarily fostered through growing knowledge or awareness about its benefits, but is an effect of integrating the population into more formal labor markets and business environments.

¹⁰¹ Compare results from Allen et al (2012), Demirgüç-Kunt & Klapper (2012), Cnaan et al (2012), Kumar (2005).

¹⁰² Kumar et al. (2005) find schooling to be a more important predictor than income in their study of financial inclusion in Brazil.

The main result of this analysis for the context of migrant families is that years of receiving remittances is a very strong predictor of financial inclusion. This is underlined by the fact that there is no strong relationship between age and years of receiving remittances, meaning that this result cannot simply be interpreted to mean that people who have been receiving remittances for a longer time are older and therefore more likely to own an account. This result therefore points towards the life cycle motive of remittances, where motives for sending remittances, apart from the general desire to support the family back home, may change during the life cycle, with paying off debt or buying a house or land being important earlier in the migration process and creating savings and further accessing the financial system being more important later on.¹⁰³ It can also be interpreted to suggest that the permanent contact with a financial institution, which is the case in such a formalized remittances market as in Honduras where remittances are mainly paid out through the financial system, lowers the cultural barriers between remittances receivers and financial institutions, leading eventually to financial inclusion.

When analyzing the combined dataset *dataall*, two additional variables become significant predictors of financial inclusion. While there is no intuitive explanation as to why the addition of the face-to-face interviews in the dataset *dataall* should affect why receiving remittances from one's child becomes a significant predictor, there is a very intuitive explanation in the case of the financial literacy level. Knowledge questions on financial topics are probably measured much better in a face-to-face setting than over the phone, considering that these more complex questions are not easily transmitted and understood over the phone. So although the overall quality of the dataset *dataall* is lower than the quality of *dataphone*, the result that financial literacy is a significant predictor of financial inclusion in the dataset *dataall* seems to be quite relevant because the addition of face-to-face interviews most likely improved the measurement of this particular variable. This result is also in line with current research results and initiatives, which connect financial literacy to financial inclusion, although it is important to state once again that this research does not provide evidence for a causal relationship.¹⁰⁴

Finally, this research did not find any effects related to decision making and monitoring of the allocation of remittances in migrant families. Obviously, these relationships are difficult to measure and the approach in this research differs from studies that have found such effects in two ways: Only the receivers of remittances are interviewed and not the senders, limiting the points of view that are captured.¹⁰⁵ Secondly this research does not apply experimental methods and therefore cannot actually observe a change in behavior, but can only ask about perceptions of behavior. These limitations of the study design likely affect the possibility of detecting the aforementioned effects.

¹⁰³ A good description of the life-cycle motive of remittances can be found in: Accion (2008) Challenges and opportunities for banking remittances - Key elements needed to develop a strategy to bank recipients of remittances, Accion InSight Number 25, November 2008.

¹⁰⁴ An overview of the current state of research on financial literacy and its determinants can be found in: Xu, Lisa and Zia, Bilal (2012), Financial Literacy around the World, Policy Research Working Paper, 6107, The World Bank, Washington D.C.

¹⁰⁵ It is very costly to collect data on senders and receivers of remittances, which essentially involves carrying out field work in two countries. This was not possible due to budget constraints during this research.

3.3.4 Some further exploration

The objective of this subchapter is to present some further exploration of the relationship between remittances receivers and financial institutions in the form of descriptive statistics, based on the information available from the two separate datasets: *dataphone* and *dataface*.¹⁰⁶ The objective is to better describe and gain a deeper understanding of this complex relationship. Therefore, this analysis focuses mainly on the subsets of individuals who are financially included, although it does also present some data on the people who remain outside of the financial system.

Table 6.1.15 shows the results for the dataset *dataphone* and reveals that 62.41% of the respondents, that is, 259 of the 415 individuals in this dataset hold an account at a financial institution. Most of these account owners state that they hold one account (55.9%), while the highest answer given is a total of three accounts. By far most of the accounts are held at banks. When the results for the two groups that answered either "at ProCredit bank" or "at another bank" are combined, they sum up to nearly 85%. The next highest answer option is "at a Savings and Credit Cooperative" with 15.33% and only person indicated to hold an account "at a Microfinance Institution".

When asked about the use of other financial products and services, 33.49% of all individuals in the dataset *dataphone* answered positively, confirming their use of other products. Again, most people use just one other financial product, two being the highest answer to this question. Concerning the type of financial products, credit and loans are the most popular in this group at 50.74%, followed by debit cards (27.94%) and then credit cards (9.56%). Only one person indicated that he or she is using an insurance product.

One of the questions in the questionnaire asked account owners whether they held an account before starting to receive remittances and half of the respondents answered "yes" to this question, while the other half answered "no". Thus, it seems that remittances have helped bring a considerable amount of the beneficiaries into regular contact with a financial institution, which eventually has led to financial inclusion. When asked about the use of their account and whether they had deposited parts of their remittances into their accounts in the last 12 months, 72.59% of account holders answered positively. Future intentions of saving or saving more were also answered positively by 88.03% of respondents. The result of this particular question needs to be interpreted with much caution, though, because the intention or desire to deposit by no means indicates that people are actually going to do so.

Of those respondents who are not currently financially included, a total of 13.46% answered positively when asked whether they save outside of a financial institution. By far most of these people (71.43%) indicated that they do so by saving at home while two respondents stated that they formed part of an informal savings group.

¹⁰⁶ A detailed presentation of the datasets that were collected and constructed can be found in Chapter 3.1 The Data.

Table 6.1.16 presents the results for the second dataset *dataface*, which are very similar to the results of the dataset presented first: *dataphone*. The dataset *dataface* is based on face-to-face interviews, which also included some additional questions that will be presented here. A total of 54.92% of respondents answered that they owned an account at a financial institution, which amounts to 145 of 264 people. Again, most people indicate that they hold one account, although in this dataset there are more answers for two accounts than before and here the highest answer option increased to a total of four accounts. An additional question in this dataset asked respondents about the type of account that they hold. Almost everybody (98.60%) answered "Savings account", while only one person answered "Current account". These answers are to be taken with some caution, since relatively low levels of schooling and financial literacy could indicate a lack of capacity of respondents to differentiate between different types of account. Once again, most respondents by far hold their account at a bank, with accounts at savings and credit cooperatives in second place and only very few accounts at a microfinance institution.

In this dataset, 30.30% of respondents answered that they use other financial products and services. Again, most people indicated that they use just one other financial product, the highest answer being three. Due to a different structure of the question¹⁰⁷ the answers concerning the types of financial products differ from the first dataset. Again "Loans and Credit" are the most popular answer option at 38.24%, followed by "Credit and Debit Card" at 27.45%. "Transfers" is the third most popular answer with 17.65% and finally "Insurance" comes fourth at 11.76%. This is an interesting example about how answers are influenced based on how the questionnaire questions are presented.

A slightly higher number of respondents (54.48%) in this dataset indicated that they did not own an account prior to receiving remittances, showing that here an even larger number of people have most likely been brought into regular contact with a financial institution through remittances. When asked about the use of their account, once again, a high number of respondents (72.41%) indicated that they have deposited parts of their remittances into their account in the last 12 months. An additional question in this questionnaire asked those respondents who did not deposit their remittances why they did not do so. Most answered : "I do not have any money left over". The next popular answers were "The money does not belong to me. I administer it for somebody else" and "I prefer to spend the money". Other less popular answering options included: "I pay off debt" and "I invest the money".

Another question that was not included in the prior dataset asked how often respondents had deposited part of their remittances into their account in the last 12 months. Being an open answer question, the answers to this question were very diverse, ranging from once a year to once a week. The distribution of answers to this question was relatively equal, showing some accumulation between 1 to 6 times a year and then again at 10 to 12 times a year. When asked whether respondents would like to save more in the future, as before a large majority (86.67%) answered positively.

¹⁰⁷ The face-to-face interview questionnaire provided categories for this particular question, while the phone interview questionnaire had this as an open answer question.

In this questionnaire, the respondents who do not currently own an account were asked why they did not have one. This question provided preformulated answering options and the most popular one at 65.55% was: "I don't have enough money to save". This was followed by "Somebody in my family already owns account" with 11.76% and "I don't have the necessary documentation" with 7.56%. Other less popular answer options included: "I don't trust banks"; "They are too far away"; and "They are too expensive". When asked whether they saved outside of a financial institution a relatively higher number of respondents in this dataset answered positively (40.34%). Once again, by far most people answered that they saved at home (87.5%). This time around three people indicated that they belonged to an informal savings group. The final question asked people who save outside of a financial institution why they do so and most answered: "To prepare for an emergency" followed by "To make an investment" and "To make a bigger purchase".

3.3.5 Conclusions

The aim of this chapter of the study is to contribute to current research efforts that investigate the relationship between remittances and financial inclusion by analyzing the factors that determine financial inclusion for a sample of remittances receivers at ProCredit bank in Honduras. Two variables in particular have a strong relationship with financial inclusion: The poverty level and years of receiving remittances. The average amount of remittances received is also a strong predictor, although this variable might suffer from measurement issues. Finally, the level of financial literacy proved to be relevant when analyzing the combined data set *dataall*, which combines phone interviews with face-to-face interviews and therefore probably provides a better measurement of this particular variable.

Most studies on financial inclusion find income level or some other proxy of income to have a significant relationship with financial inclusion and in this sense the results of this study are fully in line with current research results. This result is also supported by evidence from the descriptive statistics, which show that the majority of those people who do not own an account state as a reason that they do not have enough money to save. In contrast to other studies this research does not find strong effects for level of education and gender biases, but rather finds a strong relationship between receiving income from work and financial inclusion.

The main finding in the context of the migrant family is that years of receiving remittances is strongly associated with financial inclusion, pointing towards a life cycle motive for remittances, where saving and access to financial services become more important in a later stage of the migration process. It is also an indication that the permanent contact with a financial institution lowers the cultural barriers between remittances receivers and financial institutions. This result is supported by evidence from descriptive statistics, which state that over half of the account owners in the sample did not own an account prior to receiving remittances, meaning they most likely came into contact with financial institutions as a result of receiving remittances.

Finally, the relationship between the level of financial literacy and financial inclusion is estimated to be relevant (even though there is no evidence of causation) and supports many recent findings in research and efforts on the ground that are working to improve the financial literacy of poor populations.

3.4 How do remittances affect access barriers to the financial system?

This chapter will address the effect that remittances have on access barriers to finance in Honduras. A mixed methods research approach has been applied which will take into account results from the analysis of all three sources of data collected for this study. Firstly in this chapter, mixed method research will be explained in the context of the social sciences, followed by a presentation of the research design that was chosen for this study. A theoretical analysis of the effects that remittances can have on access barriers to finance will be followed by the presentation of the empirical evidence from Honduras. Conclusions will wrap up this chapter.

3.4.1 Method

3.4.1.1 Mixed method research in the social sciences

"Mixed methods research is, generally speaking, an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research)" (Johnson et al. 2007: 113).

There is a long ongoing dispute between advocates of the quantitative and the qualitative research paradigms, which at times has even been coined a paradigm war (Johnson and Onwuegbuzie 2004). Quantitative purists believe that social science inquiry should be objective, that time- and context-free generalizations are possible and desirable, and that the causes for the outcomes can be determined validly and reliably ((Johnson and Onwuegbuzie 2004). Creswell (2003) places them within the postpositive tradition, and researchers in this line apply what has sometimes been called "the scientific method".¹⁰⁸ Qualitative purists, on the other hand, believe that research is value-bound, that it is not possible to fully separate causes and effects, and that knower and known cannot be separated because the subjective knower is the only source of reality (Johnson and Onwuegbuzie 2004). Creswell (2003) places these researchers within the school of social constructivism, where the researcher's intent is to make sense of the meanings others have about the world.¹⁰⁹

¹⁰⁸ *"Postpositivism reflects a deterministic philosophy in which causes probably determine effects or outcomes. Thus, the problems studied by postpositivists reflect a need to examine causes that influence outcomes, such as issues examined in experiments. It is also reductionistic in that the intent is to reduce the ideas into a small, discrete set of ideas to test, such as the variables that constitute hypotheses and research questions. The knowledge that develops through a postpositivist lens is based on careful observation and measurement of the objective reality that exists "out there" in the world"* (Creswell 2003: 7).

¹⁰⁹ *"The ideas [of social constructivism] came from Mannheim and from works such as Berger and Luckmann's *The Social Construction of Reality* (1967) and Lincoln and Guba's *Naturalistic Inquiry* (1985). Assumptions identified in these works hold that individuals seek understanding of the world in which they live and work. They develop subjective meanings of their experiences-meanings directed toward certain objects or things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas"* (Creswell 2003: 8).

An important question that arises for researchers attempting to combine quantitative and qualitative approaches is whether these two paradigms are actually compatible. A contribution by Howe (1988) argued against the so called "incompatibility thesis" on practical grounds, stating that research needs to be pragmatic and go forward with what works. In consequence, pragmatism is the underlying world view for mixed method research, which focuses on the research problem and encourages the use of pluralistic approaches to derive knowledge about the problem (Creswell 2003).¹¹⁰ Tashakkori and Teddlie (1998) have even referred to this as the "dictatorship" of the research question. Doubts about the compatibility of quantitative and qualitative approaches remain among certain researchers, especially concerning the use of the different approaches to cross-validate results, but it seems that at least mixing methods for complementary purposes has become accepted, even among critics (Sale et al. 2002).

Mixed method research has emerged as a third research approach in recent years and positions itself in the middle of a continuum, with purely quantitative research on one side and purely qualitative research on the other, rejecting the idea of a dichotomy between the two (Tashakkori and Teddlie 2003).¹¹¹ Mixed methods research explicitly does not aim at replacing either the quantitative or the qualitative approach, but rather presents itself as a third alternative. *"We hope the field will move beyond quantitative versus qualitative research arguments because, as recognized by mixed methods research, both quantitative and qualitative research are important and useful. The goal of mixed methods research is not to replace either of these approaches but rather to draw from the strengths and minimize the weaknesses of both in single research studies and across studies"* (Johnson and Onwuegbuzie 2004: 14).

Creswell and Plano Clark (2006) describe the historic evolution of the mixed method research paradigm in four stages: A *Formative Period* from the 1950s up to the 1980s, during which the initial interest in applying more than one method in a single study arises. Famous contributions at this stage include Campbell and Fiske (1959), who introduce the use of multiple quantitative methods, and Jick (1979), who discusses the triangulation of qualitative and quantitative data.¹¹² The *Paradigm Debate Phase* during the 1970s and 1980s when several authors, such as Bryman (1988), argued against the incompatibility

¹¹⁰ *"Pragmatism derives from the work of Peirce, James, Mead, and Dewey (Cherryholmes, 1992). Recent writers include Rorty (1990), Murphy (1990), Patton (1990), and Cherryholmes (1992). There are many forms of pragmatism. For many of them, knowledge claims arise out of actions, situations, and consequences rather than antecedent conditions (as in postpositivism). There is a concern with applications -"what works"- and solutions to problems (Patton, 1990). Instead of methods being important, the problem is most important, and researchers use all approaches to understand the problem (see Rossman & Wilson, 1985)"* (Creswell 2003: 11).

¹¹¹ The growing importance of mixed method research is evidenced by a growing number of standard textbooks that are being published (for example, Creswell (2006); Tashakkori and Teddlie (2008); Greene (2007)), the establishment of specialized scientific journals (for example, "The Journal of Mixed Methods Research"), as well as conferences on mixed method research and funding going into mixed method studies (for example, by the NIH: http://obssr.od.nih.gov/scientific_areas/methodology/mixed_methods_research/section5.aspx).

¹¹² *"Triangulation has its applied origins in navigation and surveying, whereupon taking measurements from two separate locations one can derive, or predict, a third measurement or location. In social research in its broadest sense, triangulation implies combining together more than one set of insights in an investigation, [...]"* (Downward and Mearman 2007: 80).

thesis, which stated that quantitative and qualitative paradigms could not be mixed, and defined pragmatism as the best philosophical foundation for mixed method research (Tashakorri and Teddlie 2003). In the phase of *Procedural Developments*, during the 1980s and 1990s, the focus was taken off the philosophical debate and moved on to more practical aspects of research design in mixed method research. Groundwork was laid by Green, Caracelli and Graham in 1989, who developed a first classification system for mixed method studies (Green et al. 1989). As of the year 2000, Creswell and Plano Clark (2006) identified a period of *Advocacy*, with authors such as themselves, Tashakkori and Teddlie (2003), and Johnson and Onwuegbuzie (2004) arguing in favor of mixed method being the third approach for research alongside the established quantitative and qualitative approaches (Creswell and Plano Clark 2006).

The historic overview makes clear that mixed methods research is still a relatively young field and, as a consequence, some key aspects, including the name of the field itself and corresponding terminology, and typologies of research designs are not yet aligned among practicing scholars. The different names that are being used, for example, include "combined research" (Nudzor 2009), "blended research" (Thomas 2003), "mixed research" (Onwuegbuzie and Johnson 2006), as well as "multimethod research" (Morse 2003).¹¹³ The term "triangulation" was used very prominently during earlier stages to describe mixed research approaches (Jick 1979; Denzin 1978), but is nowadays mostly applied for mixed method research that has the explicit objective of validating the results of one data set with the results of another data set (Bryman 2011).¹¹⁴ The recent publication of the Handbook of Mixed Method Research, as well as the establishment of the Journal of Mixed Method Research might be an indication that this term is gaining a broader acceptance in the research community (Tashakkori and Teddlie 2003).

As of yet, there is no agreement on the classification or typology of the different research designs in mixed methods research. Creswell and Plano Clark (2006), for example, present a table with 12 different classifications of mixed method research designs, stating that different classifications also represent the different disciplines that are currently applying mixed methods. The authors then go on to propose four different basic research designs: (1) The Triangulation Design, where quantitative and qualitative data are collected simultaneously and then merged during analysis or interpretation; (2) The Embedded Design, where one data set provides a supportive, secondary role in a study based primarily on the other data type; (3) The Explanatory Design, where qualitative data help to explain or build upon initial quantitative results; and (4) The Exploratory Design, where the results from the first (qualitative) method help develop or inform the second (quantitative method).

¹¹³ This confusion about the different names that are being used can obviously make it difficult at times to locate studies applying mixed method research approaches.

¹¹⁴ "MMR [Mixed Method Research] emerged partially out of triangulation literature, which has commonly been associated with the convergence of results. Nevertheless, there is a growing awareness that an equally important result of combining information from different sources is divergence or dissimilarity" (Tashakkorie and Teddlie 2004: 9).

The three basic features that Creswell and Plano Clark (2006) distinguish for determining a mixed method research design are: (1) Timing, which refers to whether the datasets are collected simultaneously and then analyzed or whether one of the datasets is collected and analyzed first and then used as an input for the collection of the second dataset; (2) Weighting, meaning whether the qualitative or the quantitative aspect of the study are dominant or if they are of equal importance; and, finally, (3) Mixing of the data, which is concerned with whether the data are merged during interpretation or analysis, whether one dataset is embedded in another or whether the two are sequentially connected (Creswell and Plano Clark 2006). A fourth relevant aspect is brought up by Tashakkori and Teddlie (2003) who look at the relationship between the datasets: Are there multiple samples (qualitative and quantitative data are collected from different individuals), a sample and a subsample (which means both data types are available for at least some individuals), or are there multilevel samples (qualitative data are collected at one level of a social structure, while quantitative data are collected at another).

The basic common ground for all mixed method research is the combination of both quantitative and qualitative data in one research project.¹¹⁵ The research question is the dominant driver and the method chosen for answering the question should present the best possible solution for the problem. This freedom to choose methods based on the problem at hand has been coined methodological eclecticism. "*Methodological eclecticism means that we are free to combine methods and that we do so by choosing what we believe to be the best tools for answering our questions*" (Tashakkori and Teddlie 2003: 9).

Mixed method researchers may have different expectations about the results they want or can achieve by mixing different types of data and therefore different objectives or purposes for mixed methods research can be distinguished. Johnson and Onwuegbuzie (2004), for example, identify five major purposes for conducting mixed method research: (a) *triangulation (i.e., seeking convergence and corroboration of results from different methods and designs studying the same phenomenon)*; (b) *complementarity (i.e., seeking elaboration, enhancement, illustration, and clarification of the results from one method with results from the other method)*; (c) *initiation (i.e., discovering paradoxes and contradictions that lead to a reframing of the research question)*; (d) *development (i.e., using the findings from one method to help inform the other method)*; and (e) *expansion (i.e., seeking to expand the breadth and range of research by using different methods for different inquiry components)* (Johnson and Onwuegbuzie 2004: 22).

The purpose of the mixed method approach will obviously also affect the research design. While validating or complementing results from one data set with the results from another data set might lead to a more parallel and structured design, a more exploratory purpose,

¹¹⁵ Triangulation literature, in contrast, also makes reference to the mixing of different quantitative data or different investigators analyzing the same quantitative data. Downward (2007), for example, presents the following taxonomy of triangulation: (1) data triangulation (which can also refer to different types of quantitative data being used); (2) investigator triangulation (where different investigators analyze the same data); (3) theoretical triangulation (making reference to more than one theory when analyzing data). and (4) methodological triangulation (the combination of different research methods).

such as developing or expanding results, might be better achieved through a circular or embedded research approach.

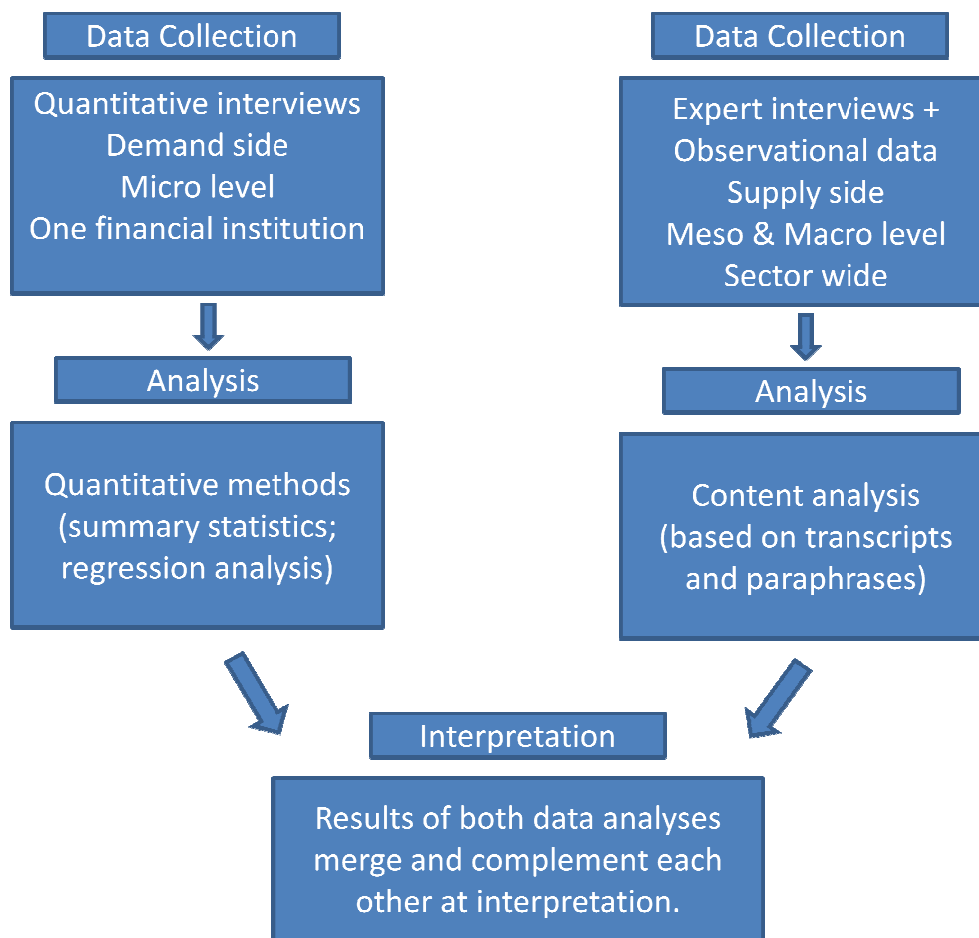
When looking at its application in practice, it becomes clear that mixed methods research is currently being applied most in the fields of sociology, psychology, education, and health sciences (Azorin and Cameron 2008). The use of mixed method research in economics is not very common, although Downward and Mearman (2005) show how it is applied in practice by the Bank of England to carry out its economic forecasting. However, *"in economics generally, the use of triangulation, beyond the weakest form of the interaction of modeller and model, is limited [...] Econometric analysis remains primary and other methods are auxiliary to it"* (Downward and Mearman 2007: 80). In business and management studies, mixed methods is becoming more common and generally more accepted. A study by Cameron and Molina-Azorin (2010), for example, analyzes the application of mixed method research across seven different business and management fields, including marketing, international business, strategic management, organizational behavior, and entrepreneurship.

3.4.2.2 Mixed method approach in this study

The mixed method approach that is applied in this research can be described as a triangulation design, according to the classification presented by Creswell and Plano Clark (2006). All datasets were collected simultaneously and independently and merged at the stage of interpretation. That means all datasets were analyzed independently and no mixing of the data during the stage of analysis took place. In this research no dataset is believed to be dominant, results are meant to complement each other and to help gain a deeper understanding of the problem under study. As proposed by Tashakkori and Teddlie (2003) the relationship of the datasets is that of a multilevel sample, with remittances receivers being the focus of quantitative interviews and financial sector experts being the focus of expert interviews. The observational data are mainly qualitative in nature (but also have quantitative aspects) and essentially enrich the information gathered through the expert interviews. Graph 3.4.1 illustrates the research design developed for this study.

The benefits of applying a mixed method approach in this research becomes clear when taking a closer look at the subject of the study. Although a series of contributions have presented evidence for a positive impact of remittances on financial inclusion (Anzoategui et al. 2011; Ambrosius 2012; Demirgüc-Kunt et al. 2009), these studies do not tell us much about how financial inclusion of remittances receivers actually takes place, how remittances may help lower the access barriers to finance, and which factors might foster or prevent it. Essentially, a black box remains, which can be analyzed in more depth by merging different types of data, which was done during this research.

Graph 3.4.1: Mixed method research design in this study



Essentially, the combination of the different types of data broadens the information base for this study in several ways: (1) Although the quantitative interviews with remittances receivers comprise a representative sample of people that use the ProCredit remittances service, they are not a representative sample of remittances receivers in Honduras as a whole who access the financial system when claiming their remittances. Adding sector-wide expert interviews gives a more diversified perspective of the financial system, rather than just from one institution. (2) By combining the data, different points of view can be included, one from the consumer side and another from the side of decision makers who work directly on these topics within financial institutions or regulatory entities. (3) Therefore, the combination of data also brings different levels into the study, with regulators at the macro level, financial institutions at the meso level, and remittances receivers at the micro level. (4) Finally, both demand and supply side considerations can be taken into account during the analysis, which are both relevant when studying access barriers to finance. The following graph visualizes the complementarity between the quantitative and the qualitative datasets:

Graph 3.4.2.: Complementarity of quantitative and qualitative data applied in this study

Qualitative Data	Quantitative Data
Sector wide	One bank
Decision makers	Customers
Supply side	Demand side
Meso level	Micro level

In conclusion, the research question of this study, which is concerned with the effect that remittances have on access barriers to finance and essentially with the financial inclusion of remittances receivers, can be analyzed from different points of view by combining different data sources and applying a mixed method research approach. Each type of data will generate partial results which, when taken together, will shed more light into the black box of the effects of remittances on financial inclusion.

3.4.2. Remittances and their effect on access barriers to finance

3.4.2.1. Theoretical analysis of remittances and access barriers to finance

The relationship between financial inclusion and access to finance was already described in the literature review. While financial inclusion refers to the actual use of financial services, access to finance refers to the possibility of using financial services. People who have access to finance but choose not to use financial products and services are said to be voluntarily excluded. Thus, access barriers represent those obstacles that limit access to finance, and lowering access barriers should consequently lead to higher financial inclusion, at least among the segment of the population that is not voluntarily excluded. The discussion on access barriers to finance will be deepened here in order to derive hypothesis about the effects of remittances on these access barriers.

"Traditionally, access problems have been defined by reference to some form of observable limitation that leads to a contrast between the active use of a given financial service (say, a loan) by a certain group, on the one hand, and the low use (or lack of use) of that service by another group, on the other hand" (Beck and de la Torre 2006: 5).

The first and one of the most frequently mentioned access barriers to finance is that of **geography or physical access** (Peachey and Roe 2004; Beck and de la Torre 2006; McKinsey&Company 2010; Plan/Care 2013). Financial institutions tend to concentrate in urban areas where there is an abundance of possible customers as well as productive endeavors that can be financed. This is especially true for banks, while evidence concerning

outreach of credit and savings cooperatives and of microfinance institutions shows that these types of institutions have a higher presence in more rural areas (CGAP 2010). *"A bank might not be willing to open a branch in smaller towns if there is not sufficient market potential to cover its fixed costs of setting up shop"* (Beck and de la Torre 2006: 8). If rural customers need to travel far to reach their bank, this is usually accompanied by high costs for transport as well as opportunity costs and might present a security risk when clients have to travel far carrying larger amounts of cash with them. It also certainly makes the bank less useful, when liquidity of the funds is of importance to the customer.

The **low income level** of poorer populations and associated risk or cost of attending this segment is another frequently mentioned access barrier for both credit and savings products (Honohan 2004a; UNCDF/DESA 2006; Beck and de la Torre 2006; Beck et al. 2009; IFC/The World Bank 2014). Since the seminal contribution by Stiglitz and Weiss (1981) there has been a convincing explanation why people are excluded from credit and insurance markets even at equilibrium. Information asymmetries lead to adverse selection (when borrowers, who are less serious about repaying loans are more willing to seek out external finance) and moral hazard (the fact that once the loan is received, borrowers may use funds in ways that are inconsistent with the interest of the lenders) (IFC/The World Bank 2014). Since financial institutions cannot properly assess the creditworthiness of potential borrowers, credit is rationed. Poor people usually lack collateral and credit histories with financial institutions, which makes their risk especially difficult to assess (McKinsey&Company 2010). Talented newcomers may also be denied access to finance because they lack the necessary **connections** (Beck and de la Torre 2006). Although the microfinance movement has proven in recent years that poor people with low and volatile incomes can and will save (contrary to what was previously believed), it is still very costly for financial institutions to profitably serve this market segment, which is characterized by small transaction sizes. *"Profitable and sustainable financial intermediaries have to exploit scale economies either through sufficiently high-volume or high-value transactions [...]"* (Beck and de la Torre 2006: 8). In recent years microfinance institutions have shown ways, by applying innovative products and technologies, to attend poor populations, but up until today most MFIs still rely on some form of subsidy (UNCDF/DESA 2006). One point should be made, though: even if access to financial services is seen as a development goal, not all financial services are appropriate for everyone, and because of a risk of overextension this is especially true for credit (IFC/The World Bank 2014).

Product features and pricing are two access barriers commonly found in the literature connected to the supply side of financial services (Honohan 2004a; UNCDF/DESA 2006; Demirgüç-Kunt et al. 2008; McKinsey&Company 2010; IFC/The World Bank 2014). The products and services offered by financial institutions may not be suitable for poorer populations, for example, if the repayment schedule of a loan does not coincide with the borrowers' cash flows or if group credit is offered in an environment in which it does not fit with the social norms (Honohan 2004a). In addition, the level of flexibility or accessibility of funds in deposit accounts may not be what the poor need, or product features might be too complicated in general (Wright 2004). Recent research has helped gain ground on understanding the financial lives of the poor (Collins et al. 2009) and there is a considerable

amount of current research, mainly experimental, attempting to understand which product features work and are demanded by the poor (see, for example, Ashraf et al. 2006; Giné and Yang 2009). Pricing as an access barrier can refer to minimum balance requirements for opening an account, but also fees and other costs associated with maintaining it. The interest rates that are paid or charged are also a part of the pricing issue, which might make financial service unattractive or inaccessible for the poor.

Another factor that might limit the access of poor people to the financial system is the **documentation** that is needed to open an account or apply for credit (DESA/UNCDF 2006; Beck et al. 2009; Demirgüç-Kunt et al. 2008; Plan/Care 2013). Not all people in developing countries have an ID card or a birth certificate or can prove their residence or income through official documentation, making it impossible for them to access financial services if this documentation is a prerequisite (UNCDF/DESA 2006; Beck et al. 2009).

Financial literacy, that is, the knowledge and understanding a person has about the financial system, its products, and basic function is another well-cited access barrier (UNCDF/DESA 2006; Demirgüç-Kunt et al. 2008; Plan/Care 2013; IFC/The World Bank 2014). *"Poor financial literacy limits people's capacity to be aware of financial opportunities, make informed choices, and take effective action to improve their financial well-being"* (Plan/Care 2013:9). A lack of financial literacy is also cited as the reason why people might exclude themselves from the financial system (Beck and de la Torre 2006) and recent efforts in international development have focused heavily on financial education to overcome the lack of financial literacy of the poor.¹¹⁶ However, there is a broader point about the lack of general education and access to finance, which goes beyond just financial literacy. *"Lack of education may make it difficult for them [the poor] to overcome problems with filling out loan applications [...]"* (Beck et al. 2009: 20) Therefore, not being able to read or write at all will make it impossible for people to understand contracts or fill out forms, which are a part of the usual process, when becoming a customer of a financial institution.¹¹⁷

Discrimination and cultural barriers are also mentioned by the literature as access barriers to finance (Peachey and Roe 2004; UNCDF/DESA 2006; Beck et al. 2009; Plan/Care 2013; IFC/The World Bank 2014). While there is evidence of discrimination based on gender and age (Plan/Care 2013), there are also other less visible cultural factors. *"Cultural factors [...] serve as barriers to access and discourage potential customers from seeking access. While some cultural barriers are reinforced by the legal system, others are based on deeply rooted social traditions that influence how people treat each other in society"* (UNCDF/DESA 2006:24). Poor and rural people might feel uncomfortable entering a polished bank branch, intimidated, due to a class, income, or educational difference between the people working inside the bank and themselves. They may fear they won't be treated with respect or might have a feeling of not belonging.

¹¹⁶ An overview of recent initiatives can be found in The MasterCard Foundation (2011), Taking Stock - Financial Education Initiatives for the Poor, A Report. <http://www.mastercardfdn.org/pdfs/TakingStockFinancial.pdf>.

¹¹⁷ There are recent initiatives in Pakistan and Ethiopia that apply innovative technologies to help illiterate people access financial service. Available online at: <http://www.financialaccess.org/blog/2014/07/bringing-financial-services-illiterate-populations>.

Finally, a whole group of **context factors** which have an influence on financial access is mentioned in the literature, such as the level of competition in the market, technology and infrastructure, regulatory environment, and level of security (Beck et al. 2009; McKinsey&Company 2010; Plan/Care 2013; IFC/The World Bank 2014). These context factors might actually be the causes of some of the aforementioned access barriers. *"Behind each of these [financial access] barriers may be technological, regulatory or market factors (such as lack of competition)"* (Honohan 2004a: 8). Regulators might not allow innovations that could help to advance financial inclusion to be introduced into the market (McKinsey&Company 2010). Or *"If high prices exclude large parts of the population, this may be a symptom of underdeveloped physical or institutional infrastructure, regulatory barriers, or lack of competition"* (IFC/The World Bank 2014:16). Table 3.4.1 provides an overview of the different classifications of access barriers to finance found in the literature.

So how might remittances affect access barriers to the financial system? While remittances could, as mentioned in the literature review in Chapter 2, function as a substitute for access to finance, this analysis focuses on how remittances can lower access barriers since most empirical studies have found a positive relationship between remittances and financial inclusion. To start off with an obvious point, remittances present (additional) income for the receiver. Higher income means that the receiver is more likely going to meet his or her monthly obligations and more likely has money left over, which could actually be saved. Having additional income also makes the receiver more bankable from the point of view of the financial institution, as was discussed before when looking at access barriers to finance.¹¹⁸

In a formalized remittances market, where remittances are paid out mainly through the financial system, remittances lead to regular contact between financial institution and receiver. This regular contact can help lower cultural barriers and present an opportunity for the financial institution to cross sell their products and services, assuming they are interested in remittances receivers as clients and not merely in the commission from the remittances transaction. It also helps the remittances receiver to create a history with a financial institution since (at least part of) his or her income flow becomes observable and measurable for the financial institution. If remittances are invested in housing or business, these might serve as collateral for a loan in the future.

If financial institutions are interested in gaining remittances receivers as clients, they are likely going to develop or adapt products to attract them. They could also consider specific marketing strategies for this market segment and monitor the outcomes of their efforts. These specific products and services might be more attractive in pricing, for example, through lower minimum account balances or preferential interest rates or include additional services and benefits free of charge. An interesting product feature that could lead to higher financial inclusion is direct deposit, where remittances are directly deposited

¹¹⁸ However, it should also be stressed that not all remittances are bankable, for example, when they are spent for a specific purpose, such as paying off debt, paying for school, or buying a certain medicine.

into the recipients' account, rather than being paid out in cash.¹¹⁹ Since remittances receivers need documentation to claim their money at a financial institution, access barriers could be lowered if the documentation that is required for claiming remittances coincides with the documentation needed for opening an account.

Obviously, financial institutions need to be accessible to the remittances receiver from a geographic point of view. Although people from rural areas might travel far to the next urban center to claim their remittances, they might be far less inclined to do so for regular transactions with a financial institution, considering the cost of travel and when liquidity and accessibility of funds is of high importance. If financial institutions are interested in rural remittances receivers as clients, they might consider opening branches in rural areas with high levels of remittances inflow or apply innovative technologies, such as mobile money and correspondent banking to effectively cut the distance if these technologies are permitted and regulated by the national supervisors.

The regulatory and general economic and social context also influences how remittances might affect financial inclusion. The availability and regulation of technological innovations, such as mobile money and correspondent banking, have already been mentioned, but also more general features such as the level of competition in the financial system and remittances market (with higher levels of competition likely leading to lower prices) should have an impact. A critical security situation in a country might actually play in favor of financial inclusion of remittances receivers, when it becomes unsafe to travel with cash and a secure storage for the money (such as a bank account) becomes more valuable. An obvious prerequisite for financial inclusion is that remittances receivers are involuntarily excluded, rather than voluntarily excluded, or policies such as financial literacy programs or effective laws against discrimination are in place, which take away some possible causes of voluntary exclusion.

¹¹⁹ An interesting point about direct deposit as a product feature is related to behavioral effects and the fact that most remittances are paid out in cash. Traditional economics did not take the human psychology into account, basing models on completely rational and totally informed customers. Recent research into psychology and economics (especially also microfinance) is putting emphasis on issues such as time inconsistency of preferences (when there is a disconnect between what people plan to do in the future and what they actually do when the future arrives), instant gratification (the pleasure of having something now rather than later), and problems of self-control (when not sticking to one's plan) (Mullainathan and Krishnan 2008). Thus, when people receive their remittances in cash (rather than having them deposited into an account), these behavioral effects might be in place and although the remittances receiver had planned to open an account and save some money, the pursuit of instant gratification through consumption might come into his or her way. Product features, such as direct deposit of remittances into an account, could help counteract these effects by lowering the temptation of receiving remittances in cash.

Table 3.4.1: Classification of access barriers to finance found in the literature

	Kempson et al. (2004)	Honohan (2004a)	Peachey and Row (2004)	DESA / UNCDF (2006)	Beck and de la Torre (2006)
Geography	Physical access problems caused by bank branch closures (p.6)		Lack of proximity of a relevant bank...the nearest branch can be kilometers away (p.6)	It matters whether potential customers are located near or far from a branch outlet of a formal financial Institution. (p.28)	Geographic limitations: absence of bank branches or delivery points in remote and sparsely populated rural areas that are costlier to service (p. 4)
Risk / Income		Information barriers: Poor household's creditworthiness cannot easily be established (p.8)		Financial status of customers is always important in gaining access to financial services (p. 30)	Socioeconomic limitations, but in some cases it is prudent to financially exclude low income population.
Product features	A range of different types of terms and conditions deter or prevent people with low incomes from opening an account (p.5)	Product and service design: Banks fail to offer the kind of services that would be most useful for poor households).(p.8)		The attractiveness of the product matters (p.34)	
Price	Levels of bank charges deter customers with low incomes from using transaction accounts. (p.5)	Price barriers: Service is available, but too expensive (p.8)	A constraining factor is the cost of banking services, although this is poorly documented. (p.6)		Socioeconomic limitations
Financial literacy			In developing countries it is often a matter of being able to read or write at all. (p.6)	Limited literacy, particularly financial literacy, is often cited as a significant constraint on demand (p.27)	Self exclusion might be a reflection of low financial literacy (p. 3) Socio-economic limitations
Documentation	Many people on low incomes find it very difficult to supply the types of proof of identity required by banks(p.4)			Lack of legal identity is a significant barrier to accessing financial services.(p.26)	
Discrimination / Cultural barriers	A minority of people who lack an account have been refused one by the banks (p.4); Many people on low incomes feel quite disengaged from banking. (p.6)		Another factor...an unwillingness by commercial banks to focus on rural and SME business (p.26)	Cultural norms matter (p.24) Gender matters for access to finance (p.25) There is an age bias in the financial industry (p.25)	Self exclusion might be a response to prior discrimination (p. 4) Socioeconomic limitations

Lack of connections or collateral					Limitations of opportunity
Context factors			Legal and organizational foundations for most economic activities not in place (p.6)		

	Beck et al. (2009)	Demirgüç-Kunt et al. (2008)	McKinsey&Company (2010)	Plan/Care (2012)	IFC/The World Bank (2014)
Geography	One major constraint is geography, or physical access (p.9)	One major constraint is geography, or physical access. (p.6)	Distribution is a significant challenge, particularly because many currently unserved people live in areas that are not covered by traditional financial-services institutions. (p.9)	Geographic distances and high transaction costs for banks to operate in remote locations as well as high transport and opportunity costs for people to bank with formal financial institutions. (p.5)	
Risk / Income	The poor cannot borrow against their future income because they tend not to have steady jobs [...] and dealing with small transactions is costly for the financial institutions. (p.20)	Poor have no collateral, which makes lending to them risky	Risk is difficult to manage in this segment (p.10)	Poor people's low income and erratic cash flows (p.5)	Insufficient income or represent an excessive lending risk (p.16)
Product features		Poor people could be involuntarily excluded due to lack of appropriate products or services (p.28)	Product development lags significantly behind demand, and thus available products often fail to meet this population's needs. (p.10)	Lack of suitable products and processes (p.5)	[There are] shortcomings in product features that may make a product inappropriate for some customer groups. (p.16)
Price	Many institutions have minimum account size requirements or fees that are out of the reach of many. (p.10)	Many institutions have minimum account-balance requirements or fees that are out of the reach of many potential users. (p.7) Perhaps even more important than barriers of physical access and documentation are			Lack access in the sense that the costs of these services are prohibitively high (p.2)

		barriers of affordability.(p.42)			
Financial literacy		Voluntary exclusion could also result from lack of financial literacy (p.30)		Lack of financial understanding (p.5) Poor financial literacy limits people's capacity to be aware of financial opportunities, make informed choices, and take effective action to improve their financial well-being. (p.9)	Financial literacy can still improve awareness and generate demand (p.16)
Documentation	Another barrier is the lack of the documents necessary to open an account (p.10)	Another barrier is the lack of proper documentation (p.6)		Yet more often than not poor people, particularly women, lack birth certificates and formal identity documentation. (p.23)	
Discrimination / Cultural barriers	Poor clients may encounter prejudice, for example being refused admission to banking offices (p.20)	Poor clients may encounter prejudice		Gender and age discrimination (p.5) The unfair and unequal distribution of power, resources and responsibilities in favor of men often leads to discriminatory policies and procedures, which inhibit women's access to finance. (p.11)	People who are involuntarily excluded may not have access because of discrimination. (p.16)
Lack of connections or collateral	The poor have no collateral	Poor have no collateral, which makes lending to them risky			
Context factors	The availability of external financing depends [...] on the wider policy and institutional environment (p.14)		Rules can sometimes stand in the way of innovations that would expand access for poor individuals. (p.10)	National and international policies that inhibit financial inclusion.	People are involuntarily excluded because of ill-informed regulations, or the political capture of regulators. shortcomings in contract enforcement and poor information environment (p.16)

An interesting and final aspect of remittances is the fact that this transnational movement of money involves the interaction of at least two people, the sender and the receiver. Through the New Economics of Labor Migration literature (Stark 1991; Taylor 1999) and recent research on the effect of monitoring and control issues among remittances senders and receivers (Ashraf et al. 2010; Chin et al. 2011) it becomes clear that these relationships are subject to principal-agent-problems.¹²⁰ The financial inclusion of remittances senders should be of particular relevance when these migrants have plans to return to their home country at some point and are interested in actually saving and investing in their home country themselves. If migrants have to rely on their families back home to save and invest on their behalf, monitoring and control issues and problems of incentives and trust arise. Thus, questions about access barriers to finance and remittances can be applied to the senders of remittances as well: How do access barriers, such as documentation, geography, product features, and pricing affect their financial inclusion?

In conclusion and apart from the obvious additional income for the receiver, remittances should lower access barriers to finance and therefore be conducive to financial inclusion. To this end: (1) the remittances market needs to be formalized. (2) Financial institutions should be accessible geographically or innovations are in place, which effectively cut the distance. (3) Financial institutions need to be actually interested in remittances receivers as clients and develop products and services that are attractive (because of features or pricing) to remittances receivers and promote their financial inclusion. (4) A competitive financial system and remittances market, as well as a conducive regulation and technological infrastructure must be in place. (5) Remittances receivers need to be financially literate or policies are in place to foster their financial education. (6) It needs to be legally possible and pursued by financial institutions to offer financial products and services to remittances senders as well as receivers.

3.4.2.2 Empirical evidence from Honduras

As a point of departure and based on the evidence presented in Chapter 3.2 Honduras has a highly formalized remittances market where most remittances are paid out via the financial system with banks and other financial institutions providing the payout network for Money Transfer Operators (MTOs). According to the Module on Migration and Remittances included in the National Household Survey 2010, 74% of beneficiaries receive their remittances through MTOs, while 21.3% receive them through banking channels, totaling at over 95% for these two transmission mechanisms (INE 2011).¹²¹ Since MTOs in Honduras

¹²⁰ "Agency theory addresses the relationship where in a contract 'one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent'" (Jensen and Meckling (1976) Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, Journal of Financial Economics (JFE), Vol. 3, No. 4, p.308).

¹²¹ This question, as stated in a questionnaire, is actually difficult to answer for the people who are being interviewed since they actually use the services of both an MTO and a bank or other financial institution when claiming their remittances at a financial institution.

mainly use the financial system to pay out remittances (evidence provided in Chapter 3.2) the total amount paid out via the financial system is estimated to be very high. According to information provided in the expert interviews, recent competition for paying out remittances via the financial system has come from contracts between MTOs and supermarket chains since supermarkets provide longer opening hours (including Sunday) and might be perceived as a more secure option as the type of transaction that is taking place is less obvious to outsiders in a supermarket than at a bank (Interview 11).

Competition in the Honduran remittances market has certainly grown over the last few years. By now almost all banks and many other financial institutions pay out remittances, looking to attract customers through specialized marketing and campaigns. The same is true for MTOs, with many financial institutions having contracts with several different MTOs, providing a variety of options for receiving remittances (Chapter 3.2 provides evidence).

"Hace unos 8 años más o menos muy pocos bancos estaban involucrados en el tema de pagar remesas y ahora creo que todos los bancos están ahí" (Interview 1).

"La competencia entre los intermediarios financieros es agresiva en cuanto a a través de que institución se remesa con rifas de automóviles, viviendas, viajes, dinero en efectivo, apertura de cuentas [...]" (Interview 10).

However, there is notably also a high level of concentration in the market as concerns the financial institutions that pay out remittances and the MTOs which channel the remittances. Most remittances are channeled via commercial banks; cooperatives and microfinance Institutions have a much smaller market share (Chapter 3.2 provides more detail). Among the commercial banks, 5 institutions are believed to have above 80% of the market share and two MTOs are dominant in the market both internationally and in Honduras (Chapter 3.2 provides more detail). The reasons for this concentration are seen mainly in the size of the payout network and the trustworthiness of the institutions.

"Nosotros tenemos un concepto acá, y es, quien tiene la red, tiene el poder. Hemos visto grandes esfuerzos de instituciones de poca red, que no obtienen muchos resultados y esfuerzos bajos de instituciones de mucha red, que obtienen resultados grandes. Es cuestión de cercanía, pero también de confianza" (Interview 11).

(a) Geography

Most of the experts interviewed for this study agree that although geographic outreach in Honduras has improved in the last years, the rural population still lacks physical access to financial services because banks concentrate in urban areas. Cooperatives and microfinance institutions emphasized that they do reach out into rural areas and this fact is also confirmed by outreach data (CGAP 2010). When taking into account that almost 45% of remittances in Honduras go to rural areas, though, the discrepancy becomes evident (INE 2008).

"El numero de bancos y de oficinas alrededor del país es bastante, pero si las vemos son más en las zonas urbanas, en la zona rural creo que es muy poco, ahí quien tiene más presencia son las cooperativas" (Interview 1).

"Nosotros estamos en la montaña [...] la zona donde trabajamos es una zona inhospeda, donde tienes que dejar el carro, tienes que dejar la moto y agarrar unos tenis [zapatos deportivos] para poder llegar a la montaña y ahí estamos trabajando y de esta gente tenemos ahorros y para estos familiares nos mandan remesas" (Interview 9).

Geographic distance was mentioned only twice when asking remittances receivers about their reasons for not holding an account in the quantitative interviews; however, interviews were carried out in urban centers and can hardly be seen as representative for the rural population. Evidence from expert interviews shows that financial institutions take the amount of remittances a community receives into account when considering where to open a new branch or office, but they are certainly not the only criteria (Interview 11). The case of a cooperative was mentioned, for example, which was opened specifically in a very rural area due to the large amount of remittances that were sent to this community, but this seems to be an isolated case and not part of a broader strategic development (Interview 8).

Two innovations that have been mentioned specifically for their potential to effectively cut the distance to the rural population are correspondent banking and mobile money. Although no regulation is in place for applying correspondent banking, which could explain why no other financial institutions have followed suit on this initiative, one Honduran commercial bank currently uses over 100 non-bank agents, such as neighborhood stores and gas stations. The focus of these agents is not merely rural, though, since they are also present in urban neighborhoods. It is not currently possible to claim your remittances at a non-bank agent, but it is possible to make withdrawals from an account; therefore, if remittances have been deposited into an account, they can effectively be accessed (Interview 11). Correspondent banking is credited for advancing financial outreach in Honduras.

"La inclusión financiera ha tenido avances en el sentido de cobertura a través de la apertura de corresponsales bancarios, sucursales electrónicas y bancas móviles" (Interview 10).

Mobile money has recently been introduced into the Honduran market by a large telecommunications company.¹²² Mobile phone coverage is quite large in Honduras, with over 7 million lines in use in 2012 (World Factbook 2014). The system currently allows payments to be made via mobile phones, as well as remitting money nationally to other mobile phone holders (Interview 7). Connecting this service to financial products, which could feature the option of receiving international remittances into a deposit account available through a mobile phone, would be a logical next step. It seems, however, that the lack of regulation for this type of transaction is currently holding back these developments.

¹²² More detail can be found on the following website: <http://www.tigo.com.hn/tigo-money> (accessed last on 05.08.2014).

"[Lo que ayudaría a las instituciones financieras a avanzar con la inclusión financiera es] que salga la regulación del dinero móvil, que sé que está en discusión, porque sería mucho más fácil abrirle las cuentas a las personas" (Interview 11).

In various interviews the potential of mobile money for financial inclusion was mentioned. However, although their money is available on a mobile device and people can perform certain transaction from anywhere, they still need to have physical access to a point of payment when they want to withdraw money (Interview 11).

When looking at the geographic access of remittances senders, one Honduran bank has acquired a banking license in the United States of America (USA) and operates its own MTO from several strategic locations in the US where large Honduran populations concentrate. However, in general the distance and difficulty of accessing the senders were the main reasons given during expert interviews to explain why there is not more focus on the financial inclusion of remittances senders.

"Por su ubicación geográfica es muy difícil acercarse a las personas en EE.UU. y aunque podemos saber donde hay una masa de Hondureños en EE.UU., en que ciudades están, el desplazamiento del banco a estas ciudades es muy restricto [...]" (Interview 4).

It was mentioned that innovations such as mobile money and the use of social networks could be used as tools in gaining better access to remittances senders (Interview 1).

(b) Income/risk

The likelihood of being poor, as a proxy for income, was a strong predictor of financial inclusion and therefore not surprisingly presents an access barrier to finance for remittances receivers (as well as probably for the rest of the population). Additional evidence is provided by the fact that not having money left over was the most commonly mentioned reason (over 65%) for not holding an account among the financially excluded in the quantitative sample.

Evidence from expert interviews points to the bad economic situation in Honduras, as a consequence of the international financial crisis, as well as the political crisis in 2009, stating that it was currently very difficult for remittances receivers to save since unemployment is high and the economic environment difficult (Interview 2). One financial institution even commented on their plans to introduce a new credit product into the market, which was based on remittances, but that the economic context did not allow them to go forward with their plans.

"La remesa estuvo en su momento de ahorro e inversión justo antes de que nos viniera la crisis del 2009. Estabamos muy bien con crecimientos de flujos de remesas arriba del 10%, la economía del país estaba muy sana, la gente estaba ya de querer invertir, es decir, poner un taller de costura o una pulpería y estabamos haciendo estudios de poder prestar en función de las remesas [...] ese era el momento de despegar, pero desafortunadamente la crisis al nivel internacional, más la crisis política al nivel nacional hizo que este proyecto volviera a caer" (Interview 2).

(c) Discrimination / cultural barriers

The quantitative data do not provide any evidence of discrimination against people based on gender or age since these factors were not significant when analyzing the factors that influence the likelihood of being financially included. There is also no evidence of gender, age, or any other discrimination in the information received during expert interviews, although obviously this would be a very sensitive issue and not likely an issue a financial institution would like to bring up and have recorded during an interview.

The fact that the number of years of receiving remittances was a significant factor for determining the likelihood of financial inclusion lends itself to the interpretation that a long-standing contact with a financial institutions via remittances will eventually lower cultural barriers and can play a part in fostering the financial inclusion of remittances receivers. The fact that remittances bring receivers into contact with the financial system was also mentioned as a determining factor for financial inclusion during various expert interviews (Interview 4; Interview 2).

(c) Product features and pricing

According to the information provided in the quantitative interviews, savings accounts are by far the most popular financial products among remittances receivers (60.8%), followed by loans (15.9%). Other financial products such as insurance and credit cards are not very common. Half of the people interviewed stated that they did not own an account prior to receiving remittances, providing evidence for the contact between the remittances receiver and the financial institution, which is generated through remittances in a formalized remittances market and which creates an opportunity for financial institutions to cross sell their products and services.

Strong evidence has been provided through expert interviews and observational data that financial institutions in Honduras are interested in remittances receivers as clients, beyond just wanting to attract them because of the commission they receive based on the remittances transaction. Several commercial banks, especially the larger ones with large payout networks, have developed financial products specifically for remittances receivers, providing additional benefits and giving incentives to remittances receivers who actually deposit (part of) their money into the account. Table 3.4.2 provides examples and features of financial products for remittances receivers.

"A las personas que abren la cuenta les hacemos rifas, hemos rifado incluso hasta viviendas, hemos rifado televisores plasma, artículos del hogar incentivando a las personas para en vez de solo cobrar su remesa puedan depositar en la cuenta" (Interview 4).

The situation is different in the case of cooperatives since they are obliged by law to turn remittances receivers into members of their cooperative to be able to payout remittances and by definition then all people receiving remittances at a cooperative are financially included. Cooperatives have not developed specific accounts for remittances receivers and do not currently offer direct deposit as product features, but plan to do so in the future (Interview 8).

Table 3.4.2: Examples and features of financial products for remittances receivers

Financial institution	Product name	Features
Banpaís	Cuenta Catracha	<ul style="list-style-type: none"> • Minimum balance requirement 100 Lempiras (about 5 USD) • Direct deposit of remittances • No services charges and no charges for low volume and activity • Raffles (houses, TVs etc.)
Banco Atlántida	Cuenta de Ahorro Remesas	<ul style="list-style-type: none"> • Minimum balance requirement 100 Lempiras (about 5 USD) • Direct deposit of remittances • Raffles • Loyalty plan • Other benefits
BAC Credomatic	Cuenta Remesas BAC/Credomatic	<ul style="list-style-type: none"> • Minimum balance requirement 200 Lempiras (about 10 USD) • No charges for low activity • Debit Card for ATM use • Raffles for account use • Access to an insurance plan (includes medical insurance and repatriación de cadaveres) • Access to credit (Consumption, Housing or SME) • Access to credit card • E-Banking free of charges

Although direct deposit of remittances has been identified as a promising tool for the financial inclusion of remittances receivers, evidence both from expert interviews (Interview 11; Interview 2) and from other studies (CEMLA/MIF 2008) indicates that the use of direct deposit is low and may be somewhere around 5-10%. The systems MTOs apply for channeling and distributing the money seem to affect the potential of direct deposit. For a money transfer to be directly deposited into an account, it has to be directed there by the sender. Owing to the way the large MTOs work, by giving their paying agents access to their payment software with which remittances can be downloaded from the system when they are claimed at the financial institution, they currently do not seem to want or are able to offer a form of direct deposit that is directed by the sender. Other smaller MTOs work differently and offer the possibility for the sender to direct the remittances to a specific bank and even a specific bank account. Therefore, depending on which MTO is being used, either the sender or the receiver decides where the money is claimed (Interview 2). Evidence from expert interviews indicates that financial institutions have tried to offer incentives to MTOs by charging them less when remittances are directed into an account, hoping that MTOs would pass on this margin to the sender, thus incentivizing direct deposit, but MTOs seem to not have passed on this incentive (Interview 11; Interview 2). Obviously, remittances can always be deposited directly into an account by the receivers themselves when claiming their money, or part of the cash can be carried back to the bank after payments have been made and money was found to be left over.

Considering that minimum balance amounts presented in the products featured in Table 3.4.2 are low (at least when compared to the average remittances amount) and service charges minimal and that positive real interest rates are being paid in the Honduran financial system, pricing does not seem to be a strong exclusionary factor for remittances receivers in Honduras. Notably only two people mentioned financial products being too expensive as reasons for not owning an account at a financial institution.

As far as the financial inclusion of remittances senders goes, the only currently available option are loans to build and remodel houses in Honduras. Several financial institutions stated that they currently offer financing to Hondurans living in the US with the purpose of buying some land or building/remodeling a house (Interview 1; Interview 4). The initiative to offer housing finance to Honduran migrants abroad was part of an effort by the Honduran banking association, which organized and promoted finance fairs in the US during the celebration of the Honduran national holiday in cooperation with Honduran consulates (Interview 1).

"Una persona por ejemplo que está en EE.UU. perfectamente puede adquirir un bien en Honduras que básicamente son las ideas que tienen muchos [migrantes] de poder hacer su casa o mejorarla y el banco está abierto a eso. Incluso hemos otorgado financiamientos y créditos a personas que están en EE.UU. y desde allá envían sus pagos [...] Hemos hecho ferias en el exterior especialmente el 15 de septiembre para el día de la independencia de Honduras y se han hecho estos eventos para que la persona puede adquirir un bien en Honduras y para que ellos puedan tener acceso a la parte crediticia de los bancos hondureños" (Interview 4).

(d) Documentation

Honduran legislation determines that every child born in Honduras must be enlisted in the National Registry and that every person in the registry who is over 18 years of age must be issued an ID card.¹²³ Holding an ID card is politically important because this is the identification used when voting, and political parties make considerable efforts to ensure Hondurans receive their ID cards, so they can vote for them. Nevertheless, although no official numbers are available, there surely are people, especially in very rural areas, who may not have their ID card. However, considering the other factors, ID card possession is thought to generally be high in Honduras.

To be able to claim remittances at a financial institution in Honduras, the receivers need to present their ID card. This same identification is the only documentation required to open a simple deposit account at a financial institution. To be able to apply for other financial products, such as a loan, other documentation is often necessary, but for basic financial inclusion, an ID card is sufficient. The lack of documentation should therefore not be a very relevant factor for the financial inclusion of remittances receivers in Honduras, considering that they need this same identification for claiming their money transfer. A total of nine people stated during quantitative interviews that they did not hold an account because they did not possess the necessary documentation, which could either mean that they are

¹²³ This is stated in the "Ley de Registro Nacional de Personas" Decreto No. 62-2004. The document is available online at http://www.rnp.hn/wp-content/uploads/2011/02/ley_del_rnp.pdf

aspiring financial products beyond a basic deposit account, which may require further documentation, or they are assuming that the financial institution will demand further documentation for opening an account and do not know that they will only need their ID card, which they already use for claiming their remittances.

(e) Financial literacy / Education

The lack of financial literacy was the most commonly mentioned access barrier during expert interviews. In every single interview the issue came up and was identified as one of or the most relevant factors for people in general and remittances receivers specifically not being financially included.

"Los beneficiarios de remesas que no ahorren no lo hacen por falta de educación financiera [...]" (Interview 7). *"Falta un poco más de educación en el uso de las remesa [...]"* (Interview 9). *"Para mi la educación financiera es la barrera fundamental para que accedan al sistema financiero [...]"* (Interview 11).

Results from the quantitative interviews also point in the direction that financial literacy is a relevant access barrier to the financial inclusion of remittances receivers. Although it is not possible to make causal claims in the sense that financial literacy causes financial inclusion, we do know, through correlational analysis, that a relationship exists between the two. It is also evident from the quantitative sample that the general level of financial education is low, with over two thirds of respondents being able to answer only one or less financial literacy questions correctly. When looking slightly further into the general level of education of remittances receivers in the quantitative sample, it becomes clear that the level of education is low, with a mean of 7.6 and a median of 6 years of schooling. A total of 4% of people in the quantitative sample had at most one year of schooling, which probably means that they are in effect illiterate. Considering that opening an account at a financial institution in Honduras usually includes filling out at least one form (called *solicitud*), this task will obviously be difficult for people with such low levels of general education.

Both private and public initiatives are currently being implemented in Honduras with the objective of raising the level of financial literacy. Some of the commercial banks as well as cooperatives and microfinance institutions have financial education programs. These come in very different forms, ranging from a complete online course on financial education, to TV and radio spots, as well as newspaper supplements focusing on financial education up to specific in-house trainings on financial education for clients. A public initiative led by Honduran banking supervisors CNBS was also recently launched, which implements a strategy focusing on financial education. None of the institutions interviewed stated that they had a specific program focusing on the financial education of remittances receivers, however, and, unfortunately, no evidence is available on the outreach and impact of these programs either.

(f) Further context issues

The difficult economic environment in Honduras has already been mentioned as a factor affecting financial inclusion of remittances receivers. In addition, Honduras is also dealing with a very precarious security situation (Chapter 3.2 provides more detail). While widespread crime certainly affects the economic environment negatively, it was pointed out during expert interviews that it might actually play in favor of the financial inclusion of remittances receivers since people are increasingly afraid to carry around larger amounts of cash.

"[Los beneficiarios de la remesa] ya se están acostumbrando a ahorrar y, yo creo que por el asunto de la violencia y de la inseguridad, les da miedo a sacar todo en efectivo [...]" (Interview 2).

As far as the regulatory environment of the financial system and remittances in Honduras, the lack of regulation for correspondent banking and mobile money was already mentioned. A third regulatory issue, which has a restrictive impact on the financial inclusion of the remittances senders, is anti - money laundering legislation. This legislation requires a bank to fully identify their customers and is interpreted such that a person opening an account must present him or herself in person at a financial institution and provide a valid identification.¹²⁴ Although it is technically possible to provide this information through a lawyer and the Honduran consulates, this process is lengthy, costly, and complicated and most likely does not present a feasible option for Honduran migrants wanting to open an account in their home country. If the sender is more interested in saving, and maybe also in saving for his or her return, then the fact that opening an account back home is not possible presents a severe obstacle to financial inclusion of the senders of remittances.

"Desde allá no se puede abrir una cuenta, pero si puede abrirla un familiar y claro que aquí depende mucho de la confianza que tengan con el familiar porque si es de su mamá [la cuenta] y le retira el dinero, tampoco puede tener el control el desde otro país. Antes de irse también puede haber abierto la cuenta, pero típicamente eso no se planifica" (Interview 4).

"La persona que está realmente interesada en ahorrar es la persona que está en EE.UU. y entonces debemos de ver como se le puede abrir una cuenta a esa persona que está en EE.UU. y que por medio de esta cuenta le deposite al beneficiario [...] para que la persona que está en EE.UU. por ejemplo mande 100 dolares y que deja instrucciones para pagar solo 50 dolares a su familia porque los otros 50 son para el ahorro" (Interview 1).

¹²⁴ It should be noted that the high level of drug cartel activity in this region surely makes strict anti-money laundering rules necessary. Nevertheless, it should be considered from a development point of view whether it would be possible to make it somewhat more feasible for the remittances sender to open an account.

3.4.3. Conclusions

How do remittances affect access barriers to finance in Honduras? This study provides interesting evidence about this relationship. Initially remittances, just by themselves, provide their receivers with additional income. The income level has proven to be a very relevant access barrier to the financial system and so the positive impact remittances can have via this channel are obvious. However, a further contribution of remittances to financial inclusion also depends on a series of other factors, such as the market structure, the actual interest of financial institutions, as well as the regulatory and general economic and social environment.

Financial inclusion of remittances receivers in Honduras benefits from a very formalized payout structure, where most remittances are paid out via the financial system. This structure creates the basis for regular contact between remittances receivers and financial institutions. However, while nearly half of the remittances in Honduras go to rural areas, the outreach of financial institutions in rural areas is low (with cooperatives and microfinance institutions certainly pushing these boundaries) and a regulatory framework for technological innovations that could help cut this distance, such as correspondent banking and mobile money, is not yet in place.

There is strong evidence of a real interest on the part of financial institutions in gaining remittances receivers and senders as clients, but promising product features, such as direct deposit are not working to their full potential due to the market structure. Current regulation does not allow senders of remittances to open deposit accounts when they are outside of the country, which seriously limits financial inclusion of the senders. And while there is competition in the market, there is also a high level of concentration among MTOs, as well as financial institutions that pay out remittances. On the positive side, neither documentation nor pricing seem to be relevant exclusionary factors.

There are both public and private efforts to advance the financial literacy of the population; however, there is no evidence for the outreach and impact of these programs, and the low level of education in general is probably working against the financial inclusion of remittances receivers. As a consequence of the recent international financial crisis and a national political crisis, the current economic situation in Honduras is difficult, which likely impacts the financial inclusion of remittances receivers negatively. While the precarious security situation certainly has negative impacts for the economic environment, it might play positively for financial inclusion, when a secure storage for funds becomes more important. Table 3.4.3 provides a summary of the factors that currently prevent or promote financial inclusion in Honduras:

Table 3.4.3: Summary of factors that currently prevent or promote the financial inclusion of the receivers of remittances in Honduras

Promote	Prevent
Remittances provide additional income for the recipients.	Geographic access in rural areas is not sufficient and technological innovations which could help cut the distance are not yet in place.
Honduras has a very formalized payout structure, which brings the receivers of remittances into regular contact with financial institutions.	Direct deposit of remittances into an account is currently not used to its full potential because those MTOs who lead the market do not offer this feature.
Financial institutions show interest in the receivers of remittances and have developed financial products with interesting features and accessible pricing.	Generally low levels of education and financial literacy probably affect financial inclusion negatively.
The documentation required for receiving remittances is the same as for opening a basic deposit account.	Within the current regulatory framework remittances senders cannot be financially included via savings accounts.
Regular contact between financial institutions and remittances receivers seems to have lowered cultural barriers.	The general economic context is difficult and although remittances provide additional income, many recipients need all they receive for survival.
The critical security situation might make a safe storage for money more attractive.	

The analysis of remittances and access barriers carried out in this study has interesting policy implications since it identifies which access barriers are relevant for remittances receivers in Honduras and where changes in legislation, market structure, or institutional strategy could have real positive impacts for the financial inclusion of remittances receivers.

Chapter 4

Conclusions

In this research project the relationship between remittances and financial inclusion in Honduras was investigated by applying two different, but complementary approaches. The analysis of the first research question focused on the variables that predict the probability of financial inclusion among the receivers of remittances by employing a logistic regression model to evaluate the quantitative dataset collected specifically for this research project. The analysis of the second research question used a mixed method approach to analyze the effect of remittances on access barriers to finance, identifying the factors that currently promote or prevent the financial inclusion of remittances receivers. This approach is based on the analysis of all three types of data that were collected for this research.

The two approaches complement each other. Indeed, both demand and supply can be taken into account, bringing multi-level points of view from the macro, meso, and micro perspectives to this research and expanding the focus of the quantitative datasets from one Honduran bank to a sector-wide perspective with qualitative expert interviews and publicly available information from the Honduran financial system.

Results from the analysis of the first research question reveal that the likelihood of being poor as a proxy for income and years of receiving remittances correlate significantly with financial inclusion of remittances receivers. While most studies on the determinants of financial inclusion find income (or some proxy of income) to be a good predictor of financial inclusion, years of receiving remittances is specific to migrant families and points in the direction of a remittance life cycle motive, where this money first serves other purposes, such as paying off debt and buying or remodeling a house, before it can find its way into a bank account. Results from the analysis of the quantitative data also show that half of those remittances receivers, who now own an account, did not have an account prior to receiving remittances; thus, their contact with a financial institution, which eventually led to their financial inclusion, was likely established through remittances. Both results indicate that the regular contact with a financial institution through remittances receipt lowers cultural barriers and promotes financial inclusion. In addition, the level of financial literacy of remittances receivers also correlated significantly with financial inclusion in one dataset, and although there is no indication of causality, this result is in line with current research results from studies on financial inclusion.

Results from the analysis of the second research question address how remittances can lower access barriers to finance. Apart from raising the receivers' income, it was shown that the formalized pay out structure of remittances in Honduras works in favor of financial inclusion through the regular contact that is created between receivers of remittances and the financial sector. Financial institutions in Honduras show interest in the receivers of remittances and have developed specialized products and services for this market segment. Neither the pricing nor lack of documentation seems to be relevant for excluding the receivers of remittances from the financial system. Rather it seems that geography and a

lack of regulation to introduce innovations that could bring financial institutions closer to rural populations as well as the low levels of education in general and the level of financial literacy specifically present relevant current access barriers. The same is true for the general economic context in Honduras, which has been challenging in the last few years following the international financial crisis and national political crisis in 2009. In addition, the current market structure does not allow direct deposit of remittances, a promising product feature for the financial inclusion of remittances receivers, to live up to its potential. Finally, current regulation, which makes it nearly impossible for financial institutions in Honduras to offer savings accounts to their population abroad, was identified as a relevant access barrier for the financial inclusion of remittances senders.

There are many consistencies between the results from the quantitative and qualitative data analyses, which are highlighted through the mixed method approach, although the importance that explanatory variables have or seem to have is not always the same. The income or poverty level of the receivers of remittances represents an important finding from both the quantitative and qualitative data. The same applies to the financial literacy level, although this was found to be an especially strong result in expert interviews; indeed, it was mentioned by every single interview partner as a relevant access barrier to finance for remittances receivers. While years of receiving remittances was found to be a strong result in the quantitative analysis, this was not explicitly mentioned in expert interviews, which, in contrast, provided explanations or interpretations of this result, namely, the contact that is created between receivers and financial institution and the remittances life cycle motive.

In general, it seems that by using the sector-wide mixed method approach a broader range of relevant issues for the financial inclusion of remittances receivers can be identified from the demand and supply side and relevant institutional and context factors can be determined. By analyzing standardized interviews through a logistic regression model, on the other hand, it is possible to distinguish relevant variables from the demand side more precisely. Thus, one method gives a better overview of relevant issues, while the other method gives more precise estimates of the relevant issues from a demand side perspective.

Based on the results from this study, some areas for further research can be identified. While this research provides additional evidence on the importance of the relationship between financial literacy and financial inclusion to an existing body of research, further evidence is needed to confirm a causal link between these variables, in particular for understanding the type of knowledge that is useful and how it can best be taught. This could ideally be achieved by taking an experimental approach, which could also be applied to test the usefulness of different features of financial products and services for remittances receivers and senders, such as direct deposit.

Research that further analyzes the remittances life cycle, identifying more clearly the type of financial products remittances senders and receivers need at the different stages of their migration cycle, would be very useful from a practical point of view. Such evidence and information could be built into financial institution strategies for financial inclusion of remittances receivers and senders.

There is a general need to better understand the interactions, motivations, and arrangements of migrant families and how they might affect financial inclusion. This is a difficult task from a researcher's perspective since it implies gathering data in at least two countries and from a population which can be very hard to reach, as in the case of migrants without legal status. It is also necessary to provide further evidence on the link between financial inclusion and poverty reduction, taking into account the special situation and features of migrant families.

Finally, this country case study could be amplified to include a series of countries in order to identify factors and underlying patterns that are relevant for the financial inclusion of remittances receivers beyond the specific case of one country. In addition to replicating the mixed method focus applied in this study in other countries, cross-country regression could be an interesting approach for such an analysis.

Policy recommendations for Honduras that can be drawn from the results of this study are linked to changes in the regulatory environment, on the one hand, such as introducing regulations for correspondent banking and mobile money, as well as making it possible to offer savings accounts to migrants abroad, while not countervailing crucial anti-money laundering legislation. The other important policy issue is connected to education in general and financial literacy specifically. Strengthening the current efforts of existing financial literacy programs by including more people and by monitoring and measuring its outcomes seem to represent good ways forward.

Chapter 5

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Chapter 6

Annex

6.1 Tables

6.1.1 Detailed distribution of weighting variables for nonresponse

Variable	Sample: <i>Dataphone</i> (n = 415)		Total Population (n = 8736)	
	N	%	N	%
Gender	Male: 121 Female: 294	(29,16%) (70,84%)	Male: 2566 Female: 6170	(29,37%) (70,63%)
Year of birth	1923 - 1937: 10 1938 - 1947: 12 1948 - 1957: 37 1958 - 1967: 69 1968 - 1977: 86 1978 - 1987: 130 1988 - 1997: 63 NA: 8	(2,41%) (2,89%) (8,92%) (16,63%) (20,72%) (31,33%) (15,18%) (1,93%)	1923 - 1937: 117 1938 - 1947: 377 1948 - 1957: 904 1958 - 1967: 1381 1968 - 1977: 1647 1978 - 1987: 2603 1988 - 1997: 1533 NA: 174	(1,34%) (4,32%) (10,35%) (15,81%) (18,85%) (29,80%) (17,55%) (1,99%)
Branch	Choloma: 70 Choloteca: 38 Circunvalación: 3 Comayagua: 25 El Progreso: 88 Florencia: 2 Kennedy: 7 La Ceiba: 19 Libertad: 8 Medina: 10 Otro: 0 Santa Fe: 39 Siguatepeque: 105	(16,87%) (9,16%) (0,72%) (6,02%) (21,20%) (0,48%) (1,69%) (4,58%) (1,93%) (2,41%) (0,00%) (9,40%) (25,30%)	Choloma: 1083 Choloteca: 881 Circunvalación: 46 Comayagua: 438 El Progreso: 1648 Florencia: 72 Kennedy: 272 La Ceiba: 626 Libertad: 109 Medina: 413 Otro: 30 Santa Fe: 1260 Siguatepeque: 1858	(12,40%) (10,08%) (0,53%) (5,01%) (18,86%) (0,82%) (3,11%) (7,17%) (1,25%) (4,73%) (0,34%) (14,42%) (21,26%)

6.1.2 Detailed distribution of weighting variables for coverage

Variable	Sample Non clients (taken from those with telephone coverage)		Total population Non clients (n = 6948)	
	N	%	N	%
Gender	201 female 87 male	69,79% 30,21%	4849 female 2099 male	(69,79%) (30,21%)
Year of birth	1923 - 1937: 5 1938 - 1947: 10 1948 - 1957: 22 1958 - 1967: 47 1968 - 1977: 57 1978 - 1987: 84 1988 - 1997: 57 NA: 6	(1,73%) (3,47%) (7,64%) (16,32%) (19,79%) (29,17%) (19,79%) (2,08%)	1923 - 1937: 94 1938 - 1947: 317 1948 - 1957: 680 1958 - 1967: 984 1968 - 1977: 1292 1978 - 1987: 2087 1988 - 1997: 1349 NA: 146	(1,34%) (4,56%) (9,79%) (14,16%) (18,60%) (30,04%) (19,42%) (2,10%)
Branch	Choloma: 51 Choloteca: 26 Circunvalación: 2 Comayagua: 17 El Progreso: 69 Florencia: 1	(17,71%) (9,03%) (0,69%) (5,90%) (23,96%) (0,35%)	Choloma: 881 Choloteca: 709 Circunvalación: 24 Comayagua: 204 El Progreso: 1430 Florencia: 32	(12,68%) (10,20%) (0,35%) (2,94%) (20,58%) (0,46%)

	Kennedy: 2 La Ceiba: 9 Libertad: 5 Medina: 0 Otro: 0 Santa Fe: 20 Siguatepeque: 86	(0,69%) (3,13%) (1,74%) (0%) (0%) (6,94%) (29,86%)	Kennedy: 127 La Ceiba:541 Libertad: 46 Medina: 276 Otro: 24 Santa Fe: 1030 Siguatepeque: 1624	(1,83%) (7,79%) (0,66%) (3,97%) (0,33%) (14,82%) (23,37%)
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6.1.3 Adjustment weights for nonresponse

	Young		Middle		Old	
	North Coast	Center South	North Coast	Center South	North Coast	Center South
Population	44,94%	55,06%	42,72%	57,28%	39,58%	60,42%
Sample	47,19%	52,81%	46,85%	53,15%	27,27%	72,73%
Weight	0,95	1,04	0,91	1,08	1,45	0,83

6.1.4 Adjustment weights for coverage

	Young	Middle	Old
Population	61,13%	32,84%	6,03%
Sample	58,51%	34,04%	7,45%
Weight	1,04	0,96	0,81

6.1.5 List of consulted websites with date of last access

Institution	Weblink	Date of last access
Banco Atlántida	http://www.bancocci.hn/	30.09.2014
Banco de Occidente	http://www.bancocci.hn/	30.09.2014
Banpaís	https://www.banpais.hn/	30.09.2014
Banco Azteca	https://www.bancoazteca.com.hn/PortalHonWeb/index.htm	30.09.2014
Banco Continental	http://www2.bancon.hn/	30.09.2014
BAC Credomatic	http://www.bac.net/honduras/esp/banco/	30.09.2014
Davivienda	http://www.davivienda.com.hn/	30.09.2014
Ficohsa	http://ficohsa.hn/	30.09.2014
Banco de los Trabajadores	http://www.bantrab.hn/	30.09.2014
Banhcafe	http://www.banhcafe.hn/	30.09.2014
Banco Ficensa	http://www.ficensa.com/	30.09.2014
Banco Popular	http://www.bancopopular.hn/	30.09.2014
Banco ProCredit	https://www.procredit.com.hn/	30.09.2014

ODEF	http://www.odeffinancierasa.org.hn/	30.09.2014
Finsol	http://www.finsolhn.com/	30.09.2014
Finca	http://www.finca.org/where-we-work/latin-america/honduras/	30.09.2014
FAMA	http://www.famaopdf.org.hn/	30.09.2014
Hermandad de Honduras	http://www.hermandadopdf.org/	30.09.2014
Credisol	http://credisol.hn/	30.09.2014
Federación de Cooperativas de Ahorro y Credito (FACACH)	http://www.facach.hn/	30.09.2014
Asociación Hondureña de Instituciones Bancarias (AHIBA)	http://www.ahiba.hn/	30.09.2014
Red de Instituciones Microfinancieras de Honduras (Redmicroh)	http://www.redmicroh.org/	30.09.2014
Comisión Nacional de Bancos y Seguros (CNBS)	http://www.cnbs.gob.hn/	30.09.2014
Banco Central de Honduras (BCH)	http://www.bch.hn/	30.09.2014
Giros Latinos	http://www.giroslatinos.com/inicio/	30.09.2014
Corelsa (Western Union)	http://www.corelsahn.com/	30.09.2014

6.1.6 Description of explanatory variables

No.	Variable	Description	Type	Dataset	Source
1	gender	Indicates whether the respondent is male or female. Takes the value 0 for male and the value 1 for female.	binary	dataphone dataface dataall	Administrative data (dataphone) Survey (dataface)
2	age	Indicates the age of the respondent	continuous	dataphone dataface dataall	Administrative data (dataphone) Survey (dataface)
3	agesqu	Indicates the squared age of the respondent	continuous	dataphone dataface dataall	Administrative data (dataphone) Survey (dataface)
4	school	Indicates how many years of schooling the respondent received in order to attain the highest degree he or she indicated to hold. This variable can take the following values: 0, 1, 6, 9, 11.5, 14 or 17.	ranked	dataphone dataface dataall	Survey
5	work	Indicates whether the respondents worked in the month prior to the interview and received an income through his or her work. Work can either mean being employed or being self-employed. This variable can take either 0 or 1 as a value.	binary	dataphone dataface dataall	Survey
6	workhours	Indicates how many hours the respondent dedicated to his or her work. This variable has the following answer options: (1) Full time (2) Part time (3) Less than part time.	ranked / categorical	dataphone dataface dataall	Survey

7	poverty	Indicates the likelihood of the respondent of being poor. This is an index variable that is composed of four aspects: (1) Work, (2) Years of Schooling, (3) Energy source used for cooking (4) Material used for the walls of the house. This variable can take a minimum of 4 and a maximum of 13 as a value.	ranked	dataphone dataface dataall	Survey
8	finlit	Indicates the number of financial literacy questions the respondent was able to answer correctly. This variable can take a minimum value of 0 and a maximum value of 3.	ranked	dataphone dataface dataall	Survey
9	branch	Indicates the branch where the respondent picked up his remittances. There are a total of 12 different branch options, which are located in different parts of Honduras.	categorical	dataphone dataface dataall	Administrative data (dataphone) Survey (dataface)
10	years	Indicates for how many years the respondent has been receiving remittances. Answering options range from under one year to over 20 years.	continuous	dataphone dataface dataall	Survey
11	frequency	Indicates how many times the respondent received remittances between January and June 2013.	continuous	dataphone	Administrative data
12	amount	Indicates the average amount the respondent received between January and June 2013.	continuous	dataphone	Administrative data
13	numsen	Indicates from how many different senders the respondent receives remittances. Answers varied between 1 and four different senders.	ranked	dataphone dataface dataall	Survey
14	parents	Indicates whether the respondent receives remittances from his or her father or mother. This variable takes 0 when he or she does not receive remittances from parents and 1 when he or she does.	binary	dataphone dataface dataall	Survey
15	child	Indicates whether the respondent receives remittances from his or her child. This variable takes 0 when he or she does not receive remittances from children and 1 when he or she does.	binary	dataphone dataface dataall	Survey
16	spouse	Indicates whether the respondent receives remittances from the husband or wife. This variable takes 0 when he or she does not receive remittances from the spouse and 1 when he or she does.	binary	dataphone dataface dataall	Survey
17	otherfamily	Indicates whether the respondent receives remittances from another family member. This variable takes 0 when he or she does not receive remittances from another family member and 1 when he or she does.	binary	dataphone dataface dataall	Survey
18	friend	Indicates whether the respondent receives remittances from a friend. This variable takes 0 when he or she does not receive remittances from a friend and 1 when he or she does.	binary	dataphone dataface dataall	Survey
19	decision	Indicates who make the decision about how remittances are spent or allocated. The answer options are: (1) Beneficiary, (2) Sender and (3) Together, when both sender and beneficiary make the decision together.	ranked / categorical	dataphone dataface dataall	Survey
20	monitoring	Indicates whether the respondent informs the sender of the remittances about how the money is spent or allocated. This variable takes the value 0 when he or she does not inform the sender and 1 when he or she does.	binary	dataphone dataface dataall	Survey
21	communication	Indicates how often sender and beneficiary of remittances have talked over the phone in the last twelve months.	continuous	dataphone	Survey

6.1.7 Construction of the poverty index

Variable	Low	Medium		High
Years of schooling	None (0) Pre-Básica (1) Value = 1	Básica (6) Value = 2	Ciclo Común (9) Diversificado (8-9) Value = 3	Superior no-universitario (14) Superior universitario (17) Técnico superior (14) Value = 4
Walls	Adobe Bahareque Madera (Rest of the country) Value = 1	Bloques/Ladrillo Madera (North coast) Value = 2		Concreto/Cemento Value = 3
Energy	Leña Value = 1	Gas propano (Chimbo) Gas (Kerosene) Value = 2		Electricidad Value = 3
Work	No Value = 1	Menos de medio tiempo Medio tiempo Value = 2		Tiempo completo Value = 3
Ranking	Minimum value: 4			Maximum value: 13

6.1.8 Financial literacy level

	Answer correct	Answer incorrect
Question 1: Calculate interest rate	1	0
Question 2: What is devaluation?	1	0
Question 3: Calculate percentage	1	0
Total	Maximum value: 3	Minimum value: 0

6.1.9 Summary statistics for the dataset *dataphone*

A. Binary and categorical variables

Variable	Sample	Distribution	
Account	N = 415	Yes = 259 (62,41%)	No = 156 (37,59%)
Finclud	N = 414	Yes = 296 (71,50%)	No = 118 (28,50%)
ProCredit Client	N = 415	Yes = 127 (30,60%)	No = 288 (69,40%)
Gender	N = 415	Female = 294 (70,84%)	Male = 121 (29,16%)
Parent	N = 414	Yes = 56 (13,53%)	No = 358 (86,47%)
Child	N = 414	Yes = 117 (28,26%)	No = 297 (71,74%)
Spouse	N = 414	Yes = 89 (21,50%)	No = 325 (78,50%)
Otherfamily	N = 414	Yes = 187 (45,17%)	No = 227 (54,83%)

Friend	N = 414	Yes = 54 (13,04%)	No = 360 (86,96%)
Monitoring	N = 415	Yes = 284 (68,43%)	No = 131 (31,57%)
Work	N = 414	Yes = 186 (44,93%)	No = 228 (55,07%)
Worhhours	N = 413	None = 228 (55,21%) Less than half time = 12 (2,91%) Half time = 55 (13,31%) Full time = 118 (28,57%)	
Decision	N = 414	Beneficiary = 279 (67,39%) Together = 32 (7,73%) Sender = 103 (24,88%)	
Branch	N = 415	Choloma = 70 (16,87%) Choloteca = 38 (9,16%) Circunvalación = 3 (0,73%) Comayagua = 26 (6,27%) El Progreso = 88 (21,20%) Florencia = 2 (0,48%) Kennedy = 7 (1,69%) La Ceiba = 19 (4,58%) Libertad = 8 (1,93%) Medina = 10 (2,41%) Santa Fe = 39 (9,40%) Siguatepeque = 104 (25,06%)	

B. Continuous and ranked variables

Variable	N	Min	Max	Range	Mean	Median	Lower quartile	Upper quartile	Var	SD	SE
Age	408	16	84	68	39,34	37	28	49	205,64	14.34	0.72
Years	412	0.08	33	32.92	6,17	5	2	9	25	5	0.25
Numsenders	414	1	4	3	1.24	1	1	1	0.26	0.51	0.02
Schooling	415	0	17	17	7.57	6	6	11.5	17.31	4.16	0.20
Poverty	409	4	13	9	8.02	8	7	10	4.16	2.04	0.10
Finlit	412	0	3	3	1.00	1	0	2	0.94	0.97	0.05
Amount	415	20	2450	2430	223.54	130	98.33	250	72167	268.64	13.19
Frequency	415	1	19	18	2.40	1	1	3	7,51	2.74	0.13
Communication	414	0	150	150	12.59	6	3	25	222.9	14.93	0.73

6.1.10 Summary statistics for the dataset *dataall*

A. Binary and categorical variables

Variable	Sample	Distribution	
Account	N = 675	Yes = 401 (59,41%)	No = 274 (40,59%)
Fincluded	N = 671	Yes = 461 (68,70%)	No = 210 (31,30%)
ProCredit Client	N = 675	Yes = 163 (24,15%)	No = 512 (75,85%)
Gender	N = 675	Female = 505 (74,18%)	Male = 170 (25,82%)
Parent	N = 674	Yes = 86 (12,76%)	No = 588 (87,24%)
Child	N = 674	Yes = 196 (29,08%)	No = 478 (70,92%)
Spouse	N = 674	Yes = 157 (23,29%)	No = 517 (76,71%)
Otherfamily	N = 674	Yes = 300 (44,51%)	No = 374 (55,49%)
Friend	N = 674	Yes = 78 (11,57%)	No = 596 (88,43%)
Monitoring	N = 674	Yes = 480 (71,22%)	No = 194 (28,78%)
Work	N = 673	Yes = 295 (43,83%)	No = 378 (56,17%)
Workhours	N = 672	None = 378 (56,25%) Less than half time = 15 (2,23%) Half time = 81 (12,05%) Full time = 197 (29,32%)	
Decision	N = 674	Beneficiary = 493 (73,14%) Together = 133 (19,73%) Sender = 48 (7,12%)	
Branch	N = 675	Choloma = 125 (18,52%) Choluteca = 123 (18,22%) Circunvalación = 3 (0,44%) Comayagua = 26 (3,85%) El Progreso = 88 (13,04%) Florencia = 2 (0,30%) Kennedy = 7 (1,04%) La Ceiba = 19 (2,81%) Libertad = 8 (1,19%) Medina = 10 (1,48%) Santa Fe = 159 (23,56%) Siguatepeque = 105 (15,56%)	

B. Continuous and ranked variables

Variable	N	Min	Max	Range	Mean	Median	Lower quartile	Upper quartile	Var	SD	SE
Age	668	16	86	70	39.92	37	29	50	199,09	14.11	0.56
Years	672	0.08	33	32.92	6.21	5	2	9	25.30	5.03	0.19
Numsenders	674	1	4	3	1.24	1	1	1	0.25	0.50	0.02
School	675	0	17	17	7.6	6	6	11.5	16.48	4.06	0.16
Poverty	661	4	13	9	8.00	8	7	9	3.88	1.97	0.08
Finlit	654	0	3	3	0.99	1	0	2	0.85	0.92	0.04

6.1.11 Results from the univariate analysis of explanatory variables in the logistic regression framework

dataset	<i>dataphone</i>	<i>dataall</i>
outcome measure	finclud	finclud
gender	- 0.29 (0.25)	-0.09 (0.20)
age	0.00 (0.01)	0.01 (0.01)
agesquare	0.00 (0.00)	0.00 (0.00)
school	0.05 (0.03) .	0.04 (0.21) .
work	0.17 (0.24)***	0.39 (0.11)***
workhours	0.43 (0.09)***	0.43 (0.17)***
poverty	0.24 (0.06)***	0.20 (0.05)***
finlit	0.32 (0.12) **	0.43 (0.10)***
amount	0.00 (0.00)***	-
frequency	0.02 (0.04)	-
years	0.11 (0.03)***	0.08 (0.02)***
numsender	0.36 (0.24)	0.41 (0.19)*
parent	0.29 (0.34)	0.30 (0.27)
child	0.39 (0.26)	0.39 (0.19) *
spouse	0.00 (0.27)	-0.35 (0.20) .
otherfamily	0.05 (0.22)	0.12 (0.17)
friend	- 0.37 (0.31)	0.01 (0.27)
monitoring	0.30 (0.23)	0.13 (0.19)
communication	0.01 (0.01)	-
decision beneficiary	0.86 (0.00) ***	0.77 (0.10)***
decision sender	-0.26 (0.39)	-0.38 (0.31)
decision together	0.13 (0.26)	0.17 (0.22)

Note: Results are presented by coefficients and standard errors in brackets. Coefficients in logistic regression need to be exponentiated to produce odds ratios. Levels of significance are: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1

6.1.12 Observed and expected frequencies from the Hosmer-Lemeshow Test for *dataphone*

Level	Not financially included (= 0)		Financially included (= 1)	
	Expected	Observed	Expected	Observed
[0.333,0.498]	22.51	18	17.50	22
(0.498,0.562]	18.29	23	20.71	16
(0.562,0.628]	15.82	19	23.18	20
(0.628,0.676]	14.04	13	25.96	27
(0.676,0.722]	11.85	15	27.15	24
(0.722,0.765]	10.02	8	28.98	31
(0.765,0.8]	8.80	9	31.20	31
(0.8,0.841]	6.94	4	32.06	35
(0.841,0.894]	5.22	3	33.78	36
(0.894,0.999]	2.50	4	37.50	36

6.1.13 Summary of logistic regression analysis results for financial inclusion in *dataphone* (weighted for non-response)

Variable	Coefficient	Standard Error	z value	Pr (> z)
<i>poverty</i>	0.245	0.057	4.298	1.72e-05 ***
<i>years</i>	0.111	0.027	4.183	2.88e-05 ***
<i>amount</i>	0.002	0.001	2.935	0.00334 **

Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05

6.1.14 Summary of logistic regression analysis results for financial inclusion in *dataphone* (weighted for coverage error)

Variable	Coefficient	Standard Error	z value	Pr (> z)
<i>poverty</i>	0.235	0.056	4.180	2.92e-05 ***
<i>years</i>	0.115	0.027	4.341	1.42e-05 ***
<i>amount</i>	0.002	0.001	2.921	0.00349 **

Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05

6.1.15 Descriptive data on the relationship between remittances receivers and financial institutions (dataphone)

Dataset: <i>dataphone</i> (N = 415)		
(1) Do you own a savings or current account at a financial institution?		
Yes: 259 (62,41%)	No: 156 (37,59%)	NA: 0 (0%)
(2) How many accounts do you hold in total?		
0 = 156 (37,59%)	1 = 232 (55,90%)	2 = 23 (5,54%)
3 = 3 (0,72%)	NA = 1 (0,24%)	Total No. of accounts: 287
(3) At what type of financial institution do you hold your accounts?		
ProCredit: 69 (24,04%)	Other bank: 173 (60,28%)	CAC: 44 (15,33%)
MFI: 1 (0,35%)	NA: 0	Total: 287
(4) Do you use any other financial products or services? (N = 415)		
Yes: 139 (33,49%)	No: 274 (66,02%)	NA: 2 (0,48%)
(5) How many other financial products do you use?		
0 = 274 (66,02%)	1 = 114 (27,47%)	2 = 11 (2,65%)
NA = 16 (3,86%)	Total number of other financial products being used: 136	
(6) Which types of financial products do you use?		
Creditcard = 13 (9,56%)	Debitcard = 38 (27,94%)	Credit/Loan = 69 (50,74%)
Insurance = 1 (0,74%)	NA = 15 (11,03%)	Total = 136
(7) Did you have an account before receiving remittances? (N = 259)		
Yes = 129 (49,81%)	No = 129 (49,81%)	NA = 1 (0,38%)
(8) Have you deposited part of your remittances in the last 12 months? (N = 259)		
Yes = 188 (72,59%)	No = 69 (26,64%)	NA = 2 (0,77%)
(9) Would you like to save or save more in the future?(N = 259)		
Yes = 228 (88,03%)	No = 28 (10,81%)	NA = 3 (1,16%)
(10) Do you save outside of a financial institution? (N = 156)		
Yes = 21 (13,46%)	No = 135 (86,54%)	NA = 0 (0,00%)
(11) How do you save outside of the FI? (N = 21)		
In a US bank = 1	At home = 15 (71,43%)	With an aunt = 1 (4,76%)
In a savings group = 2 (9,52%)	I invest = 1 (4,76%)	NA = 1 (4,76%)

6.1.16 Descriptive data of the relationship of remittances receivers with a financial institution (dataface)

Dataset: <i>dataface</i> (N = 264)		
(1) Do you own a savings or current account at a financial institution?		
Yes: 145 (54,92%)	No: 119 (45,08%)	NA: 0 (0%)
(2) What type of account do you hold? (N = 145 account holders)		
Savings account: 141 (98,60%)	Current account: 1 (0,69%)	NA = 3 (2,07%)
(3) How many accounts do you hold in total? (N = 264)		
0 = 119 (45,1%)	1 = 101 (38,26%)	2 = 34 (12,88%)
3 = 8 (3,03%)	4 = 2 (0,76%)	Total No. of accounts: 201
(4) At what type of financial institution do you hold your accounts?		
ProCredit:42	Other bank:114	CAC:43
MFI: 2	Total: 201	
(5) Do you use any other financial products or services? (N = 264)		
Yes: 80 (30,30%)	No: 180 (68,18%)	NA: 4 (1,52%)
(6) How many other financial products do you use?		
0 = 180 (68,18%)	1 = 60 (22,73%)	2 = 18 (6,82%)
3 = 2 (0,76%)	NA = 4 (1,52%)	Total number of other financial products being used: 102
(7) Which types of financial products do you use?		
Transfers = 18 (17,65%)	Creditcard/Debitcard = 28 (27,45%)	Credit/Loan = 39 (38,24%)
Insurance = 12 (11,76%)	Other = 1 (0,98%)	NA = 4 (3,92%)
		Total = 102
(8) Did you have an account before receiving remittances? (N = 145)		
Yes = 66 (45,52%)	No = 79 (54,48%)	NA = 0 (0,00%)
(9) Have you deposited part of your remittances in the last 12 months? (N = 145)		
Yes = 105 (72,41%)	No = 39 (26,90%)	NA = 1 (0,69%)
(10) Why did you not deposit part of your remittances? (N = 39)		
Is it not my money: 5 (12,82%)	Nothing left over: 19 (48,72%)	Prefer to spend: 5 (12,82%)
Invest: 1 (2,56%)	Pay debt: 1 (2,56%)	Other: 6 (15,38%)
NA: 2 (5,12%)	Total: 39	

(11) How often did you deposit part of your remittances in the last 12 months?		
1 = 10	2 = 15	3 = 12
4 = 15	5 = 9	6 = 8
7 = 2	8 = 2	9 = 2
10 = 8	12 = 9	20 = 1
24 = 1	36 = 3	48 = 1
NA = 7	Total = 105	
(12) Would you like to save more in the future? (N = 105)		
Yes = 91 (86,67%)	No = 11 (10,48%)	NA = 3 (2,86%)
(13) Why don't you have an account at a financial institution? (N = 119)		
Don't have enough money: 78 (65,55%)	Somebody in the family has an account: 14 (11,76%)	Don't have the documentation: 9 (7,56%)
Other: 6 (5,04%)	Don't trust banks: 4 (3,36%)	NA: 4 (3,36%)
Too far: 2 (1,68%)	Too expensive: 2 (1,68%)	Total: 119
(14) Do you save outside of a financial institution? (N = 119)		
Yes = 48 (40,34%)	No = 68 (57,14%)	NA = 3 (2,52%)
(15) How do you save outside of the FI? (N = 48)		
Cooperative = 1 (2,08%)	At home = 42 (87,5%)	Other = 1(2,08%)
In a savings group = 3 (6,25%)	NA = 1 (2,08%)	Total = 48
(16) Why do you save (outside of a bank)? (N = 48)		
For emergencies: 35 (72,92%)	To make an investment: 12 (25,00%)	To make a bigger purchase: 1 (2,08%)

6.2 Relevant documents and materials

6.2.1 Focus group discussion guide

Guía de Discusión Grupo Focal

1. Pregunta de apertura:

1.1. Como se llama usted y cual es su plato favorito?

2. Preguntas introductorias al tema:

2.1. Sabemos que muchas familias en Honduras reciben remesas. Que tan importante son las remesas para su hogar y los hogares en su vecindario/ comunidad/círculo familiar?

2.2. Que hace la gente con su remesa...para que la usa?

2.3. Quien decide típicamente en el hogar para que se usa la remesa?

3. Preguntas transitorias:

3.1. Que significa para ustedes ahorrar?

3.2. Consideran que es importante ahorrar...por que?

4. Preguntas claves:

4.1. Cuales son las principales razones por las que algunas personas no ahorran (una mayor parte de) su remesa?

4.2. Que opinan sobre una cuenta de ahorros, que está destinada a cumplir un cierto deseo o sueño...por ejemplo una cuenta para reparaciones en la casa, para educación de los hijos o un ahorro navideño?

4.3. Que opinan sobre una cuenta, que limita las posibilidades de retiro, hasta que un cierto monto predefinido está alcanzado por la persona que ahorra?

4.4. Que opinan sobre alguien (ONG, Estado, Institución Financiera) que le recuerda periodicamente a las personas que reciben remesas de los beneficios del ahorro?

5. Pregunta final:

5.1. Entonces...después de todo lo discutido el día de hoy....que consejos le darían ustedes a Banco Procredit para que logre que más personas ahorren una mayor parte de su remesa? Que podría hacer Banco Procredit concretamente? Que tipo de mercadeo podría aplicar?

6. Pregunta de resumen:

6.1. Moderadora hace un corto resumen de lo discutido y pregunta si los participantes están de acuerdo con lo resumido.

6.2.2 Focus group information and consent form

Hoja de consentimiento

Fui invitado/a a participar en un grupo focal con clientes del servicio de remesas de Banco Procredit en Tegucigalpa, el día jueves, 22 de marzo 2012. Este grupo focal fue organizado por Banco Procredit y por una investigadora de la Universidad Libre de Berlín, Alemania. Antes de iniciar con el grupo focal fui informado/a acerca de lo siguiente:

- Me explicaron el objetivo del grupo focal.
- Me presentaron a las personas responsables por organizar el grupo focal.
- Me informaron, que mi participación era absolutamente voluntaria y que yo me podía retirar en cualquier momento, sin que mi retiro tuviera consecuencia alguna.
- Me informaron, que no tenía que compartir ninguna información en absoluto, con la que no me sintiera cómodo/a y que no había ninguna obligación de contestar las preguntas.
- Me explicaron, que la información recaudada en el marco del grupo focal tiene fines informativos, tanto para la investigadora de la Universidad Libre de Berlín, como para Banco Procredit.
- Me explicaron, que la información recaudada en el marco del grupo focal se va a tratar con confidencialidad.
- Me informaron, que el grupo focal se iba a grabar y que en caso de que no estuviera de acuerdo no se realizaba dicha grabación.

Participé de forma voluntaria en el grupo focal y estoy de acuerdo con el uso de la información para los fines descritos arriba.

Lugar:

Fecha:

Firma: _____

6.2.3 Questionnaire face-to-face interviews

Cuestionario sobre remesas y acceso al sistema financiero

Introducción: La presente encuesta se realiza en el marco de la investigación de una estudiante de la Universidad Libre de Berlin, Alemania en colaboración con Banco ProCredit y tiene como objetivo coleccionar información acerca de las remesas y el uso del sistema financiero. Esta encuesta es completamente anónima y confidencial, es decir este cuestionario no recoge, ni guarda, datos personales suyos. La duración es de aproximadamente 10 minutos. Entre todos los participantes de la encuesta se van a rifar 2 celulares y saldo, así que al finalizar la entrevista quisieramos pedirle nos facilita su nombre y número de teléfono en un papelito **por aparte** para poderlo incluir en la rifa.

En caso de dudas o consultas sobre la finalidad de esta encuesta y el uso de los datos puede llamar al número 98243354 para comunicarse con la investigadora principal. Muchas gracias de antemano por su gentil colaboración!

Lugar: _____ Fecha: _____ Hora: _____ Número: _____

A. REMESAS

Vamos a dar inicio con unas preguntas sobre las remesa

1. Cuantos años (o meses si es menos de un año) tiene de recibir remesas?

_____ años
_____ meses

(OJO: La categoria meses solo aplica para personas que tienen menos de un año de recibir remesas)

2. Quien le manda remesas?

- Madre/padre
Hijo/hija
Esposo/Esposa
Otro familiar
Amigo/amiga
Otro

(OJO: Más que una respuesta posible)

3. En los últimos doce (12) meses cuantas veces ha recibido remesas?

- a) Un total de _____ veces
b) _____ veces por mes en promedio

(OJO: Use la forma de contestar (a o b) que es más fácil / cómoda para el calculo del encuestado)

4. Para que utiliza el dinero de la remesa?

- Uso personal
Comprar alimentos
Pagar los servicios publicos
Pagar gastos de educación
Pagar gastos de salud
Pagar la casa
Ahorros
Otro

(OJO: Más que una respuesta posible)

5. En su caso quien toma la decisión acerca de como gastar la remesa?

- Usted mismo 0
La persona que le manda la remesa 0
Usted junto a la persona que manda la remesa..... 0
Su esposo / esposa 0 *
Su padre / madre 0 *
Otra persona 0 *

**(OJO: Se refiere a los familiares en Honduras. Si la persona (esposo, padre, etc.) vive en el extranjero, favor marcar: "La persona que le manda la remesa")*

6. La persona que le manda la remesa se entera de como usted la gastó?

- Si, le informo via teléfono de los gastos que he realizado
- Si, le informo via correo electrónico
- Si, la persona se entera de mis gastos vía el e-banking *
- Si, le informo cuando la persona viene de visita a Honduras
- No se entera

** (OJO: Si el encuestado indaga favor decir: Se refiere al acceso a una cuenta via Internet cuando uno puede ver y realizar transacciones bancarias en linea).*

B. AHORROS

Ahora seguimos con preguntas sobre el ahorro:

7. Tiene usted alguna cuenta de ahorros o una cuenta corriente?

- Si (→ **OJO:** Sigue pregunta 8)
- No (→ **OJO:** Sigue pregunta 15)

8. Cuantas cuentas tiene en total?

No. de cuentas de ahorro _____

No. de cuentas corrientes _____

9. Donde tiene su cuenta(s) de ahorros o cuenta corriente?

- En Banco Procredit
- En otro Banco
- En una Cooperativa de Ahorro y Credito
- En una Institución Microfinanciera

(OJO: Listado de Inst. Financieras se encuentra en el Manual OJO: Más de una respuesta posible)

10. Cuando abrió su primera cuenta de ahorros o cuenta corriente?

- Tiene la cuenta desde antes de empezar a recibir remesas
- Primero recibió remesas y después abrió su cuenta
- Justo al empezar a recibir remesas la abrió ..

11. En los últimos doce (12) meses ha depositado parte de su remesa en su cuenta de ahorros o cuenta corriente?

- No (→ **OJO:** Sigue pregunta 12)
- Si (→ **OJO:** Sigue pregunta 13)

12. Por que no ahorra parte de su remesa?

- No me sobra nada de la remesa para ahorrar ..
- No es mi dinero, solo lo administro para la persona que me lo manda
- Prefiero gastarla para cumplir algunos deseos / sueños míos
- Otro

(OJO: Sigue pregunta 18)

13. En los últimos doce (12) meses cuantas veces ha depositado parte de su remesa en su cuenta de ahorros o cuenta corriente?

_____ veces

14. Le gustaría ahorrar más de su remesa de lo que actualmente ahorra?

- Si
- No

(OJO: Sigue pregunta 18)

15. Porfavor digame si una de las siguientes es una razón por la que NO tiene una cuenta en un banco o alguna otra institución financiera.

- Le queda muy lejos
- Son muy caras
- Usted no cuenta con la documentación necesaria
- Usted no les confía
- Usted no tiene suficiente dinero para usarla
- Porque alguien en su familia ya tiene una cuenta

16. En los últimos doce (12) meses ha acumulado una cantidad de dinero para...

- ...poder hacer frente a alguna emergencia (por ejemplo una emergencia médica o perdidas debido a una inundación)? O
- ...poder realizar una compra grande (por ejemplo un televisor o un carro)? O
- ...poder hacer una inversión (por ejemplo en su negocio o en educación)? O
- ...No ha acumulado ninguna cantidad de dinero O

17. Como hizo para acumular este dinero?

- Guardándolo en la casa O
 - Participando en un grupo o círculo de ahorros (por ejemplo en su trabajo o iglesia) O
 - Otro O
- _____
- _____

18. Ha usado alguno de los siguientes productos financieros en los últimos doce (12) meses?

- Prestamo de una institución financiera (banco, CAC o microfinanciera)
 - Seguro (de vida, vehículo, ...)
 - Transferencias nacionales (por ejemplo de su cuenta a otra cuenta bancaria)
 - Deposito directo o pagos via banco (por ejemplo luz y agua)
 - Tarjeta de Crédito
 - Tarjeta de Débito
 - Cheques
 - Otro
- _____
- _____

(OJO: Más que una respuesta posible)

C. Preguntas generales

Ahora seguimos con unas preguntas generales:

19. Sexo → OJO: NO PREGUNTAR

- Hombre O Mujer O

20. En que año nació usted?

21. Cual es el nivel educativo más alto que usted ha alcanzado?

- Pre-Básica O
- Básica O
- Ciclo común O
- Diversificado O
- Técnico Superior O
- Superior no universitario O
- Superior universitario O
- Post - grado O
- Ninguno O

(OJO: En caso de que la persona mencione varios, únicamente apunte el más alto)

22. Cual es el material predominante en la construcción de las paredes de la casa en la que vive?

- Adobe O
 - Material prefabricado O
 - Madera O
 - Bloques / Ladrillos O
 - Bahareque, bara o caña O
 - Desechos O
 - Otro O
- _____
- _____

23. Cual es la principal fuente de energía para cocinar en su casa?

- Leña O
 - Gas (Kerosene) O
 - Gas propano (Chimbo) O
 - Electricidad O
 - Otro O
- _____

24. Cuantas personas viven en su hogar de forma permanente?

_____ personas

25. Cual es su relación con el / la jefe de hogar en su casa?

- Usted es jefe de hogar O
Es su esposo/a O
Es su hijo/hija O
Es su padre/madre O
Otro O

26. Ha trabajado en el mes pasado en una actividad que genera un sueldo u otro tipo de ingreso?

- Si, como empleado del Gobierno
Si, como empleado en la empresa privada
Si, como empleado en una finca o agricultura..
Si, en su propio negocio o finca
No ha trabajado *
Otro _____

* (OJO: Sigue con pregunta 28)

27. Cuanto tiempo ha invertido en su trabajo en el mes pasado?

- Tiempo completo O
Medio tiempo O
Menos de medio tiempo O

28. Que otros fuentes de ingresos tiene?

- Rentas o alquileres
Apoyo familiar (por ej. de su esposo o madre aqui en Honduras)
Bonos o subsidios gubernamentales (por ej. bono diez mil)
Pension / Jubilación
Remesas del extranjero
Otro

D.CONOCIMIENTO FINANCIERO

Ya nos encontramos en la recta final del cuestionario:

29. Si usted deposita 100 Lps. en una cuenta bancaria que gana 3% de intereses anuales. Cuanto tiene en su cuenta después de un año?

- 100 Lempiras ... O 136 Lempiras ... O
103 Lempiras ... O 300 Lempiras ... O
130 Lempiras ... O No se O

30. Sabe usted que significa el término financiero "devaluación"? Si el Lempira devalua frente al dolar esto significa...

- ...que puede comprar más dolares por un Lempira O
...que puede comprar menos dolares por un Lempira O
No se O

31. Asumamos que usted quiere comprar un televisor que cuesta 2500 Lps. En una tienda le ofrecen un descuento del 10%, mientras que en otra tienda le rebajan 300 Lps. al precio. Cual es la mejor oferta?

- El descuento del 10% O
La rebaja de 300 Lps. O
No se O

32. En general como califica los productos y servicios de ProCredit?

- Muy buenos ... O Malos O
Buenos O Muy malos ... O
Regulares O

33. Hay algo que quisiera añadir a este cuestionario? alguna opinión o algun comentario?

Cierre de la entrevista: Muchísimas gracias por su tiempo y por colaborar tan gentilmente con esta encuesta! Favor no olvide de darnos su nombre y número de teléfono en un papelito **por aparte** para participar en la rifa de los dos celulares.

6.2.4 Questionnaire phone interviews

Cuestionario sobre remesas y acceso al sistema financiero

Introducción: Mi nombre es Dania Garcia y le llamo por parte de Banco ProCredit. Estamos haciendo una encuesta entre nuestros usuarios del servicio de Western Union con el objetivo de mejorar nuestros servicios y para una investigación que estamos realizando junto a la Universidad de Berlín, Alemania. Esto no se trata ni de pedir dinero, ni de venderle nada, así que no se preocupe! Entre los participantes de la encuesta estamos rifando un celular Samsung Galaxy Music y bonos de saldo para celulares. La encuesta dura entre 5 - 10 minutos y es completamente confidencial, o sea no se guarda información personal suya junto a las respuestas. Está de acuerdo en participar?

Fecha: _____ Hora: _____ Número: _____ Código: _____

A. REMESAS

Vamos a dar inicio con unas preguntas sobre las remesas:

1. Cuantos años tiene de recibir remesas?

_____ años
_____ meses (si es menos de un año)

(OJO: La categoría meses solo aplica para personas que tienen menos de un año de recibir remesas)

2. Quien le manda remesas?

- Madre/padre
Hijo/hija
Esposo/Esposa
Otro familiar
Amigo/amiga
Otro

(OJO: Más que una respuesta posible)

3. En su caso quien toma la decisión acerca de como o en que gastar la remesa?

- Usted mismo o alguna otra persona aqui en Honduras
La persona que le manda la remesa
Usted junto a la persona que manda la remesa, es decir entre los dos

4. La persona que le manda la remesa se entera de como usted la gastó?

- Si
No

5. En promedio cuantas veces al mes habla con la persona que le manda la remesa?

_____ veces

B. AHORROS

Ahora seguimos con preguntas sobre el ahorro:

6. Tiene usted alguna cuenta de ahorros o una cuenta corriente?

- Si (→ **OJO:** Sigue pregunta 7)
No (→ **OJO:** Sigue pregunta 12)

7. Donde tiene su cuenta o cuentas?

- En Banco Procredit
En otro Banco
En una Cooperativa de Ahorro y Credito
En una Institución Microfinanciera

*(OJO: Listado de Inst. Financieras se encuentra en el Manual
OJO: Más de una respuesta posible)*

8. Cuando recibió su primera remesa, ya tenía su cuenta o la abrió hasta después?

Si

No

9. En los últimos doce (12) meses ha depositado por lo menos una vez parte de su remesa en su cuenta de ahorros o cuenta corriente?

No (Sigue pregunta 11)

Si (Sigue pregunta 10)

10. Le gustaría ahorrar más de su remesa de lo que actualmente ahorra?

Si

No

(OJO: Sigue pregunta 14)

11. Está interesado en ahorrar alguna parte de su remesa en el futuro?

Si

No

(OJO: Sigue pregunta 14)

12. En los últimos doce (12) meses ha acumulado una cantidad de dinero para poder hacer frente a alguna emergencia o para realizar una compra o inversión grande?

No (OJO: Sigue pregunta 14)

Si (OJO: Sigue pregunta 13)

13. Como hizo para acumular este dinero?

Guardándolo en la casa

Participando en un grupo o círculo de ahorros

(por ejemplo en su trabajo o iglesia)

Otro

14. Ha usado algun otro producto financiero en los últimos doce (12) meses, por ejemplo un préstamo, un seguro o alguna tarjeta de débito o crédito?

No

Si

Cuales?

C. Preguntas generales

Ahora seguimos con unas preguntas generales:

15. Cual es el nivel educativo más alto que usted ha alcanzado?

Pre-Básica

Básica

Ciclo común

Diversificado

Técnico Superior

Superior no universitario

Superior universitario

Post - grado

Ninguno

(OJO: En caso de que la persona mencione varios, únicamente apunte el más alto)

16. Cual es el material predominante en la construcción de las paredes de la casa en la que vive?

Adobe

Concreto / Cemento

Madera

Bloques / Ladrillos

Bahareque, bara o caña

Desechos

Otro

17. Cual es la principal fuente de energía para cocinar en su casa?

- Leña
- Gas (Kerosene)
- Gas propano (Chimbo)
- Electricidad
- Otro
- _____

18. Ha trabajado en el mes pasado en una actividad que genera un sueldo u otro tipo de ingreso?

- Si (**OJO:** Sigue pregunta 19)
- No (**OJO:** Sigue pregunta 20)

19. Cuanto tiempo ha invertido en su trabajo en el mes pasado?

- Tiempo completo
- Medio tiempo
- Menos de medio tiempo

D.TEMAS FINANCIEROS

Ya nos encontramos en la recta final del cuestionario. Algunas preguntas sobre las finanzas:

20. Asumamos que usted quiere comprar un televisor que cuesta 2000 Lps. En una tienda le ofrecen un descuento del 10%, mientras que en otra tienda le rebajan 300 Lps. al precio. Cual es la mejor oferta?

- El descuento del 10%
- La rebaja de 300 Lps.
- No se

21. Sabe usted que significa el término financiero "devaluación"?

- No (**OJO:** Sigue pregunta 23)
- Si (**OJO:** Sigue pregunta 22)

22. Si el Lempira devalua frente al dolar esto significa...

- ...que puede comprar más dolares por un Lempira
- ...que puede comprar menos dolares por un Lempira
- No se

23. Si usted deposita 100 Lps. en una cuenta bancaria que gana 3% de interes mensual. Cuanto tiene en su cuenta después del primer mes?

- 103 Lempiras
- 136 Lempiras
- 300 Lempiras
- No se

24. En general como califica los productos y servicios de ProCredit?

- Muy buenos ... Malos
- Buenos Muy malos ...
- Regulares

25. Hay algo que quisiera añadir a este cuestionario? alguna opinión o algun comentario?

Cierre de la entrevista: Muchísimas gracias por su tiempo y por colaborar tan gentilmente con esta encuesta! Usted está incluido en la rifa de un celular Samsung Galaxy Music que se va a realizar el 30 de agosto. En caso de dudas o consultas sobre esta encuesta puedo darle el numero de la investigadora principal o también de Banco ProCredit.

6.2.5 Discussion guide expert interviews

Guía para la entrevista

Introducción: Muy buenos días. Mi nombre es Sarah Hirsch, soy investigadora de la Universidad Libre de Berlin donde realizo mis estudios de doctorado en ciencias económicas. Mi tema de investigación son las remesas y el ahorro. Quisiera entrevistarle en su función de experto y persona de la practica acerca de estos temas. La entrevista durará entre 30 minutos a máximo una hora y con su permiso me gustaría gravarla para no perder ningun detalle de la valiosa información que usted me brinda y para facilitar el análisis posterior de esta información. La entrevista que usted me brinda será transcrita por mi persona y luego anonimizada, es decir en la transcripción de su entrevista no se guardará la información personal suya. Partes de su entrevista podrían usarse en la versión final de la publicación, pero naturalmente siempre de forma anonimizada.

Pregunta generadora		
1. En su opinión, cual es el estado actual o el avance de la inclusión financiera en Honduras?		
Aspectos del contenido	Preguntas para mantener el flujo de la entrevista	Preguntas de contenido
<ul style="list-style-type: none"> - Introducción al tema - Visión en conjunto del sistema financiero y del acceso al mismo. - El grado de avance de la inclusión financiera - Barreras que existen para la inclusión financiera - La importancia del tema en Honduras 	<ul style="list-style-type: none"> - Algo más que se le ocurra? - Que más asocia con la inclusión financiera en Honduras? - Algún otro elemento? 	<ul style="list-style-type: none"> 1.1 La mayoría de los hondureños tiene acceso al sistema financiero? 1.2. Cuales son las barreras que persisten para el acceso al sistema financiero? 1.3. Es percibida como un tema importante la inclusión financiera al nivel nacional?

Pregunta generadora		
2. De que manera han apoyado o frenado las remesas a la inclusión financiera?		
Aspectos del contenido	Preguntas para mantener el flujo de la entrevista	Preguntas de contenido
<ul style="list-style-type: none"> - Las remesas se perciben como un aporte positivo o como un freno cuando se quiere lograr la inclusión financiera - Como han apoyado o frenado las remesas (cual es el vehículo). 	<ul style="list-style-type: none"> - Hay algo más que quisiera anadir? - Algún otro elemento? - 	<ul style="list-style-type: none"> 2.1. Podría explicarme un poco más sobre el como han apoyado o frenado las remesas? 2.2. Para usted cual es la conexión principal entre remesas y la inclusión financiera? 2.3. Cuales son las experiencias, datos u opiniones en las que se basa para su respuesta?

Pregunta generadora		
3. Me podría hablar un poco del mercado de las remesas en Honduras, es decir cuales han sido las tendencias, quienes son los actores principales y hacia donde se mueve el mercado en general?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Actores relevantes - Tendencias de mercado - Tendencias tecnológicas - Mercado en auge o en baja - 	<ul style="list-style-type: none"> - Que más se le ocurre cuando piensa en el mercado de las remesas en Honduras? - Cuales otros aspectos son importantes? - Hay algo más? 	<p>3.1. Cuales actores lideran el mercado?</p> <p>3.2. Cuales innovaciones se han introducido últimamente?</p> <p>3.3. Es un negocio rentable y cual es el interés de los actores involucrados?</p>

Pregunta generadora		
4. En su experiencia, cual es la relación entre remesas y ahorro?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Ahorran las personas que reciben remesas? - Cuantos ahorran y cuanto mercado queda por explorar? - Cuales barreras existen para estas personas? 	<ul style="list-style-type: none"> - Que más se le ocurre en cuanto a esta conexión? - Existen otros aspectos que aún no hemos mencionados? - Algo más que añadir? 	<p>4.1. Cuales son los principales factores que influyen en esta relación, tanto positivamente como negativamente?</p> <p>4.2. En su estimación: Cual porcentaje de las personas que reciben remesas ahorran?</p> <p>4.3. Y los que no ahorran, por que será que no lo hacen?</p> <p>4.4. Cree que existe más potencial de ahorro entre los beneficiarios de remesas, que no ha sido captado aún?</p>

Pregunta generadora		
5. De que forma se puede motivar a las personas que reciben remesas para que ahorren más o dicho de otra forma, que incentivos para el ahorro funcionan en esta población?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Cuales incentivos funcionan? - Que experiencias existen? - Es diferente esta población (beneficiarios de remesas) de otra? 	<ul style="list-style-type: none"> - Que más relaciona con la motivación al ahorro de esta población - Algo más que podría añadir? 	<p>5.1. Conoce experiencias concretas donde se ha logrado motivar el ahorro de las personas que reciben remesas?</p> <p>5.2. Porque cree que incentivos x funcionan, mientras z no funciona?</p> <p>5.3. De que manera se diferencia el beneficiario de remesas del ahorrante típico?</p>

Pregunta generadora		
6. Que rol juega la educación financiera cuando se quiere motivar a ahorrar a las personas que reciben remesas?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Es un factor importante la educación financiera? - Influye positivamente o negativamente? - Porque? 	<ul style="list-style-type: none"> - Algo más en esta tema que podría añadir? - Algun aspecto que no hemos tomado en cuenta? 	<p>6.1. Por que cree que el nivel de educación financiera de las personas que reciben remesas puede influir en su motivación de ahorrar?</p> <p>6.2. Que importante es este factor comparado a otros que podrían influir en la motivación de ahorrar?</p>

Pregunta generadora		
7. En su opinión, que impacto sobre el ahorro tiene el hecho que la remesa se reciba en efectivo?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Impacto de la tentación - Behavioural economics 	<ul style="list-style-type: none"> - Hay algo más que quisiera anadir? - Algún otro elemento? 	<p>7.1. Cree que el hecho de que la remesa se recibe en efectivo facilita o frena el ahorro y el porque de su respuesta?</p>

Pregunta generadora		
8. Que rol juegan las personas que mandan las remesas cuando se quiere incentivar el ahorro?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Se perciben como (posibles) clientes las personas que mandan remesas? - 	<ul style="list-style-type: none"> - Que más se le ocurre cuando piensa en las personas que mandan remesas y el ahorro? - Algo más que podría añadir en este bloque? 	<p>8.1. Quienes se interesan más por el ahorro de las remesas: los que mandan o los que reciben?</p> <p>8.2. Tienen o conoce experiencias de involucrar a los que mandan las remesas para motivar el ahorro?</p> <p>8.3. Porque las instituciones financieras en Honduras se enfocan más en las personas que reciben remesas y no en las que mandan?</p>

Pregunta generadora		
9. Cuales iniciativas de política pública en Honduras han apoyado o podrían apoyar a las personas que reciben remesas a aumentar el nivel de ahorro?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Políticas publicas que han formado el mercado - Políticas públicas que podrían formar el mercado 	<ul style="list-style-type: none"> - Algo más en el campo de la política pública? - Que más podríamos añadir? 	<p>9.1. Cual ha sido la política pública más importante en el contexto de las remesas y el ahorro en Honduras?</p> <p>9.2. Que es lo que falta hacer en su opinión por parte de la política?</p>

Pregunta generadora		
10. Cuales innovaciones tecnológicas han apoyado o podrían apoyar a las instituciones financieras que pagan remesas y a las personas que las reciben para el fomento del ahorro?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Innovaciones que han formado el mercado - Innovaciones que podrían formar el mercado 	<ul style="list-style-type: none"> - Se le ocurre algo más en este tema? - Algo más que quisiera añadir? 	<p>10.1. Cual ha sido la innovación tecnológica más importante en el contexto de las remesas y el ahorro en Honduras?</p> <p>10.2. Cual innovación tecnológica mira prometedora para el futuro?</p>

Pregunta generadora		
11. Tienen importancia las remesas para el desarrollo en Honduras?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido
<ul style="list-style-type: none"> - Es principalmente positiva o negativa? - Que importancia tiene la conexión via el sistema financiero? 	<ul style="list-style-type: none"> - Algun aspecto más sobre las remesas y el desarrollo? - Algun aspecto que no hemos tomado en cuenta? 	<p>11.1. Cual ha sido el impacto de las remesas sobre el desarrollo en Honduras?</p> <p>11.2. Es principalment positivo o negativo?</p> <p>11.3. A través de cuales vehiculos se ha dado este impacto?</p>

Pregunta generadora		
12. De mi parte esto sería todo. Tiene usted algo que quisiera añadir a esta entrevista o siente que falta algún aspecto importante que no hemos tocado?		
Aspectos del contenido	Preguntas de mantenimiento	Preguntas de contenido

6.2.6 Consent form expert interviews

Declaración de conformidad

Estoy de acuerdo, que la entrevista con la Sra. Sarah Hirsch sea gravada y transcrita para el posterior análisis y uso en el marco de la investigación científica sobre la relación entre las remesas y el ahorro en Honduras, que realiza la Sra. Hirsch como estudiante de doctorado de la Universidad Libre de Berlín, Alemania.

Estoy de acuerdo que algunos recortes de esta entrevista se pueden usar en la publicación final de la investigación. Me han asegurado que todos mis datos personales sean anonimizados y que por ende no será posible hacer conclusiones hacia mi persona en base de los datos de esta entrevista.

Tegucigalpa, _____

Fecha

Firma

6.3 Summary

Summary

This research comprises an empirical analysis of the relationship between remittances and financial inclusion for the country case study Honduras. It is therefore located at the junction of two broader areas of research, finance and development, on the one hand, and remittances and development, on the other. Both fields have recently attracted considerable attention from researchers and practitioners in international development organizations. While research on finance and development is generally concerned with how the development of the financial system affects the development of a country, or how financial inclusion can be beneficial to individuals and firms, research on remittances and development focuses on how remittances, that is, the money sent home to their families from migrants abroad, affect the development of the receiving countries and the well-being of the recipients and their families. Interestingly, not much research has been conducted yet at this junction. In practice, however, the two areas are very closely connected since in many countries remittances are primarily paid out via the financial system.

For the empirical analysis three types of data that were collected specifically for this research are combined with two distinct methods of data analysis. A standard quantitative approach in the form of a binary logistic regression model is applied to a quantitative dataset, which was collected through standardized interviews with the receivers of remittances at one Honduran bank. The research question that is answered by this approach is concerned with identifying the factors that determine financial inclusion of the receivers of remittances. To this end, both individual socioeconomic variables and variables specific to migrant families are taken into account. A less common approach is taken for analyzing a second research question, at least when it comes to economic research. The study combines the results from the analysis of all three types of data collected for this research, the standardized interviews with remittances receivers, sector-wide expert interviews with representatives from financial institutions, and publicly available information on the Honduran financial sector by applying a mixed method research approach. The objective of this approach is to analyze the effect remittances have on access barriers to finance and to determine the factors that currently prevent or promote the financial inclusion of the receivers of remittances in Honduras.

The two concepts that are applied in this study, financial inclusion and access barriers to finance, are closely connected. While financial inclusion refers to the actual use of financial services, such as holding an account, access barriers to finance are those obstacles that prevent people from accessing and using financial services. Access barriers can have their origin on the demand side or on the supply side, but may also be related to context factors.

Results from the analysis of the first research question reveal that the likelihood of being poor as a proxy for income and years of receiving remittances correlate significantly with financial inclusion of remittances receivers. While most studies on the determinants of financial inclusion find income (or some proxy of income) to be a good predictor of financial inclusion, years of receiving remittances is specific to migrant families and points in the direction of a remittance life cycle motive, where this money first serves other purposes, such as paying off migration-related debt and buying or

remodeling a house, before it might find its way into a bank account. Results from the analysis of the quantitative data also show that half of those remittances receivers who now own an account did not have an account prior to receiving remittances; thus, their contact with a financial institution, which eventually led to their financial inclusion, was likely established through remittances. Both results indicate that the regular contact with a financial institution through remittances receipt lowers cultural barriers and promotes financial inclusion. In addition, the level of financial literacy of remittances receivers also correlates significantly with financial inclusion in one dataset, and although there is no indication of causality, this result is in line with current research results from studies on financial inclusion.

Results from the analysis of the second research question address how remittances can lower access barriers to finance. Apart from raising the receivers' income, it is shown that the formalized pay out structure of remittances in Honduras works in favor of financial inclusion through the regular contact that is created between receivers of remittances and the financial sector. Financial institutions in Honduras show interest in the receivers of remittances and have developed specialized products and services for this market segment. Neither the pricing nor lack of documentation seems to be relevant for excluding the receivers of remittances from the financial system. Rather it seems that geography and a lack of regulation to introduce innovations that could bring financial institutions closer to rural populations as well as the low levels of education in general and the level of financial literacy specifically present relevant current access barriers. The same is true for the general economic context in Honduras, which has been challenging in the last few years following the international financial crisis and national political crisis in 2009. In addition, the current market structure does not allow direct deposit of remittances, a promising product feature for the financial inclusion of remittances receivers, to live up to its potential. Finally, current regulation, which makes it nearly impossible for financial institutions in Honduras to offer savings accounts to their population abroad, was identified as a relevant access barrier for the financial inclusion of remittances senders. Policy recommendations for Honduras that can be drawn from the results of this study are linked to changes in the regulatory environment and to improvements in education in general and financial literacy specifically.

6.4 Zusammenfassung

Zusammenfassung

Die vorliegende Studie beinhaltet eine empirische Analyse der Beziehung zwischen Rücküberweisungen von Migranten und Zugang zum Finanzsystem (finanzieller Inklusion) der Empfänger dieser Geldtransfers in Honduras. Sie verbindet somit zwei größere Forschungsbereiche miteinander, nämlich den Bereich "Finanzsysteme und Entwicklung" auf der einen Seite, und den Bereich "Rücküberweisungen und Entwicklung" auf der anderen. Beide Bereiche haben in den letzten Jahren viel Aufmerksamkeit von Forschern, sowie auch Praktikern in internationalen Entwicklungsorganisationen erhalten. Während sich die Forschung zur Beziehung zwischen Finanzsystemen und Entwicklung grundsätzlich darauf konzentriert, wie sich die Entwicklung des Finanzsektors auf die Entwicklung eines Landes auswirkt, beziehungsweise ob der Zugang zum Finanzsystem positive Auswirkungen für Menschen und Unternehmen hat, konzentriert sich die Forschung zum Thema Rücküberweisung und Entwicklung meist darauf, wie sich diese Geldtransfers, die Migranten aus dem Ausland an ihre zurückgebliebenen Familien senden, auf die Entwicklung des Empfängerlandes, sowie auf die Wohlfahrt der Empfänger und ihrer Familien auswirken. Interessanterweise wurde noch nicht viel zur Verbindung dieser beiden Bereiche geforscht, obwohl sie in der Praxis meist eng miteinander verflochten sind, da in vielen Ländern Rücküberweisungen über das Finanzsystem ausgezahlt werden.

Im Rahmen einer Feldforschung wurden speziell für diese empirische Studie drei unterschiedliche Datensätze erhoben, die mit zwei verschiedenen Methoden der Datenanalyse ausgewertet wurden. Ein binär-logistisches Regressionsmodell, eine Standardmethode in der statistischen Datenanalyse, wurde zur Analyse eines quantitative Datensatzes verwendet. Dieser wurden mit Hilfe eines standardisierten Fragebogens bei den Empfängern von Rücküberweisungen einer honduranischen Bank erhoben. Die Forschungsfrage, die mit dieser Methode beantwortet wird, beschäftigt sich mit den Faktoren, die die finanzielle Inklusion der Empfänger von Rücküberweisungen bedingen. Im Rahmen dieser Analyse wurden sowohl individuelle sozioökonomische Variablen, als auch Variablen, die spezifisch für Migrantenfamilien sind, in Betracht gezogen. Eine weniger übliche Methode, zumindest in der ökonomischen Forschung, wurde für die Analyse der zweiten Forschungsfrage angewandt. Sie kombiniert die Ergebnisse der Analyse aller drei Datensätze, also der standardisierten Interviews mit den Empfängern von Rücküberweisungen, Experteninterviews mit Repräsentanten des honduranischen Finanzsektors, sowie öffentlich zugängliche Information zum honduranischen Finanzsystem, durch einen "mixed-method" Ansatz. Das Ziel dieser Vorgehensweise ist es, den Effekt, den Rücküberweisung auf Zugangsbarrieren zum Finanzsystem haben, zu analysieren und diejenigen Faktoren zu identifizieren, die aktuell die finanzielle Inklusion der Empfängern von Rücküberweisungen in Honduras fördern oder behindern.

Die zwei Konzepte, die in dieser Studie angewandt werden, also finanzielle Inklusion und Zugangsbarrieren zum Finanzsystem, sind eng miteinander verbunden. Während sich finanzielle Inklusion auf die tatsächliche Nutzung von Finanzprodukten und -dienstleistungen bezieht, bezeichnet man mit Zugangsbarrieren diejenigen Hindernisse, die Menschen davon abhalten, Zugang zum Finanzsystem zu bekommen. Zugangsbarrieren können ihren Ursprung auf der Angebots- oder Nachfrageseite haben, es kann sich dabei aber auch um Kontextfaktoren handeln.

Die Ergebnisse der Analyse der ersten Forschungsfrage zeigen, dass eine höhere Wahrscheinlichkeit nicht arm zu sein, als Proxy für Einkommen, sowie die Anzahl der Jahre, seit denen ein Empfänger Rücküberweisungen erhält, signifikant und positiv mit finanzieller Inklusion der Empfänger korrelieren. Während Einkommen (oder ein Proxy von Einkommen) in den meisten Studien zu den Determinanten von finanzieller Inklusion relevant ist, sind die Jahre des Empfangs von Rücküberweisungen ein spezifisches Ergebnis für Migrantenfamilien. Dieses Ergebnis deutet in die Richtung des Lebenszyklus-Motiv von Rücküberweisungen, bei dem dieses Geld zunächst anderen Zwecken dient, also zum Beispiel dem Rückzahlen eines informellen Migrationskredites oder dem Erwerb von Haus und Land, bevor es seinen Weg in ein Bankkonto findet. Ergebnisse der deskriptiven Statistik zeigen weiterhin, dass die Hälfte derjenigen Empfänger von Rücküberweisungen, die ein Konto bei einer Finanzinstitution besitzen, vor dem Empfang ihres ersten Geldtransfers noch keines besaßen. Somit scheint der Kontakt mit Finanzinstitutionen, der zu einem Zugang zum Finanzsystem führte, über den Empfang von Rücküberweisungen hergestellt worden zu sein. Beide Ergebnisse weisen darauf hin, dass durch den regelmäßigen Kontakt mit einer Finanzinstitution, die kulturellen Zugangsbarrieren, die auf unterschiedlichem Bildungsniveau, Einkommensniveau oder sozialem Status zwischen Empfängern von Rücküberweisungen und "Banker" beruhen können, gesenkt werden. Weiterhin gibt es eine signifikante Korrelation zwischen dem Wissensstand der Empfänger von Rücküberweisungen zu Finanzthemen und deren finanzieller Inklusion in einem der Datensätze. Auch wenn es keine Hinweise auf einen Kausalzusammenhang zwischen den beiden Variablen gibt, so spiegelt dieses Ergebnis doch aktuelle Forschungsergebnisse zu der Beziehung zwischen Finanzwissen und Zugang zum Finanzsystem wider.

Die Ergebnisse der Analyse der zweiten Forschungsfrage zeigen, wie durch Rücküberweisungen die Zugangsbarrieren zum Finanzsystem gesenkt werden können. Neben dem erhöhten Einkommen der Empfänger als relevantem Faktor, wird gezeigt, wie sich die formalisierte Auszahlungsstruktur der Rücküberweisungen in Honduras positiv auf finanzielle Inklusion auswirkt, und zwar über den regelmäßigen Kontakt, der zwischen Empfänger und Finanzinstitution hergestellt wird. Honduranische Finanzinstitutionen zeigen Interesse daran, die Empfänger von Rücküberweisungen als Kunden zu gewinnen und haben spezielle Produkte und Dienstleistungen für dieses Marktsegment entwickelt. Weder die Kosten, noch fehlende Dokumentation scheinen unter den aktuellen Bedingungen relevante Zugangsbarrieren zum Finanzsystem zu sein. Es scheint hingegen, dass die Distanz der Finanzinstitutionen zur ländlichen Bevölkerung und fehlende Regulation, welche Innovationen befördern könnte, die diese Distanz verkleinert, sowie das geringe Bildungsniveau generell und das geringe Wissen um Finanzthemen speziell sehr relevante Zugangsbarrieren sind. Dasselbe gilt auch für den wirtschaftlichen Kontext in Honduras, der vor allem seit der internationalen Finanzkrise und der nationalen politischen Krise im Jahr 2009 sehr schwierig ist. Zusätzlich scheint die aktuelle Marktstruktur es nicht zuzulassen, dass ein möglicherweise wirkungsvolles Instrument wie die direkte Einzahlung der Rücküberweisungen auf die Konten der Empfänger sein volles Potential entfaltet. Abschließend macht es die aktuelle Regulation des Finanzmarktes den Finanzinstitutionen nur sehr schwer möglich, den Migranten im Ausland ein Sparkonto in der Heimat anzubieten. Dies stellt somit eine relevante Zugangsbarriere für die finanzielle Inklusion der Sender der Rücküberweisungen dar. Politikempfehlungen für Honduras, die sich aus den Ergebnissen dieser Studie ableiten können, beziehen sich auf Änderungen im regulativen Umfeld, sowie auf Verbesserungen im Bildungsbereich generell und zum Wissensstand der Bevölkerung zu Finanzthemen speziell.