



South-South Remittances: Importance of the Costa Rica- Nicaragua Corridor

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Despite the disproportionate attention that has been given to immigration pressures on the United States and other OECD countries, there have been other major migration streams around the world. These too have been driven by a combination of demographic and economic fundamentals as well as by political events. ... The future rise of South-South migration will, no doubt, take those analysts who ignore history by surprise. It will not take economic historians by surprise. After all, when those 50 million Europeans left home before 1914, there were at the same time far more than 50 million who left China and India for jobs elsewhere in the periphery. South-South migration is not new. It is just ignored by economists.

What fundamentals drive world migration?

TIMOTHY J. HATTON AND JEFFREY G. WILLIAMSON
NBER Working Paper Series, 2002

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INTRODUCTION

Migration, while certainly not new, is on the increase all over the world. Indeed, the United Nations estimates that from 1990 to 2000 alone, the number of people who left their countries of origin rose by 14 percent, from 154 million to 175 million. The phenomenon is not only growing, but is having an impact on the economies of sending countries and receiving countries alike. The effect is visible in the labor market, income distribution, poverty, economic growth, and such areas as gender, health, education and human rights.

In particular, *remittances* (money that immigrants send to friends or family in their countries of origin) have been growing rapidly throughout the world since the mid-1990s. According to Terry and Wilson (2005), in 2004 alone, over 125 million people sent US\$ 175 billion to 500 million family members all over the world. According to Özden and Schiff (2007), even these figures on remittance flows may fall short by as much as 50 percent due to problems with official measurements by authorities in affected countries. Even so, official figures in many developing countries show that these currency flows bring in more income than both foreign direct investment (FDI) and international development aid (*Op. cit.*).

For the particular case of Latin America, Fajnzylber and López (2008) have found that, despite the overall moderate impact of remittances, as well as major differences among the various countries of the region, higher flows of remittances tend to be clearly correlated with lower levels of poverty and better indicators of human capital. These authors also found that remittances generally improve rates of investment and economic growth and temper volatility in production. This finding is particularly significant, in the opinion of the authors, in view of the fact that, by comparison with other regions, Latin America generally posts lower rates of investment and higher degrees of production volatility.

Given the potential importance of remittances on development in receiving countries, several international organizations have sponsored major studies on this subject. However, nearly all have focused on remittance flows from wealthy countries to developing countries, known in the literature as the *North-South remittance corridor*. The study of remittances between developing countries (i.e. *South-South remittance corridor*) has only recently begun to attract the attention of academics and aid organizations. This clearly evidences the veracity of an observation made by Hatton and Williamson (2002) to the effect that, although South-South migration is not new, economists have been ignoring it for many years.

The importance of this type of migration cannot be denied. Fully 50 percent of migrants from poor countries move to other developing countries (approximately 74 million people), especially neighboring countries (Ratha and Shaw, 2007). The most striking cases in Latin America are Bolivians in Argentina, Nicaraguans in Costa Rica, Peruvians in Chile and Haitians in the Dominican Republic.

Remittances associated with South-South migration may have been as high as US\$ 55 billion worldwide in 2005, approximately equal to 30 percent of total remittances received per year in all developing countries. According to Ratha and Shaw (2007), receiving households within the South-South corridor take in much less remittance income than those whose family members have migrated to wealthy countries (North-South remittances). These authors also found that the cost of sending remittance money from one developing country to another is much higher than the cost of sending money from a wealthy country to a poor country. Formal and informal financial intermediaries appear to face little competition in poorer countries.

In summary, studies performed so far in Latin America show that remittance flows have a significant although moderate impact on economic and social development in receiving countries. However, these studies have failed to consider differences associated with the origin of remittances (i.e., North-South remittances versus South-South remittances). They implicitly assume that the impact of remittances is unaffected by the type of corridor through which they come. This assumption could prove to be mistaken if the socioeconomic profile of migrants is directly associated with the country to which they migrate and the kinds of opportunities they find for employment and compensation so as to send money home to families or friends.

The present study will attempt to shed light on this subject by examining the relative significance of the Costa Rica-Nicaragua corridor (*South-South*). It is based on findings from a survey conducted among a statistically representative sample of Nicaraguan households receiving remittances from Costa Rica, commissioned by the authors during the first half of 2009 (see Appendix 1). The study will also contrast these results with the findings of other literature on remittances in Nicaragua, in which the impact of remittances on Nicaraguan households has been analyzed without distinguishing the origin of money flows. In short, the idea is to examine whether the difference between the South-South corridor and the North-South corridor in the particular case of Nicaragua has implications for public policy design in the receiving country.

To attain this objective, the document is organized into five chapters following this introduction. Part One describes characteristics of Nicaraguan households that receive remittances from Costa Rica, contrasting these characteristics with overall average Nicaraguan households receiving remittances without distinction of originating country. Part Two examines the amount, frequency, channels and cost of sending or receiving remittances through the Costa Rica-Nicaragua corridor. Part Three discusses the uses and impact of remittances from the

South-South corridor on income distribution and poverty levels in Nicaraguan households. These findings are contrasted with those obtained to date for the entire population of Nicaraguans receiving remittances. Part Four talks about bringing unbanked remittances into the formal banking system, as well as increasing financial democracy among receiving Nicaraguan households. It defines both concepts in the same terms suggested by Terry and Wilson (2005), distinguishing between the two corridors described above. Finally, Part Five outlines the key conclusions and policy recommendations arising from the study.

Nicaraguan households receiving remittances from Costa Rica: relative significance and characteristics

According to the Household Survey on Standards of Living (Encuesta de Hogares sobre Medición de Nivel de Vida, EMNV), 19,2 percent of Nicaraguan households were receiving foreign remittances in 2001, and Orozco (2008) claims that this figure had risen to 40 percent by 2008. Most Nicaraguan migrants have gone to Costa Rica (45,8 percent) and the United States (38,4 percent) (Baumeister, Fernández and Acuña, 2008).

1. Share of Nicaraguan households receiving remittances from Costa Rica

Although 40 percent of Nicaraguan households supplement their income with remittances sent from abroad, it is not clear how much of them receive this money specifically from Costa Rica. In order to develop an initial estimate for this indicator, a survey was conducted of a representative sample of Nicaraguan households in the areas where Monge and Lizano (2006) had previously identified the greatest concentration of families receiving remittances from Costa Rica (see Appendix 1). Families in each of these households were asked whether they had relatives living in Costa Rica, and whether they had been sent money by someone living in Costa Rica (whether or not related to members of the receiving household).

The results in Table 1 confirm that 27,4 percent of these Nicaraguan households had a family member living in Costa Rica, and of these, 46 percent were receiving remittances (377 of 812). In addition, slightly more than one percent of the households that did not have family members living in Costa Rica said they were receiving money from that country (25 out of 2150). The total number of surveyed families that reported remittances from Costa Rica suggests that 13,6 percent of Nicaraguan households are receiving remittances from that country. Thus, if an estimated 40 percent of all Nicaraguan households receive remittances from abroad (Orozco, *op. cit*), it can be inferred that one of every three households benefiting from remittances in Nicaragua receives money from Costa Rica.⁴

⁴ This is based on interviews in which 402 out of 2.962 targeted Nicaraguan households claimed to be receiving money from Costa Rica. Admittedly, the survey commissioned by the authors was conducted in the 10 departments specified in Figure 1 (where the greatest concentration of households sending migrants to Costa Rica can be found), rather than all the departments of Nicaragua. This percentage should therefore be understood as a mere approximation of the real percentage of all Nicaraguan households receiving money from Costa Rica.

Table 1

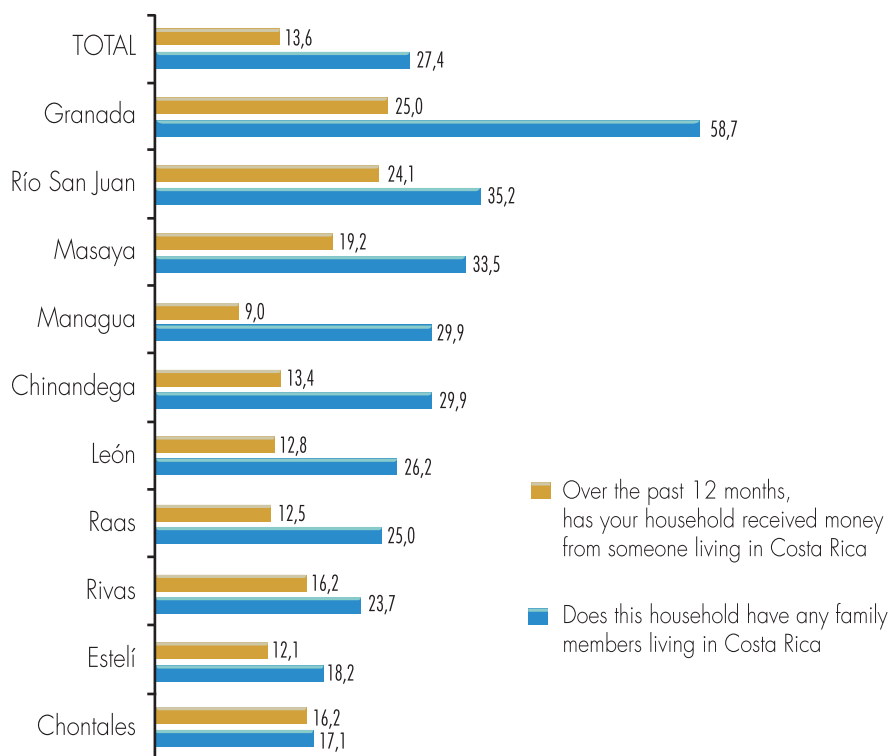
Nicaragua: Households with a family member living in Costa Rica and households that have received remittances from Costa Rica.

		TOTAL		Over the past 12 months, has your household received money from someone living in Costa Rica?			
		N	%	Yes		No	
				N	%	N	%
Does this household have any family members living in Costa Rica?	Yes	812	27,4	377	93,8	435	17,0
	No	2.150	72,6	25	6,2	2.125	83,0
TOTAL		2.962	100,0	402	100,0	2.560	100,0

Source: Household survey commissioned by the authors, may 2009, Borge & Asociados.

Figure 1

Nicaragua: Households with a family member living in Costa Rica and households that receive remittances from Costa Rica, by department (figures in percentages)



Source: Household survey commissioned by the authors, may 2009, Borge & Asociados.

Figure 1 shows the percentage of Nicaraguan households that have a family member living in Costa Rica, and the percentage of households claiming to receive remittances from that country. The figures are given by department, or the political divisions into which Nicaragua is divided. According to the numbers shown in Figure 1, Granada, Río San Juan, Masaya, Managua and Chinandega, in decreasing order, are the departments where the most Nicaraguan households that have at least one family member living in Costa Rica can be found. The first three of these departments have the highest percentages of households claiming to receive remittance money from Costa Rica.

The analysis given in the remainder of this report is based on the findings of a survey of 350 households receiving remittances from Costa Rica (out of the 402 identified in Table 1). Methodological details of this survey are discussed in Appendix 1.

2. Socioeconomic and demographic profile of Nicaraguan households receiving remittances from Costa Rica

Nicaraguan migrants reveal significant socioeconomic differences associated with their countries of destination. Baumeister, Fernández and Acuña (2008) found that, while nearly all Nicaraguan migrants going to the United States came from urban sectors (89 percent), only slightly more than half of the Nicaraguans migrating to Costa Rica (58 percent) are of urban origin. Moreover, Nicaraguan migrants traveling to the United States generally have more education (20,9 percent with university studies and 54 percent with secondary schooling) than those going to Costa Rica (3,8 percent and 36,3 percent, respectively).

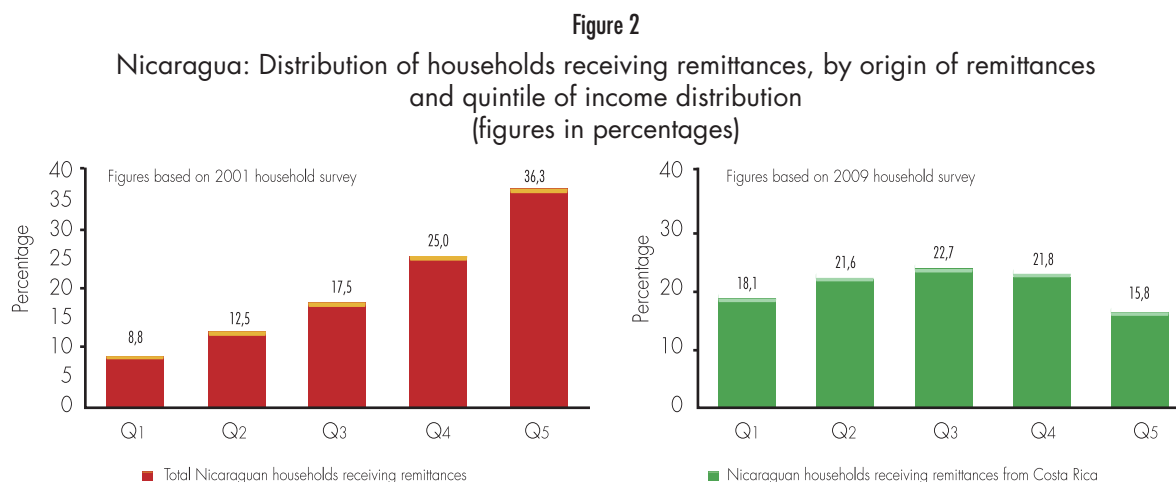
Finally, examined the socioeconomic status of households of origin of Nicaraguan migrants, using a parameter based on access to goods and services (electric appliances, cooking facilities and vehicle ownership) in the home, Baumeister, Fernández and Acuña (2008) result was that 37,2 percent of households with migrants in Costa Rica are poor, occupying the two lowest quintiles of this classification. The result stands in clear contrast to emigrants in the United States (5 percent). All this clearly suggests that Nicaraguan migrants in Costa Rica come from lower income populations than those migrating to the United States.

This study will look more specifically at the socioeconomic status of Nicaraguan households receiving remittances from Costa Rica. Significantly, only 38,2 percent of Nicaraguan immigrants in Costa Rica send money to their families in Nicaragua, while 16,1 percent send goods (“in-kind remittances”), such as home appliances, clothing and food (Monge and Lizano, 2006).⁵ The object of this analysis is to determine whether income distribution for households receiving remittances in Nicaragua varies according to the origin of remittance money from abroad.

5 Most of those in the 16,1 percent (88 percent) also send money to Nicaragua.

To achieve this objective, the study will compare the distribution (by quintiles of per-capita monthly income) of total Nicaraguan households receiving remittances regardless of source, according to Acosta, Calderón and Lopez (2008, left-hand panel of Figure 2), with that of Nicaraguan households receiving remittances specifically from Costa Rica, as estimated for this study (right-hand panel of Figure 2), both according to income quintiles. As this figure shows, the two distributions differ, revealing that households receiving remittances in Nicaragua have a different socioeconomic makeup depending on whether they are part of the *South-South corridor* or the *North-South corridor*. Indeed, while 39,7 percent of households receiving remittances from Costa Rica (South-South corridor) are poor (quintiles 1 and 2), this is the case for only 21 percent of households when results are analyzed without distinguishing the source of remittances. Moreover, because the overall percentage is an average of values of the indicator for both corridors, and it is understood that one out of every three receiving Nicaraguan households draws its remittance income from Costa Rica, the percentage for the North-South corridor should be considerably less than 21 (approximately 11 percent). All this suggests that, while four of every 10 households receiving remittances through the Costa Rica-Nicaragua corridor are poor, this is true for only one in 10 households receiving remittances through the North-South corridor (mostly USA-Nicaragua).

The wealthiest households in the South-South corridor make up 15,8 percent of all households receiving remittances, but this percentage is significantly higher for households in the North-South corridor (46,8 percent).⁶ This finding holds major implications concerning the role of remittances from Costa Rica in improving income distribution and fighting poverty in Nicaragua. Section 3 of this paper discusses the subject in greater depth.



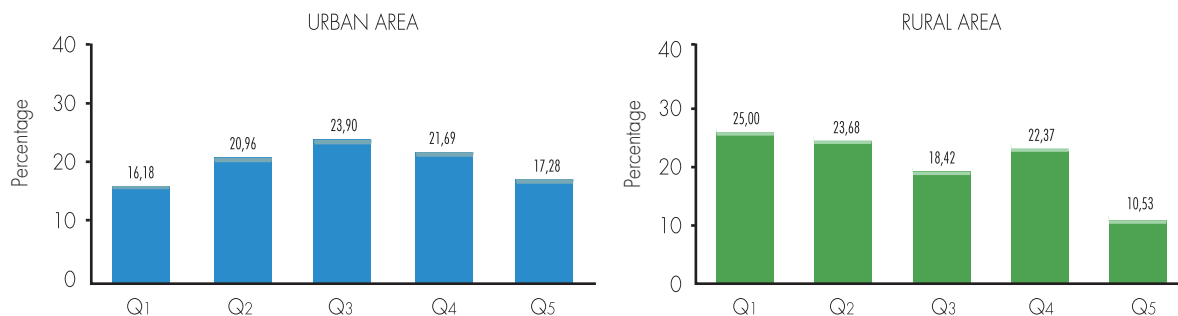
Note: Figures on Nicaraguan households receiving remittances from Costa Rica are based on definitions of Nicaraguan income quintiles supplied by the National Statistics Bureau (Instituto Nacional de Estadística, INE) for the year 2005, adjusted for inflation to 2009.

Source: Developed by the authors from Figure 2.9 of Acosta, Fajnzylber and López (2008) and the household survey commissioned for this paper, may 2009, Borge & Asociados.

⁶ Using the same procedure described in the previous paragraph.

The survey of Nicaraguan households receiving remittances from Costa Rica shows that the great majority are located in urban areas of Nicaragua (78 percent), while only 22 percent are in rural areas. Income distribution differs significantly between the two groups of households, with rural households much poorer (49 percent) than urban households (37 percent), as can be seen in Figure 3.

Figure 3
Nicaragua: Distribution of households receiving remittances from Costa Rica, by income distribution and urban or rural location (figures in percentages)

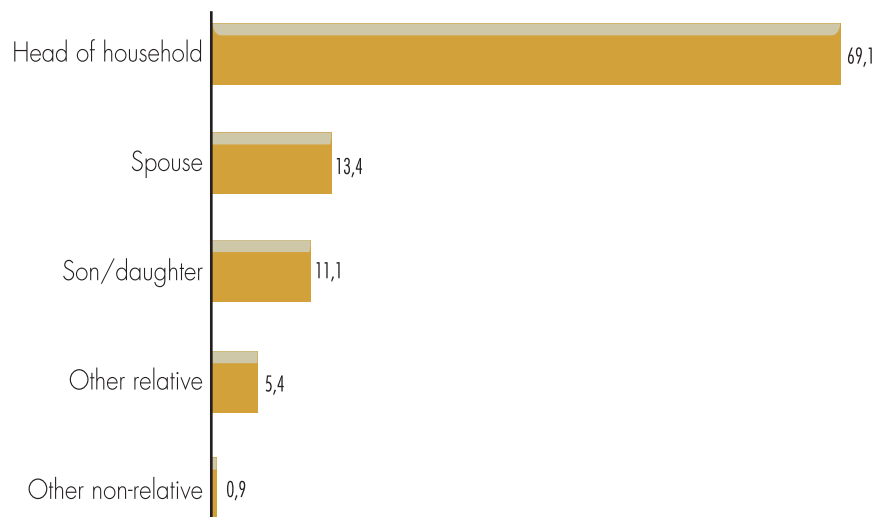


Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

Several other demographic characteristics of Nicaraguan households receiving remittances from Costa Rica should also be noted. Some of them will be used later to examine differences between these households and other variables involving remittances received. In the first place, most of the people in Nicaragua receiving this money are heads of the receiving household (69,1 percent), and in only a small number of cases are spouses (13,4 percent) or a son or daughter (11,1 percent) of the person living in Costa Rica, as can be seen in Figure 4.

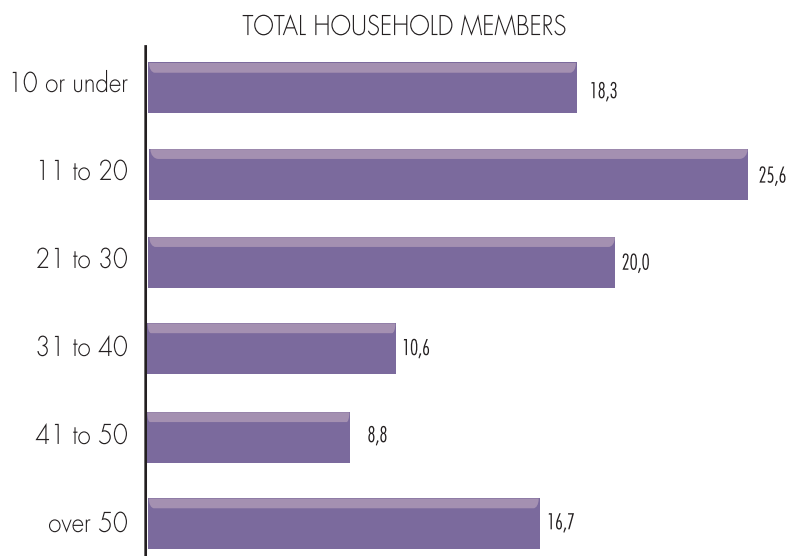
Nicaraguan households receiving remittances from Costa Rica are made up of 44,1 percent men and 55,9 percent women. These family members are relatively young, the majority of them under 40 years of age (74,5 percent), as can be seen in Figure 5.

Figure 4
Nicaragua: Person who receives remittances sent from Costa Rica
(figures in percentages)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

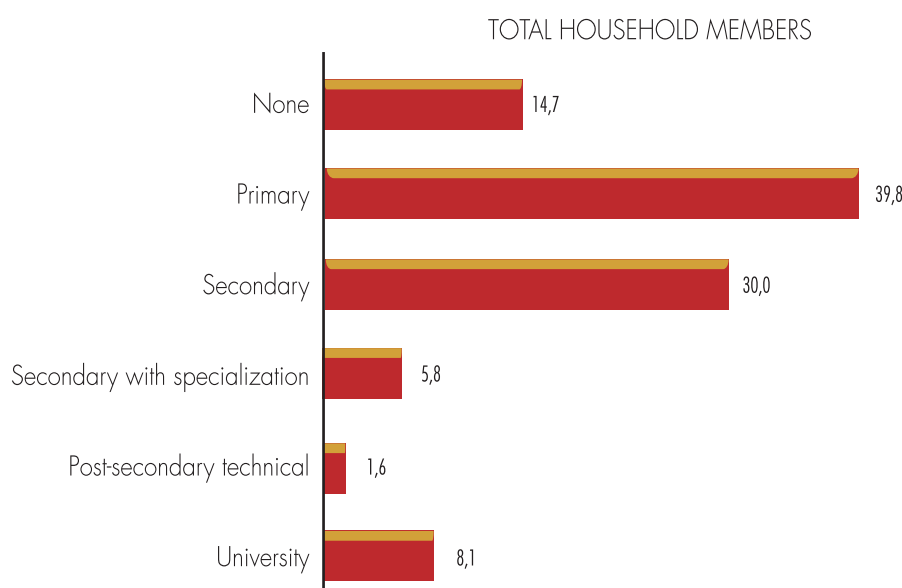
Figure 5
Nicaragua: Ages of members of households receiving remittances from Costa Rica
(figures in percentages)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

Most household members are unmarried (57,2 percent). Their educational level can be seen in Figure 6. In conclusion, 14,6 percent of the people making up these households have no formal education, but nearly half can read and write (45,1 percent). Of the remaining household members, 39,8 percent have attended elementary school and 30 percent have attended secondary school, while only 7,4 percent claim to have received some type of technical training at the high school level, and 8,1 percent have attended university. This finding reinforces the above statements about the low socioeconomic status of Nicaraguan households receiving remittances from Costa Rica.

Figure 6
Nicaragua: Educational achievement of members of households receiving remittances from Costa Rica
(figures in percentages)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

As a corollary, it can be concluded from this first part of the study that Nicaraguan households receiving remittances from Costa Rica comprise one-third of all Nicaraguan households receiving remittances (in most cases, from a family member), a significant share of the total. Furthermore, given the socioeconomic profile of these households (primarily poor), remittances may have an effect on such variables as income distribution and poverty relief, as well as health, education and investment, significantly different from that found in past studies that examine the impact of remittances received in Nicaragua without distinguishing origin. This is a particularly important point for designing public policies in both Nicaragua and Costa Rica to promote increasing financial democracy and the banking of remittances into the financial system. Parts Three and Four of this study address these issues in detail.

The Costa Rica-Nicaragua remittance corridor

This section will discuss the main features of remittances that Nicaraguan households receive from Costa Rica and compare the amounts and costs of sending/receiving money transfers through the South-South corridor and the North-South corridor.

According to Orozco (2008), 88 percent of all remittances received in Nicaragua every year come from Costa Rica (24 percent) and the United States (64 percent). Official figures published by the IDB Multilateral Investment Fund (MIF) show that Nicaragua received approximately US\$ 1 billion in remittances in 2008.⁷ If these two sets of numbers are combined, it can be concluded that Nicaraguan households received around US\$ 240 million from Costa Rica in 2008.⁸

1. Amount and frequency of remittance flows

Nicaraguan households receiving remittances take in an average of US\$ 74,45 per month from Costa Rica.⁹ This average amount of monthly transfers from Costa Rica masks a considerable spread among households (coefficient of variation of 1,2). The median value shows that half of these households receive US\$ 43,75 or less per month, while the other half receive more, up to a maximum in a very few cases of US\$ 650 per month.

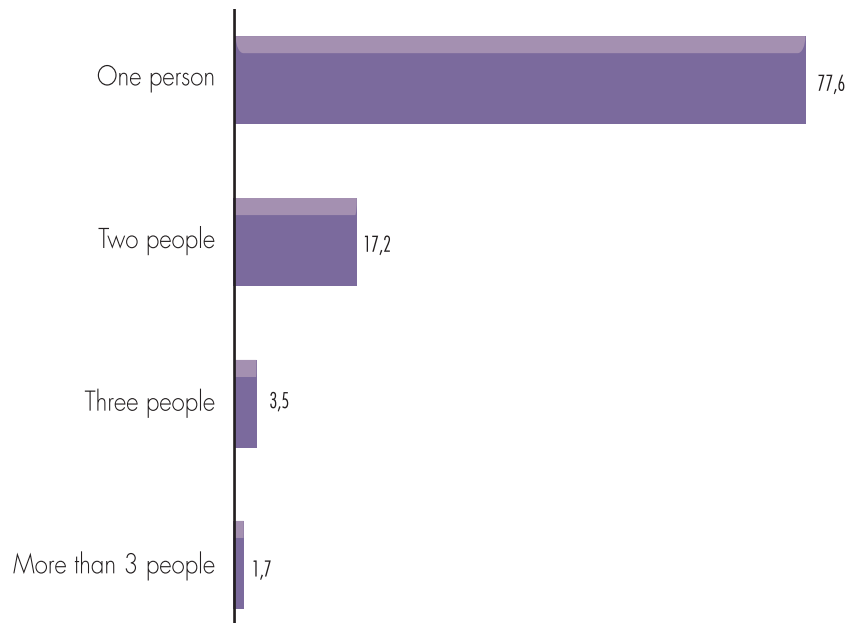
Three-fourths of these Nicaraguan households receive remittances from just one person living in Costa Rica (77,6 percent), while 17,2 percent receive from two people and 5,2 percent, from three or more people (see Figure 7).

⁷ Figures taken from the Central Bank of Nicaragua.

⁸ This figure is consistent with the Central Bank of Costa Rica estimate of US\$ 176 million in money transfers to Nicaragua in 2008 (Chaves, 2008). Admittedly, Central Bank estimates of financial outflows tend to understate the real volume of remittances, due to difficulties in measuring the volume sent through informal mechanisms.

⁹ Weighted average.

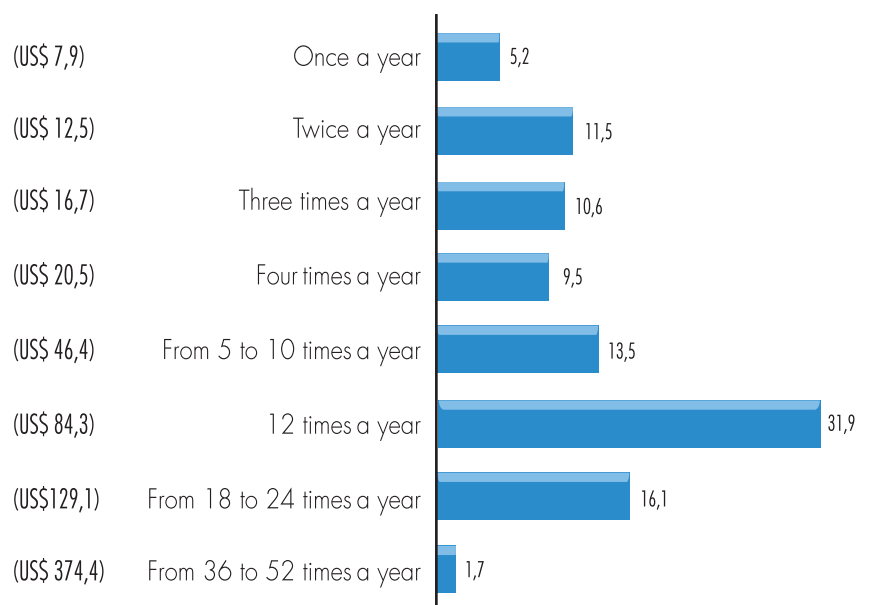
Figure 7
Nicaragua: Number of people sending remittances from Costa Rica
to a single household in Nicaragua
(percentage of all households receiving remittances)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

Figure 8 shows wide dispersion in the frequency with which Nicaraguan households receive remittances from Costa Rica. The highest frequencies are reported by those households that receive remittances 12 times per year (31,9 percent), 18 to 24 times per year (16,1 percent) and five to 10 times per year (13,5 percent). One significant result is that the monthly average amount of the remittance appears to be positively correlated to the frequency with which households receive these money transfers from Costa Rica. Thus, the more times per year a household receives remittances, the greater is the average amount it receives per month. For example, while households that collect remittances all 12 months of the year receive an average of US\$ 84,30 per month, those receiving money only once a year take in the equivalent of a monthly average of US\$ 7,90.

Figure 8
 Nicaragua: Monthly average by household, according to frequency
 of remittance receipts from Costa Rica
 (percentages of households receiving remittances)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

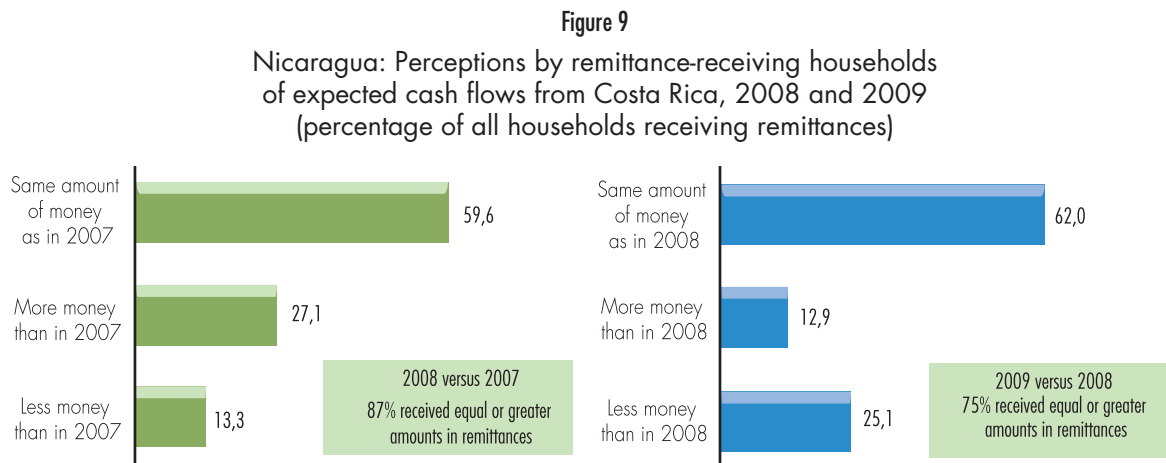
In addition to cash, slightly more than one-fourth of Nicaraguan households receiving remittances from Costa Rica (28,6 percent) also receive goods that family members and friends send home. Most common are new or used shoes (87,9 percent), home appliances (39,8 percent), food (37,1 percent) and toys (37,1 percent).¹⁰ The average annual value of these *in-kind remittances* is US\$ 653,95 per household; a closer look at this figure reveals considerable variance among households receiving remittances of this kind.

2. Remittances in times of world financial crisis

Fajnzylber and López (2008) have found that remittances, which tend to be anti-cyclical, serve as a significant buffer to unstable growth and have helped the countries of Latin America adapt to external and macroeconomic crises. This tendency is particularly critical in the current setting, which finds the world in the worst financial crisis since the *Great Depression* of the 1930s. Of course, today's world financial crisis undeniably affects both the receiving countries and the countries where these money flows originate. This feature clearly and substantially distinguishes today's situation from earlier external or macroeconomic crises in which the anti-cyclical nature of remittances had been studied.

¹⁰ Other goods received in lesser amounts include home furniture, books, fashion jewelry, tools, cosmetics, medication and decorative knickknacks.

This subject inspired an analysis of remittances from Costa Rica to Nicaragua in 2008 and 2009. Nicaraguan households were asked how the money transfers they received in 2008 compared to those of the year before (2007), and were encouraged to describe their expectations for remittances in 2009, by comparison with what they had received in 2008. The findings are shown in Figure 9.



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

This figure suggests that the world financial crisis will have an adverse impact on the flows of remittances that a large group of Nicaraguan households can expect to receive from Costa Rica. Indeed, the survey found a significant increase in the percentage of households that expect to see a decline in 2009 in the money they receive from relatives or friends living in Costa Rica (25,1 percent versus 13,3 percent). The overall figures seemingly indicate that most Nicaraguan households expect to continue receiving a similar or greater amount of money in remittances in 2009 by comparison to 2008 (75 percent). However, this figure should be examined carefully, as the information in figure 9 says nothing about trends among different groups of households from one year to the next. Without such an exercise, it would be impossible to know whether remittances perform an anti-cyclical function in the current world financial crisis.

In order to understand how the different households have responded in the two target periods, the information from the two questions was superimposed, producing the results seen in Table 2.

Table 2
 Nicaragua: Expectations of receiving households for remittances flows from Costa Rica
 between 2007-2008 and 2008-2009
 (figures in percentages)

Expectations for remittance receipts in 2009	Actual remittance receipts in 2008			
	More money than in 2007	Same amount of money as in 2007	Less money than in 2007	Total
More money than in 2008	46,4	28,6	25,0	100
Same amount of money as in 2008	11,2	79,9	9,0	100
Less money than in 2008	50,0	31,0	19,0	100

Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

The surprising results of this table show that remittances from Costa Rica tend to be pro-cyclical during the time of the crisis (2009 versus 2008). In any case, the crisis can be expected to have a negative impact on the movement of remittances from Costa Rica (less money), especially in the 50 percent of households that received more money in 2008 than in 2007 (last row, second column, shaded in red) and in nearly one-third (31 percent) of the households that received the same amount of money in 2008 as in 2007 (last row, third column, shaded in red). These are the two largest groups of households (according to the figures given in Figure 9). It can be inferred from these findings that remittances will not perform the expected anti-cyclical role in the current world financial crisis, but instead will be pro-cyclical. This could be associated with the fact that this time, the crisis is affecting both the receiving country (Nicaragua) and the sending country of these money flows (Costa Rica).¹¹

3. Channels for receiving remittances

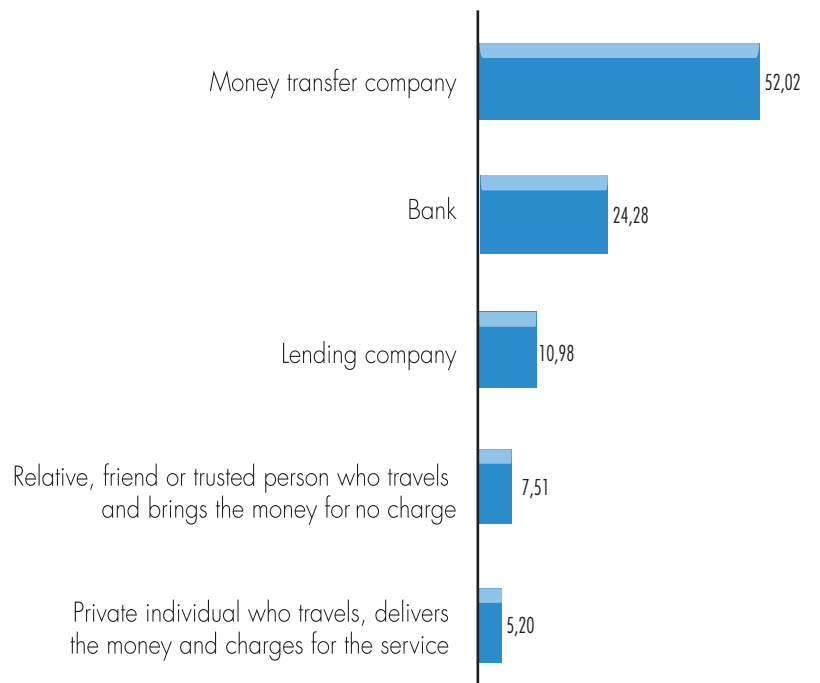
The main channels by which Nicaraguan households claim to receive their cash remittances from Costa Rica¹² are money transfer companies (52 percent), banks (24,28 percent) and informal nonfinancial channels (12,7 percent). The numbers in Figure 10 stand in interesting contrast to the results obtained by Monge and Lizano (2006) for 2006. The two studies, placed side by side, suggest growing use of the formal banking system for sending remittances to

11 Admittedly, 28,6 percent of the households receiving similar remittances in 2008 as in 2007 expect to receive more money from Costa Rica during the crisis, and 25 percent of the households that received less money in 2008 than in 2007 expect a similar outcome (second row, third and fourth column, shaded in blue). However, this anti-cyclical trend holds relatively minor significance (fewer households) than the pro-cyclical movement of remittances from Costa Rica (20 percent versus 32,1 percent).

12 Hereafter, cash remittances will be referred to merely as remittances or money transfers, unless indicated otherwise.

Nicaragua. While only 16,6 percent of remittances passed through some type of bank in 2006, three years later (early 2009) this percentage had risen to 24,2. This is even more significant in view of the percentage of remittances currently being channeled through lending institutions (10,9 percent). This type of intermediary house was not singled out in the 2006 study, when Nicaraguan immigrants living in Costa Rica were asked what mechanisms they used for sending money to their families or friends in Nicaragua.

Figure 10
Nicaragua: Channels for sending money transfers from Costa Rica to Nicaraguan households, 2009
(percentages of replies given by receiving households)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

Money transfer companies continued to hold a surprisingly strong position among the available channels for sending money from Costa Rica to Nicaragua, as 52 percent of Nicaraguan households receiving remittances said this was the mechanism used by their relatives or friends in Costa Rica to send money.¹³ This means that more remittances appear to be entering the banking system as formal financial brokerage houses have increasingly displaced informal channels for sending money over the past three years. People are making greater use of banks and lending institutions to send money instead of entrusting it to a private individual who charges for the service, or to a friend or family member traveling to Nicaragua. This increased use of formal financial services for sending remittances has a significant impact

¹³ Monge and Lizano found similar results for 2006 (55 percent) when they studied channels being used at that time by migrants living in Costa Rica to send money to their families or friends in Nicaragua.

on lowering the cost of sending and receiving money, while at the same time facilitating increasing financial democracy, both for the sender and for the receiving household.

4. Costs of sending and receiving money transfers

Ratha and Shaw (2007) have found that it costs US\$ 19,50 to send US\$ 200 in remittances from Costa Rica to Nicaragua, while the same money transfer company charges only US\$ 14,80 to send the same amount from the United States to Nicaragua.¹⁴ This means it costs 32 percent more to send money to Nicaragua through the former corridor than through the latter. The authors attribute the cost differential for sending money transfers through the South-South corridor (Costa Rica-Nicaragua) by comparison to the North-South corridor (United States-Nicaragua) to the lack of competition in the money transfer industry, lack of financial development in the countries of the South (Costa Rica and Nicaragua), and high commissions on currency exchange on both sides of the transaction. Moreover, the actual cost of receiving remittances is higher in rural areas due to the long distances that family members from receiving households must travel to pick up the money sent from abroad (Orozco, 2004). This is particularly significant in the case of Nicaragua, as nearly half (42 percent) of the households receiving remittances from Costa Rica are located in rural areas, as was discussed in Part One of this document.

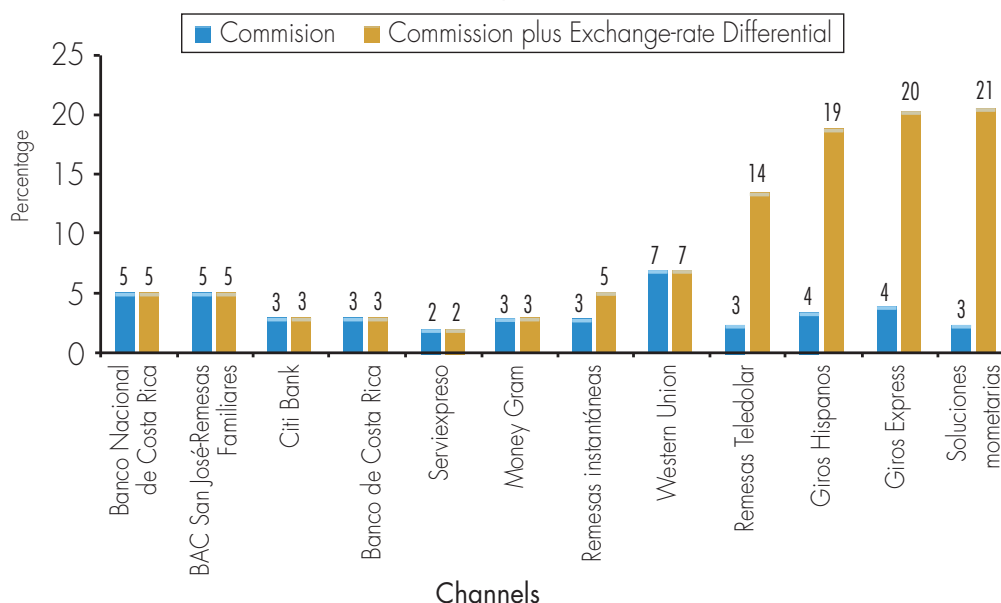
An experiment was conducted in early 2009 to discover the exact cost of sending money transfers from Costa Rica to Nicaragua. One hundred dollars (US\$ 100) was sent from Costa Rica to Nicaragua through 12 different channels: four banks and eight money transfer companies operating out of Costa Rica. In all 12 cases, the US\$ 100 sent to Nicaragua was purchased with Costa Rican *colones*. Exchange-rate differentials in the transaction were recorded along with the commission for sending the money. On the Nicaraguan side, the exchange rate was recorded for money received from Costa Rica, as well as any commission paid to receive the money. As it happened, no commissions were charged for withdrawing the money, and the different intermediaries converting the US\$ 100 to Nicaraguan *córdobas* generally all charged the same exchange rate to people receiving the transfers in Nicaragua.¹⁵

14 This estimate includes both the commission for sending remittance money and any surcharges on currency exchange. In percentage terms, these commissions come to 9,75 percent for the Costa Rica-Nicaragua corridor, and 7,4 percent in the USA-Nicaragua corridor.

15 In all but two cases, the money was delivered at an exchange rate of 20 *córdobas* per dollar. The exchange rate applied in the other two cases was 19,94 *córdobas* per dollar. This represents an additional 0,02 percent in the overall cost of sending the remittance, an utterly insignificant figure for the purposes of this analysis.

Figure 11 shows the commissions that the different intermediaries charged for sending US\$ 100 from Costa Rica to Nicaragua, and the sum total of commissions plus exchange-rate differentials on either side of the operation.

Figure 11
Comparative cost of sending and receiving money transfers between Costa Rica and Nicaragua, 2009
(figures in percentages)



Source: Prepared by the authors from experimental results.

No exchange-rate differentials were found in transactions through the four Costa Rican banks (Banco Nacional de Costa Rica, BAC San José, CitiBank and Banco de Costa Rica), but this was not the case for most money transfer companies. In addition, the money transfer companies generally proved more costly (including exchange rate differentials) than banks. The experiment also found significant differences in cost among the various banks operating in Costa Rica (as much as two percentage points). Finally, a comparison between the current cost of sending US\$ 100 through Western Union, as seen in Figure 11 (7 percent), and the cost reported for the same company by Ratha and Shaw (2007) in the year 2006 (9,75 percent), shows a significant drop (2,75 percentage points) over the past two years. This may be the result of increased competition on the market in recent years.

A recent report by IFAD/FAO (2008) reflects the same trend, stating that, on average, the cost of sending money to Latin America and the Caribbean has been cut in half since 2000, due to greater competition and the adoption of new technologies for this service. The authors add, however, that despite this tendency toward lower costs for money transfers, the service continues to be very costly, especially considering such factors as the exchange-rate differential.

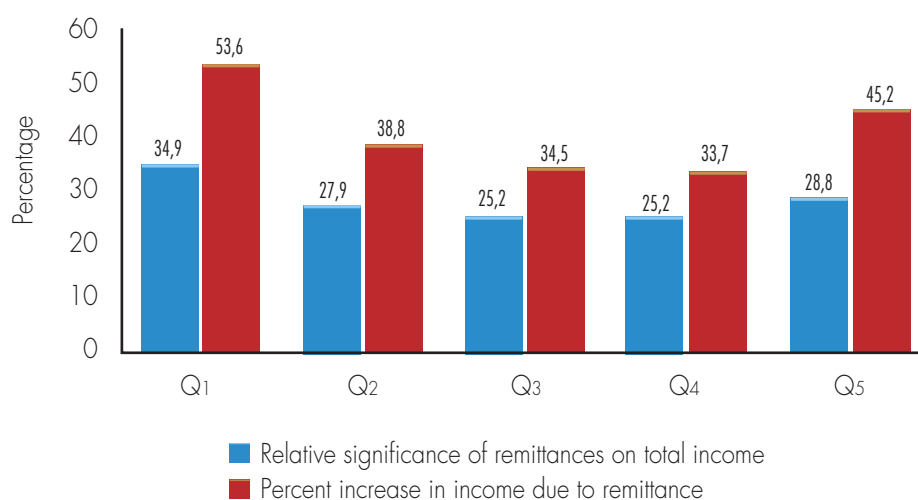
Use and impact of remittances from Costa Rica to Nicaragua

1. Relative significance of remittances sent from Costa Rica as a share of total income in receiving households in Nicaragua

Part One of this paper showed that most Nicaraguan households receiving remittances from Costa Rica are located in more vulnerable socioeconomic categories than households receiving remittances through the North-South corridor (mostly from the United States). It is important to understand how significant these remittances are as a share of total income in households receiving money from Costa Rica. Figure 12 shows the findings of this analysis.

Figure 12

Nicaragua: Relative significance of remittances from Costa Rica in total income of receiving households (percent of the median)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

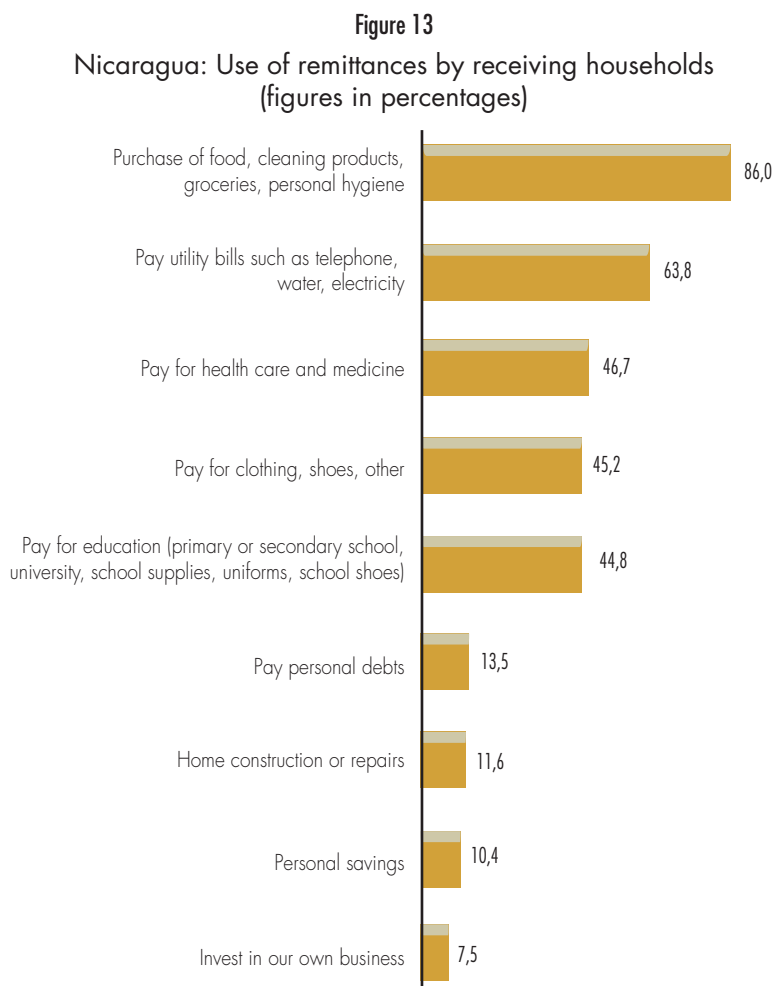
In general terms, remittances (in cash and in kind) make up 25 to 35 percent of total household income for Nicaraguan families receiving money from friends or relatives in Costa Rica.¹⁶ The figure tends to be relatively higher for lower income households (quintiles 1 and 2). Another way to interpret these numbers is that remittances significantly boost the total income of receiving households by amounts ranging from 33,7 percent to 53,6 percent, depending on the quintile of income distribution in Nicaragua. This increase is most significant for the poorest households (53,6 percent) and the wealthiest households (45,2 percent).

2. Use of remittances by receiving households

Figure 13 shows how Nicaraguan households use the remittances they receive from Costa Rica. As can be seen, most use the income to meet basic needs for food, cleaning products, groceries and personal hygiene (86 percent); paying utility bills (63,8 percent), health care (46,7 percent), purchasing clothing and shoes (45,2 percent) and education (44,8 percent). Very few households said they were using part of the remittance money for savings (10,4 percent), or some type of investment such as home building or repairs (11,6 percent) or investing in a business (7,5 percent).

As for the latter point –investing in a business– at least one-third of households receiving remittances (29,7 percent) stated that they own a business, mostly corner stores and food service. Only a small fraction of these households invest part of their remittances for expanding the business (27,9 percent), saving money to invest in the business (25,8 percent), paying business debts (20,4 percent), purchasing vehicles or machinery for the business (4,3 percent) or purchasing agricultural inputs (1,1 percent). This finding could be associated with three characteristics of receiving households: (i) many of these homes are poor, as was noted earlier; (ii) the amount of remittance money received is relatively small; and (iii) in practically no cases is the family member or friend sending remittances from Costa Rica a co-owner of the family business, and therefore the decision on how to spend the money is mainly in the hands of the head of the receiving household.

16 For the purposes of this analysis, the study included the value of both cash and in-kind remittances for estimating the total household income of Nicaraguan families receiving money from Costa Rica.



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

3. Impact of remittances from Costa Rica on employment and investment

The next question has to do with the role of remittances from Costa Rica in helping to generate sources of employment and investment. Households receiving remittances were asked whether they own their own business, or whether they were thinking of opening a business in the future. In both cases, they were also asked whether they were using some of the remittance money received from Costa Rica for this purpose.

Nearly one-third of the receiving households (29,7 percent) do have their own business. Additionally, 46 percent of these households said that they were using part of the remittance money in their business. In nearly all cases (97 percent), these businesses are owned by the receiving household and not by the person sending remittances from Costa Rica. The businesses are engaged primarily in preparation and sale of foods (36,5 percent), corner stores (28,1 percent), and sale of clothing and other goods (35,4 percent).

Significantly, 30,6 percent of receiving households that own a business in Nicaragua would like to undertake new investments in production activities. Of these, over half (58 percent) said that they use part of the remittance money they receive from Costa Rica for this purpose.

Even among households that do not have their own business (70,3 percent of the total sample), one-fourth (25,3 percent) are interested in setting up some type of business, most of them within two years time (87 percent). Once again, the types of businesses they would like to open are corner stores, food preparation and sale, or clothing stores. Again, in nearly all these households (93,5 percent), the new business will be owned by the receiving household and not by the person sending remittances from Costa Rica. Finally, two-thirds (66,7 percent) of the households that do not have their own business but would like to develop a productive activity in the future said they will use part of the remittance money to set up their new ventures.

These findings point to the conclusion that remittances from Costa Rica could be benefiting the operation of certain existing businesses and facilitating investment in new production activity in Nicaragua that could generate sources of employment there. This underscores the importance of policies to strengthen current businesses owned by receiving households (such as business development services), and to support the creation of new businesses (business incubation).

It has already been noted that the movement of remittances from Costa Rica tends to be pro-cyclical. As a result, under current world crisis conditions, policies to encourage continued or increased flows of remittances could improve the likelihood of success for these business ventures.

4. The impact of remittances received from Costa Rica on poverty levels and income distribution in Nicaraguan households

Numerous recent studies have shown that remittances significantly improve well-being both in receiving households and in all households in the receiving country because they reduce poverty levels and improve income distribution.¹⁷ Acosta, Fajnzylber and Lopez (2007) found that remittances have a major impact on poverty reduction, especially when the effects are estimated under the assumption of migration as an exogenous phenomenon. Even when migration is considered endogenous, meaning that income estimates must include such factors as the migrant's former contribution to the household and changes in family size, the impact continues to be positive, although to a lesser degree.¹⁸ However, these authors do not distinguish among remittances coming from different sources, unlike the present study.

17 See Adams (2006), Yang and Martinez (2006), Mora and Taylor (2005), McKenzie (2006) and Duryea and Olmedo (2005).

18 That is to say, under a counterfactual scenario that computes hypothetical household income with no migration and no remittances.

Acosta, Fajnzylber and Lopez (2007) estimated the impact of remittances on poverty levels in several countries of Latin America, both for households receiving remittances and for total households (both receiving and non-receiving). This is very useful for the current study, as overall findings for the case of Nicaragua can be easily compared with new findings on households receiving remittances specifically from Costa Rica.

Table 3 shows the impact of remittances on Nicaraguan households. The analysis was done both for households living under the extreme poverty line and for those registering moderate poverty, using standards adopted for this purpose by Nicaraguan authorities.¹⁹ The estimated impact of remittances on poverty was calculated twice: first under the assumption that migration is an exogenous factor (the effect *without adjustment*), and then based on the counterfactual assumption of no migration and no remittances (effect *with adjustment*). This takes into account the income that migrants would have generated if they had not migrated (if indeed they were working before migrating), as well as the higher number of people who would be living in the household under such scenario.

Table 3
Nicaragua: Impact of remittances on extreme poverty and moderate poverty
(figures in percentages)

Nicaraguan households living under the extreme poverty line or the moderate poverty line	Percentage of poor households	Percentage of poor households	
		Not adjusted	Adjusted
Extreme poverty line			
All households*	34,3	-0,8	-0,2
Households receiving remittances (all)*	18,3	-5,2	-1,6
Households receiving from Costa Rica**	39,4	-20,4	-19,8
Moderate poverty line			
All households*	58,9	-0,8	-0,7
Households receiving remittances (all)*	37,2	-5,4	-4,3
Households receiving from Costa Rica**	62,0	-17,0	-17,0

* Values taken from Table 2.7 of Acosta, Fajnzylber and Lopez (2007).

** Values estimated on the basis of the household survey commissioned by the authors.

Source: Developed by the authors on the basis of data given in Acosta, Fajnzylber and Lopez (2007) and the household survey commissioned by the authors, may 2009, Borge & Asociados.

¹⁹ Households are considered to be living in extreme poverty if they fall into the first two quintiles of income distribution; moderate poverty describes those households that are in the first three quintiles.

Once again, these findings confirm how important it is to analyze remittance flows by origin (South-South corridor versus North-South corridor). First of all, it is clear that while only 18,3 percent of all remittance-receiving households in Nicaragua (without distinguishing source of remittances) classify as poor according to the definition of the extreme poverty line, and 32,7 percent meet the standard for moderate poverty, these percentages are significantly greater in households receiving remittances from Costa Rica (39,4 percent and 62,0 percent respectively). In the second place, while remittance income from all sources without distinction has an impact on the poverty level (without adjustment) of the receiving household of -5,2 percentage points (extreme poverty) and -5,4 percentage points (moderate poverty), when this impact is analyzed for households receiving remittances from Costa Rica, the result is again much higher (-20,4 and -17,0, respectively).

Considering the counterfactual scenario of no migration and no remittances (impact with adjustment), households receiving remittances without distinguishing the source experience a reduction in extreme poverty of -1,6 percentage points, and a reduction in moderate poverty of -4,3 percentage points. In Nicaraguan households receiving remittance money from Costa Rica, the impact is nearly identical to that found in the unadjusted estimates (-19,8 and -17,0, respectively). This result should not be surprising, in view of the fact that in only 37,8 percent of households receiving remittances from Costa Rica, migrants had a job and earned regular wages or other income in Nicaragua before migrating. This means the opportunity cost of migrating (work left behind in Nicaragua), in most cases, is far less than the benefit of sending remittances from Costa Rica.²⁰

Considering all these findings, it seems clear that remittances from Costa Rica, while relatively small in magnitude (less than US\$ 100 in most cases), have a significant impact on fighting poverty in beneficiary Nicaraguan households. Therefore, any effort to facilitate transfer of remittances and keep down sending costs will significantly increase the purchasing power of receiving Nicaraguan households, especially the poorest.

Andersen (2009) finds, in the particular case of Nicaragua, that while remittances do have a positive impact on improving the economic standing of households in that country, the effect is in fact quite small because remittances tend to displace other sources of income. Even more, this author finds that, over the medium term, the advantage of remittances disappears altogether. This is because remittance money does not contribute to income growth in the receiving household, a finding that the present study confirmed in its analysis of the use of remittances by households that receive money from Costa Rica. Nonetheless, according to Andersen, over the medium term, the presence of migrants abroad still tends to have a significant positive impact because these migrants send home many things much more valuable than money, including new values, attitudes and practices or practical ideas for new businesses. The literature defines this contribution as *social remittances*. The implication is that work needs to be done not only on banking of remittances into the banking system, but

20 Naturally, this does not include other costs that migrants may incur when they move from Nicaragua to Costa Rica, such as paying people to help them cross the border (commonly known as coyotes) and the expense of supporting themselves while they are working. Unfortunately, no information is available on this subject.

also on supporting the development of production activities by receiving households. This requires both increasing financial democracy, as defined by Terry and Wilson (2005), and training for these households in the process of incubating their business ideas. These points will be discussed in greater detail in Part Four of this study.

Another question is whether remittances from Costa Rica have affected income distribution in Nicaraguan households. Stark, Taylor and Yitzhaki (1986) found that the impact of migration and remittances on income distribution in a given country depends on the amount of remittances as a proportion of income from other sources and where the receiving households lie on the income distribution scale. Along this same line of thinking, Acosta, Calderón, Fajnzylber and Lopez (2008) argue that new processes of immigration entail a very high cost and great levels of uncertainty, so that those who tend to migrate first are generally people from higher social strata. Such remittances tend to have a non-equitable effect, toward greater concentration of income. As the years go by, however, the uncertainty and cost of migrating lessen with the spread of more information and better contact among large numbers of households, which facilitates migration by people from humble or poor homes, generating a positive impact on income distribution.

Three Gini coefficients were estimated to study this phenomenon in the particular case of Nicaraguan households receiving remittances from Costa Rica. The first is for income distribution without remittances. The second coefficient is based on the distribution of remittance income only. The third and last is a Gini coefficient for overall income, including remittances. Table 4 shows the results of these three Gini coefficients based on estimates for the overall Nicaraguan population (all households) developed by Acosta, Calderón, Fajnzylber and Lopez (2008). It also simulates the impact of remittances on income inequality in the counterfactual case of no migration, no remittances.

The numbers in Table 4 show that, under the assumption that remittances are exogenous (income without remittances), although remittances would appear not to improve income distribution across the full spectrum of households in Nicaragua (Gini coefficients of 0,517 versus 0,518 in the first line), the situation is reversed when analysis is limited to households that receive remittances from Costa Rica (0,477 versus 0,404). In the latter case, the impact amounts to a reduction of 7,3 percentage points in the Gini coefficient. A more realistic scenario considers the counterfactual case of no migration and no remittance. Results show that remittances lessen inequality in Nicaragua both for all households (0,528 versus 0,518) and only for those households that receive money from Costa Rica (0,414 versus 0,404). Specifically for this latter subgroup of households, the remittance does reduce inequality, but the result is much more striking if income without remittances is considered (1 versus 7,3 percentage points).²¹

21 Under a different scenario, in which the member of the receiving household claims to have been working before migrating to Costa Rica, but only on a part-time basis, the Gini coefficient would be 0,42. This amounts to an improvement in income distribution equivalent to twice the impact obtained under the first counterfactual scenario.

Table 4
 Nicaragua: Impact of remittances on income inequality,
 based on the Gini coefficient and the counterfactual situation
 (figures in percentages)

Nicaraguan households	Gini coefficients			Difference in Gini with and without remittances		Gini coefficients		Difference in Gini with and without remittances	
	Income without remittances	Remesa	Total income	Absolute	Percent	Counterfactual	Total income	Absolute	Percent
All households in Nicaragua*	0,517	0,959	0,518	0,001	0,3	0,528	0,518	-0,010	-1,9
Share of total income	98	2	100						
Households receiving from Costa Rica**	0,477	0,590	0,404	-0,073	-15,3	0,414	0,404	-0,010	-2,4
Share of total income	64	36	100						

* Values taken from Table 5 of Acosta, Calderón, Fajnzylber and Lopez (2008).

** Values estimated on the basis of the household survey commissioned by the authors.

Source: Developed by the authors on the basis of data given in Acosta, Fajnzylber and Lopez (2007) and the household survey commissioned by the authors, may 2009, Borge & Asociados.

Another way to see this result is shown in Figure 14. It shows that 20,4 percent (19,3 percent in the counterfactual case) of Nicaraguan households receiving remittances from Costa Rica improve their economic standing and move into a higher income category. For the most part, these households shift into quintiles 3, 4 and 5, which means that households receiving remittances through this corridor experience clear improvements in welfare. This is consistent with the results described above on the impact of remittances both on poverty reduction and on improving income distribution.

Figure 14

Nicaragua: Change in the structure of income quintiles after receiving remittances from Costa Rica (figures in percentages)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

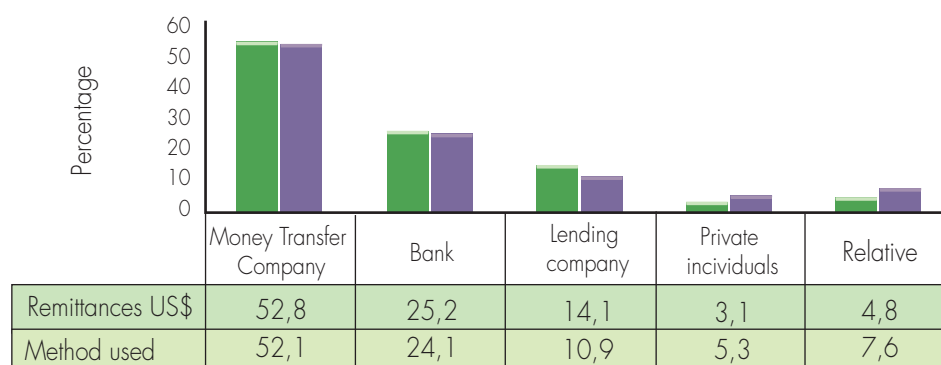
As a corollary, it can be concluded that remittances received from Costa Rica by Nicaraguan households have a significant impact both on poverty reduction and on more equitable income distribution.

Banking of Costa Rica-Nicaragua remittances and increasing financial democracy for receiving households in Nicaragua

1. Banking of remittances flows from Costa Rica to Nicaragua

Part Two of this study showed that Nicaraguan immigrants living in Costa Rica were making substantial use of banks (24,1 percent) and lending institutions (10,9 percent) to send remittances to their families and friends in Nicaragua. This means that a little more than one-third of these Nicaraguan households receive money from Costa Rica by means of some financial intermediary. The proportion of remittances being processed through the formal financial system is similar on both sides of the transaction: the percentage of households using formal financial intermediaries to receive the money, and the percentage of remittances channeled through these intermediaries (see Figure 15).

Figure 15
Nicaragua: Banking of remittances sent from Costa Rica, 2009
(figures in percentages)

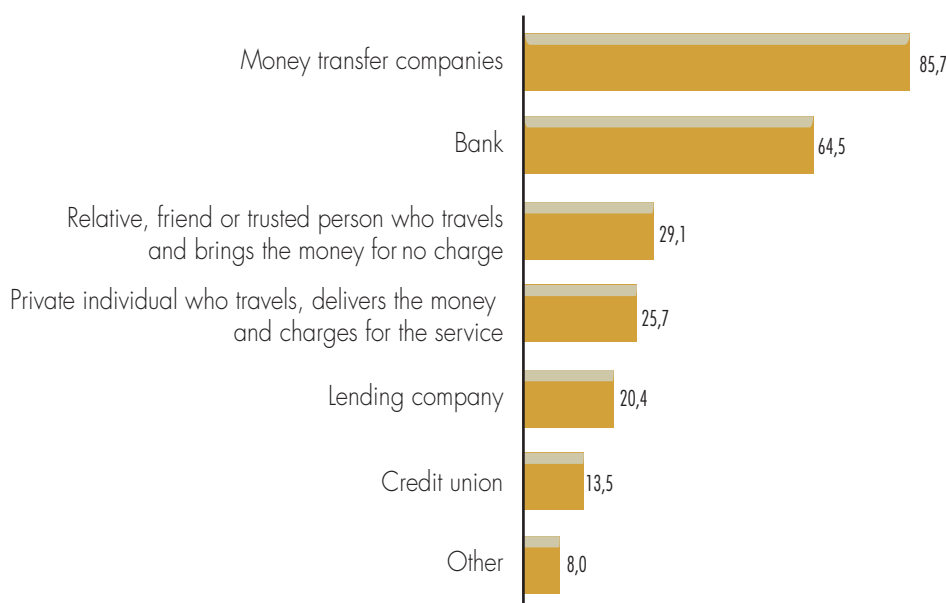


Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

A more in-depth look at receiving households found that 64,5 percent understand that banks can provide money transfer services in Nicaragua, 20,4 percent are aware that such services are available in lending institutions, and only 13,5 percent know that credit unions offer similar options (see Figure 16). Significantly, nearly all receiving households (85,7 percent)

are familiar with the services provided by money transfer companies, much more than those who realize they can seek these services through formal financial intermediaries.

Figure 16
Nicaragua: Familiarity with channels for receiving remittances from Costa Rica
(figures in percentages)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

While receiving households report significant levels of awareness that banks can be used to collect remittances (64,5 percent), only about a third actually use this channel (24,1 percent).

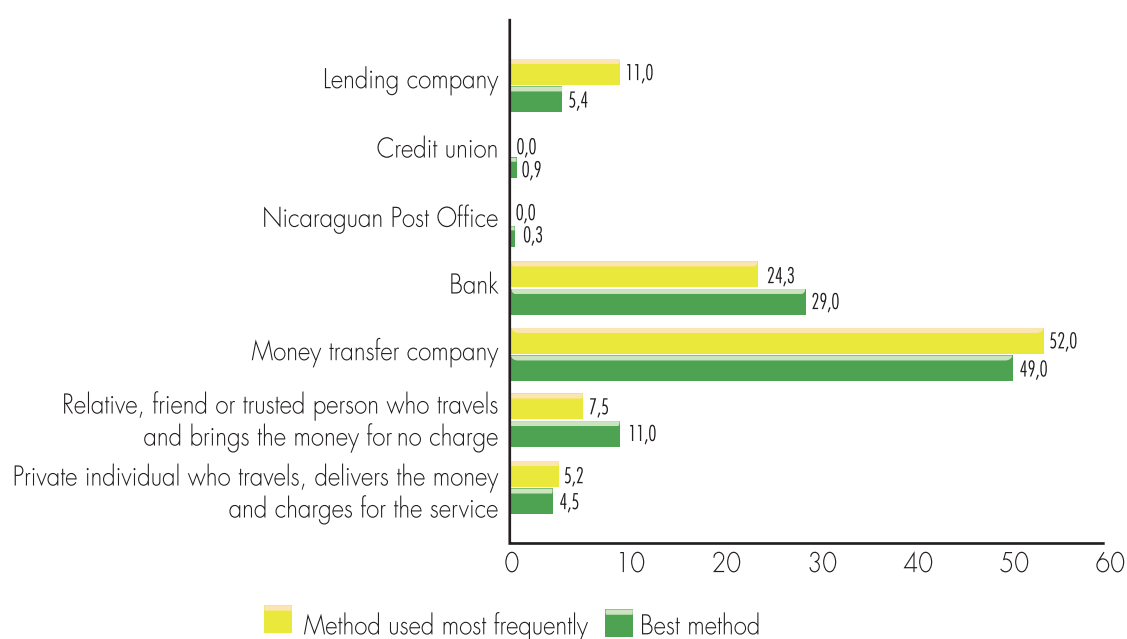
An examination of opinions in receiving households concerning the actual process of receiving remittances revealed no significant differences between money transfer companies and financial intermediaries. Thus, as seen in Table 5, Nicaraguan households that claim to be familiar with these different channels have no significantly distinct opinions about expeditiousness of service or amount of money received. Interview subjects also expressed the view that money transfer companies and banks are similarly convenient in terms of proximity to the home or workplace (61,7 percent for money transfer companies vs. 59,0 percent for banks). Receiving households said that in nearly all cases, they must present an official identification document in order to withdraw money, so it appears that documentation is not a barrier to using a financial intermediary in preference to a money transfer company. Nor were significant differences found in the opinions of receiving households concerning the cost of the service, as very few (and in similar percentages for all the different channels) consider the cost burdensome.

Table 5
Nicaragua: Characteristics of various channels for receiving remittances
 (figures in percentages)

Collecting remittance money	Money transfer company (n=269)	Bank (n=166)	Credit union (n=33)	Lending Company (n=52)
Money was received on time	94,5	94,4	93,3	94,2
The amount that was sent was received	99,2	97,6	97,0	94,2
It arrives exactly where expected	94,8	94,1	96,9	96,1
The place where I pick up the money is near my house or my workplace	61,7	59,0	45,5	42,0
A legal document must be presented to collect the money	96,6	94,1	90,3	92,3
Picking up the money at the point of receipt is a complicated process	20,8	25,9	37,9	22,0
The service is expensive	39,2	34,6	47,0	35,7

Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

Figure 17
Nicaragua: Channel used most frequently for sending money from Costa Rica to Nicaraguan households, and household opinions about the best channel
 (percentages of replies given by receiving households)



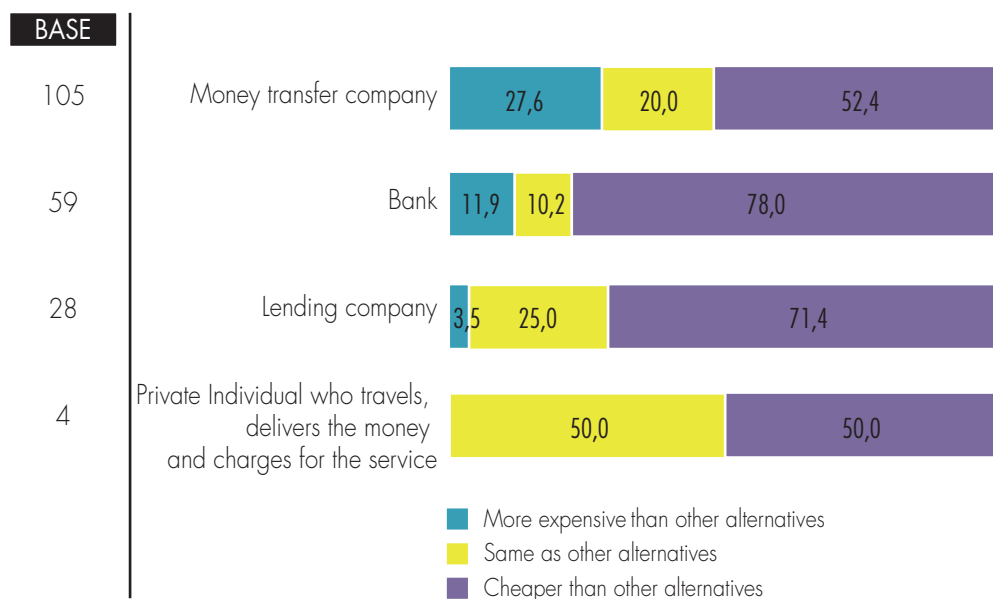
Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

Given these findings, it is not surprising that, when receiving households were asked for their opinions as to which was the best channel for receiving money transfers from Costa Rica, their replies did not vary significantly from their stated practices regarding which channel they use most to facilitate these money flows (see Figure 17).

Another area of interest was whether receiving households felt that the channel they were using to receive remittances was the lowest-cost option of all channels available. The findings are shown in Figure 18. First, it should be noted that many households are unaware of how much it would cost to receive remittances through alternative channels. For example, when the question was posed to 169 households that use money transfer companies, only 105 knew what conditions were available from competing companies; similarly, of 84 households employing banks, only 59 know how much it costs to send through other channels. This clearly reveals that Nicaraguan households receiving remittances need to be better informed about the cost of sending money through different channels. Moreover, users of banks feel that this is the most economical channel, but fully 27,6 percent of the households using money transfer companies feel that lower-cost alternatives are available for the service of sending and receiving money from Costa Rica.

Figure 18

Nicaragua: Perception in receiving households of the cost of their preferred channel for sending money from Costa Rica, by comparison with other alternatives (percentages of replies given by receiving households)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

In conclusion, it would appear that the decision to use formal financial institutions for sending money from Costa Rica to Nicaragua depends on how much the receiving households know about the possibility of receiving money through financial intermediaries, and the degree to which these intermediaries publicize their services. The survey failed to identify any significant competitive disadvantages that could work to the detriment of these intermediaries by comparison to money transfer companies.

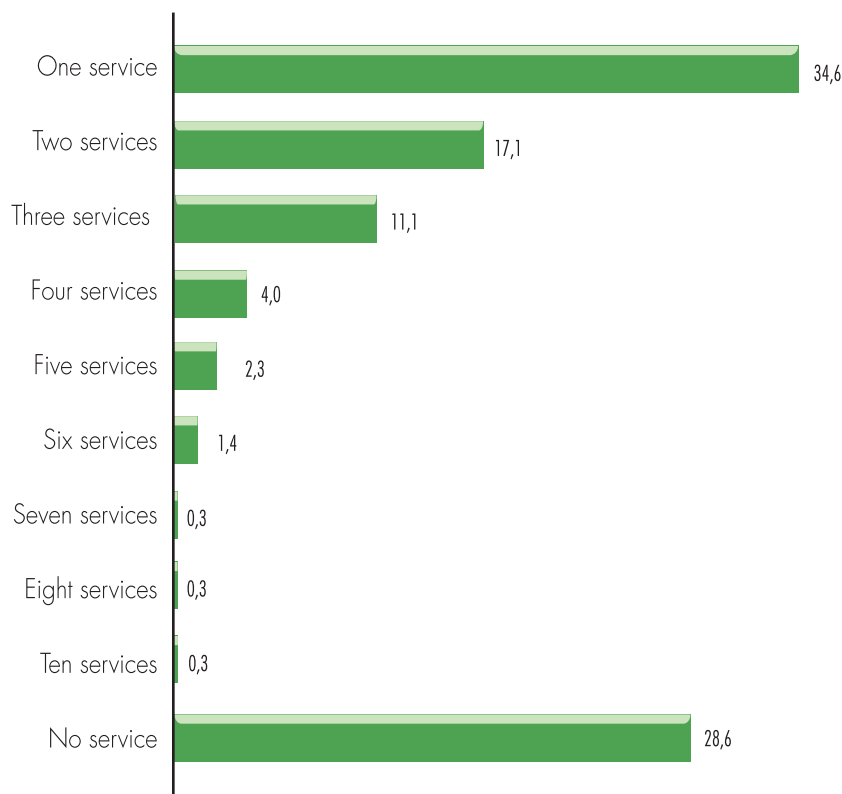
2. Access to banking services by Nicaraguan households receiving remittances from Costa Rica (increasing financial democracy)

Recent empirical evidence supports the hypothesis that remittances tend to promote growth of the financial sector in developing countries (Aggarwal, Demigüç-Kun and Matínez 2006). Studies have also found that households receiving remittances in Latin America tend to make greater use of financial services than households that do not receive remittances, and especially are more likely to hold deposits in formal financial institutions (Martínez, Marcaró and Moizeszowicz 2008). Evidence for Latin America is preliminary, and more studies are needed to verify whether this result is indeed widespread; it is significant nonetheless, seeming to indicate a correlation between remittances and the use of financial services by receiving households: *households that receive remittances tend to make greater use of financial services*. The present study identifies factors that reveal degrees of increasing financial democracy (access to financial services) in Nicaraguan households that receive these flows of money from Costa Rica, including the relative amount of remittances.

Because the purpose of this study was to examine increasing financial democracy among households receiving remittances from Costa Rica, survey questions examined access to a broad range of financial services in these households. Such services could include use of debit or credit cards, currency exchange, payment of taxes and public utility bills through financial institutions, credit (for the purchase of electric appliances or housing, or to cover personal expenditures or production activities), term investments or investment funds, pension plans and health and life insurance. Figure 19 shows that nearly three-fourths of the households in the study (71,4 percent) use at least one financial service, and in fact the statistical mode is one service only (34,6 percent), followed by those households with two or three services.

An in-depth examination of access to financial services showed that only 13,1 percent of households receiving remittances from Costa Rica have a savings account or checking account. This percentage stands in contrast to the average number of Nicaraguan households with bank accounts (23,8 percent), according to Orozco (2008). In other words, access to a savings or checking account is significantly lower among households receiving remittances from Costa Rica than for the national average of Nicaraguans. It is therefore not surprising that only 6,6 percent of households receiving remittances from Costa Rica have debit cards, and only 5,4 percent of these families have credit cards. This may point to problems of financial literacy.

Figure 19
 Nicaragua: Access to financial services by receiving households
 (percentages of replies given by receiving households)



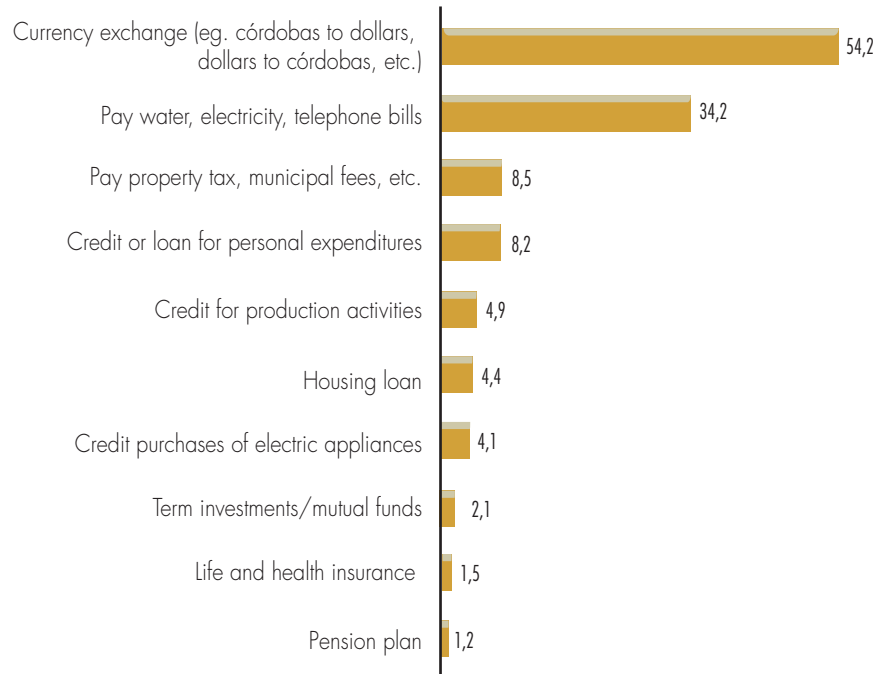
Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

The financial service most frequently used by households receiving remittances is currency exchange, whether dollars to *córdobas* or vice versa (54,2 percent), as can be seen in Figure 20. Other services used by these households include payment of utility bills such as water, electricity and telephone (34,2 percent), followed at a great distance by payment of taxes (8,5 percent).

This diagram also shows that receiving households make very little use of credit through Nicaraguan financial intermediaries. Only 8,2 percent of these households have credit for personal expenditures, 4,9 percent, for production activities, 4,4 percent, for housing, and 4,1 percent, for purchasing electric appliances. These households also hold negligible amounts of term investments or investment funds (2,1 percent), pension plans (1,2 percent) and life or health insurance (1,5 percent).

Figure 20

Nicaragua: Financial services used by households receiving remittances from Costa Rica at least once a year (percentages of replies given by receiving households)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

Moreover, only 21,5 percent of households receiving remittances from Costa Rica have some type of savings. These families save between US\$ 10 and US\$ 2000 per year, with a median of US\$ 300 per year. In percentage terms, households receiving remittances from Costa Rica save less than households receiving remittances from all origins without distinction (21,5 percent versus 37,3 percent).²² Once again, it is clear that households receiving remittances through the North-South corridor have a higher standard of living than households receiving remittances from Costa Rica (South-South corridor).

Even though increasing financial democracy is relatively low among households receiving remittances from Costa Rica, it is still worthwhile to examine the characteristics of those receiving households that do have some degree of access to financial services in Nicaragua. A *logit* model was used for this purpose, applying the maximum likelihood method. The specification of this probability model is:

$$\begin{aligned}
 \text{Pi} = & \text{bo} + \text{b1*Residence} + \text{b2*Income} + \text{b3*Education} + \text{b4*Age of receiver} \\
 & + \text{b5*Business} + \text{b6*Age of sender} + \text{b7*Banking of remittances}
 \end{aligned}$$

²² Figure taken from Orozco (2008).

“Pi” is the probability that a household has access to at least one financial service. “Residence” tells whether the household is located in an urban or a rural area. “Income” is calculated for the receiving household. “Education” reflects educational achievement of the person receiving the remittance in the household. “Age” applies to the person receiving the remittance. “Business” reflects whether the household has its own business in Nicaragua. “Age of the sender” refers to the person living in Costa Rica. Finally, the model indicates whether the remittance is received through a formal financial intermediary. The findings are shown in Table 6.

Table 6
Nicaragua: Determinants of access to financial services in Nicaragua by households receiving remittances from Costa Rica

Explanatory variables	Greater likelihood of having access to financial services (Increasing Financial Democracy)
Urban location of receiving household	1,032 0,709
Income level of receiving household	0,00 0,00
Income level of receiving household	0,069 0,067**
Age of recipient	0,008 0,008
Receiving household owns a business	1,560 0,940***
Age of person sending from Costa Rica	(0,021) (0,021)
Banking of remittances sent from Costa Rica	0,210 0,190*
Number of observations	339

Reported values pertain to Odd Ratio minus one. The second value is the coefficient.

*Significant to 10 percent. ** Significant to 5 percent. *** Significant to 1 percent.

Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.

It can be concluded from Table 6 that households receiving remittances from some relative or friend in Costa Rica by means of a formal financial intermediary (banking of remittances) are 0,21 times more likely to have access to financial services in Nicaragua. This outcome is consistent with findings discussed at the beginning of this section. It also underscores the importance of further promoting the use of banks for sending remittances, which at the same time would be a mechanism to foster increasing financial democracy in receiving households. It would appear that the level of education of the person receiving the remittance, as well as whether the receiving household has its own business, also increase the likelihood that the household has access to financial services.

Conclusions and policy recommendations

This study led to the following conclusions:

- Of all Nicaraguan households that receive remittances from anywhere in the world, a significant share –one-third of the total– receive money from a relative living in Costa Rica.
- Of all households that receive remittances from Costa Rica, 34,6 percent have monthly income levels of under US\$ 150, another 30,6 percent earn from US\$ 150 to US\$ 250, and 34,9 percent take in more than US\$ 250. Most Nicaraguans receiving money sent from Costa Rica are women (83 percent), the majority of whom are from 16 to 49 years of age and have little or no formal education.
- The monthly average amount of remittances appears to be positively correlated to the frequency with which households receive these money transfers from Costa Rica. Thus, the more times per year a household receives remittances, the greater is the average amount it receives per month. For example, while households that collect remittances all 12 months of the year receive an average of US\$ 84,30 per month, those receiving money only once a year take in the equivalent of a monthly average of US\$ 7,90.
- During the present world financial crisis, remittances have not displayed an anti-cyclical tendency as they had on earlier occasions, but instead are pro-cyclical. This could be associated with the fact that this time, the crisis is affecting both the remittance-receiving country (Nicaragua) and the sending country (Costa Rica).
- Money transfer companies are the channel used most frequently for sending money from Costa Rica to Nicaragua, as 52 percent of Nicaraguan households receiving remittances said this was the mechanism used by their relatives or friends in Costa Rica to send money.
- The degree to which remittances sent from Costa Rica to Nicaragua are processed through the formal financial system appears to have increased over the past two years. In fact, more remittances appear to be entering the banking system, as formal financial intermediaries have increasingly displaced informal channels for sending money over the past three years. This means that people are making greater use of banks and lending institutions to send money instead of entrusting it to a private individual who charges for the service, or to a friend or family member traveling to Nicaragua.

- The study also examined the cost of sending money transfers from Costa Rica to Nicaragua and found that the four Costa Rican banks included in the survey (Banco Nacional de Costa Rica, BAC San José, CitiBank and Banco de Costa Rica) charge no additional fees to cover exchange-rate differentials, unlike most money transfer companies. Moreover, the service generally proved to be more costly (including exchange-rate differentials) in money transfer companies than in banks.
- This study compared the cost of sending US\$ 100 from Costa Rica to Nicaragua through a money transfer company today (mid-2009) to that of two years ago and clearly found that the cost has declined significantly (by 2,75 percentage points, equivalent to a 28 percent reduction). This result could be attributed to the recent growth of competition in this market as more and more remittances are sent through the formal financial system.
- Remittances received from Costa Rica may be facilitating the operation of existing businesses as well as investment in new production activities in Nicaragua, generating new sources of employment.
- The flow of remittances from Costa Rica into Nicaraguan households is having a major impact on relieving poverty in that country. Indeed, the impact of remittances on poverty levels has become quite significant, with extreme poverty declining by 20,4 percent and moderate poverty, by 17,0 percent.
- If this is compared to the counterfactual example of no migration, no remittances, it is clear that the impact of remittances is very significant, with poverty declining by 17,0 percent in both categories (extreme poverty and moderate poverty). This result should not be surprising, in view of the fact that in only 37,8 percent of households receiving remittances from Costa Rica, migrants had a job and earned regular wages or other income in Nicaragua before migrating.
- Both scenarios (no adjustment and counterfactual) were used to analyze the impact of remittances from Costa Rica on income distribution, and the figures showed that remittances have improved income distribution in Nicaragua by reducing the Gini coefficient in the former scenario from 0,477 to 0,404, and in the latter, from 0,414 to 0,404.
- In short, remittances that Nicaraguan households receive from Costa Rica have a significant impact both on reducing poverty and on improving income distribution.
- While receiving households report significant levels of awareness that banks can be used to collect remittances (64,5 percent), only about a third actually use this channel (24,1 percent).
- An examination of opinions in receiving households concerning the actual process of receiving remittances revealed no significant differences between money transfer companies and financial intermediaries. For example, receiving households said that in nearly all cases, they must present an official identification document in order to withdraw money, so it appears that documentation is not a barrier to using a financial intermediary in preference to a money transfer company.

- It would appear that the decision to use formal financial institutions for sending money from Costa Rica to Nicaragua depends on how much the receiving households know about the possibility of receiving money through financial intermediaries, and the degree to which these intermediaries publicize their services. The survey failed to identify any significant competitive disadvantages that could work to the detriment of these intermediaries by comparison to money transfer companies.
- Many households are unaware of the cost of other alternative channels for receiving remittances. Nevertheless, all the households receiving remittances through banks feel that this is the most economical means of receiving money, while 27,6 percent of households that use money transfer companies believe that there are other cheaper alternatives available for sending and receiving money from Costa Rica.
- With respect to increasing financial democracy, Figure 19 shows that nearly three-fourths of the households in the study (71,4 percent) use at least one financial service, and in fact the statistical mode is one service only (34,6 percent), followed by those households with two or three services. Only 13,1 percent of households receiving remittances from Costa Rica have a savings account or a checking account. Additionally, only 6,6 of these households have debit cards, and only 5,4 percent have credit cards. This may point to problems of financial literacy.
- The financial service most commonly used by receiving households is currency exchange, whether from dollars to *córdobas* or vice versa (54,2 percent). Other financial services used by these households include payment of utility bills such as water, electricity and telephone (34,2 percent), followed at a great distance by payment of taxes (8,5 percent).
- The study found that households receiving remittances from a relative or friend in Costa Rica through a formal financial intermediary (*Banking of remittance*) is 0,21 times more likely to have access to financial services in Nicaragua. Two factors increase the likelihood that the receiving household has access to financial services in Nicaragua: the educational level of the person receiving the remittance, and whether or not the household owns its own business.
- In general, the contrast between these findings and those obtained for all households receiving remittances in Nicaragua without distinguishing place of origin, which are traditionally cited in the literature, shows how important it is to study remittances by place of origin (South-South corridor versus North-South corridor).

The results of this study suggest a number of specific policy recommendations:

- Disseminate the findings of this research among the various people involved (*stakeholders*) so as to create a greater awareness of the relative importance of studying remittances by place of origin or corridor.
- Educate senders and receivers of remittances concerning the advantages of using formal financial intermediaries to send or receive money as opposed to other channels, in the particular case of the Costa Rica-Nicaragua corridor. This will encourage not only the

use of the formal banking system for these monetary flows, but also increased financial democracy (access to financial services).

- Encourage formal financial intermediaries in both countries to provide senders and receivers of remittances with clear information on commissions and exchange rates actually applied by the different mechanisms for sending money from Costa Rica to Nicaragua.
- Promote competition in the money transfer business, at the same time encouraging the use of the formal banking system for these monetary flows, by developing strategic partnerships between financial intermediaries in Costa Rica and Nicaragua.
- Carry out a financial literacy drive to improve the use of the formal banking system for remittances and boost access to financial services by Nicaraguan households receiving remittances from Costa Rica (*increasing financial democracy*). This calls for some type of public policy, for example with the support of Nicaragua's Ministry of the Economy in partnership with formal financial intermediaries.
- Design policies to strengthen businesses currently owned and operated by households that receive remittances from Costa Rica (*business development services*) and to support these families in creating new businesses (*business incubation services*).
- It has already been noted that the movement of remittances from Costa Rica tends to be pro-cyclical. As a result, under current world crisis conditions, policies to encourage continued or increased flows of remittances (*for example, cutting the cost of money transfers*) could improve the likelihood of success by these business ventures.

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Appendix I

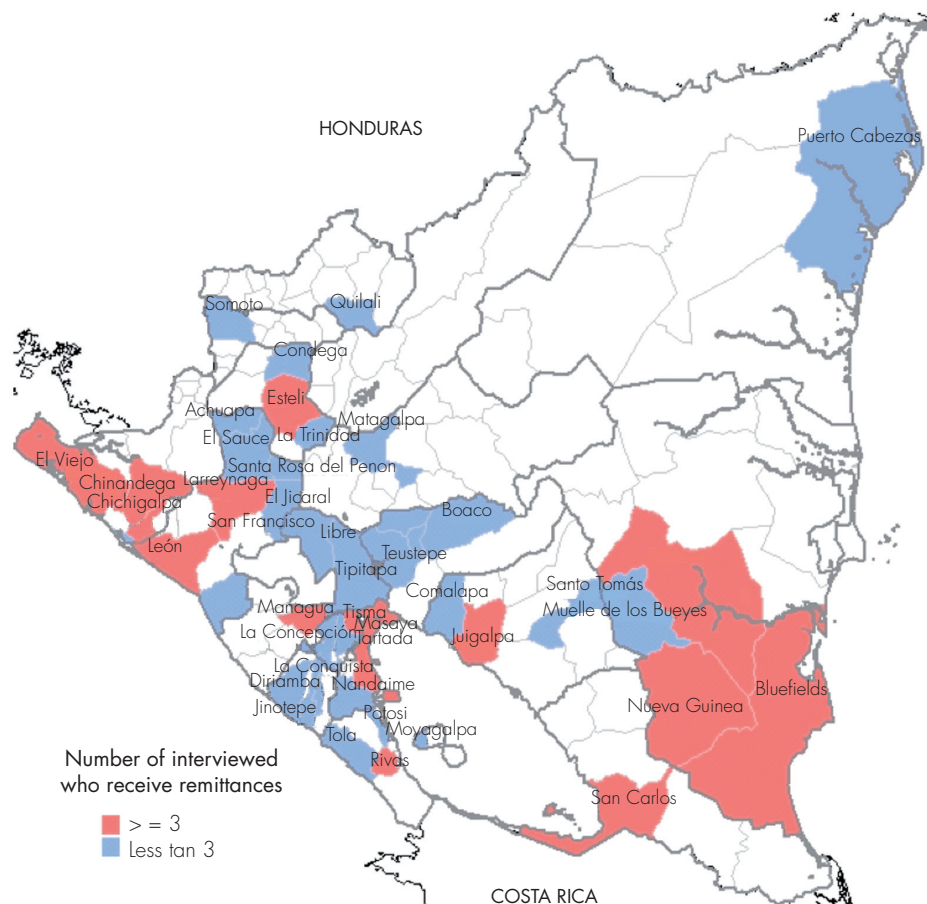
Methodological discussion of the survey of Nicaraguan households receiving remittances from Costa Rica, commissioned by the authors, 2009

Target population

Nicaraguan households, including both men and women, living in various departments of Nicaragua that post high concentrations of households receiving remittances, according to preliminary screening by Monge and Lizano (2006), as seen in Figure A.1.

Figure A1

Nicaragua: Concentration of households receiving remittances from Costa Rica



Source: Monge and Lizano (2006).

Sample size

Initially, 2962 Nicaraguan households were interviewed to calculate the percentage of households receiving remittances from Costa Rica. Afterward, 350 Nicaraguan households were selected for interviews, by department and municipality as seen in columns 8 and 11 of Table A.1. This sampling of households provided a basis for the analysis described in the study. The maximum margin of error for this sample of 350 interviews is 5,2 percentage points at a 95 percent statistical confidence level. As can be seen, the distribution of the sample by department is consistent with the concentration of Nicaraguan households receiving remittances, according to the findings of Monge and Lizano (2006).

Table A.1

Distribution of the sample of Nicaraguan households receiving remittances from Costa Rica interviewed in Nicaragua, by department and municipality

Department	Municipality	Filter 1. Does this household have any family members living in Costa Rica?		Filter 2. Over the past 12 months, has your household received money from someone living in Costa Rica?		Filter 3. Are you the person to whom this money is sent from Costa Rica?			Total	Distribution of the sample
		Yes	No	Yes	No	Not applicable	Yes	No		
Managua	Managua	209	489	63	635	635	56	7	698	16%
Masaya	Masaya	43	98	26	115	115	25	1	141	7%
Masaya	Tisma	13	13	6	20	20	3	3	26	1%
Chinandega	Chinandega	122	190	34	278	278	26	8	312	7%
Chinandega	El Viejo	45	201	41	205	205	24	17	246	7%
Chontales	Juigalpa	55	266	52	269	269	52	0	321	15%
Esteli	Esteli	48	216	32	232	232	32	0	264	9%
Granada	Granada	54	38	23	69	69	21	2	92	6%
Leon	Leon	99	283	47	335	335	45	2	382	13%
Leon	Larreynaga	22	58	12	68	68	11	1	80	3%
RAAS	Bluefields	20	60	10	70	70	10	0	80	3%
Rio San Juan	San Carlos	19	35	13	41	41	10	3	54	3%
Rivas	Rivas	63	203	43	223	223	35	8	266	10%
		812	2150	402	2.560	2.560	350	52	2.962	100%

Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados..

Sample selection

Interviewees were selected by random sampling. In each municipality included in the sample, four neighborhoods were selected at random: one each in the northern, western, southern and eastern quadrants. The interview process began in the selected neighborhoods. If the prescribed sample could not be completed for any reason, interviewers continued in the adjacent neighborhood until the required number was completed, according to the distribution shown in Table A.1.

Interview method

The survey was conducted using face-to-face interviews in Nicaraguan households that receive remittances from Costa Rica.

Training and pilot testing

In order to obtain optimum results, project researchers trained interviewers, supervisors and employees of the company hired for the fieldwork (Borge y Asociados) on the subject of remittances. This training lasted one full day and took place in Nicaragua. The training session included discussion and review of the proper way to apply the questionnaire, the scope of questions, explanation of how the sample was selected in each segment, and specific information about interviewer tasks and duties. The questionnaire was also subjected to a pilot test with a smaller group of Nicaraguan households to ensure that all questions could be easily understood by interview subjects, using vocabulary that was fully familiar to them.

Fieldwork

Fieldwork began immediately after each interviewer had been trained. All surveyors taking part in this project were native Nicaraguans, to facilitate access to households receiving remittances from Costa Rica and earn their trust when questions were asked and answered. Supervisors served as group leaders and were responsible for guaranteeing the quality of information collected; to this end, they personally reviewed most questionnaires. In addition to the quality control performed by supervisors during the interview stage, questionnaires were also verified by means of follow-up telephone calls to interview subjects who had telephones, and in all cases underwent careful scrutiny to make sure questionnaires were complete and properly filled out.

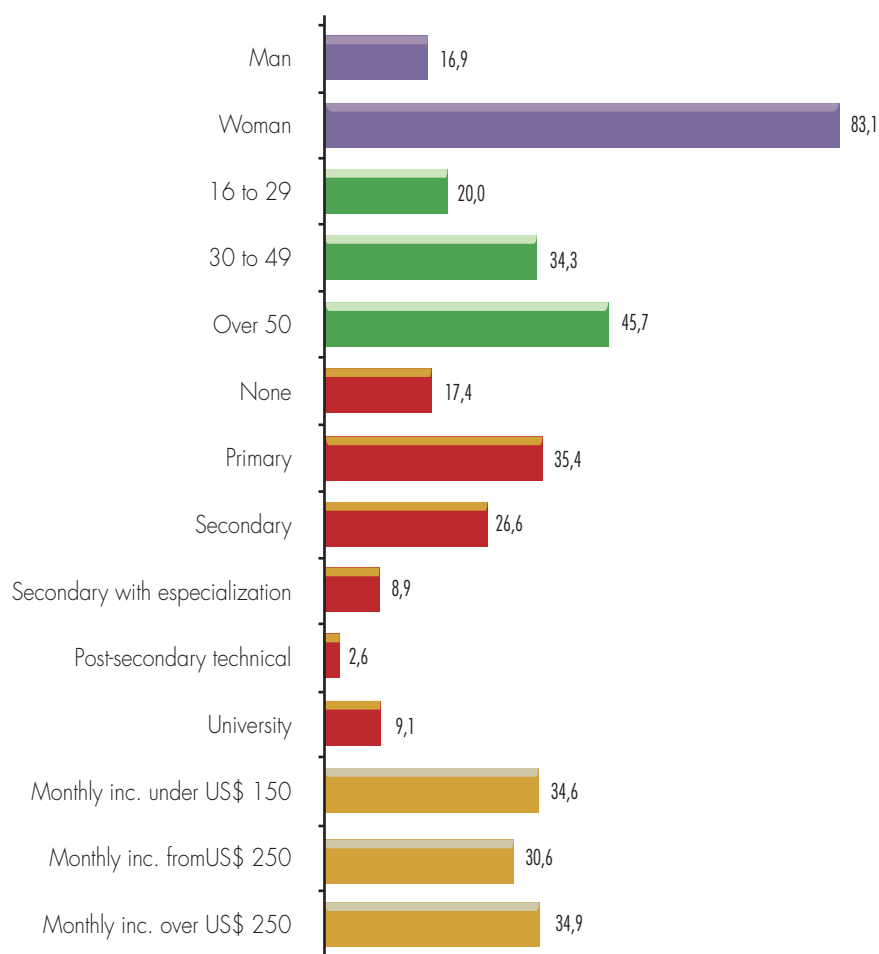
Questionnaire

The questionnaire was extensive, structured and pre-coded, consisting mostly of closed-ended questions. Open-ended questions were used only when the research so required.

Characteristics of the selected sample

The selected sample shows that households receiving remittances, located in the municipalities listed in Table A.1, constitute approximately 13,6 percent of total households receiving remittances in Nicaragua. Moreover, of all households in sample, 34,6 percent have monthly income levels of under US\$ 150, another 30,6 percent earn from US\$ 150 to US\$ 250, and 34,9 percent take in more than US\$ 250. It is also interesting to note that most Nicaraguans receiving money sent from Costa Rica are women (83 percent), the majority of whom are from 16 to 49 years of age and have little or no formal education.

Figure A.2
Selected characteristics of interviewees from the sample of Nicaraguan households that receive remittances from Costa Rica (n=350)
(figures in percentages)



Source: Developed by the authors based on the household survey commissioned for this study, may 2009, Borge & Asociados.