CENTRAL AMERICA FINANCIAL DIARIES: FINAL REPORT

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Table of Contents

Table of Figures

Table of Tables

Glossary

Associate	An individual the respondent knows but does not consider a friend and who is not a member of their family. Shopkeepers, cashiers, and moneylenders are examples of associates.
Business Expenditures	Business expenditures are a subset of outflows and refer to any expenditure on the purchase of goods or services that the respondent explicitly identified as having a business purpose. Can also be referred to as business spending.
Cash gift	A transfer of money from one individual to another outside of the household (see definition of intra-household transfer for definition of transfer within a household). A cash gift involves **no** explicit sale/purchase of a good or service in return and **no** explicit expectation of a return of the money.
Dependent	Dependents include individuals who: 1) earned no income during the study period and relied on intra-household transfers to cover any expenses; or 2) who earned some income from the sale of goods or services but it was less than what they received in the form of intra-households transfers
Earnings	Earnings is any cash or electronic inflow that the respondents either generated through the sale of goods or services or received in exchange for their labor.
Farmer	Farmer is a livelihood category used in the report. The farmer category covers smallholder farmers who are individuals: 1) whose main source of income during the study period was from the sale of produce (fruits, vegetables, grains, nuts) that they grew on land that they owned or rented and tended; 2) whose main source of income was from the sale of livestock, which they reared, including chicken, pigs and goats; or 3) whose main source of income was a combination of 1) and 2).
Financial Network	This refers to all of the different people or organizations with whom a person may perform a financial transaction.
Financial Service	A transaction involving the use of a financial tool (savings, credit, transfer, or insurance) where the tool in question is provided by a Financial Service Provider, which can either be informal or formal (see below for definition of Financial Service Provider and the distinction between a formal and informal service provider).
Financial Service Provider (Formal and Informal)	A financial service provider is an individual, other than a family member or a friend, or an organization that provides a financial service. Informal service providers are individuals or organizations that the Government of Zambia does not regulate or supervise, excluding services provided by family and friends or home based savings. Formal financial service providers are individuals or organizations that the Government of Zambia regulates and supervises.

Financial Tool	A financial tool is a tool people use to manage their money, irrespective of who provides that tool. For the purposes of this study financial tools are: savings, credit, transfers, or insurance.
Formal Employment	Formal employment is a livelihood category used in this report. It refers to all employment situations where the employee receives a salary or wage from an organization in the formal economy—that is they received a payment from an organization that is registered to pay taxes to the state (teachers, government employees, miners, firefighters, security guards, etc.). We categorized a respondent as being in formal employment if the main source of their income during the period of the study was from formal employment.
Formal Financial Service	A service offered by a formal financial service provider.[1]
Home Savings	Money an individual keeps at home. This can include keeping short-term, "cash on hand" that is left over at the end of the week but is quickly spent the following week, or longer-term savings that the individual deliberately accumulates. Often the literature on money management refers to these types of savings as "mattress money" in that people keep this money "under their mattress" at home.
Household Expenditures	Household expenditures are a subset of outflows and refer to any expenditure on the purchase of goods or services that was not explicitly stated as having a business purpose. Can also be referred to as household spending.
Income	Earnings and intra-household transfer inflows combined.
Inflow	A type of transaction that involves money flowing into the hands of the respondent. These include all sales, wages, salaries, cash gifts received, withdrawals from savings, loans received, loan repayments received, and insurance payouts received.
Informal Financial Service	A service offered by an informal financial service provider.
Informal Labor Services	Informal labor services is a livelihood category used in this report. It refers to all informal labor services regardless of the basis of their payment—hourly, salaried, or piece work, and regardless of the skill level—unskilled or skilled labor such as carpentry, borehole maintenance, barbering/salon. We categorized a respondent as earning their livelihood from informal labor services if the main source of their income during the period of the study was from the sale of labor services.
Intra-Household	A transfer of money from one member of a household to another. For example, a husband gives his spouse money to go buy groceries. An IHT is

[1] For our definition of formal and informal transactions, we drew from those used by the recently completed FinScope Zambia 2015.

Transfer (IHT)	different from a cash gift—see above.
Lump Sum	A sum of money which is unusually large for the individual in question and which can serve a number of purposes, such as buying an asset, purchasing business stock, buying items in bulk, paying for an event, responding to an emergency, etc.
Micro-Retail Businesses	Micro-retail businesses is a livelihood category used in this report. It refers to all businesses whose owners are individuals whose main source of income during the period of the study was from the sale of durable and perishable goods at a road stand, market stall, or from a storefront. This includes those who earned the bulk of their money from rentals. It does NOT include farmers who sold farm produce or livestock they grew or reared themselves.
Outflow	A type of transaction that involves money flowing out of the hands of the respondent. These include all purchases of goods and services, cash transfers given, deposits into savings, and loans given, loan repayments made, and insurance premia paid.
Transaction	Includes all sales and purchases, income earned from informal or formal labor, use of financial tools, and exchanges of in kind goods.

EXECUTIVE SUMMARY

This report draws on the results of a year-long Financial Diaries study of the economic behavior of members of savings groups organized by Oxfam America's Saving for Change (SfC) program. The purpose of the study was to understand the financial product and service needs that members of these savings groups might have beyond those being provided by the groups themselves. The results of the study suggest three broad conclusions:

- The savings groups performed the basic functions that were envisaged for them by Oxfam America—offering the women participants a safe place to save and accumulate useful lump sums of cash that they could use to buy goods and services they might otherwise not have been able to buy. In some ways the groups were too successful—the sums the women accumulated through the groups resulted in comparatively large share-outs that the women often simply kept at home and spent down over a number of months. Furthermore, much of the savings activity the women in the study conducted involved saving money at home.
- There is room to improve the way the savings groups function by, for example, shortening the group cycle to enable smaller, more frequent share-outs of the savings the women had accumulated. This would enable them to use these funds to meet the fairly regular need they have to make large payments such as for bulk food or housing-related expenses.
- There are tremendous opportunities for formal financial service providers (FSPs) to facilitate the management of the funds the women accumulate through the savings groups by providing them with a safe place to deposit the large sums they accumulate through the group process. This would reduce the amount the women end up keeping at home and might remove the temptation to spend down their savings on day-to-day expenses rather than larger expenses.

Description of the study

The study ran from April 2015 to May 2016 and included 107 respondents living in two departments in El Salvador— Morazán and La Libertad—and 111 respondents living in two departments in central Guatemala— Alta Verapaz and Baja Verapaz. The Salvadoran research sites were a mix of a high-poverty rural area where small-scale, subsistence farming is common and a peri-urban area with multiple industries including tourism, fishing, sugarcane production, as well as small-scale subsistence farming. In Guatemala, the research sites were both in Guatemala's mountainous region, where agriculture predominates. The respondents in Baja Verapaz were clustered in the municipality of Purulhá and were more likely to live in remote, rural areas than those in Alta Verapaz. Although all respondents belonged to the indigenous Maya people, the spoken languages, customs, and ethnic identities varied. In Alta Verapaz, the main language was Q'eqchi', whereas the main language in the municipality of Purulhá in

Baja Verapaz was Pocomchi'. Besides the languages, these ethnicities had different religious customs, traditional foods, and clothing.

The study gathered weekly data on all the economic transactions of the respondents: the purchase and sale of goods and services, wages and salaries, savings deposits and withdrawals, all loan-related transactions, transfers of money, and all in-kind loans and exchanges. In addition to gathering data on the general description of the transaction, the study collected information on the size and purpose of the transaction, with whom it was conducted, and where it was conducted. In addition to the regular, weekly collection of data the field research team conducted follow up, qualitative interviews to explore specific topics of interest emerging out of the data.

Findings

Intermediating cash flows

People use financial tools to intermediate the gaps in their cash flow. The respondents in the Diaries study were no different. This report focuses on three unusual cash flow events: the receipt of a income windfall; weeks in which respondents received no income; and weeks in which respondents needed to make lump sum purchases, which are purchases that were especially large relative to their other expenditures. Forty percent of the weeks in the study were characterized by one of these unusual cash flow events, and of these weeks zero income weeks and weeks in which the respondent made a lump sum purchase predominated.

***Table ES1* Distribution of Weeks Across Income and Spending Events**

Share of Weeks (Percent)	No Expenditures	Spending, No Lump Sum Purchase	Lump Sum Purchase	Total
Zero Income Week	<1	14	3	**18**
Typical Income Week	<1	60	12	**73**
Windfall Income Week	<1	5	4	**9**
Total	1	80	19	**100**

Numbers rounded to the nearest percent.

There were many similarities in how respondents in the two countries managed these events. In both countries they used home savings either to deposit windfall income or to draw down in the face of the need to make a large purchase or smooth consumption when they received no income. In addition, respondents made some use of informal and group-based loans. In El Salvador, respondents also used cash transfers to help them mitigate these events, a financial tool that respondents in Guatemala did not use.

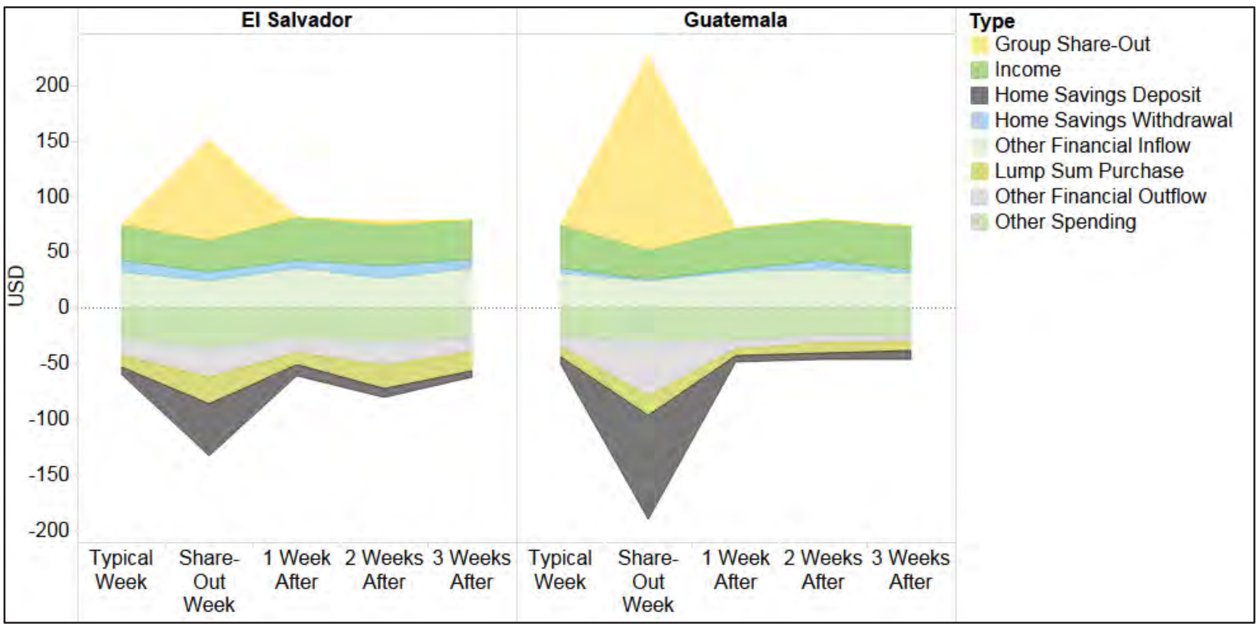
The data indicate that while savings groups excel at providing loans with flexible payment terms, they do a poor job of capturing the large sums of cash that respondents keep at home. Part of this is a result of saving group design, which includes deposit limits, but its inability to handle the demand for savings provides an opportunity for formal Financial Service Providers.

Savings groups

The report looks at how savings groups enabled respondents to access lump sums of cash via savings and loans examines the degree to which these lump sums of cash enabled respondents to make lump sum purchases. The data show that the savings groups in El Salvador and Guatemala were very successful at allowing respondents to build lump sums of cash, with share-outs at the end of the group cycle equal to $90 and $150 in each country respectively. These large sums of cash—and cash from loans—allowed respondents to make lump sum purchases more frequently.

In some ways, the sums of cash were too large. Respondents often put large portions of their share-out in home savings and spent the sum down over many weeks. The shift from the group's lock box to home savings exposed respondents' cash to the risk of home savings like undisciplined spending and theft. Consequently, promoters of savings groups should consider how they could encourage users to move excess cash to a secure institution rather than home savings. They should also consider whether it would be beneficial to shorten group cycles, which would give respondents access to smaller but more frequent lump sums of cash; smaller sums may be easier for respondents to manage.

Figure ES1 Use of Share-out



Cash transfers

In addition to their own earnings and transfers from other members of their household, the women in the Diaries study also received a variety of different types of cash transfers, especially in El Salvador. The reports focuses on the extent to which women who received a transfer of some sort changed their behavior in weeks when they received them. The focus of the analysis was on women in El Salvador.

Table ES2 ***Remittances and Cash Gifts Received***

	El Salvador			Guatemala		
	Domestic Remittance	International Remittance	Cash Gift	Domestic Remittance	International Remittance	Cash Gift
Recipients	13	23	88	11	2	41

Transactions	33	215	661	48	40	211
Transactions per Recipient	2.5	9.4	10	4.4	20	5
Average Amount per Transaction	$44	$141	$26	$175	$254	$38

The data suggest that the women who received transfers from friends and family were far more likely to receive no income in weeks when they received the transfer, regardless of whether it was an in-person cash gift or a remittance. Taking this into account the data suggest that the women who received cash gifts did not change their spending to any great extent in weeks when they received their gifts. In contrast, women who received an international remittance increased their household spending dramatically, by two or three times, in weeks when they received a remittance.

The analysis of how women responded to the various types of government transfers focused in on the different ways they responded to receiving a transfer in cash in contrast to receiving cash on a smart card that they could only use at a supermarket. The data suggest that in weeks when women received a cash transfer they increased their local food spending. In contrast, those women who received their transfer through a smart card decreased their local food spending, because they ended up having to travel about 20 kilometers to the nearest supermarket to use their smart card to buy food with it. This analysis highlights some of the unintended consequences of digitizing government transfers.

Geography of finance

The report provides an analysis examining the relationship between financial service use and geography. It examines the distance between respondents' homes and the closest FSP and whether there is any relationship between distance and use. It also describes the different financial networks that respondents used as they traveled further away from their homes. The data suggest that the respondents in the study performed most of their financial transactions within a kilometer of home, even after excluding home savings deposits and withdrawals and intra-household transactions.

Figure ES2Distribution of Financial Transactions by Network, El Salvador

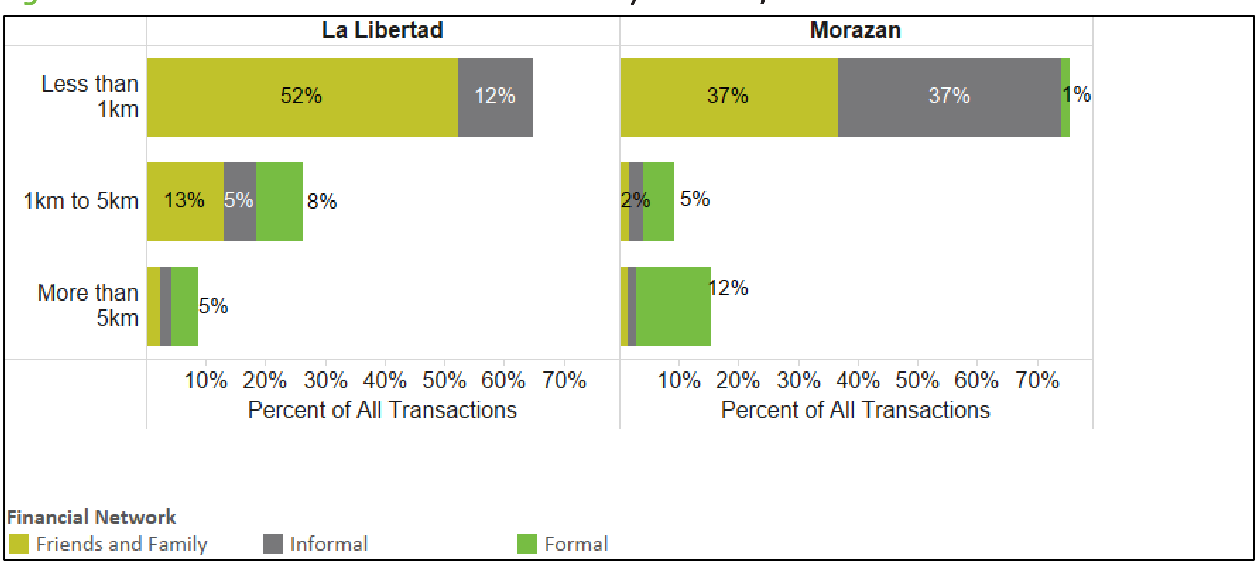
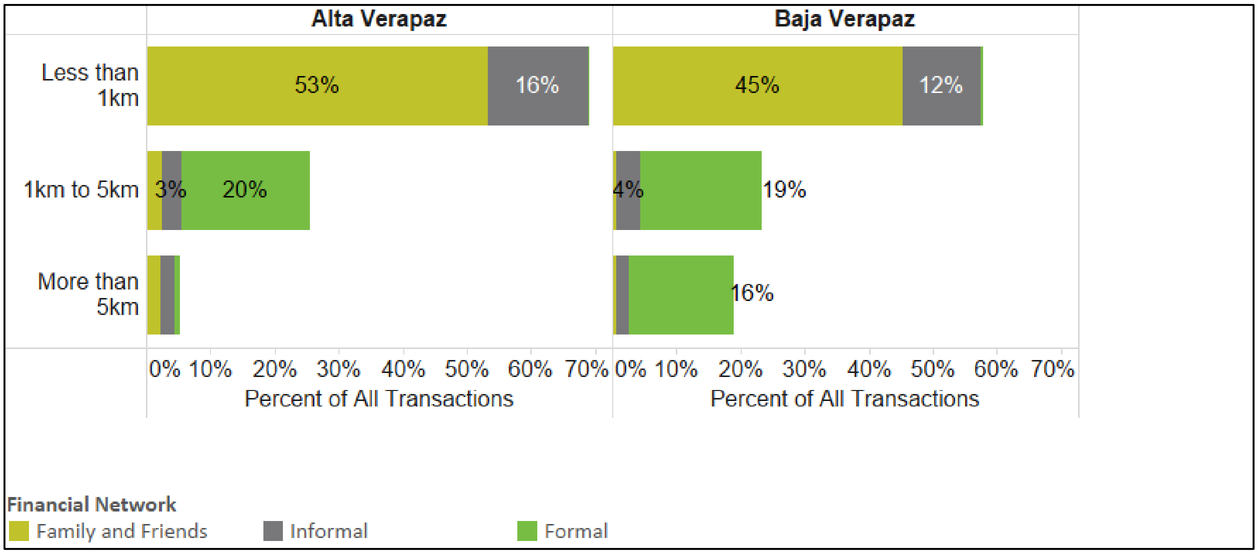


Figure ES3 **Distribution of Financial Transactions by Network, El Salvador**



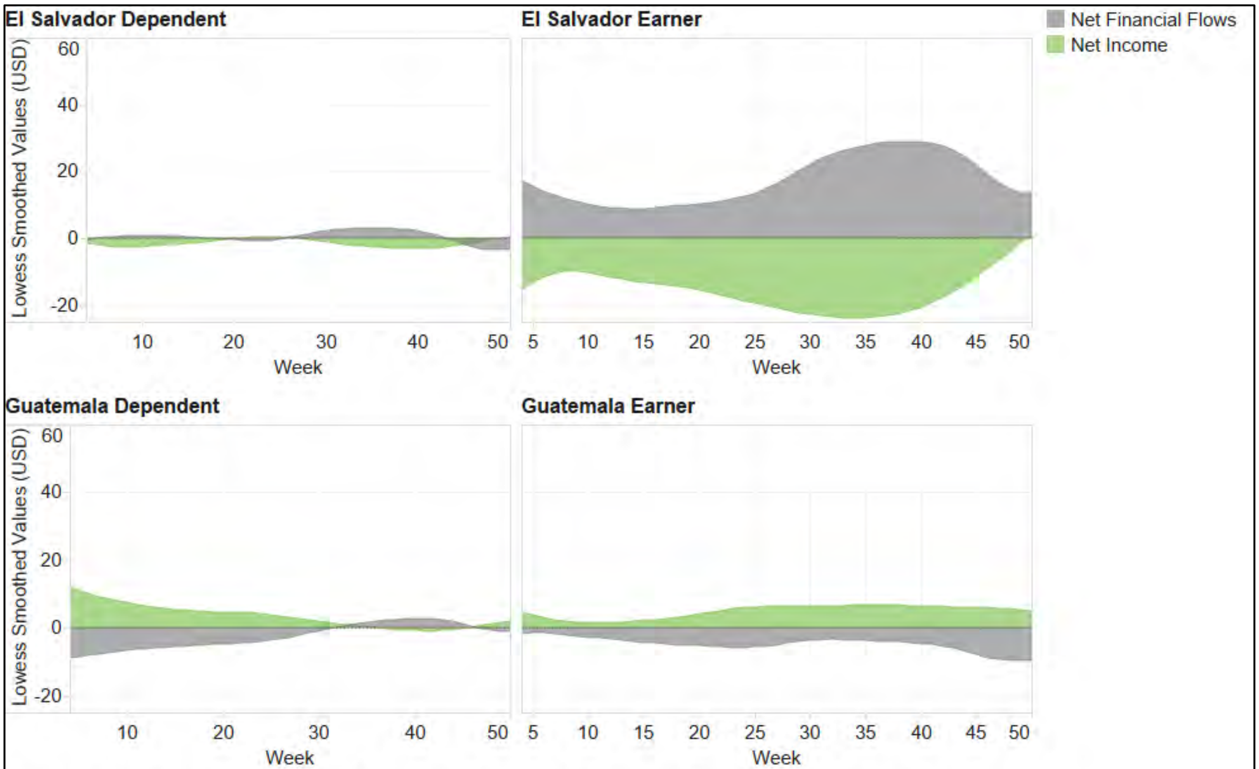
The data also suggest that there was little connection between proximity to a formal FSP and use of their services. The most likely explanation for this is that most of the women in the study were generally mobile and visited commercial centers in which FSPs were located on a regular basis through the course of the study. As a result, distance to an FSP was not an issue. If the women wanted to use the services of a formal FSP they had plenty of opportunity to do so—how far they lived from the nearest FSP was not a factor in the choice they made regarding the use of their services.

Seasonality

The analytical part of the report ends with a discussion of how cash flows changed throughout the year, examining the propensity of the respondents to oscillate between weekly surpluses and deficits, as well as how financial flows changed in response to these shifts.

The respondents in the study had diverse cash flows. In El Salvador, women who earned the majority of their income from the sale of goods and services ("earners") and women who depended on other household members for money ("dependents") spent more than they earned throughout the year, requiring them to rely on financial inflows to make up the difference. Generally, these respondents relied on self-provided or community-level tools like home savings to manage short-term gaps between income and expenditures and cash transfers from friends and family to manage their overall deficit spending. In Guatemala, respondents in the study operated with surpluses of cash throughout the year, and they directed much of the excess cash into savings tools, but not into tools provided by formal financial service providers (FSPs). Seasonal trends were limited with one notable exception—all respondents' spending increased during the Christmas season.

***Figure ES4** Net Cash Flows Over Time*



The graph above shows how net financial flows move in response to net income. Positive values show net positive flows. For net income, that means that gross income was larger than household and business spending. For net financial flows, that means that financial inflows (savings withdrawals, loans received, transfers received) was greater than financial outflows (savings deposits, loan repayments, transfers given). For negative values, the reverse is true.

INTRODUCTION

Financial tools exist to help individuals manage the regular mismatches between their income and expenditures and to build lump sums of cash that can be used to respond to an emergency, meet expenses related to a life-cycle event like a wedding or school fees, invest in an income generating activity, or enable major consumption purchases. Broadly, there are four types of financial tools: savings, loans, cash transfers, and insurance.

These financial tools have trade-offs, but savings is arguably the best option for consumers, all else equal. It is cheaper than borrowing, less dependent on networks than transfers, and less likely to promote moral hazard than insurance.

The effects of savings can be profound. Pawasutipaisit and Townsend (2010) showed that savings was the primary contributor to changes in wealth overtime.[2] Other experimental and non-experimental research on savings products shows positive effects on income generation, consumption smoothing, and resiliency for low-income households, although the extent of these impacts vary.[3]

Despite its benefits, long-term savings is not common in the Latin America and Caribbean (LAC) region, in which this project took place. According to the 2014 Global Findex Survey, only 41 percent of individuals age15 years or older reported saving to start, operate, or grow a business or farm, for old age, or for education or school fees during the previous year.[4]

More than half of these individuals reported saving using informal methods like keeping money in a safe place at home or saving in-kind rather than in a formal account. Additionally, Microfinance Opportunities' (MFO's) Financial Diaries research has shown that these informal methods, particularly home savings, are where short-term savings—the savings that people use to manage the week-to-week variations in their cash flow—are most often stored.

Such informal savings methods can be risky—money kept at home can be lost or stolen, animals purchased as asset-based savings can die, and the temptation to spend is higher when money is easily accessible. Consequently, there is an apparent need to move informal savings to semiformal or formal savings accounts where it can be kept safely while still being accessible to individuals.

[2] http://robertmtownsend.net/sites/default/files/files/papers/published/WealthAccumulation2011.pdf
[3] Gash and Odell (2014) provide an overview of seven prominent randomized control trials (RCTs) that examine the efficacy of savings groups.
[4] http://documents.worldbank.org/curated/en/187761468179367706/pdf/WPS7255.pdf#page=3

Efforts to encourage low-income individuals to shift money from under the mattress to semiformal and formal accounts are progressing but still face challenges relating to attitudinal barriers, costs for financial service providers (FSPs) and consumers, logistics, product and service design, and regulation.

Over the past two decades, FSPs, civil society, and government policy makers have sought to meet these challenges and fill this potential savings gap using savings groups—self-regulated, community-level organizations that typically offer a savings and lending facility.

In an effort to fill the savings gap, promote financial access, and encourage economic initiatives in the LAC region, the Multilateral Investment Fund (MIF) of the Inter-American Development Bank (IDB), in collaboration with Oxfam, funded the expansion of savings groups in peri-urban and rural areas of El Salvador and Guatemala. The goal of the "Community Savings Groups and Economic Empowerment of Rural Women" project was to engage 5,500 financially-excluded, rural women in community-savings groups in order to "encourage the development of economic and productive initiatives that could improve their living conditions." In addition to providing financial services to women, the project planned on offering technical and leadership skill training. [5]

As part of the monitoring and evaluation component of that project, the MIF commissioned MFO to lead a Financial Diaries study to better understand women's cash flows, financial behavior (with an emphasis on their savings group use), and the products and services that need to be modified or developed to meet their preferences.[6] To that end, MFO interviewed 107 and 111 savings group participants in El Salvador and Guatemala respectively. From April 2015 to May 2016, a team of enumerators traveled to respondents' homes each week to capture data on all cash, electronic, and in-kind transactions that respondents performed.[7]

This report presents the findings from those interviews in seven chapters, and we illuminate specific types of behaviors throughout this report with respondent profiles. Chapter 1 provides the reader with relevant background information on the project including a description of Oxfam's savings group methodology and MFO's Financial Diaries methodology. It includes details on the sampling procedure and a description of the selected sample. Chapter 2 provides an overview of how the respondents used financial tools to intermediate the gaps in their cash flow, with an emphasis on three unusual cash flow events: the receipt of a windfall of income, weeks in which no income was received, and weeks in which respondents needed to make lump sum purchases, which are purchases that were especially large relative to their other expenditures.

Chapters 3 and 4 focus on specific uses of financial tools that were relevant to our respondents' lives. In Chapter 3, we provide an in-depth look at how savings groups enabled respondents to access lump sums of cash via savings and loans. This chapter examines the degree to which these lump sums of cash enabled respondents to make lump sum purchases. Chapter 4 discusses the role of cash transfers in the lives of our respondents in El Salvador, where cash transfers were relatively common. This analysis includes discussions of domestic cash transfers, international remittances, and government transfer programs.

Chapters 5 and 6 examine the spatial and temporal aspects of our respondents' transaction behavior. Chapter 5 presents an analysis examining the relationship between financial service use and geography. It examines the distance between respondents' homes and the closest FSP and whether there is any

[5] http://www.iadb.org/en/projects/project-description-title,1303.html?id=ES-M1044
[6] http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=39627085 (pg.2)
[7] The methodology, information on data collected, and descriptive statistics of the sample can be found in Chapter 1.

relationship between distance and use. It also describes the different financial networks that respondents used as they traveled further away from their homes. In Chapter 6, we describe how cash flows changed throughout the year, examining the propensity of our respondents to oscillate between weekly surpluses and deficits, as well as how financial flows changed in response to these shifts.

Chapter 7 of this report discusses the policy implications from these findings for stakeholders interested in the promotion of savings groups generally and specifically within the LAC region. We also discuss how stakeholders can apply these lessons to a shifting microfinance landscape, where access to products and services are treated as a means to an end rather than an end in itself.

CHAPTER 1: PROJECT BACKGROUND AND RESEARCH DESIGN

Oxfam's "Saving for Change" Methodology

The *Saving for Change* (SfC) program was created by Oxfam America, Freedom from Hunger, and the Stromme Foundation to expand financial access to low-income households to improve resilience and increase assets.[8] As of 2012, the program included 700,000 members in 13 countries, including a total of 30,000 members in El Salvador and Guatemala.[9]

The SfC program relies on the promotion of savings groups. In El Salvador and Guatemala, "promotoras" (promoters)—women who have been trained in the savings group methodology—travel to peri-urban and rural villages to present the program to villages and to establish savings groups with interested women in the community.

Groups meet weekly, typically for a year, and deposit sums into the group's lock box. From these deposits, the group can make loans to its members who must repay the loan with interest. The interest from the loans provides members with a return on their savings at the end of the cycle. Often, the end of the cycle is scheduled to coincide with a time when the distribution of their savings would be especially useful. Additionally, the groups form constitutions at the start of each cycle to set deposit and loan limits.

The groups we observed as part of this project often organized community events also, such as bake sales, although these activities are not a formal part of the methodology.

Financial Diaries Methodology

The Financial Diaries is a high-frequency panel survey that collects data on households' financial lives. A team of enumerators visited the same set of respondents each week for a year during this project. During each interview, enumerators recorded data on:

- All purchases of goods and services for household use or for use in a business
- All income from the sales of goods and services or from employment
- The use of savings, loans, cash transfers, and insurance products provided by formal and informal service providers, including transfers between household members

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[8] https://www.oxfamamerica.org/static/oa4/oxfam-america-sfc-ipa-bara-toplines.pdf
[9] https://policy-practice.oxfamamerica.org/work/rural-resilience/saving-for-change/

- *Formal*: banks, mobile money providers, government agency, non-governmental organizations
- *Informal*: saving at home, village moneylenders, family members, and friends

- In-kind transactions such as the bartering of goods or the purchase of items on credit
- Events that occurred in respondents' lives such as births, funerals, or medical events

For each transaction type, enumerators collected four types of data:

- *Descriptive*: the type of transactions that was performed including whether it was an inflow or outflow; a description of the good or service purchased or sold or a description of the financial tool used; and whether the item was intended for household use or for use with a business
- *Network*: which household member performed the transaction, who was the transaction performed with as well as the relationship of those parties to the respondents and their gender if applicable
- *Spatial*: where the transaction occurred
- *Temporal*: when the transaction occurred, including recording the week and day of the week

Sampling

The Oxfam SfC program was deployed in high-poverty, peri-urban or rural areas of El Salvador and Guatemala. For this project, the MIF identified the departments of Morazán and La Libertad in El Salvador and Alta Verapaz and Baja Verapaz in Guatemala as areas of interest.

Within these departments, the MIF, Oxfam, and MFO purposively selected municipalities in which to conduct the project. The organizations aimed to select areas with a large number of established savings groups, that were logistically compatible with the demands of the Financial Diaries methodology[10], and were generally safe enough for teams to operate in for a year.[11]

In El Salvador, the organizations selected the municipality of San Simón in the department of Morazán and the municipality of La Libertad in the department of La Libertad. Located about 170 kilometres (km) away from the city of San Salvador, San Simón is a high-poverty rural area where small-scale, subsistence farming is common. The peri-urban municipality of La Libertad is located on the Pacific coastline in the southeast part of the country, about 30km from San Salvador. There are multiple industries in the area including tourism, fishing, sugarcane production, as well as small-scale subsistence farming.

In Guatemala, the MIF, Oxfam, and MFO selected the municipalities of Cobán and San Juan Chamelco in Alta Verapaz and Purulhá in Baja Verapaz. All of these areas were in Guatemala's mountainous region, anywhere from 165 to 250km away from Guatemala City. Alta Verapaz contains a mix of agricultural activities—it is one of the prime growing areas for coffee, cardamom, and African oil palm trees—and commercial activities. Cobán is the fifth largest city in the country. Baja Verapaz is also known for its agriculture, including the production of sugarcane, vegetables, basic grains, and cereals. The respondents in Baja Verapaz were clustered in the municipality of Purulhá and were more likely to live in remote, rural areas than those in Alta Verapaz. Although all respondents belonged to the indigenous Maya people, the spoken languages, customs, and ethnic identities varied. In Alta Verapaz, the main language was Q'eqchi', whereas the main language in the municipality of Purulhá in Baja Verapaz was

[10] The Financial Diaries methodology requires that respondents be clustered in nearby communities so that enumerators can reach respondents easily during their weekly data collection visits. This also enables enumerators to perform call-backs with respondents who were not available during the designated interview time without creating disruption in the rest of the scheduled visits.

[11] El Salvador and Guatemala have some of the highest rates of violent crime in the world. Individuals from outside gang or narco controlled territory who enter that territory are often at higher risk of becoming victims of extortion or violence. Consequently, safety was a paramount concern during the study.

Pocomchi'. Besides the languages, these ethnicities had different religious customs, traditional foods, and clothing.

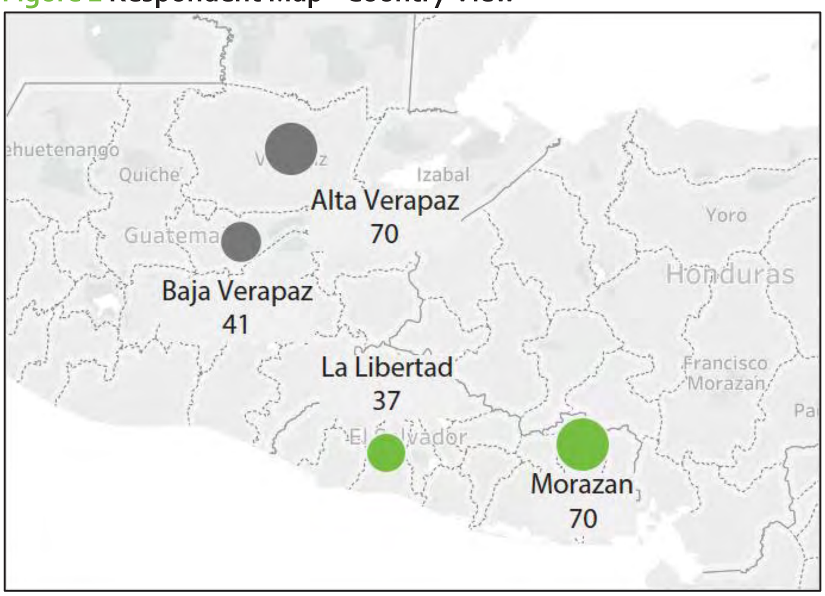
With the help of Oxfam, MFO generated a list of all Oxfam savings groups operating in these areas. To increase the likelihood that group members would participate for the full-year, MFO excluded groups that had not completed a full savings cycle, had fewer than 10 members, or operated in unsafe geographic areas. MFO randomly selected savings groups from the remaining list.

MFO's project managers and field supervisors visited the selected groups and presented information to the group members, including our affiliation with Oxfam, details of the research method, and the objectives of the project. Women in each group were asked to volunteer to participate, and we enrolled those that did into the sample. MFO selected an average of 10.7 respondents from 10 savings groups in El Salvador and 8.5 respondents from 13 savings groups in Guatemala.

Sample Description

The final sample consists of 218 respondents—107 in El Salvador and 111 in Guatemala. The majority of the sample in El Salvador was located in Morazán, while the majority of the sample in Guatemala was in Alta Verapaz.

Figure 1 Respondent Map - Country View



On average, the women in our sample were 40 years old in El Salvador and 36 years old in Guatemala. Most of the women were married, and they often had large households, including about six people, although households in La Liberdad contained just under four people per household, on average. Primary school was the highest level of education that most women had received.

Dependents and Earners

There was a clear division in how women accumulated cash to meet their weekly expenditures. Women were either economically dependent on another family member (most often their husbands), or the women were active economic actors, engaging in activities ranging from working at restaurants or as house cleaners to operating tortilla stands or produce carts.[12] Most women were dependents, relying on intra-household cash transfers for income. Thirty-nine (39) of 107 respondents in El Salvador and 25 of 111 respondents in Guatemala were earners. Throughout this report, we distinguish respondents by their status as dependents or earner, but when we refer to income for both groups, we are referring to the total amount of intra-household transfers received and money earned from the sale of goods and services. It is important to note that in Baja Verapaz there were very few earner respondents, and any conclusions from the comparisons of the two groups in this region should be taken with care.

Table 1 Livelihood - Earners and Dependents - by Country and Region

Livelihood	El Salvador		Guatemala	
	La Libertad	Morazán	Alta Verapaz	Baja Verapaz
Dependent	23	45	49	37
Earner	14	25	21	4
Total	37	70	70	41

From a quantitative perspective, the distinction between dependents and earners is clear. However, grouping the women into two general categories masks the diverse stories of our respondents. Here, and throughout this report, we use case studies to describe their varying experiences, including how much they were able to earn for themselves, the attitude of their husbands towards the money they gave them, and the extent to which the women had a say in financial decisions within the household.

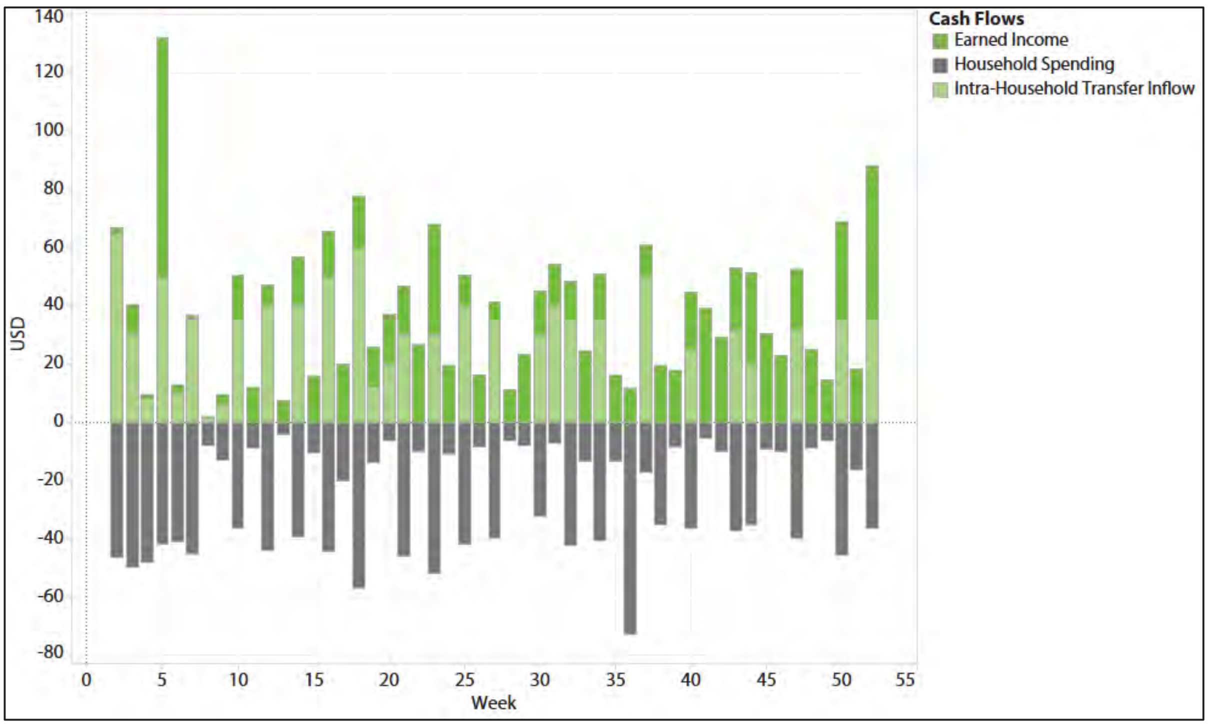
[12] We identified dependents and earners by the proportion of their inflows derived from intra-household transfers versus the total amount of inflows from intra-household transfers and the sale of goods and services. Respondents who drew more than 50 percent of this sum from intra-household transfers were classified as dependent. In some cases, we recoded respondents based on nuances in the data or findings from qualitative interviews, although such instances were rare.

Consistent Transfers and Earnings, Guadalupe (105.2)

At the time of the study, Guadalupe was married and had four children between the ages of three and 13. Her husband worked in agriculture and also watched over a small farm near their home. She received transfers from her husband every week or every other week. The amounts varied from $2 to $65 and averaged $32 per week. Guadalupe was also economically active. She sewed, sold milk, cheese, and fruit, started a chicken business, and performed domestic work. Her earnings, when totaled from these diverse sources, were consistent throughout the study, although her earnings were higher in the weeks when she did not receive transfers from her husband (Figure 2). The contributions from her and her husband to the household were practically equal. During the study period, Guadalupe earned $955, and she received $967 from her husband.

In Week 4 (May 2015), she started a poultry business by buying 25 chicks for $18.50. In Week 28 (October 2015), she sold six for $18. She knew this could be a risky business—in the past she had lost entire flocks of chickens to a disease which is colloquially called "the accident." Guadalupe sold maize once during the study. When we asked about why this was not a more regular activity, she told us that they had lost one of the harvests of maize and only managed to get enough for the household. She sold 18 pounds of maize for $3 when they were in need the money. She also took a loan of $72 from the Oxfam savings group to pay for agricultural labor.

Figure 2 Household Contributions – Guadalupe



Trade-off between Transfers and Earnings, Eugenia (223.2)

At the time of the study, Eugenia was a married woman with two young children and a toddler. Her husband worked in agriculture, cultivating and selling maize, and picking coffee beans. She received money transfers from her husband in three quarters of the study weeks, although the amounts varied throughout the year in conjunction with the agricultural seasons. There was also a trade-off between transfers and earnings: in weeks in which Eugenia received no money from her husband, she earned money herself.

Table 2 Agriculture Seasons and intra-Household Transfers

Period	Season description	Weekly average amounts received (USD)
May to Mid-August	Maize sowing and first harvest	$9
Mid-August to Mid-January	End of rainy season, second maize harvest and coffee picking season	$22
Mid-January to April	Dry season – gardening vegetables	$14

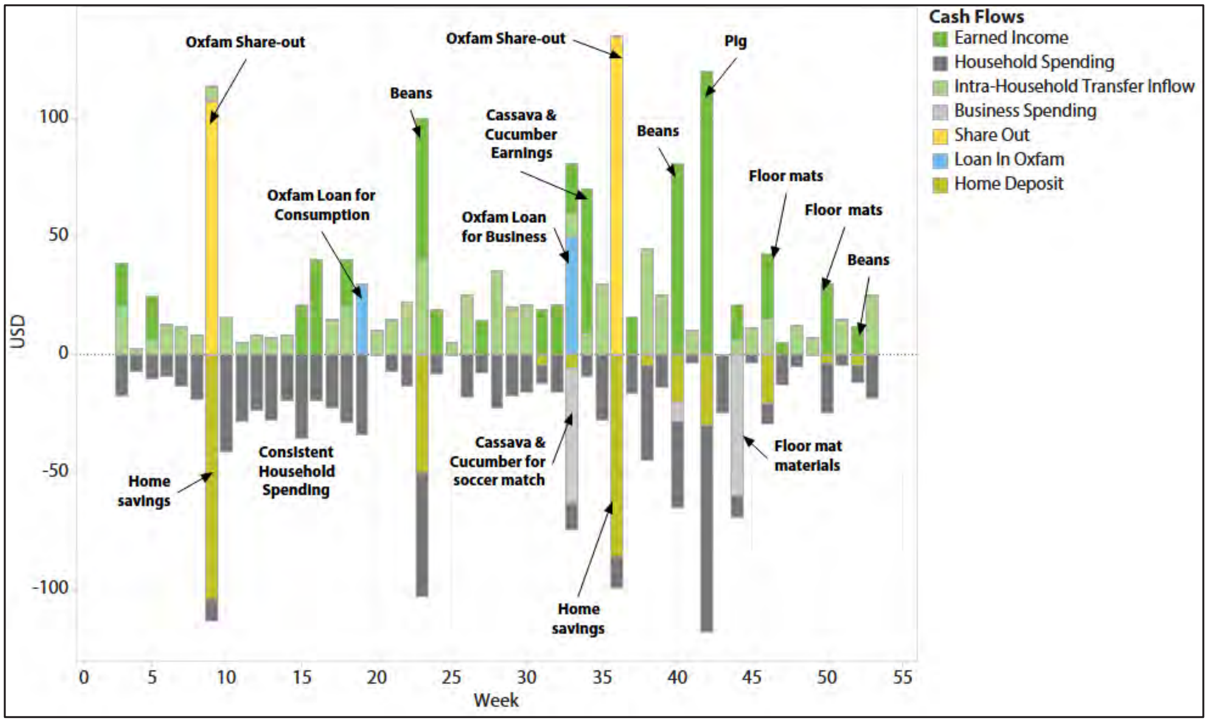
Eugenia received her share-out from the Oxfam savings group in Week 9 (June 2015) (**Error! Reference source not found.**). She saved that money at home and used it to buy food in the nine weeks that followed. If we compare that period with household spending during other weeks, we notice that, during these weeks, there was less variability in her spending, suggesting that those savings smoothed consumption for the household for several weeks.

During the course of the study, we saw Eugenia engage in many economic activities to generate income. Some of these activities were ongoing efforts: selling beans, chicken, and floor mats. Some others were new initiatives. As with all entrepreneurial efforts, some resulted in more profitable outcomes than others. In Week 33 (November 2015), Eugenia took a $50 loan from her savings group—she wanted to make snacks to sell at a highly anticipated soccer game that was going to take place in her community. Many people from neighboring communities were expected to come to the game. She travelled to the closest town and bought $15 of cassava and cooking oil plus $40 of cucumber to prepare two local dishes. Unfortunately, many women in the community had the same idea—to bring food to the game to sell—and she did not sell as much as she had expected. She sold 60 servings of fried cassava and earned $15. She also sold 120 servings of prepared cucumber for which she earned $30. She did not breakeven, but she managed to pay back the loan one month later.

She received $135 from her savings group at the end of the second cycle of the year in Week 36 (December 2015). With this money, she decided to repay loans at the local store, purchase food for the household, buy a small pig for about $35, and save the rest at home. Six weeks later, in Week 42 (January 2016), she sold the pig for $120, a more favorable entrepreneurial result. In the same week, she purchased two more pigs for $40 each. In Week 44 (February 2016), Eugenia invested $60 in "planta de petate," which she used to weave floor mats. She sold five floor mats that same week, earning $15 and she sold six more in Week 46 (February 2016), earning $18.

In Week 47 (March 2016), she received a gift-card with $61.50 from the World Food Program, she used it to get food at the supermarket. After she received this in-kind gift, her expenses in food decreased for the following 2- 3 weeks.

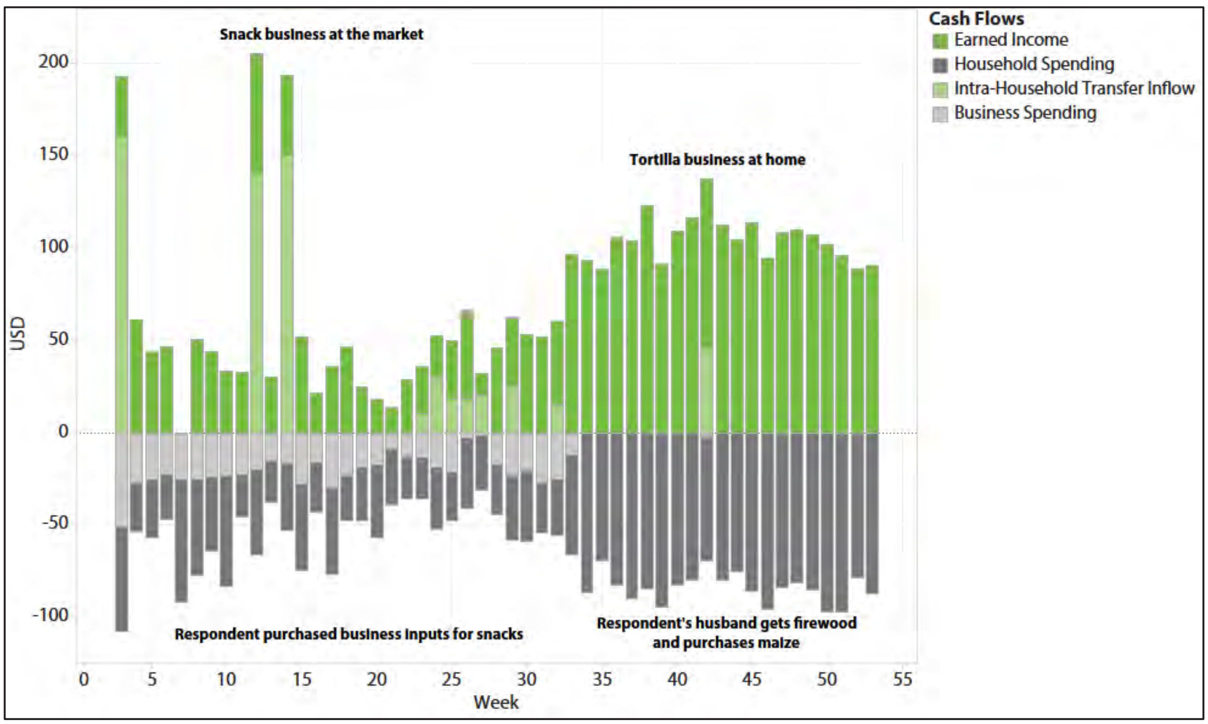
Figure 3 Entrepreneurial Efforts – Eugenia



Change in Business, Angélica (232.1)

At the time of the study, Angélica was 48 years old, described herself as the head of the household, and lived with her husband and their four children. Her eldest child was 18, and the youngest was 7. They lived in a peri-urban area of San Simón. During the first 33 weeks of the study she assiduously sold snacks at the market, earning an average of $40 per week. That was until suddenly, in Week 34 (December 2015) she stopped selling snacks and switched to making tortillas at her house. When we asked Angélica about the reason for this change, she said it was because she was having problems with her stand at the market, but she was reluctant to give more details. Her tortilla business, though, turned out to be more profitable—her average weekly sales increased to $102. Her husband was struggling to find a permanent job during this time, and his transfers to Angelica fell accordingly. Most of the time, he stayed home and helped her with the business; he purchased the maize, collected firewood, and also collected the money from customers. They thought of this money as one pot, and that is the reason why there were no intra-household transfers given to the husband.

Figure 4 Profit Evolution and Intra-Household Transfers – Angélica



Angélica purchased a refrigerator on credit at a commercial store, and she made regular payments; when we asked about who made the decision to take a loan, she said it was her.

She received her $61 share-out from her savings group in Week 37 (December 2015). Her eldest daughter was going to start university after the Christmas break and was attending a pre-university course; she wanted to be mathematics teacher. Angélica decided to use the savings money to pay for her school tuition.

CHAPTER 2: INTERMEDIATING CASH FLOW

Introduction

One of the purposes of financial tools is to help individuals intermediate the mismatches between their income and expenditures that occur overtime. There are two types of mismatches: surpluses, which occur when gross income exceeds gross expenditures, and deficits, which occur when gross expenditures exceed gross income. These mismatches are often small, driven by the regular ebbs and flows of income and expenditures, but sometimes these mismatches are large, resulting from significant cash flow events. Broadly, there are four types of such events:

Table 3 Significant Cash Flow Events

Income Driven	**Windfalls** A respondent received an unusually large sum of money. For this analysis, a windfall is equal to a value twice the size of a respondents' average weekly income or larger.	**Shortfalls** A respondent's income was much lower than normal. For this analysis, we focus on weeks in which respondents did not earn income or receive cash transfers from family members in the household ("zero income weeks")
Expenditure Driven	**Lump Sum Purchases** Lump sum purchases are expenditures on goods or services that are statistical outliers for a respondent.	**No Expenditures** A respondent made no expenditures. This is rare, happening less than 1 percent of all weeks.

During the study, respondents reported at least one of these events in 40 percent of the weeks in which we interviewed them. This chapter explores how respondents managed in these weeks, comparing their activity to the other 60 percent of weeks when no remarkable cash flow events occurred. Doing so can provide valuable insight into the financial lives of our respondents. First, it provides a comprehensive overview of which financial tools respondents relied on and an understanding of how their preferences shifted in response to different events. Second, since savings groups can provide cash so infrequently, this analysis provides a sense of the demand for financial services that was not filled.

Table 4 ***Distribution of Weeks Across Income and Spending Events***

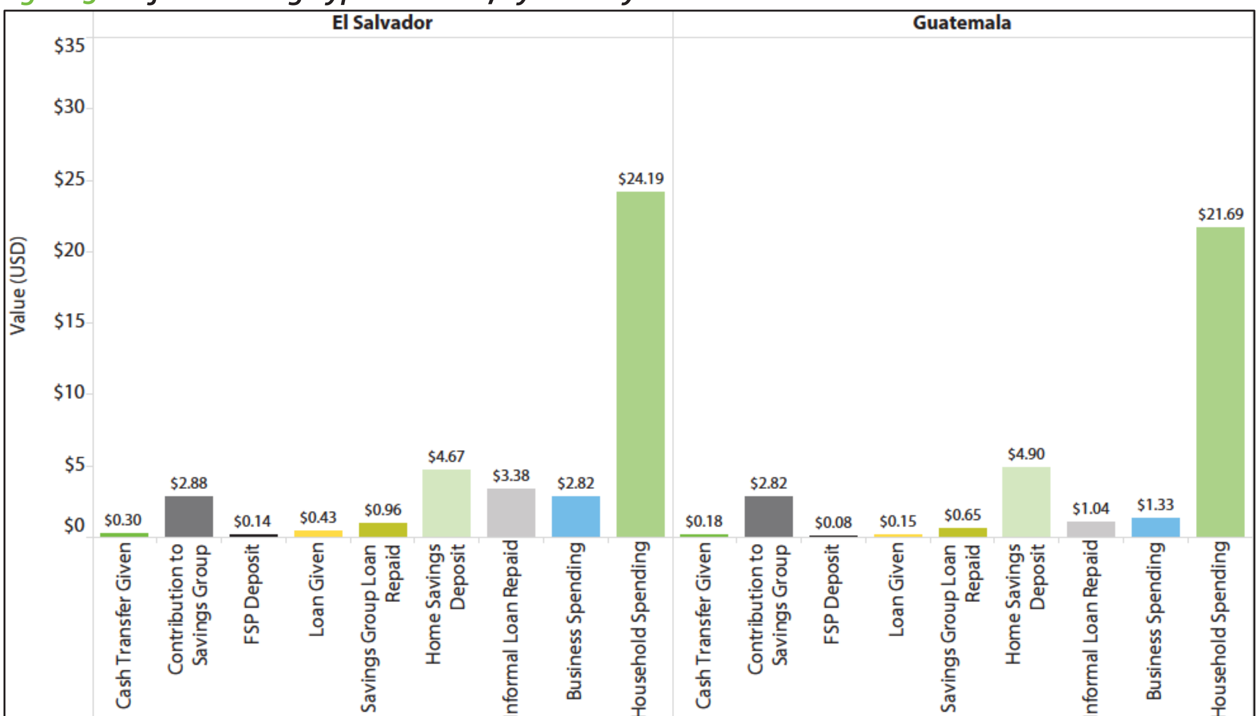
Share of Weeks (Percent)	No Expenditures	Spending, No Lump Sum Purchase	Lump Sum Purchase	Total
Zero Income Week	<1	14	3	**18**
Typical Income Week	<1	60	12	**73**
Windfall Income Week	<1	5	4	**9**
Total	1	80	19	**100**

Numbers rounded to the nearest percent.

Typical Weeks

Sixty percent of the weeks were unremarkable for our respondents—they received income and made purchases for their households and their businesses, but neither their income nor their expenditures were especially large or small.[13]

Figure 5 ***Outflows during Typical Weeks, by Country***



This graph shows the average weekly value of cash outflows that flowed through financial tools or were spent on household or business items.

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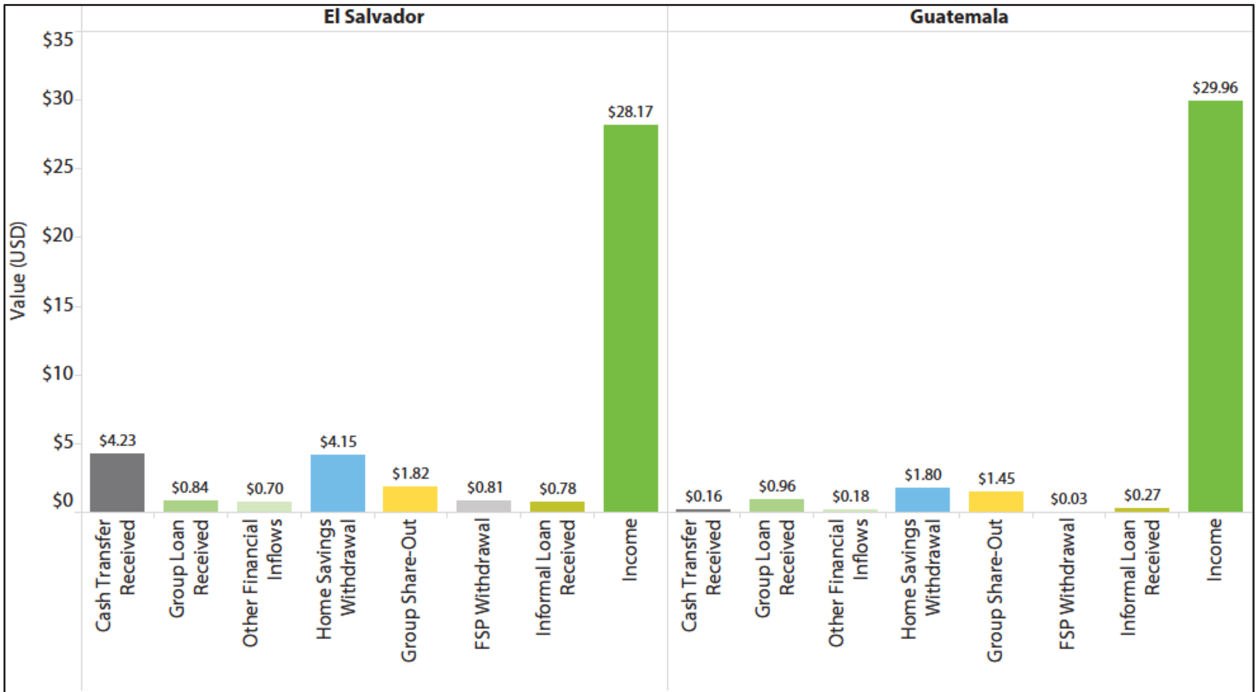
[13] We collected the data in local currencies, In the case of El Salvador this is the U.S. dollar (USD), while in Guatemala it is the Quetzal (GTQ). In this report and we have converted the quetzal into the U.S. dollar to enable an easy comparison with the El Salvador data. The exchange rate we used was 7.65 quetzals per dollar, which was the median exchange rate during the study period. The purchasing power parity conversion ratios in the two countries were roughly similar in 2015, meaning that a dollar in El Salvador went as far as a dollar in Guatemala. In both countries, a dollar went about twice as far as it would have in the U.S. in 2015 because of the lower cost of living in those countries.

In these typical weeks, the bulk of the money that respondents received went toward expenditures on household and business items. Respondents had other commitments too—they repaid informal loans (often taken in the form of store credit) and contributed to their savings group, depositing excess cash into home savings.

Respondents in El Salvador and Guatemala financed most of these weekly flows with income. In addition, respondents drew on home savings withdrawals and group share-outs; and in El Salvador cash transfers were an important source of cash.

Figure 6 ***Inflows during Typical Weeks, by Country***



This graph shows the average weekly value of cash inflows that flowed through financial tools or were earned through the sale of goods or service. Income also includes cash transfers that dependents received from members living within their household, most often their husbands.

Windfalls

Respondents received windfalls in about nine percent of weeks. Of the windfalls that happened during these weeks, about 60 percent (five percent of all weeks) occurred without unusual spending activity. The windfalls were very large for respondents, averaging three to four times the size of regular weekly income.

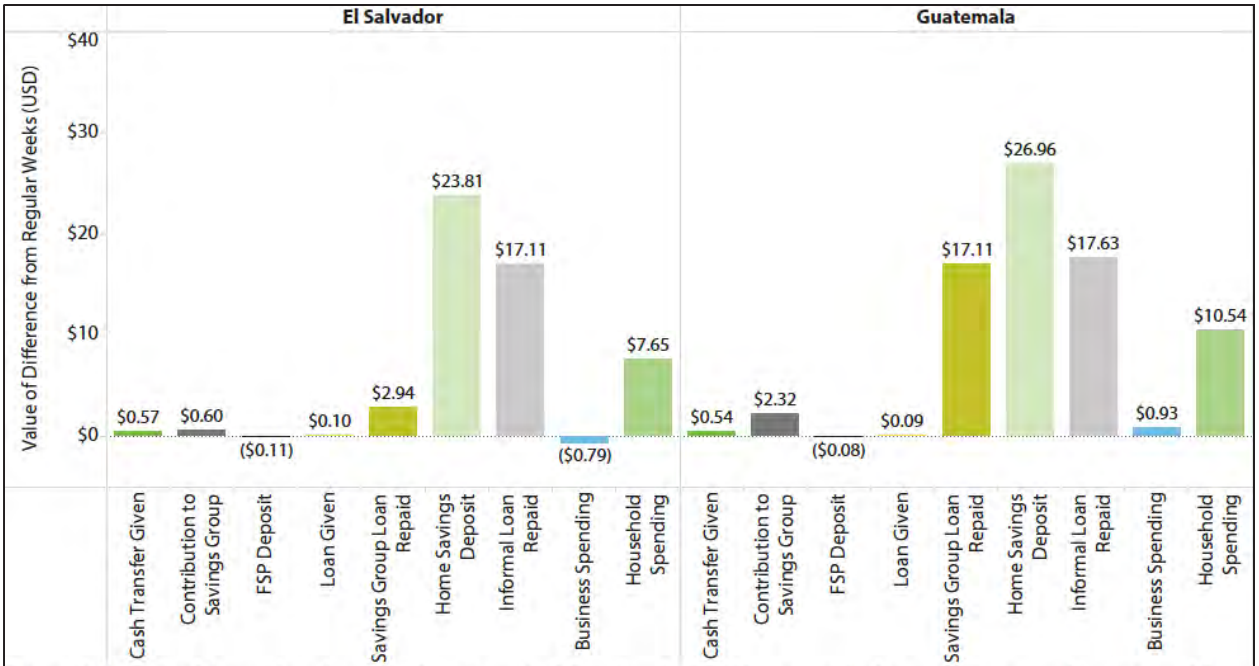
Table 5 ***Average Weekly Income, Typical Weeks vs. Windfall Weeks***

	El Salvador	Guatemala
Typical Weeks	$28.17	$29.96
Windfall Weeks	$91.26	$122.06

The data show that relative to typical weeks, respondents increased their household spending by anywhere from 30 to 50 percent, but much of the value of the windfall was pushed through financial tools. Specifically, respondents used large portions of the windfall to repay informal loans. In addition, in

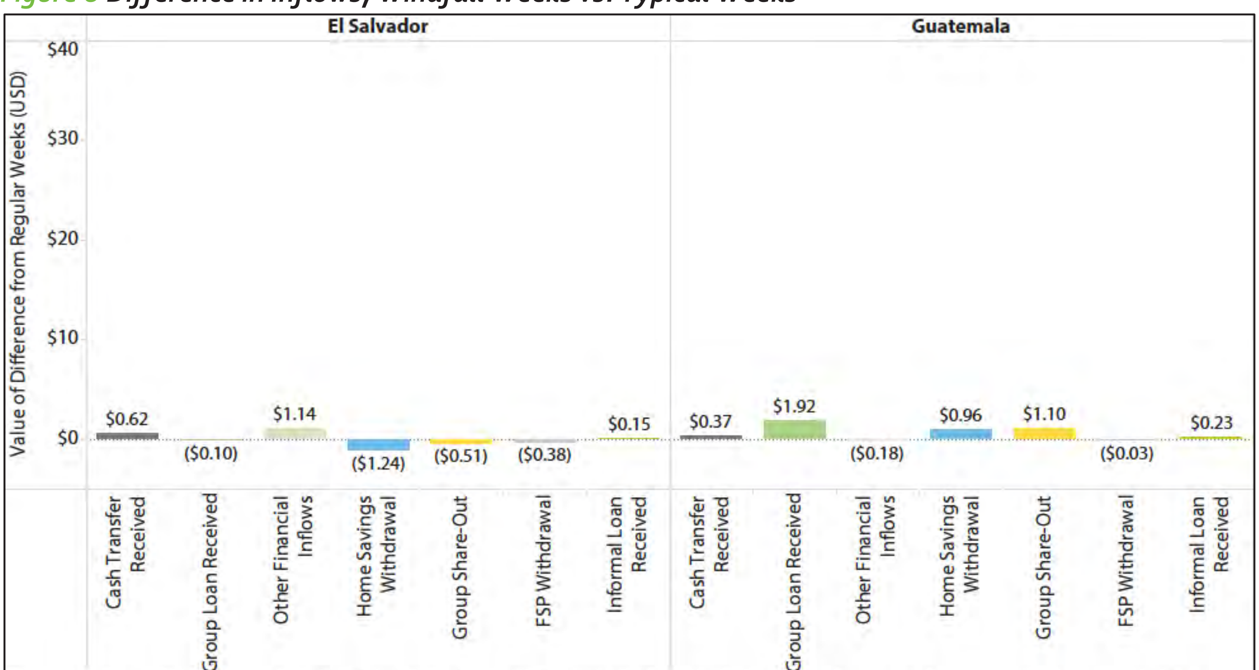
Guatemala, respondents used large portions of their windfall to repay loans from their savings groups. In both countries, the women deposited any excess cash into home savings.

Figure 7 Difference in Outflows, Windfall Weeks vs. Typical Weeks



This graph shows the difference in cash outflows between a windfall week and a typical income week when no lump sum purchases occurred. For example, this graph shows that home savings deposits in El Salvador were an average of $23.81 larger in windfall weeks than typical weeks with no lump sum purchases.

Figure 8 Difference in Inflows, Windfall Weeks vs. Typical Weeks



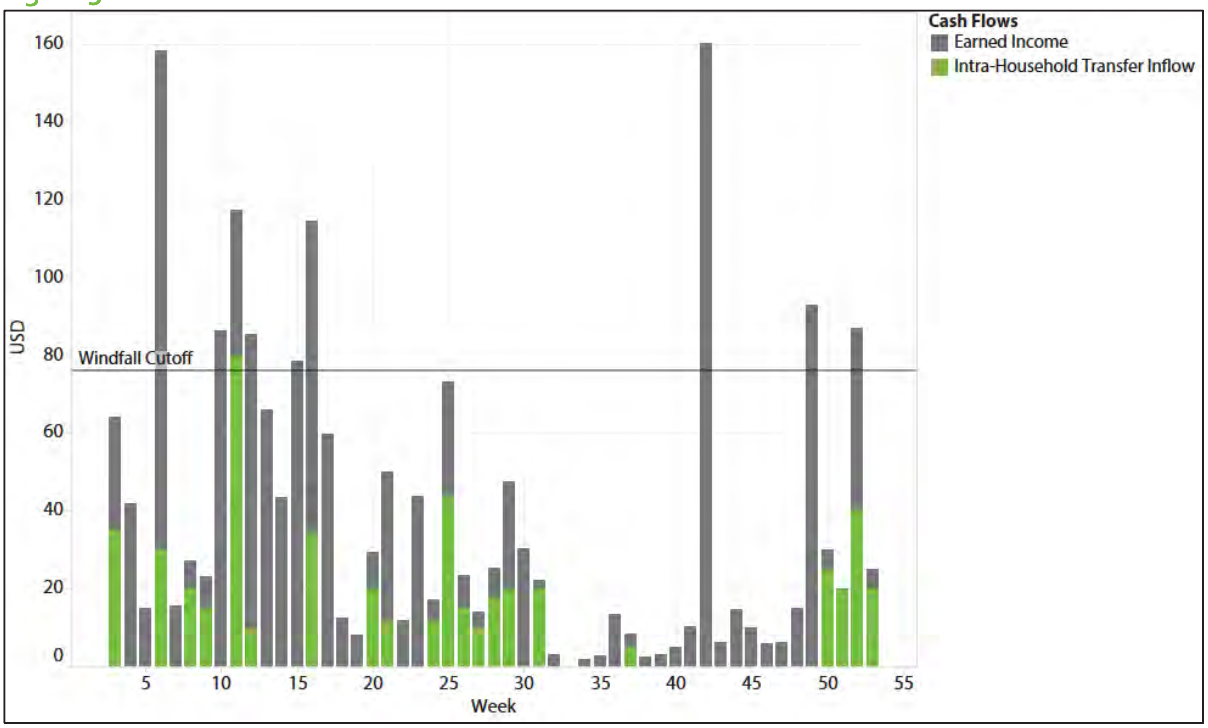
This graph shows the difference in cash inflows between a windfall week and a typical income week when no lump sum purchases occurred. For example, this graph shows that home savings withdrawals in El Salvador were an average of $1.24 smaller in windfall weeks than typical weeks with no lump sum purchases.

The change in how much respondents spent and pushed through financial tools matched closely the change in income respondents received. This was because respondents did not pull in more cash through their financial tools when they had a windfall. While the relative value of cash pulled in through financial tools did change, and sometimes significantly in statistical terms, the dollar-value of the changes were small.

Managing Windfalls, Ana (312.2)

Ana was 32 years old when we interviewed her. She lived in the department of Morazán in El Salvador with her husband, Luis, and their two children. Her young cousin—only nine years old—and her farther lived with the family too. Luis worked as a casual laborer on farms in the area. He transferred portions of his earnings to Ana every other week or so, but these transfers were not enough to cover all of Ana's expenses. Luckily, Ana ran a small grocery stand. She earned income during all but two weeks of the study, although there were several weeks during the maize harvest season in November and December when she effectively stopped working at the stand. She received about $38 per week on average, including $28 from shop sales and $10 in transfers from Luis.

Figure 9 Ana's Windfalls



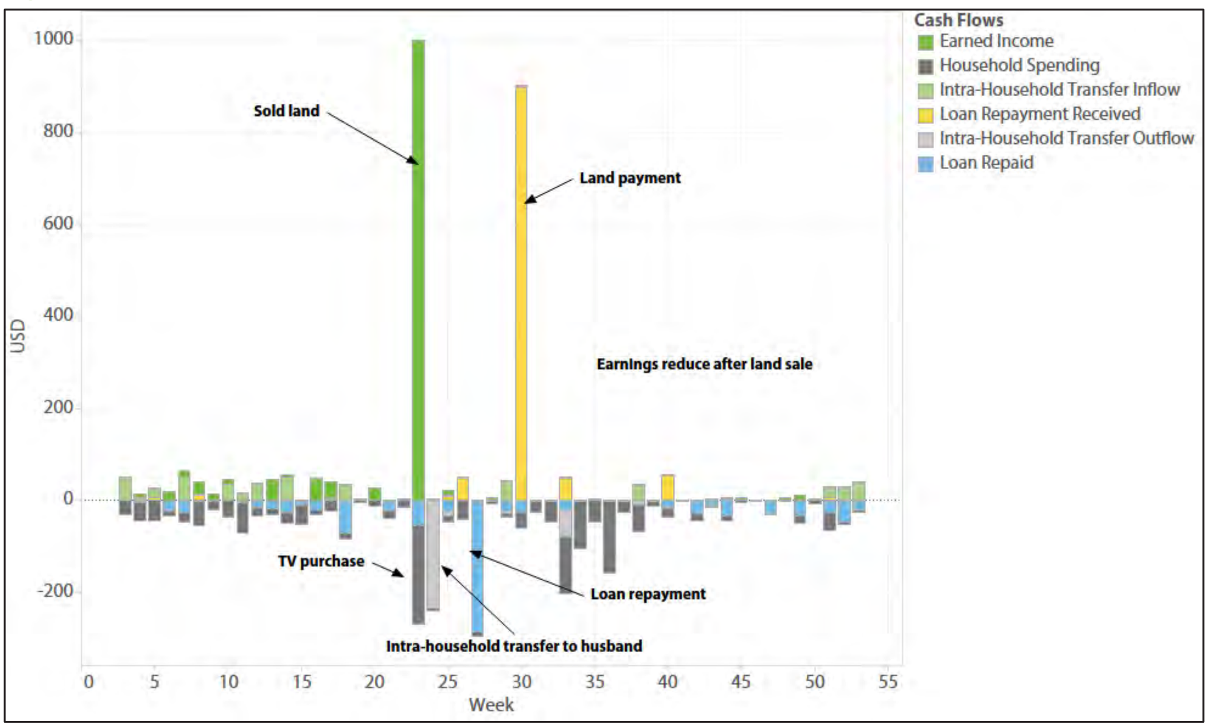
Ana received nine windfalls during the study. These large sums were often the result of selling the pigs that she and her husband reared, and sometimes occurred because she received large transfers from Luis. Typically, Ana would use the money to purchase more goods for the household and for her shop. She often paid back loans and then would put the rest into home savings. For instance, in Week 52 (April 2016), Ana earned $63 from the sale of pig meat, which included receiving $21 from a customer for meat she had bought on credit. She sold a chicken too (for $5) and received $40 in cash transfers from household members. She bought groceries, but only $10 worth, and did not invest in her business that week. Instead, she pushed most of the $108 through financial tools. She made a rather large contribution to her savings group—$10.25—and repaid a small loan she borrowed from the group ($3.35). She repaid a $40 loan to a man who sold her a pig while she put the remainder into her home savings to use for future expenses.

Land Sale, Doris (326.2)

When we asked Doris at the start of the study what her role in her household was, she described herself as the spouse of the head of the household. From subsequent interviews with Doris, we learned that her husband had a permanent job working as a security guard in another village.

During the study period, the economic relationship between Doris and her husband changed. In the first five months of the study, Doris sold cooked food, worked as a maid, and took on other casual labor work, earning money almost every week. During this time, she also received money from her husband once every two or three weeks, receiving an average of about $40 per transaction. He gave it to her when he came home from his job, although he sent $40 via Tigo money one time in August. But all this changed in Week 23 (September 2015) when Doris sold some of the land her family owned for $3,000. Doris decided to sell the land to help her husband; he was unemployed at the time and had to pay a loan with an MFI. The initial loan was taken before the study by the husband to cover education expenses, personal expenses, and he also gave money to Doris to help her start a tamale business. The buyer paid Doris $1,000, with the rest to be paid at a later date. In that same week, Doris bought a TV for $200, on top of her regular household purchases, and the following week, she gave $230 to her husband for the final loan payment. The left over cash she kept at home.

Figure 10 Doris' Land Sale



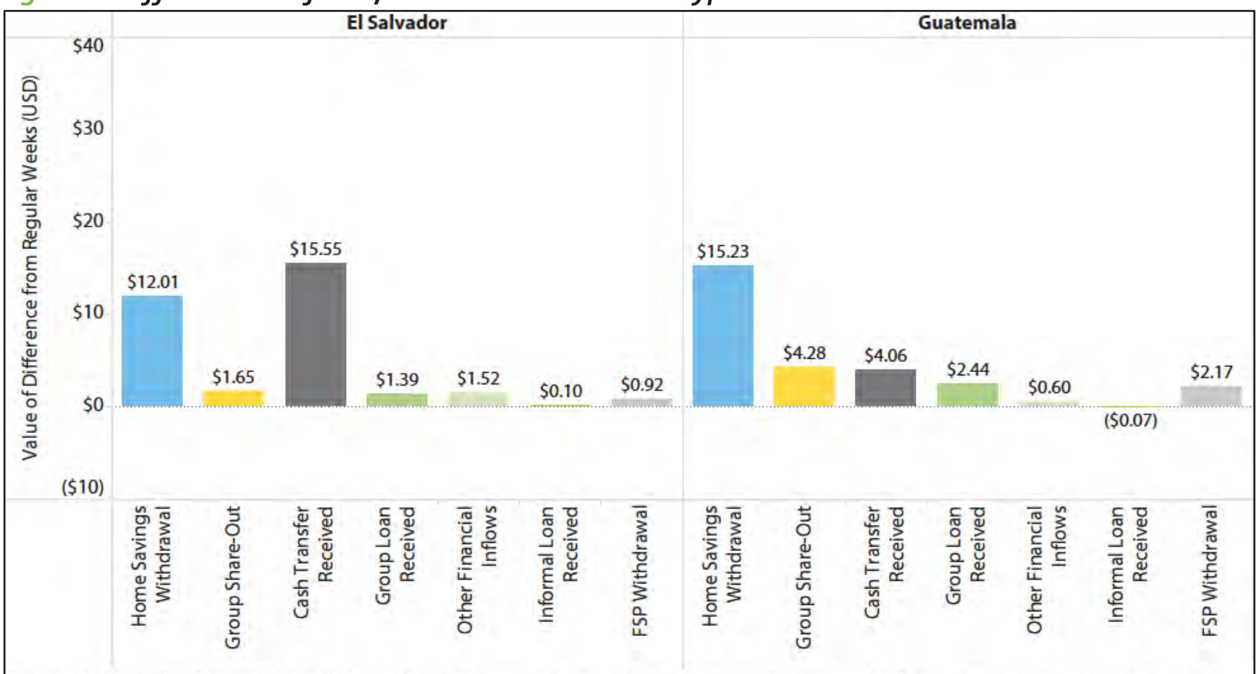
Doris received another partial payment of $900 from the buyer of the land in Week 30 (November 2015), which she also kept at home. In Week 31 (November 2015), she took $270 from what she saved at home to repay money she owed her brother. She made further withdrawals in subsequent weeks to fund loans to her sister ($50, Week 31, November 2015), which her sister repaid two weeks later, and to her neighbors ($170, Week 32, November 2015). She also gave her son $60 (Week 33, November 2015), bought a suit for $75 (Week 34, December 2015), made a $50 loan to a cousin (Week 35, December 2015), and bought $125 of building materials to lay down a cement floor in her house (Week 36, December 2015). Her son did the actual work of laying down the floor.

In the period up to the sale of the land Doris earned, on average, about $12 per week and received, on average, $14 per week from her husband. In the three months after the sale, from September up until Christmas, she worked sporadically and earned, on average, $3.75 per week. She did not work during Christmas, nor did she work during the whole of January and part of February. During that same period, she received two transfers from her husband totaling $75. When she did return to work in February, she averaged about $6 per week. She also started receiving regular payments every two or three weeks from her husband in the amount of $40 or $50 per payment via Tigo money.

Shortfalls

Shortfalls are weeks in which income is much lower than the average or below what a respondent expects to receive. For this analysis, we focused on weeks in which respondents received no income, also known as a "zero income week." Fourteen (14) percent of weeks in our study were zero income weeks that coincided with weeks in which respondents did not have unusual spending behavior.

Figure 11 ***Difference in Inflows, Zero Income Weeks vs. Typical Weeks***



This graph shows the difference in cash inflows between a zero income week and a typical income week when no lump sum purchases occurred. For example, this graph shows that home savings withdrawals in El Salvador were an average of $12.01 larger in zero income weeks than typical weeks with no lump sum purchases

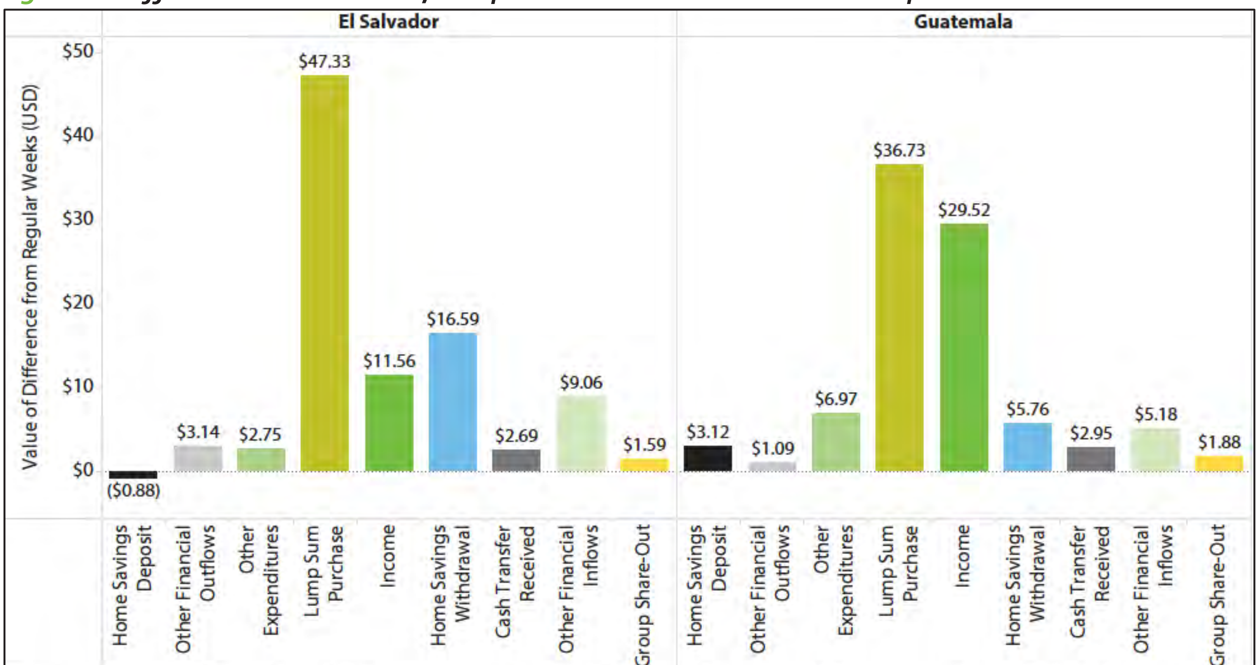
Despite not having any income, respondents in El Salvador only reduced their spending by $3.53 on average, a 13 percent reduction. Respondents in Guatemala were actually able to increase their spending by $3.80, or about 16 percent of typical week spending.

In El Salvador, respondents were able to fill the gap created by not receiving any income by withdrawing cash from their home savings and receiving cash transfers. Respondents pulled-in money from their savings group (in the form of share-outs and loans), informal loans, and withdrawals from accounts held with formal FSPs, but these flows were much smaller than those that flowed through home savings and cash transfer channels. In Guatemala, home savings figured prominently as well; cash transfers were important but not to the degree seen in El Salvador; and group share-outs and group loans figured more prominently than in El Salvador.

Lump Sum Purchases

Lump sum purchases are purchases that are especially large for a respondent. There were 2,499 such expenditures during the study, which equates to each respondent making one lump sum purchase almost every four weeks on average.[14] The average purchase was about $52. Most of these purchases occurred during typical income weeks, which presented unique cash flow management challenges for respondents.

Figure 12 ***Difference in Cash Flows, Lump Sum Purchase Week vs. No Lump Sum Purchase Week***



This graph shows the difference in cash flows between a week with a typical level of income and a lump sum purchase and a typical income week when no lump sum purchases occurred. For example, this graph shows that home savings withdrawals in El Salvador were an average of $16.59 larger in weeks when respondents made a lump sum purchase.

In weeks when respondents made lump sum purchases, other spending also increased compared to typical weeks. To meet these increased expenditures respondents pulled in more money through financial tools. In El Salvador, home savings withdrawals figured prominently, rising by almost $17. Respondents also brought in an average of $9 more from informal loans, group loans, withdrawals from accounts held with FSPs, and other financial tools (like intermittent government transfers). In Guatemala, respondents

[14] While respondents made one lump sum purchase every four weeks on average, many respondents made multiple lump sum purchases in the same week explaining the discrepancy between the frequency of purchases and the share of weeks in which purchases occurred.

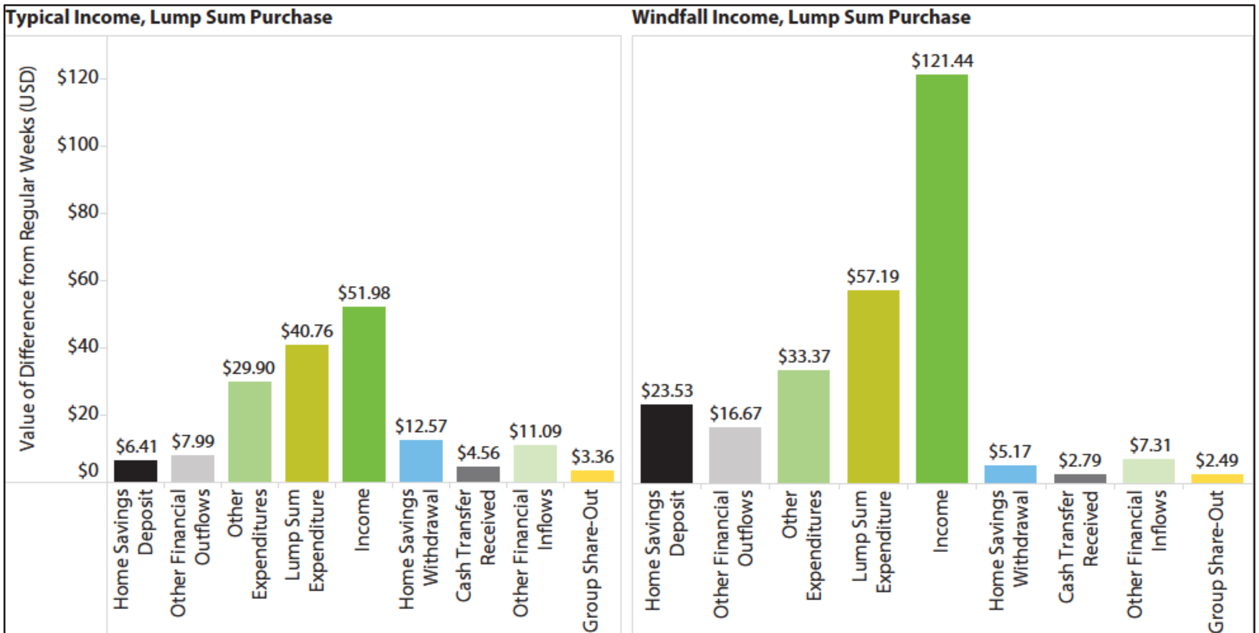
used financial tools but not to the degree that they did in El Salvador. They pulled in $16 more from all their financial tools in weeks when they made these purchases.

The amounts of money respondents in El Salvador and Guatemala pulled through their financial tools did not cover the lump sum purchases in their entirety, nor did the flows need to. Respondents' incomes increased dramatically during weeks when they made lump sum purchases, helping to cover the difference, although not so dramatically that we would consider them windfalls. In El Salvador, income was about 40 percent larger than in typical weeks, and in Guatemala incomes were just under 100 percent larger than typical weeks.

Lump Sum Purchases during Windfall and Zero Income Weeks

During about four percent of weeks, respondents received a windfall and made a lump sum purchase. During these weeks, all types of cash outflows—the lump sum purchase, other expenditures, deposits into home savings, and other financial flows like repayments of loans—increased. Respondents' large windfalls financed these increased outflows as financial inflows from all sources fell during these weeks. This pattern held true in El Salvador and Guatemala.

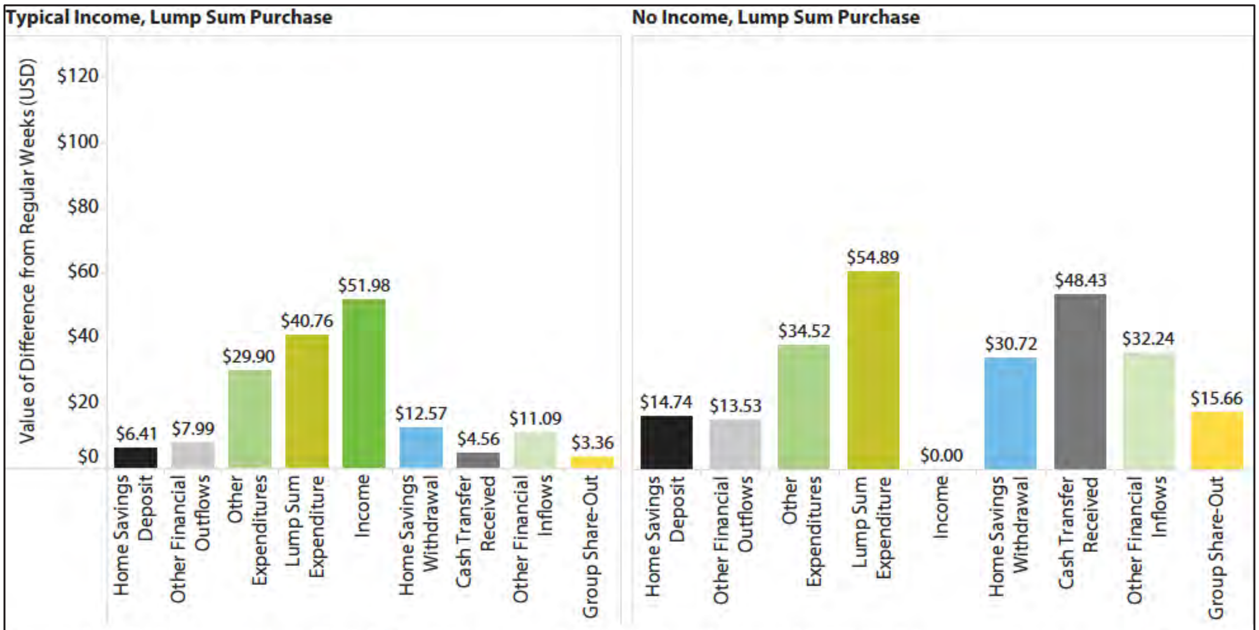
Figure 13 ***Cash Flows during Lump Sum Purchase Weeks, Windfall Weeks vs. Typical Weeks***



The graph on the left is average weekly cash flow during weeks when respondents had typical income and made a lump-sum purchase. The graph on the right shows average weekly cash flows during weeks when respondents had a windfall of income and made a lump sum purchase. For example, respondents withdrew $12.57 from home savings in typical weeks with a lump sum purchase but only $5.20 in weeks with windfall income and a lump sum purchase. The graph aggregates data for El Salvador and Guatemala.

During three percent of weeks, respondents made lump sum purchases but did not have any income to do so. Despite this, they increased all their flows in addition to making the lump sum purchase. Home savings withdrawals and group share-outs experienced large increases and other financial inflows—namely informal loans and loans from savings groups—featured prominently too. On average, cash transfers received from family and friends living outside the household were the largest source of financing for these purchases.

Figure 14 **Cash Flows during Lump Sum Purchase Weeks, Zero Income Weeks vs. Typical Weeks**



The graph on the left is average weekly cash flow during weeks when respondents had typical income and made a lump-sum purchase. The graph on the right shows average weekly cash flows during weeks when respondents received no income and made a lump sum purchase. For example, respondents withdrew $12.57 from home savings in typical weeks with a lump sum purchase and $30.72 in weeks with windfall income and a lump sum purchase. The graph aggregates data for El Salvador and Guatemala.

Pair with Lump Sum Purchases, Marta (605.2)

At the time of the study, Marta was 35 years old and lived in Alta Verapaz in Guatemala. She was married to Marcos who was 44 and worked as the leader of the village's congregation. They had six children together, including four daughters and two sons.

Table 6 Marta's Lump Sum Purchases

Week	Item	Amount (US)
12	Tennis Shoes	39
36	Firewood	39
37	Aluminum	118
37	Chicken Meat	92
37	Indigenous Clothing	52
38	Medical Vaccine/Shot	39
38	Medical Examination	46
47	Firewood	52
56	Herbicide	52

Marta periodically earned money by selling tamales and other foods, but she was largely dependent on Marcos for cash transfers. Her daughters Luisa (age 19) and Beatrice (age 16) and her son Carlos (age 15) also worked periodically, and they too gave portions of what they earned to Marta.

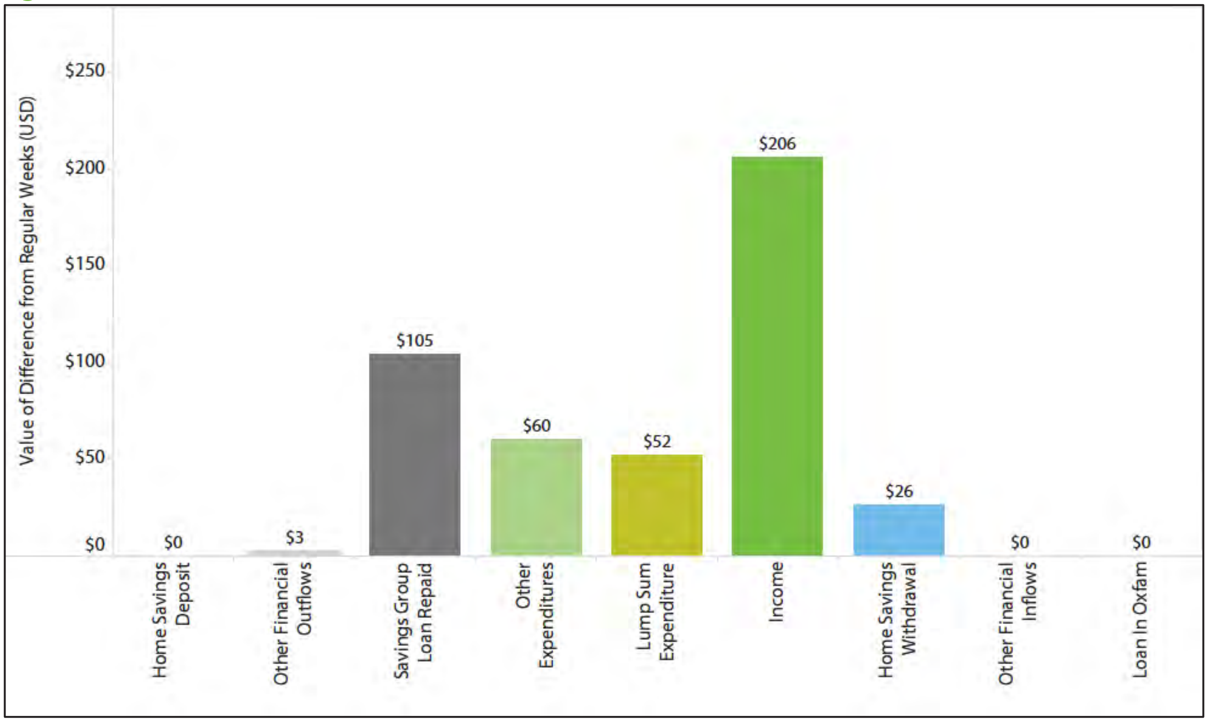
Marta made eight lump sum purchases during six different weeks, including five that occurred close to Christmas (Week 37).

One set of lump sums expenditures was difficult for Marta to manage, as she did not have enough income to cover her expenditures. In Week 38 (December 2015 to January 2016), Marta fell ill. We are not exactly sure the nature of her illness—all she said was that she was dealing with a great deal of stress—but it meant that she needed to travel almost 20 kilometers by dirt road to get to a doctor.

The trip was costly—Marta had to pay $46 for a medical exam, $39 for an injection, and another $20 for other medicines. All told, her illness cost her $105. She and her family did not have the money on hand to pay for these expenses as Marcos had bought more than $100 worth of goods to celebrate Christmas and New Year. Luckily, Marta was able to turn to her Oxfam savings group, where she got a $105 loan to pay for the medical expenses.

Marta's experience in Week 56 (May 2016), when she had enough income to cover her expenses, was much different. During that week, Marta earned about $36 from the sale of different food items. Marcos transferred $78 to her and she received another $92 in transfers from her children. At $206, she had more than enough to pay for herbicide, which she hoped to resell at the market later, and her other household expenditures—$113 of spending in total. Marta also made a $105 loan repayment to her savings group that week (for a loan taken after her medical event), but with only $93 in cash remaining from income and transfers, she had to withdraw some money from home savings too.

Figure 15 ***Marta's Cash Flows***



Conclusions

The data show that respondents regularly faced some type of significant cash flow challenge. They received a windfall of income, experienced a week with no income, or made a lump sum purchases in about 40 percent of weeks.

Home savings was the most important financial tool for managing these fluctuations. Respondents used it to store excess cash from windfalls, to fund basic expenditures during zero income weeks, and to help pay for lump sum purchases. The sums moving in and out of home savings were far from trivial. They deposited near the equivalent of one week's worth of income when they received a windfall and pulled out just as much when they had no income but needed to make a large purchase. This suggests that home savings is a financial tool that goes beyond helping to intermediate small mismatches in income and expenditures. Rather, they are using home savings to manage relatively large sums of cash in absence of other financial tools.

Cash transfers also figured prominently as a management tool to cover weeks in which respondents did not earn income or did not have enough cash on hand to cover a lump sum expenditure. However, as will be discussed in more detail later, not all respondents had access to cash transfers as a financial tool.

Taking loans to cover shortfalls and fund increases in spending was not widespread, which is reflected in the averages presented here. The data show, though, that when respondents did take informal loans they did not repay them in regular installments. If they did, we would expect to see comparable loan repayment values in typical weeks, windfalls weeks, and weeks with lump sum purchases. Rather, respondents in both countries made loan repayments that were $17 larger in weeks when they received windfalls of income. That equates to loan payments that were six and 18 times as large as payments in typical weeks in El Salvador and Guatemala respectively. This type of loan repayment pattern—large windfalls to fund large loan repayments—does not fit with the terms and conditions of the loans that FSPs typically provide.

Savings groups did not feature prominently in this analysis. While respondents did receive share-outs and loans from their groups, they did not appear to meaningfully impact respondents' ability to manage cash flow mismatches. We provide potential reasons for this, and analysis of what savings groups did achieve, in the following chapter.

Economic Success Leads to a Husband's return, Doménica (510.1)

Doménica is the portrait of a strong woman. After seeing her unrelenting smile, few could guess the many struggles she has had to endure.

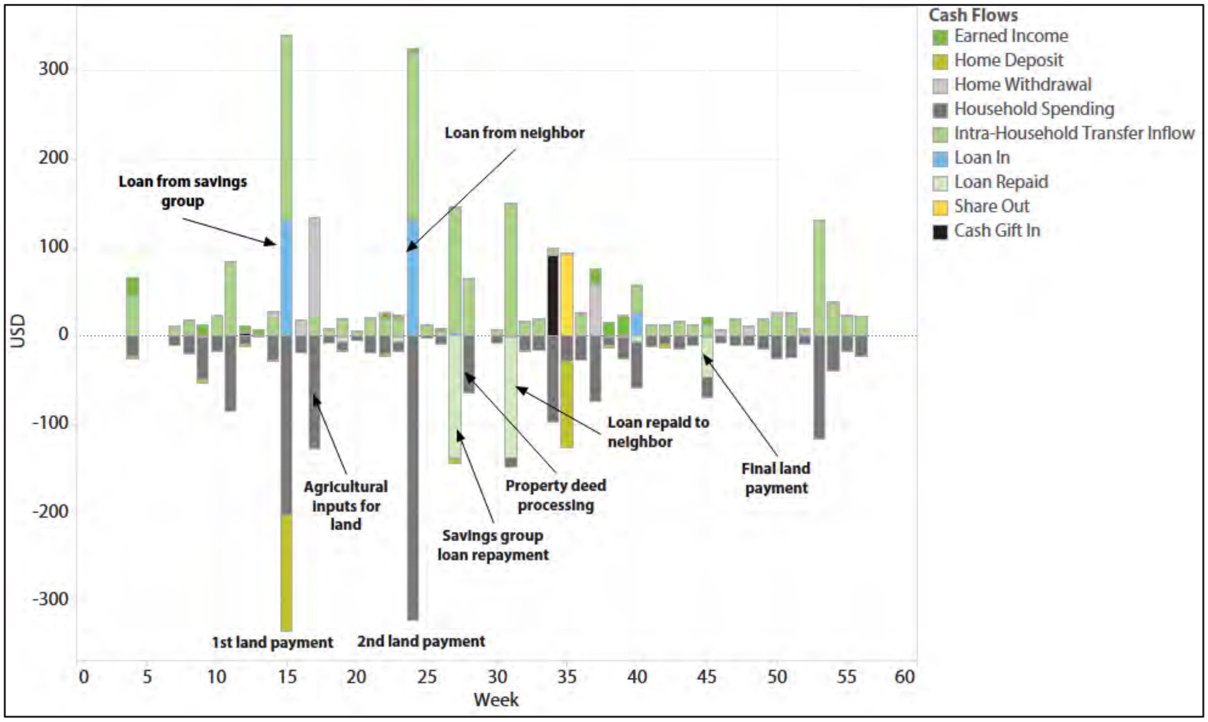
The central theme of Doménica's story is land ownership. At a very early age, she had to flee from her village during one of the many episodes of violence that took place during Guatemala's civil war. She lost her parents and barely managed to survive with her brothers. Together, they went to live with an uncle in a distant village. Several years later, as the violence subsided, she heard that people were starting to go back to claim their lands but refused to return, effectively renouncing her land rights.

She did not have an arranged marriage, a common custom of those days. She married at 17, and she came to live to El Jute, a small agricultural community in the highlands of Guatemala. She and her husband were farmers. They had six children. She was expecting the seventh when her husband left to start a new family elsewhere. Shortly after this, she realized that she was about to lose the property where her family was living because her husband had taken a mortgage loan which he never paid, but she was able to reclaim her home with the help of her uncle.

She struggled with serious economic hardship for some time. Eventually, though, she started growing her own crops to help feed her family and earned money by working with her neighbors in agriculture. She also began to rear chickens and turkeys. Her community had a significant role in helping her start over—they gathered the initial inputs for sowing maize, helped with labor, and brought her food periodically. As her sons grew up, they helped with the agricultural tasks as well. Once the older sons came of age, they preferred to do the majority of the work. Doménica worked less, helping the neighbors with their crops, but she still liked to work in her land. At the beginning of the study, her sons purchased some items so she could start a small store, but it did not go well and the store failed. During the study, she sold a chicken here and there when someone in the community requested one and a few vegetables from her garden; she earned $30 from these sales. She also worked 20 days in agriculture, earning $77. Another source of income for her was the government program "Bono Seguro," from which she received $40 during Week 9 (June 2015) and again in Week 35 (December 2015). She also received $25 worth of basic food items from the "Bolsa Solidaria" program (Week 45, February 2016).

During the course of the study, she received $1,609 from her sons from the work on the family's land and their work in other communities or on coffee plantations. Before the study, Doménica had invested in a pig rearing business. With the earnings from this business and the money she received from her savings group, she was able to purchase four plots of land in her community. During the study, she bought six more plots of land of about 20 square meters each at a cost of $93 per plot. The financial aspect of this purchase can be seen in Figure 16. She gave the first major payment in Week 15 (July 2015) of the study. To finance this purchase, she took a loan of $130 from her savings group, which was repaid three months later. She received $209 from her sons in addition to the loan. She also used part of this money to buy construction material in order to prepare the land for cultivation. She made a second major payment in Week 24 (September 2015). This time she received $190 from her sons, and she took a loan from a neighbour for $130. She repaid this loan two months later. She also paid $53 for the processing of the property deed under her name.

Figure 16 **Land Purchasing Financing – Doménica**



The purchase of this land enabled her family to participate in the cultivation of broccoli. The farmers in this community take turns cultivating the vegetable on their land and sell the entire harvest to an agribusiness. This agribusiness provides the farmers with seeds and fertilizers on credit which they pay once the crop is delivered. This enables households to make bulk sales and earn a more significant profit.

In the final weeks of the study, Doménica received a visit from her ex-husband, he wanted to come back to the house, he was even attempting to force his way back by threatening to re-claim the property and by joining the older sons in the field. Doménica said she is happy now and does not want him back in her life.

CHAPTER 3: USING SAVINGS GROUPS

Introduction

The Oxfam saving group methodology has two primary objectives: provide participants with a safe place to save and allow them to build lump sums of cash by making small deposits overtime. The nature of the methodology discourages premature withdrawals from the group, and many groups have limits on the size or number of loans members can receive. Consequently, members may only receive cash from the group a few times during the group's cycle, and that is only if they borrow from the group.

This design prevents savings groups from handling the breadth and frequency of cash flow events described in the previous chapter.[15] Savings groups simply cannot capture the windfalls, support the deposits necessary to meet all of the lump sum purchases, or offer the loans frequently enough to cover all of the zero income weeks. The groups do, however, make important in-roads in meeting demands for such financing.

As we describe in this chapter, the Oxfam savings groups were respondents' most frequently used financial service after home savings. Respondents' dedicated depositing behavior allowed them to build lump sums of cash that were relatively large and enabled respondents to make lump sum purchases more frequently in months after receiving a share-out or loan than other months. The analysis also showed that there are modifications to the group methodology that may enable respondents to take advantage of these sums more frequently.

Savings and Share-outs

Building Lump Sums

On average, respondents in El Salvador made a deposit to their savings group about three times every four weeks. Respondents in Guatemala made deposits about once every two and a half weeks on average. While respondents in El Salvador deposited more frequently, they deposited smaller amounts

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[15] The theoretical objectives of savings groups are to provide a safe place for people to save in order to build lump sums of cash. Consequently, the system needs to be designed in such a way to allow individuals to save sums of cash that are usefully large, have rules that allow for some variation in behavior, while also ensuring that deposits do not become so large and loans do not become so frequent that loss or default would be catastrophic for group members. They do this through limit cycle length, deposit sizes, and loans sizes.

than respondents in Guatemala did—the El Salvadorian respondents deposited about $4.30 on average, while the Guatemalan respondents deposited about $5.00 on average. These small and semi-regular deposits were effective at creating large sums of cash. In El Salvador, the average size of the share-out was about $90, while the average size of a share-out in Guatemala was about $150.

Figure 17 **Share-out Amount by Number of Share-outs per Member, by Group**

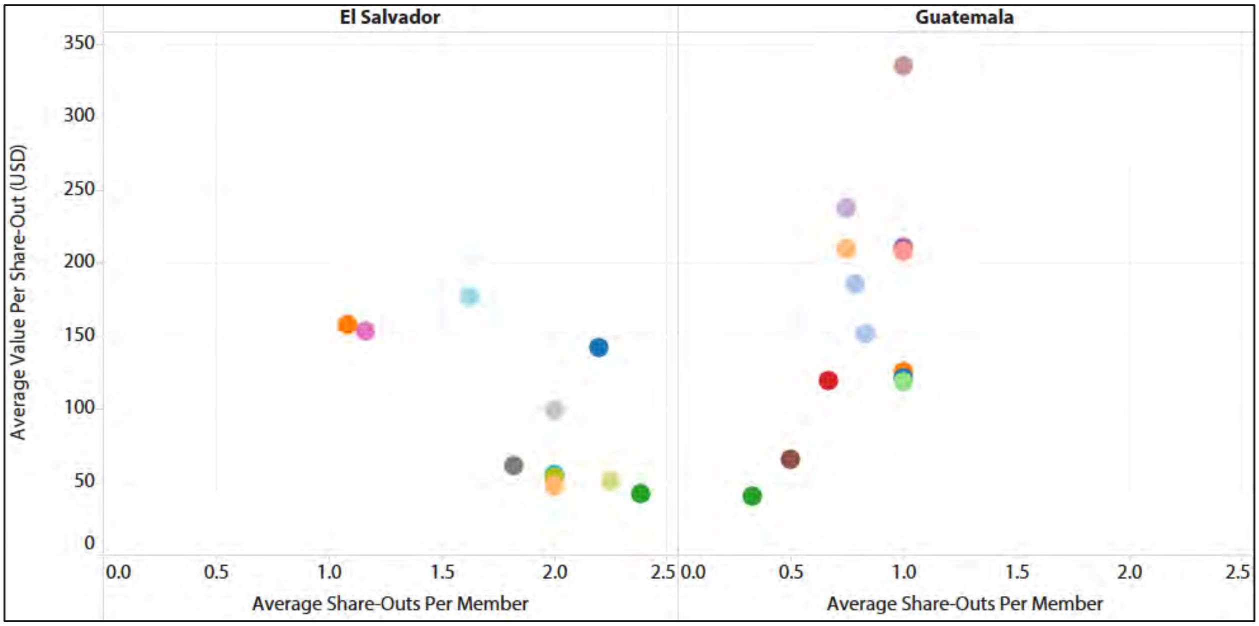
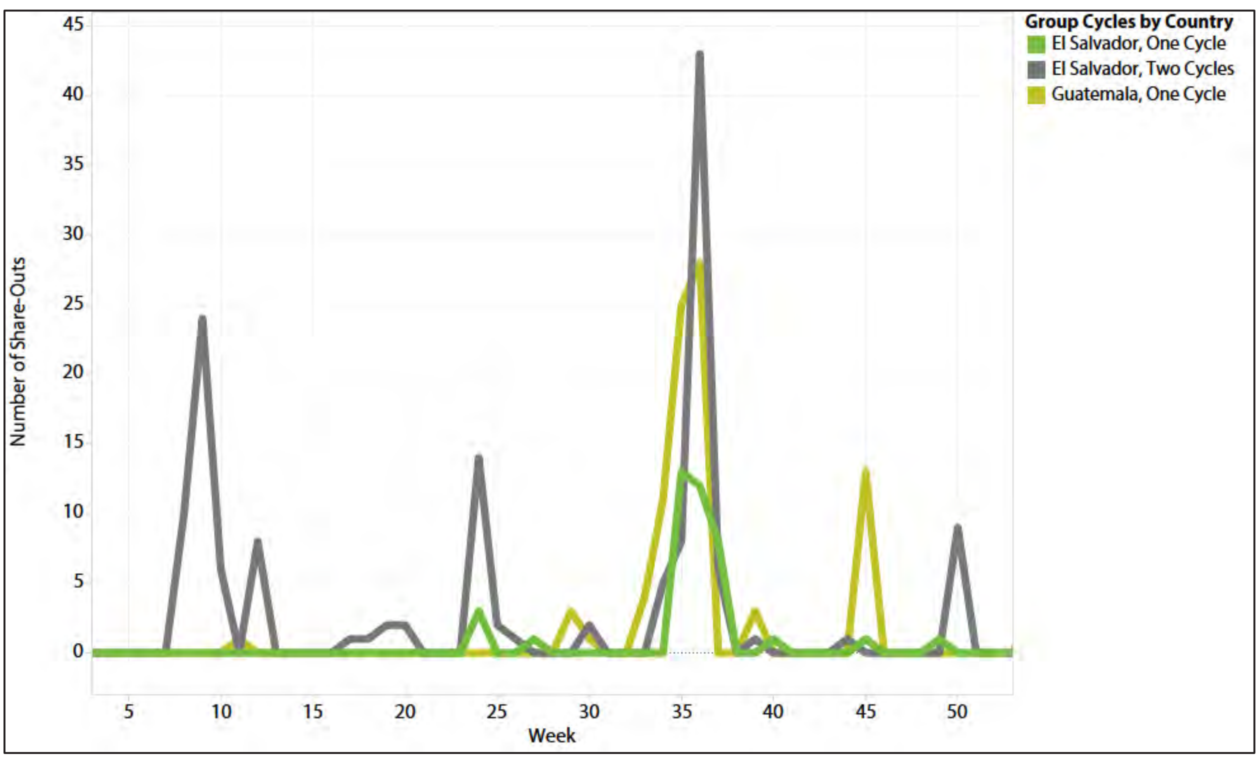


Figure 18 **Group Cycles and Share-outs by Country**



Some groups opted for six-month rather than 12-month cycles. Those respondents got as much cash throughout the year as other respondents but in smaller amounts. Other groups allowed members to withdraw funds earlier, increasing the number of average share-outs per group and decreasing the average value per share-out.

Almost all the groups constructed their group cycles so that they would be able to receive a share-out during the Christmas season—145 of the 288 individual share-outs to group members that occurred during our study happened during the two weeks leading up to Christmas.

Do Group's Rules Drive Behavior?

We found no statistical relationship between how much a woman earned in a week and how much she deposited into her group, using a fixed-effects regression model that controlled for weekly spending and economic shocks, Furthermore, we found no patterns that showed respondents' demographic characteristics had any meaningful impact on how frequently or how much they deposited into their groups.

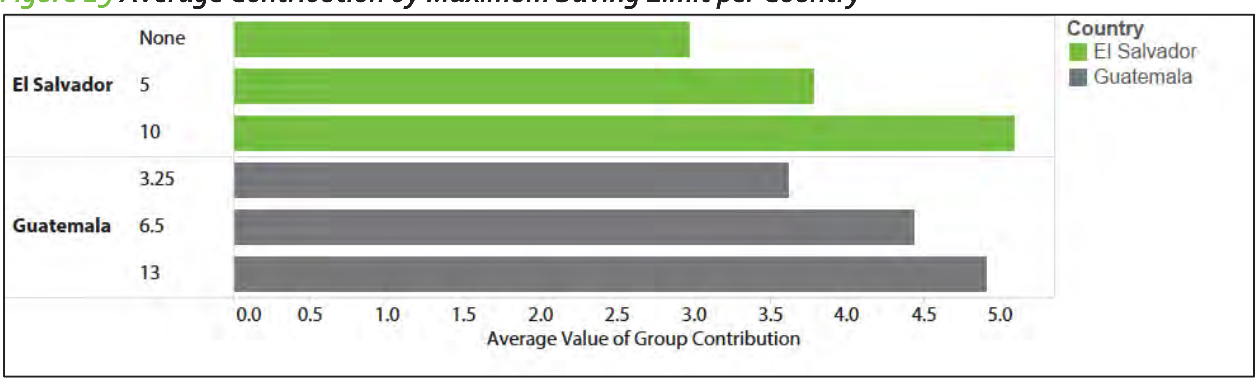
There are multiple hypotheses for why this is the case. First, it is possible (albeit unlikely) that our sample is not diverse enough to display variation between the variables. Second, group members may be displaying a type of herd behavior, as group members do not want others to judge them for depositing too much or too little money relative to other group members. Third, groups' rules may be constraining depositing behavior.

Table 7 Group Saving Limits by Country

El Salvador		Guatemala	
Max Save Limit	Number of Groups	Max Save Limit	Number of Groups
No Limit	1	**$3.25**	1
$5	8	**$6.50**	4
$10	1	**$13**	8

We have some evidence to support this last point. There is a relationship between a group's maximum deposit limit and its average contribution size—groups with higher limits tend to have higher contributions. This is not definitive though. The number of groups with each limit is rather small, and anywhere from 5 to 25 percent of contributions exceeded these limits, depending on the group.

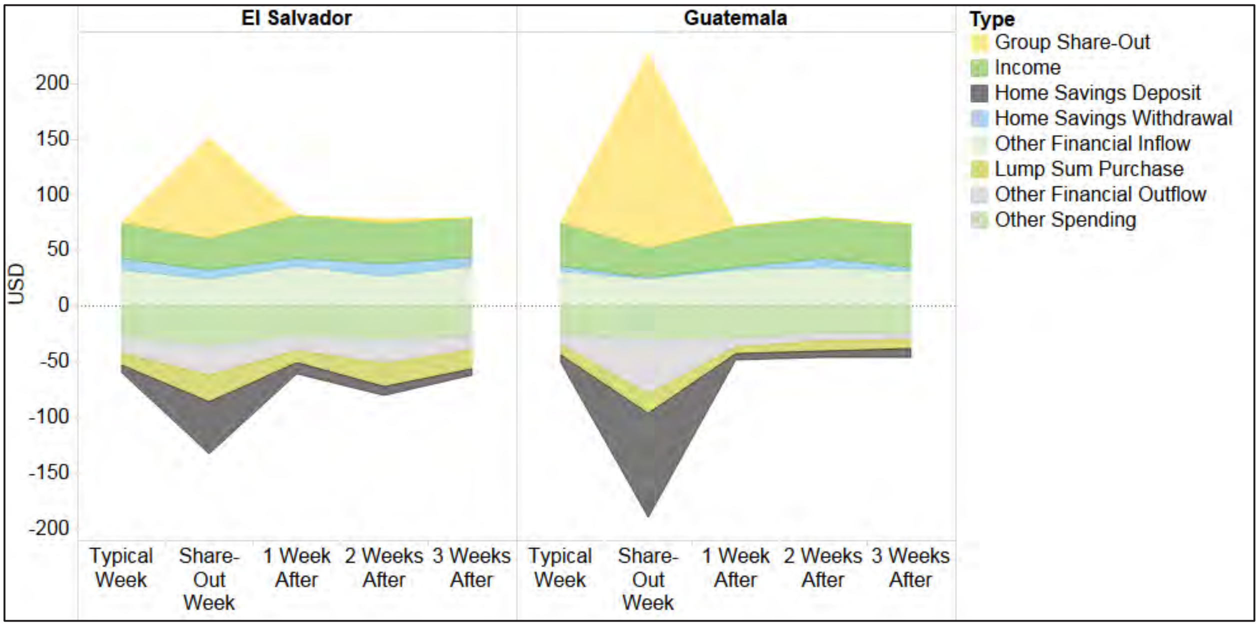
***Figure 19* Average Contribution by Maximum Saving Limit per Country**



Using Lump Sums

When respondents received their share-outs, their cash inflows from other sources fell. In El Salvador and Guatemala, respondents earned less and pulled less money through all their financial tools in the weeks when they received a share-out, suggesting that the share-out substituted for other inflows rather than being additive. In the same week, respondents spent more money on lump sum purchases, repaid loans (a portion of the "Other Financial Outflows"), and deposited the remaining cash into their home savings.

Figure 20 Use of Share-out

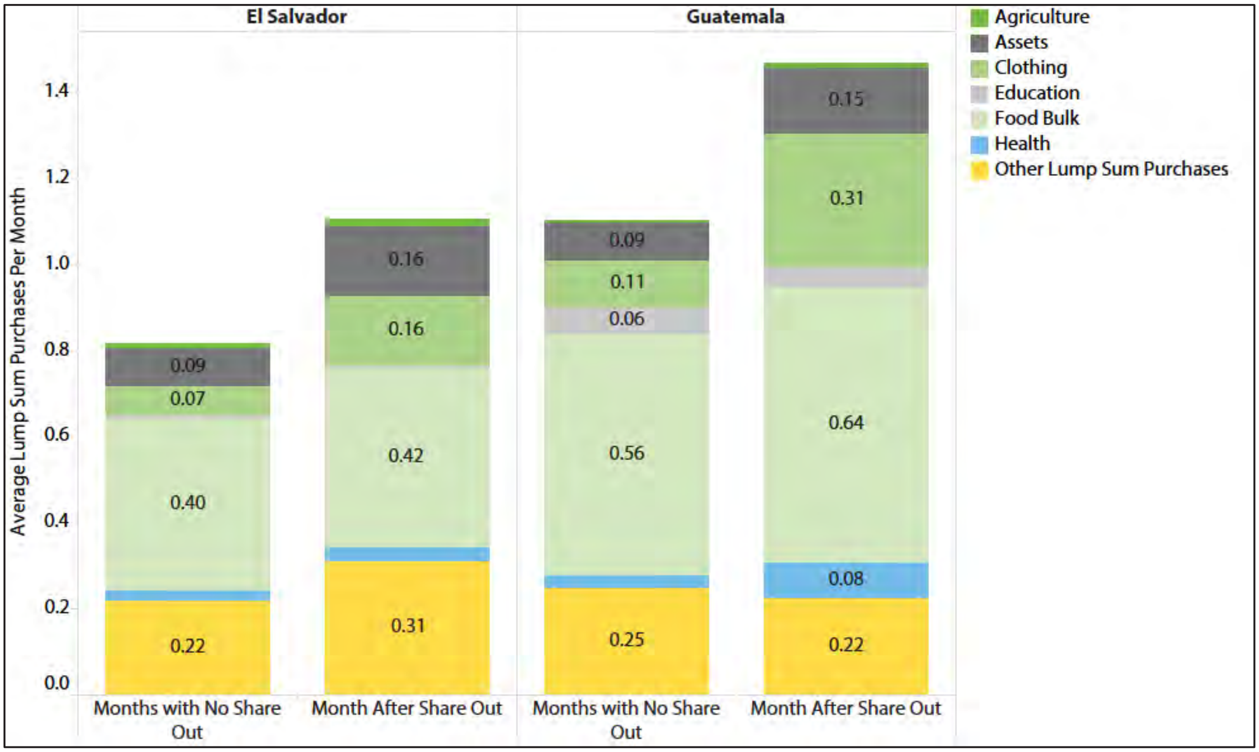


In a previous analysis of savings groups in Uganda and Zambia, we found that respondents drew down the cash in home savings in the month following the share-out, but that does not appear to be the case in Central America. After the share-out, respondents relied primarily on their income and other financial tools to finance their outflows rather than home savings withdrawals. That is not to say the cash was held onto indefinitely—the value of money pulled through home savings increased over time, indicating that respondents drew down these funds but did so over many weeks.

The use of share-outs to make lump sum purchases is notable. In *The Poor and their* Money, Stuart Rutherford argues that the purpose of financial tools is to allow people to create useful lump sums of cash that they can use to respond to life cycle events, respond to emergencies, make productive investments, or to make large consumption purchases.

The data show that the share-outs were effective at enabling such purchases. In the month after receiving their share-out, respondents in both countries increased the frequency with which they made lump sum purchases each month by 33 percent. The bulk of this change happened because the women increased the frequency with which they bought assets—mostly construction materials for the house, livestock, and household items like beds and sewing machines— and clothing for themselves and their family members.

Figure 21 Lump Sum Purchases after Share-Out



Are Share-Outs Unusually Large Sums of Cash?

Compared to an average weekly income of about $35 per week, the share-outs respondents received were comparatively large, but were they rare?

To answer that question, we identified the largest share-out a respondent received (since some received more than one) and looked at the number of weeks in which the value of respondents' income, cash transfers received, or loans received from informal sources were bigger than the share-out.

The analysis showed that receiving sums as large as a share-out from another source is not common, happening about eight percent of the time across the sample and three cash flow streams (income, cash transfers received, and loans received). On average, there were three weeks—or about six percent of weeks during the year—when a respondent received income that was larger than the share-out. Guatemalans fared slightly worse than earners and El Salvadorians, although this may because of the higher share-out values they received.

Sums of cash larger than the share-outs rarely flowed to respondents through cash transfers or informal, non-group loans. Earners in El Salvador received cash transfers larger than the share-out in 3.7 percent of all weeks, on average, and that was the highest frequency of non-income sources.

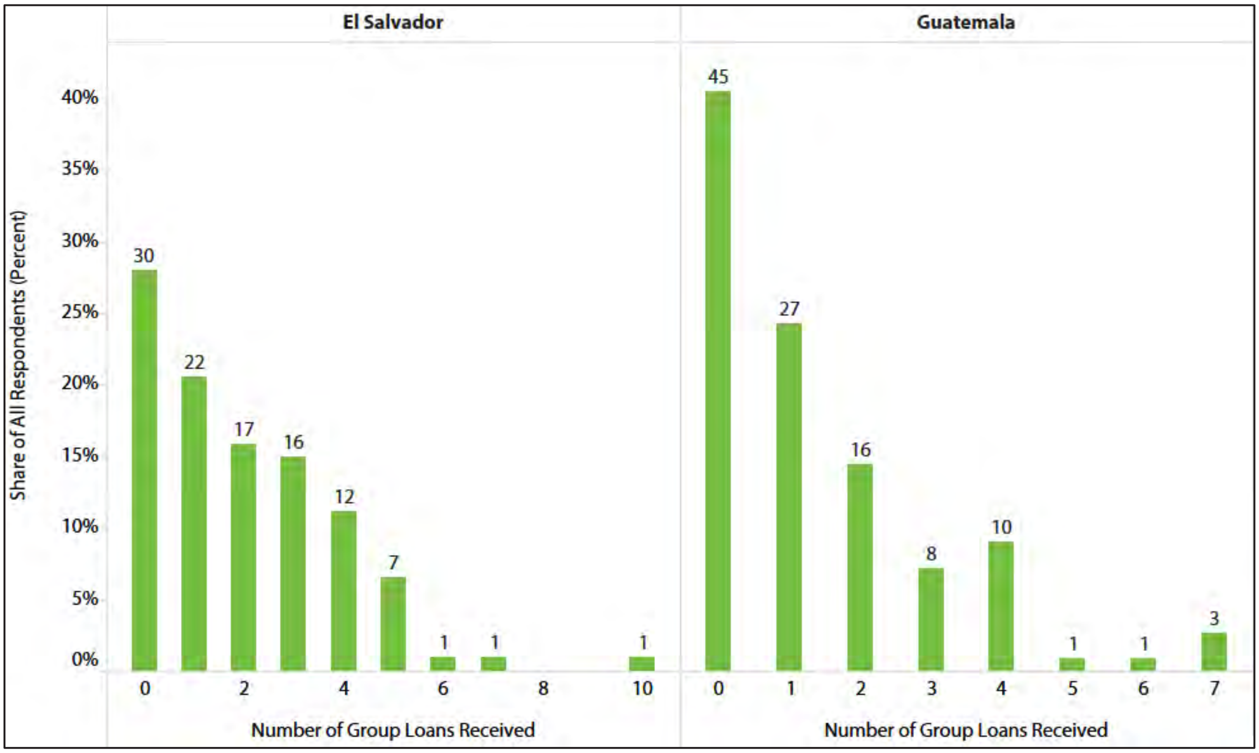
Table 8 ***Number of Weeks with Inflow Larger than Share-Out***

	El Salvador			Guatemala		
	Income	Cash Transfers	Informal Loans	Income	Cash Transfers	Informal Loans
Earner	4.6	1.9	0.3	5.5	0.1	0.1
Dependent	3.4	0.6	0.0	1.2	0.7	0.0

Group Loans

Respondents in El Salvador and Guatemala were not heavy users of financial services other than home savings, group savings, and cash transfers. Group loans were no exception to this pattern. Sixty-four (64) percent of respondents in El Salvador and 79 percent of respondents in Guatemala received two group loans or less during the year, including 28 percent and 41 percent of respondents in the respective countries who received no loans.

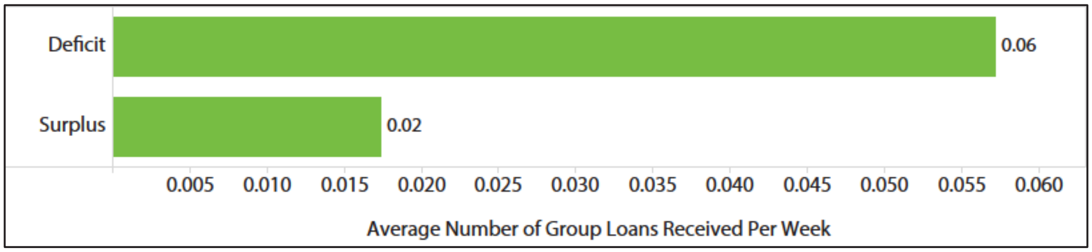
Figure 22 **Loan Frequency Distribution**



The loans that respondents received were meaningful sums of cash. In El Salvador, the average loan was $36, about one week's worth of income, and in Guatemala, the average loan was $60, about 50 percent larger than average weekly income.

There were little variation in the frequency with which respondents took loans over the course of the year, except at Christmas, when the number of new group loans fell to zero. But this was the time when all groups also had a share-out, making it unlikely that there was any demand for or money available for new loans. While there were no major seasonal variations in loan use, respondents disproportionately took out loans in weeks when their expenditures exceeded their income (deficit weeks).

Figure 23 Loans by Week Balance



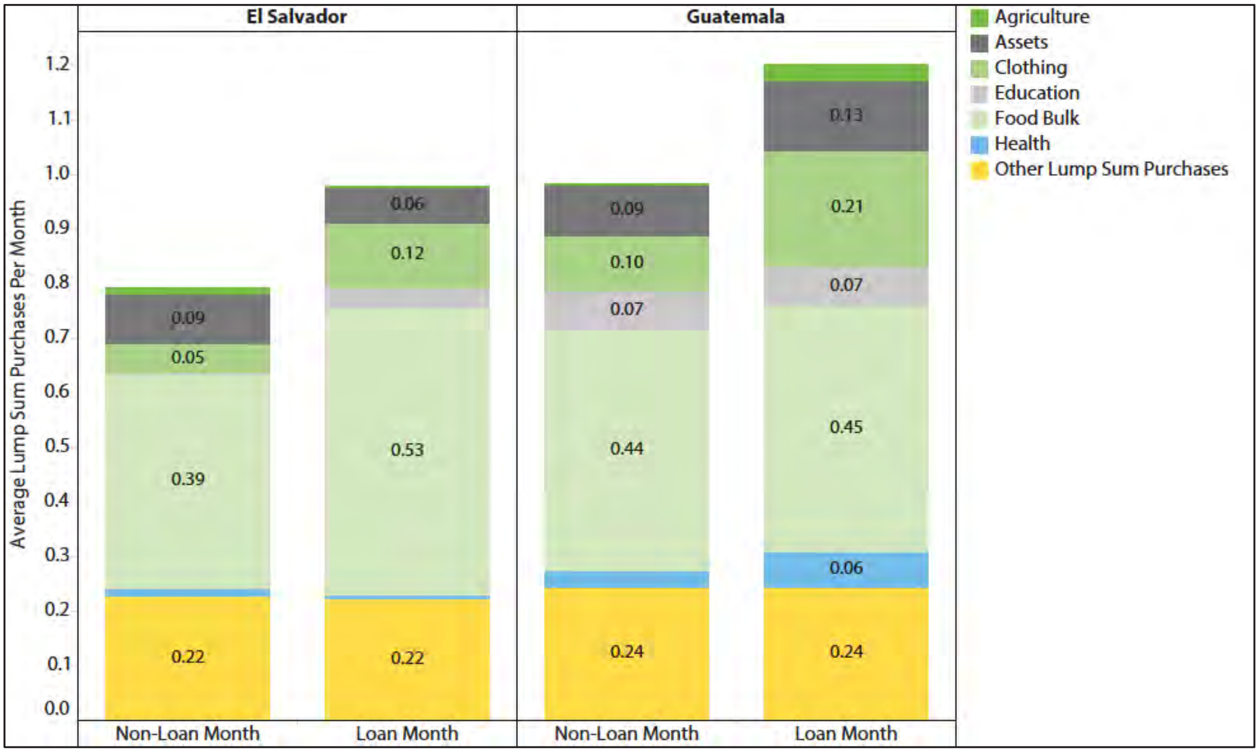
This is not surprising, given that an influx of loan money would enable a respondent to spend more than they took in income. But the data suggest that how this played out varied across the two countries in our study. The data suggest that drops in income drove these deficits in El Salvador, so respondents typically used the loans to maintain levels of household and business spending. In Guatemala, increases in expenditures drove the deficits with loans financing the increase. In both countries, loan repayments were more frequent and larger in the month after receiving a new loan than in other months.

Group Loan Rules

Many groups had rules about how many loans respondents could take which may have dampened the number of loans respondents received, although these rules were not always followed. For instance, in Guatemala, respondents were almost equally divided into three groups: those that had no limit on the number of loans members could borrow; those that could borrow from the group only once; and those that had to borrow from the group *at least* once during the cycle. There were fewer loan-related rules in El Salvador, but more than one-fifth of respondents were in groups that dictated at least three loans must be taken during the study.

While group loans were not as large as group share-outs, they still constituted usefully large lump sums, and respondents in both countries used the loans to make bulk purchases in greater numbers than normal. Lump sum purchases were 23 percent more frequent in El Salvador and 22 percent more frequent in Guatemala in the month following the receipt of a loan than in other weeks. In El Salvador, the biggest change in these purchases were bulk purchases of food as respondents, short of income, made purchases to keep their small businesses running or meet the consumption needs of their household. In Guatemala, where the loans were funding increases in spending rather than mitigating dips in income, respondents used the loans to increase the frequency with which they bought agricultural inputs, assets, and clothing. Respondents also used the loans to fund health related purchases, including purchases of medicine and trips to the clinic.

Figure 24 Lump Sum Purchases and Loans



Savings Groups Enable Lump Sum Purchases but Demand Persists

Share-outs and group loans did enable respondents to make lump sum purchases in the month following their receipt than in other months, but respondents only received a few share-outs and loans per year.

Figure 25 Share of Lump Sum Purchases by Proximity to Group Loans and Share-outs

As a result, most of the lump sum purchases that occurred happened outside these month-long windows, forcing respondents to find other ways to finance purchases.

Conclusions

The Oxfam savings groups fulfilled their most basic functions for their members—they provided a safe place for women to save, allowed them to build up lump sums of cash, and provided a loan facility, although the latter was infrequently used. The analysis also showed that the lump sums of cash that respondents had access to enabled them to make large expenditures more frequently, including more frequent purchases of assets, clothing, and food. Much of this increased spending occurred during the Christmas season, which coincided with when groups planned their share-outs.

The analysis also showed that while share-outs did enable more spending, much of the value of respondents' share-outs were moved from the group lock-box and placed in home savings, where it appeared that the money was being stored for at least a month. At home, the cash may be more exposed to loss via some type of catastrophe or may be more vulnerable to respondents' (or their family members') impulsive spending habits.

This has two implications for savings group promoters and FSPs, both of which are elaborated on in the final section of this report. First, if respondents can move large sums of cash to their home savings even after making a large purchase, it is possible that group cycles are too long, allowing respondents to accumulate sums of cash that are often larger than necessary to make productive investments or to respond to emergencies. Second, the fact that respondents move such large sums of cash to their home savings and that these sums are used to manage major cash flow variations as described in the previous chapter suggest an opportunity for FSPs to deliver a product with the successful characteristics of the two savings methods. Namely, there appears to be demand for a savings product that is trustworthy, geographically accessible, easy to access at short notice, has ample liquidity, and can support the flow of large sums of deposits and withdrawals, and can do all of it at a low cost.

CHAPTER 4: REMITTANCES CASH GIFTS, AND GOVERNMENT TRANSFERS

Introduction

While the lump sums of cash provided by savings groups enabled participants to make more frequent large purchases, respondents only received them a few times a year. Comparatively, cash transfers of various types were relatively common. Although not as widely used as savings groups, the analysis in Chapter 2 demonstrated that transfers had a meaningful impact on respondents' ability to manage shortfalls.

Cash gifts, transfers the respondents received in cash and in person,, were the most common type of transfer among respondents but their values were relatively small. Domestic and international remittances were used by much smaller numbers of respondents, but their values were much larger. [16]

Table 9 ***Remittances and Cash Gifts Received***

	El Salvador			Guatemala		
	Domestic Remittance	International Remittance	Cash Gift	Domestic Remittance	International Remittance	Cash Gift
Recipients	13	23	88	11	2	41
Transactions	33	215	661	48	40	211
Transactions per Recipient	2.5	9.4	10	4.4	20	5
Average Amount per Transaction	$44	$141	$26	$175	$254	$38

In this chapter, we discuss how respondents used these different types of transfers to manage their cash flow. Specifically, we examine how respondents' cash flows differed in weeks when they received cash gifts, weeks when they received remittances, and other weeks. Given the small number of cash gifts, domestic remittances and remittances in Guatemala, we restrict our analysis to El Salvador. Furthermore, due to the small number of domestic remittances in El Salvador we exclude these from the analysis. In

[16] We define remittances as cash transfers that involve the transfer of money via a third party. The third party could be an informal service such as a bus driver or a formal service such as a mobile money service or money transfer service, like Western Union.

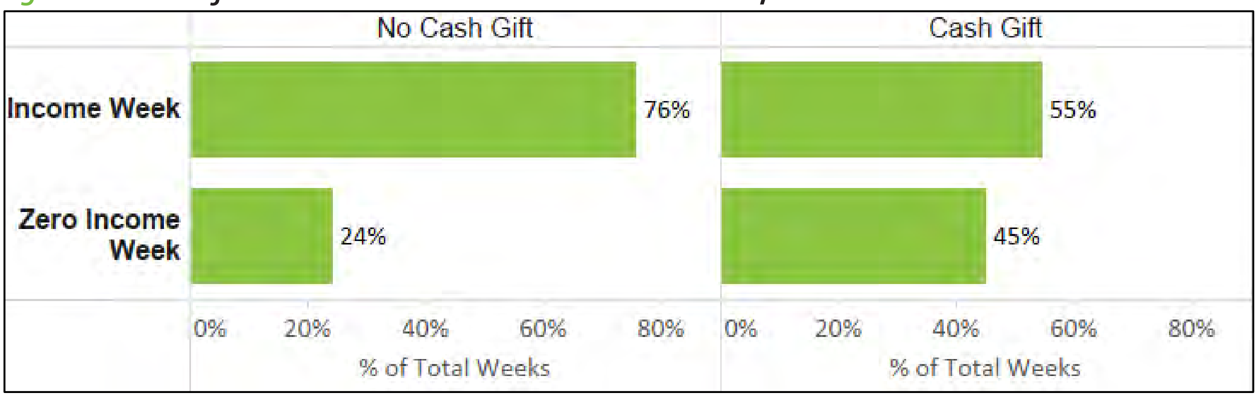
addition, we look at how a group of respondents in El Salvador used in-kind and cash transfers from the government. As we describe below, the way women used these different payments varied.

Cash Gifts

In El Salvador, respondents who received at least one cash gift were more likely to receive cash gifts in weeks when they earned no income than in other weeks. It is possible that the respondents were pulling in cash transfers in response to a lack of income from earnings by themselves or their family members. It is also possible that women decided to reduce how much they worked, and hence their earnings, or to receive less money from family members in response to the external inflow of cash.

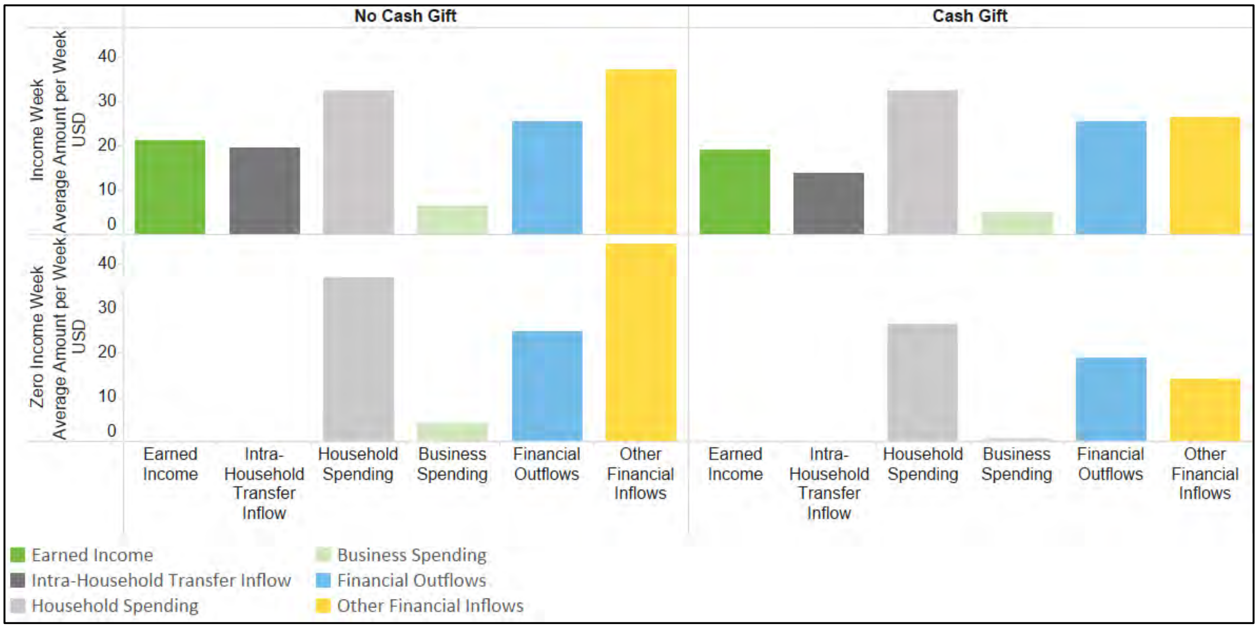
In weeks when respondents had income, their incomes were lower in weeks they received cash gifts than other weeks. In these instances, the cash gifts served as gap-fillers, allowing respondents to maintain their usual levels of spending. In weeks when respondents earned at least some income, there were no meaningful differences in how much respondents spent on household or business items or how much money they pushed through financial tools regardless of whether they received a cash gift or not.

Figure 26 ***Cash Gifts in Zero Income Weeks and Income Weeks*****, El Salvador**



In weeks when respondents did not receive income, there was more variation in behavior depending on whether they received a cash gift or not. In the weeks that respondents did not earn income but also did not receive a cash gift, their spending was comparable to weeks in which they did earn income as were their financial flows. In other words, they relied on financial tools other than cash gifts to maintain their spending, such as home savings withdrawals and loans. During the weeks in which respondents earned no income and relied on cash gifts, household spending, business spending, and financial outflows all fell.

Figure 27 ***Role of Cash Gifts in Income Weeks and Zero Income Weeks*, El Salvador**

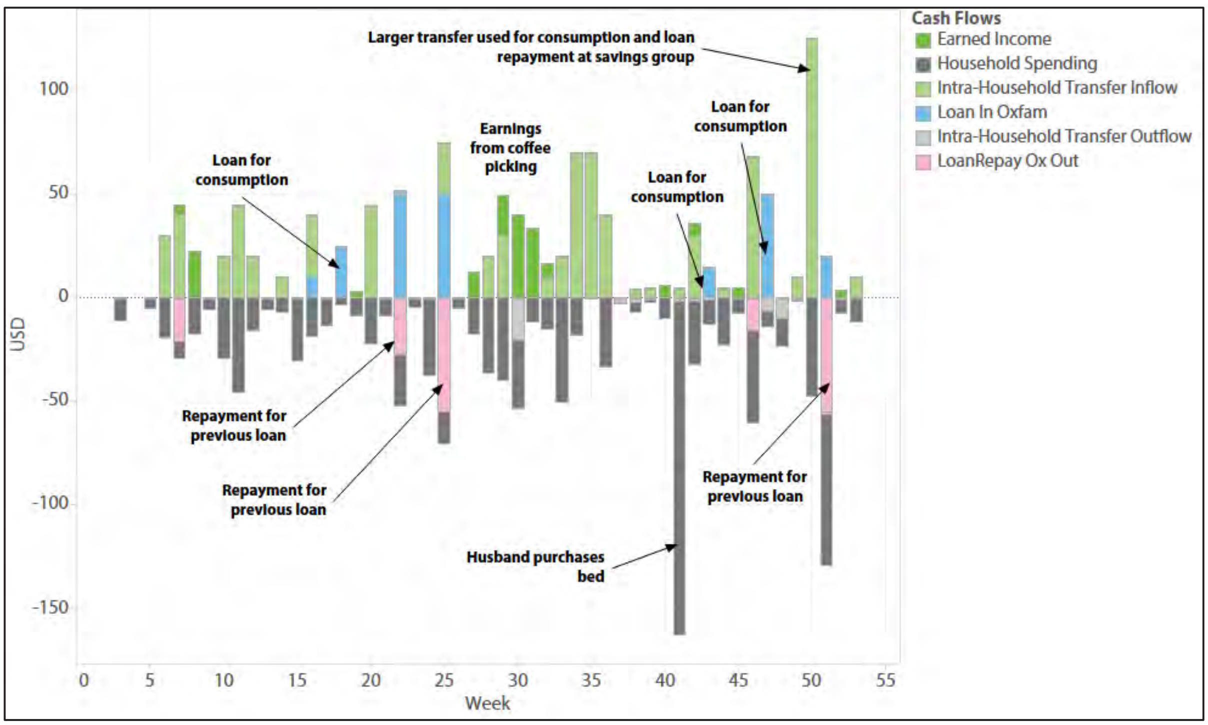


Transfers and Store Credit, Josefina (302.2)

Josefina was 23 years old and married when we interviewed her. She spent most of her time looking after her three-year-old son and her house. During the study, she sold coffee or chickens intermittently; the only time she was consistently active in this regard was during the coffee-picking season in November when she worked for 12 days and earned $100. Her husband, who at the time of the study worked for the military, came home on an irregular basis, but was the main provider for the household. The amount Josefina received from her husband varied significantly during the study fluctuating from $2 to $125. Her husband often purchased the food for the household and the money she received was used to repay loans for the food she bought on credit while her husband was away. During the study, she received a total of $789 from her husband, about $30 per week on average. During that same period, she made $400 in loan repayments. She took seven loans from her savings group, which Josefina typically used to repay a previous loan as seen in Weeks 22, 25 and 51 (September 2015 and March 2016 respectively), or to purchase food and household items. Once, she gave the loan proceeds to her husband.

The amount she received from her husband fluctuated based on what loans she needed to repay and whether her husband did the shopping for the household or not. She received less money in the weeks in which her husband did the shopping. She reported receiving $10 or less in 40% of the weeks; 46% of the time she received from $20 to $45; the remaining 14% of the time she received between $70 and $125.

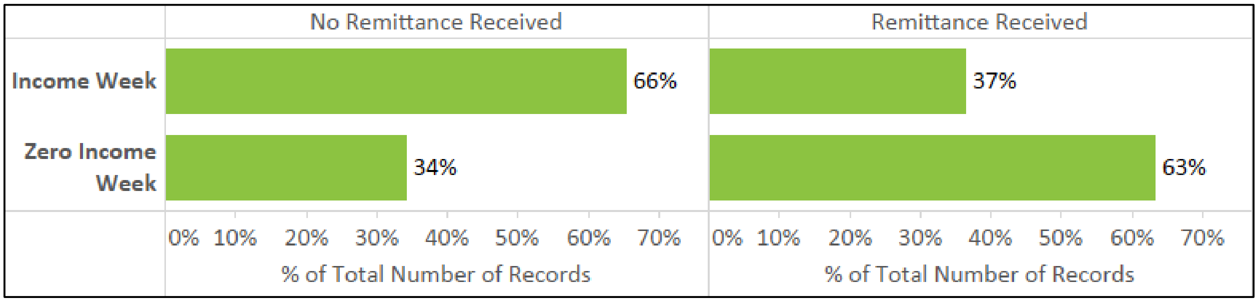
Figure 28 Intra-Household Dynamics – Josefina



Remittances

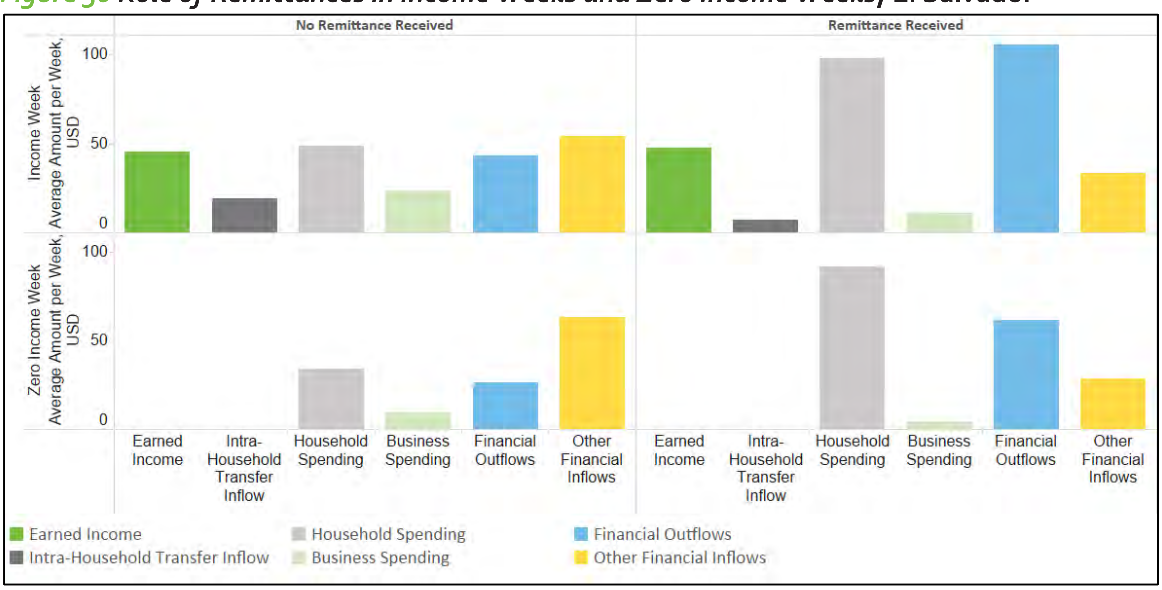
As in the case of cash gifts, respondents in El Salvador who received international remittances were far more likely to not receive any income in weeks when they received a remittance than in weeks when they did not receive a remittance.

Figure 29 ***Remittances in Zero Income Weeks and Income Weeks*****, El Salvador**



The remittances respondents in El Salvador received were large—$141 on average—and their size did not vary significantly based on whether a respondent received income or not. In both circumstances, respondents' household spending increased by a factor of two to three overall, although the difference was slightly lower in weeks when respondents earned no income. Spending on all types of goods—from food to household and leisure items—increased when a remittance was received. The only cash outflow that was markedly different were financial outflows—they were about 40 percent smaller in weeks when respondents received an international remittance and earned no income versus when they received a remittance and did earn income. Much of this difference was the result of respondents repaying informal loans or not. In other words, respondents spent about as much when they received a remittance regardless of whether they earned money or not, and they used this to fulfill their spending priorities. Excess cash was directed toward loan repayments.

Figure 30 ***Role of Remittances in Income Weeks and Zero Income Weeks*****, El Salvador**

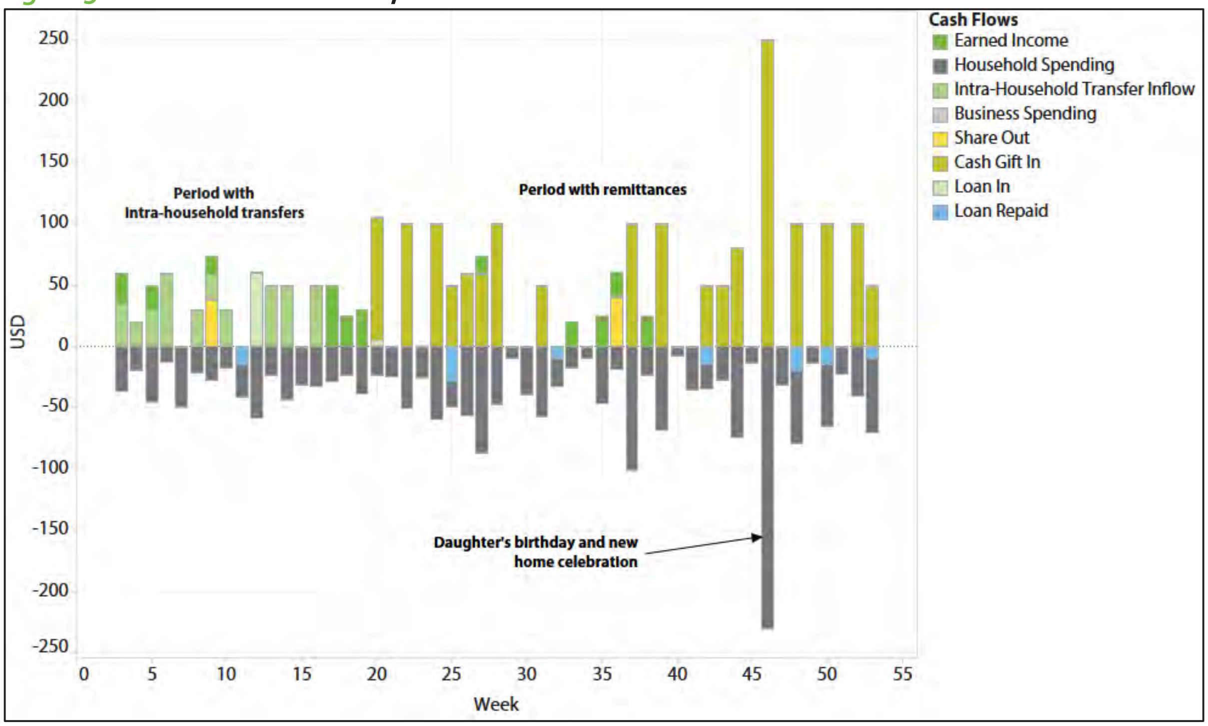


Transition Household – Migrating Husband, Benedicta (201)

Benedicta was a 28-year-old woman when we interviewed her and a dedicated mother to her four-year-old daughter. Her husband worked in agriculture. During the first 16 weeks of the study, Benedicta received an average of $37 per week from her husband. She also contributed to the household—she worked in coffee plantations hand picking coffee beans and fertilizing coffee plants. This work, though, was seasonal, and she told us that it was always a struggle for the family to find work during the low seasons for agriculture. As a consequence of this constant struggle, her husband decided to travel to the United States by land to look for work. Several of his family members had already made that journey, and they encouraged him to do so. He left in Week 17 (August 2015) of the study. His family members paid for his journey, and he was able to make the journey quickly and successfully because of his family's strong migration network. When he arrived in the U.S. he started working and sending remittances to Benedicta through MoneyGram. The first remittance arrived in Week 20 (August 2015).

The remittances to Benedicta were quite consistent. She received an average of $100 every other week and travelled about six kilometers to retrieve the money at a local bank where she opened an account. The longest period during which she did not receive remittances was in the weeks leading up to Christmas (Weeks 32 to 36).

Figure 31 **Transition Household, Benedicta**



Benedicta told us that she and her husband always had a dream to have a nice house. At the start of the study, they lived in a small one-room house with dirt floors. Once he arrived in the U.S., he started sending separate remittances to his brother, as well as what he was sending to Benedicta, to buy construction materials for the building of a new house because it was the brother who was in charge of overseeing the construction of the new house and buying the materials for it. There was one exception—in Week 27 (October 2015) Benedicta received money from her brother in-law and bought plumbing material for the new kitchen.

During the course of the study, Benedicta also received money from a government program. She received cash transfers in the amount of $60 in June, $50 in July of 2015 and $60 in April of the following year. She received the first two cash transfers before her husband travelled and those were used for consumption. She decided to save the full amount she received in April at the bank telling us that those would be savings for her daughter.

In Week 46 (February 2016), she spent $227 on food to celebrate her daughter's birthday. She paid for this with an unusually large remittance from her husband of $250. During that same week, they were able to move into their new home.

Government Transfers

In El Salvador, 77 of the participants in the study received some sort of benefit from at least one government or multi-lateral transfer program during the year we interviewed them.[17] These included programs that provided:

- School materials and uniforms
- Cash transfer
- Agricultural support in the form of seeds and fertilizers
- Food donations
- Propane gas subsidies
- World Food Program (WFP) smart card (Tarjeta PMA)
- In-kind training, specifically during a bread-making workshop

Table 10 **Government Programs, El Salvador**

Program	Number of Recipients	Number of Transactions	Average Amount	Average Distance Traveled, km
Agricultural Support	33	82	16	12
Cash Transfer	34	104	65	4
Gas Subsidy	19	118	1.6	2.2
World Food Program	16	32	61.5	20
Food donation	23	27	9.8	7.6
School subsidy	59	100	17	1
Bread-making workshop	12	25	8	0.4

Three of these different programs were related to food security—the cash transfer, food donation, and the WFP smartcard. The WFP smartcard could only be used in supermarkets equipped with a smartcard reader. In addition, as we will describe in more detail below, women who received a propane gas subsidy traded it for food.

[17] Almost all the recipients of these programs lived in Morazán. Ten of the 59 recipients of school materials and uniforms lived in La Libertad. A total of three other respondents received support from another program.

The cash transfer and the amount transferred on to the women's Tarjeta PMA were roughly the same at $65 and $61.50 per transaction respectively. The food donations were bundles of food that included such items as cooking oil, rice, and salt and were worth far less—on average $9.80.

The women traveled very different distances to realize the benefits of the different programs. Women who received cash transfers had to pick them up from the nearest town hall or other local public offices, traveling, on average, four kilometers to do so. The women who received money on their Tarjeta PMA did so through an electronic transfer, but to spend the money the women had to travel an average of 20 kilometers to the nearest store where they could use their card—the Súper Selectos supermarket in San Francisco Gotera. The women paid anywhere from $2 to $10 to make the trip, although a few seem to have gotten free rides. Finally, the women who received food donations either received them very close to home (within two kilometers) or at the local military barracks also located in San Francisco Gotera, about 20 kilometers away. The eight women that made the trip to the military barracks paid anywhere between $1 and $8 for the trip to pick up about $17 of food.

Even though the samples are small, there was a discernible difference in the impact of the cash transfer and the Tarjeta PMA programs on how much, and where, the women in our study spent money on food. In the case of the cash transfers, the women who received them increased their spending on food by about $10 in weeks when they received the cash transfer. Most of that increase in spending happened locally, within five kilometers of where they lived. As a result, the cash transfer resulted directly in increased sales for local food vendors.

As we might expect, cash spending on food that was unrelated to the WFP program went down in weeks when received their transfer by about $8 per week, but that was more than made up for with the transfers from the program. This decrease in food spending occurred almost exclusively through a decrease in spending in the local community. As a result, the WFP resulted directly in a decrease in sales for local food vendors.

Finally, 19 of the women participating in the study in El Salvador received a gas subsidy. From the transactions record it seems like all the women either cashed out their subsidy at a local store or exchanged it for food, such as sugar, rice, potatoes, and cooking oil.

Conclusions

The data show that respondents used different types of cash transfers to meet different needs. While respondents received cash gifts more often when they earned no income, they fulfilled different roles for respondents. Cash gifts were typically an income gap filler or a financial tool of last resort, depending on whether the respondent had earned income that week or not. Remittances, on the other hand, allowed respondents to increase their spending dramatically, regardless of whether or not they earned income. Government transfers were targeted toward specific needs, namely food security, and these programs often required respondents to travel, shifting their spending habits, namely reducing the amount of money they spent in their home communities.

These data provide some guidance to policy-makers as they think about developing new transfer programs to support low-income households. They need to take into account how the design and delivery of the transfers not only impact the households they are targeting, in terms of adding resources to that household, but also how it impacts their spending. To the extent that low-income people live in low-income communities, there is an opportunity to provide a fiscal boost to the community as a whole by designing a transfer program that enables people to spend the money locally. Additionally, the data show that when respondents receive transfers matters, as cash transfers received during leans weeks can help stave off significant reductions in household spending.

CHAPTER 5: GEOGRAPHY FINANCE

Introduction

The previous chapters described how respondents used financial tools to intermediate their cash flows, and they provided an in-depth look at how savings groups functioned and how respondents utilized various form of cash transfers. They did not, however, explore a critical component of understanding behavior: the geographic range of respondents' economic activity.

Using data on the locations of respondents' homes and details from the transaction data on where they performed transactions, this chapter describes how far respondents traveled to purchase goods and services as well as interact with formal and informal FSPs. Further, we use this data to examine a key question for formal FSPs: is there a relationship between how close respondents are to a service provider and the frequency with which they use that provider?

Distance to Town

The respondents in our study lived in peri-urban and rural areas but the distance from their homes to the nearest commercial center varied widely within and across countries. In El Salvador, for instance, respondents in La Libertad lived anywhere from 3.2 to 14.6 kilometers from Puerto da La Libertdad while those in Morazan lived from 5.4 to 9.5 kilometers from Ciudad Barrios. Respondents in Guatemala lived closer to their main commercial centers, Cobán and San Juan Chamelco in Alta Verapaz and Purhulá in Baja Verapaz.[18]

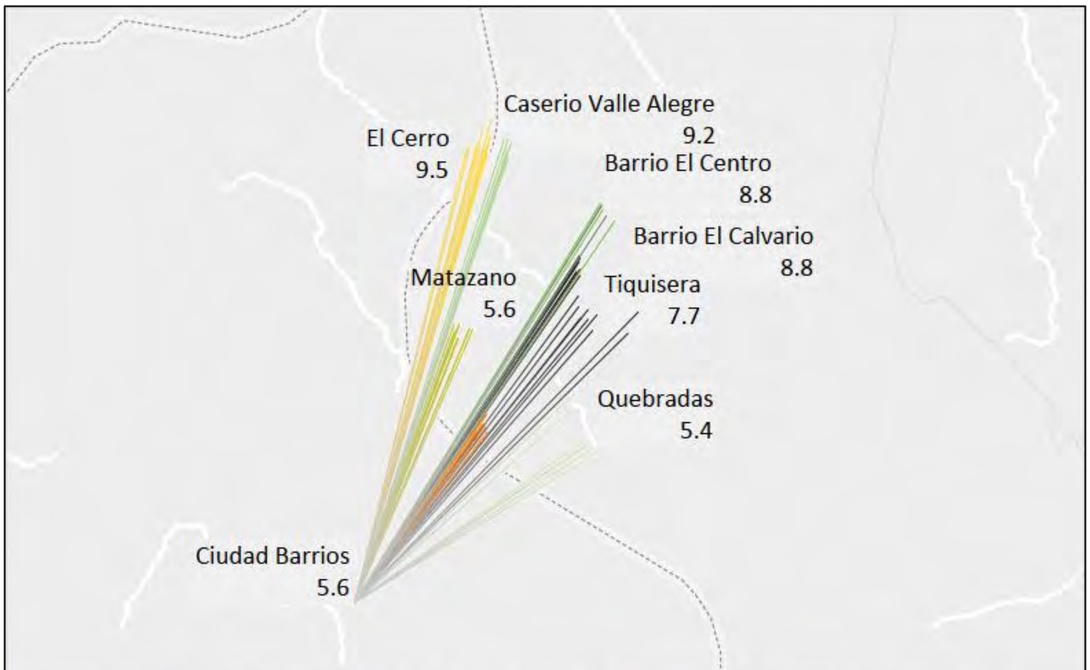
[18] These, and other distances in this chapter, are geodesic distances which we calculated using latitude and longitude coordinates.

Figure 32 **La Libertad Research Sites – Distances to nearest Main Town, km**

Figure shows the distribution of respondents within the La Libertad site, where the numbers below each community name represent the distance from the communities within the sites to the nearest main town, Puerto de La Libertad, which is a tourist/fishing town on the Pacific Coast. The number below Puerto de La Libertad shows, on average, how far all respondents were from the center of town.

The nearest main town to the communities in the Morazan research site was Ciudad Barrios, which was, on average 5.6km from the respondents, who were scattered across seven different communities.

Figure 33 **Morazan Research Sites – Distances to nearest Main Town, km**



The nearest main town to the communities in the Morazan research site was Ciudad Barrios, which was, on average 5.6km from the respondents, who were scattered across seven different communities.

Figure 34 **Alta Verapaz Research Sites – Distances to nearest Main Town, km**

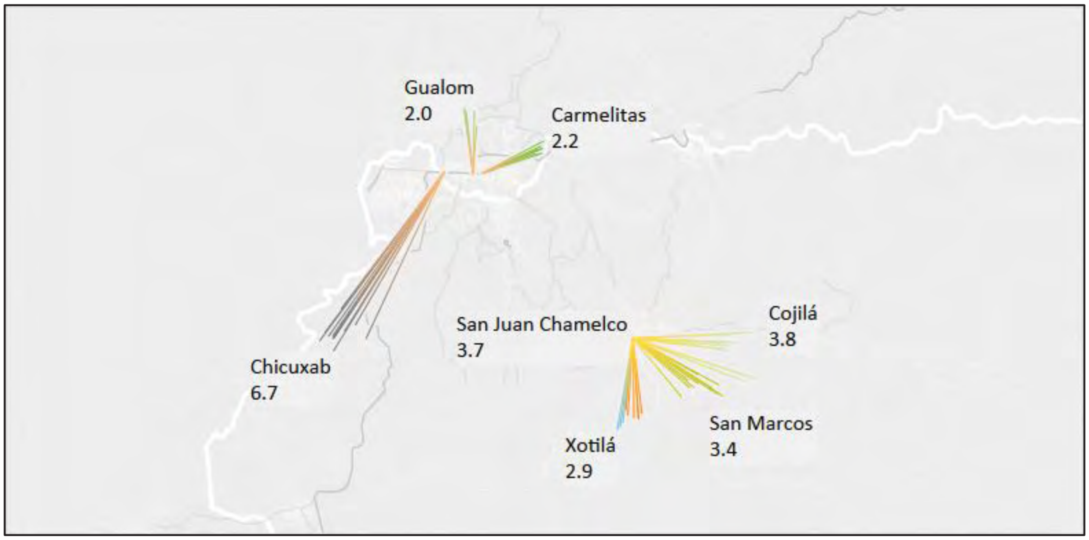
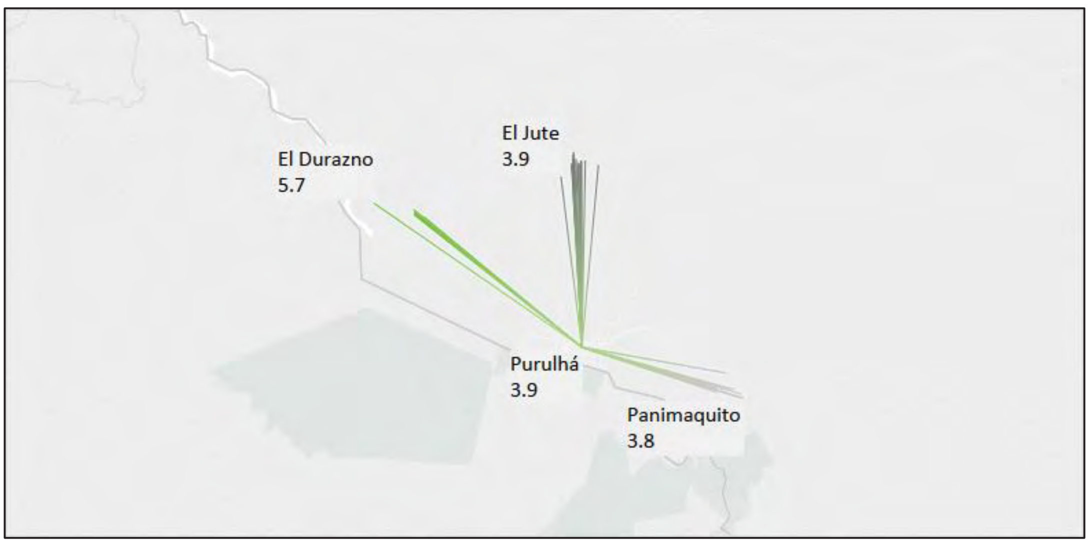


Figure 35 **Baja Verapaz Research Sites – Distances to nearest Main Town, km**



These distances, though, mask the significant discrepancies in the types of terrain respondents face to get from their homes to the market. The coastal areas of La Libertad are distinguished by gentler grades and a mix of paved and gravel roads while respondents living in the other sites in both countries live in hillier terrain. Depending on the community, a respondent may face several kilometers of steep grades and poor roads, often only accessible by motorbike or high-clearance vehicles.

Geographic Distribution of Non-Financial Transactions

The women in the study performed about 85 percent of their non-financial transactions within five kilometers of their home.[19] Within that five-kilometer radius, there was some variation in the behavior of the women in the different research sites. The women in Morazan conducted 70 percent of their

[19] We included all non-financial cash transactions in this calculation.

transactions within a kilometer of their home while the respondents in La Libertad conducted 41 percent of their transaction within the same distance. In Guatemala, respondents in Baja Verapaz conducted 51 percent of their transactions within a kilometer of their home, but those in Alta Verapaz appeared more mobile, conducting only 40 percent of their transactions within a one kilometer. Respondents in all sites conducted about 10 percent of their transactions more than five kilometers away from their home.

Figure 36 Distribution of Non-Financial Transactions by Distance, El Salvador

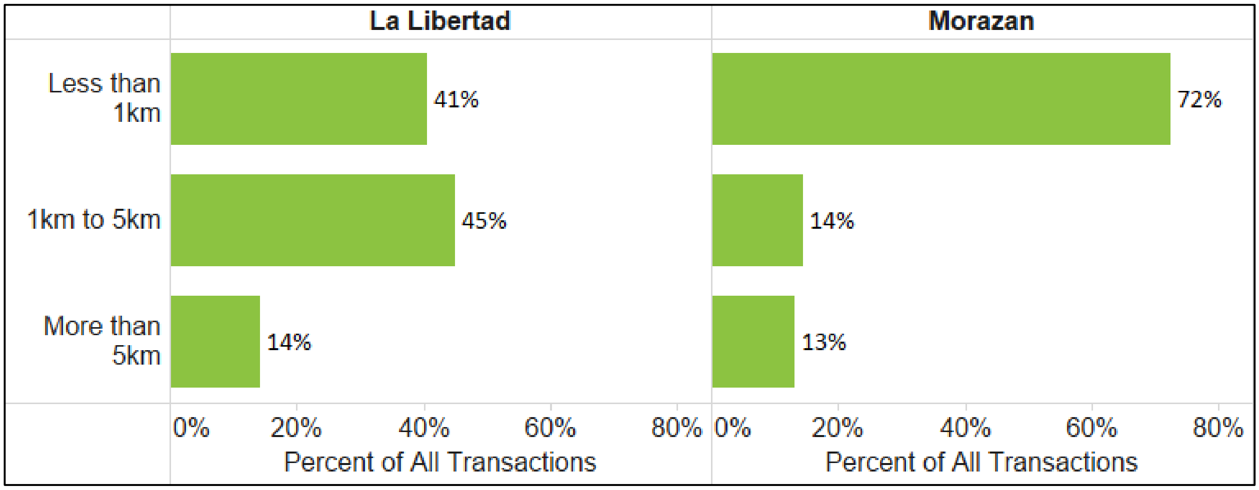
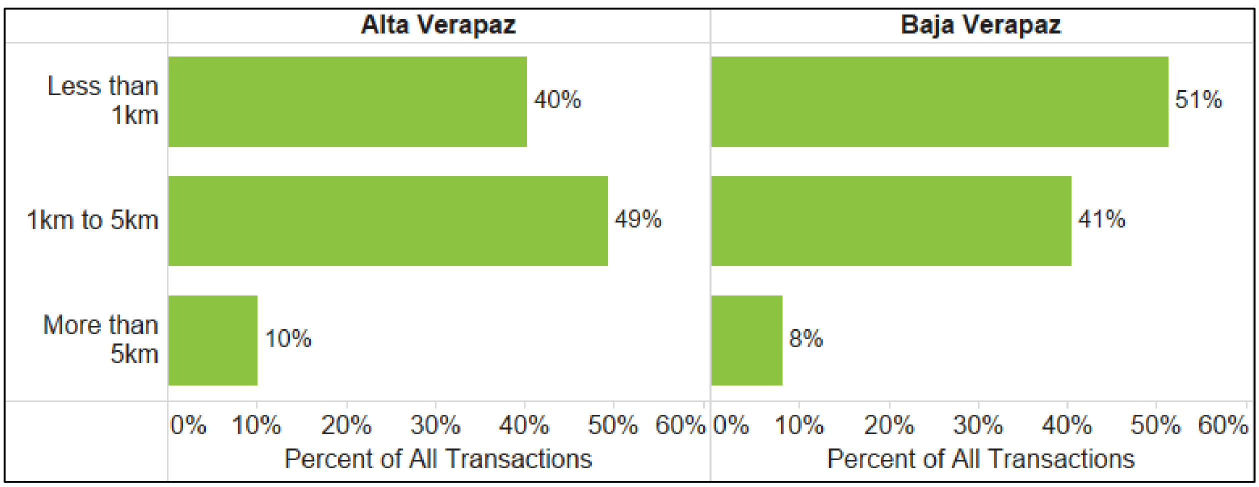


Figure 37 Distribution of Non-Financial Transactions by Distance, Guatemala



Distance and Financial Transactions

The data suggest that there was a parallel between the spatial distribution of non-financial and financial transactions. Even after excluding home savings and savings group transactions, which necessarily happen at home, our respondents conducted most of their financial transactions near where they lived.

Figure 38 Distribution of Financial Transactions, El Salvador

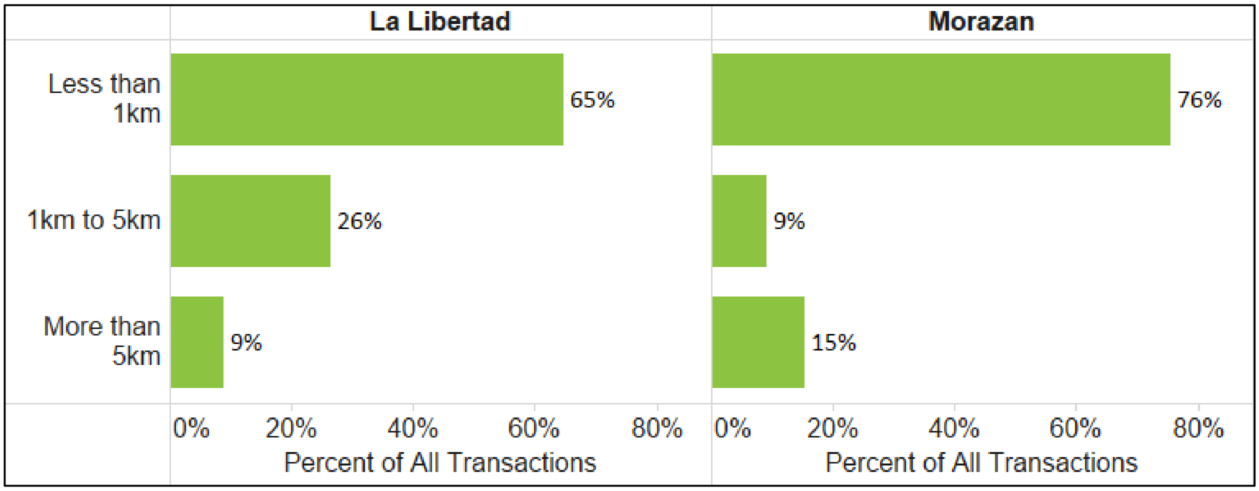
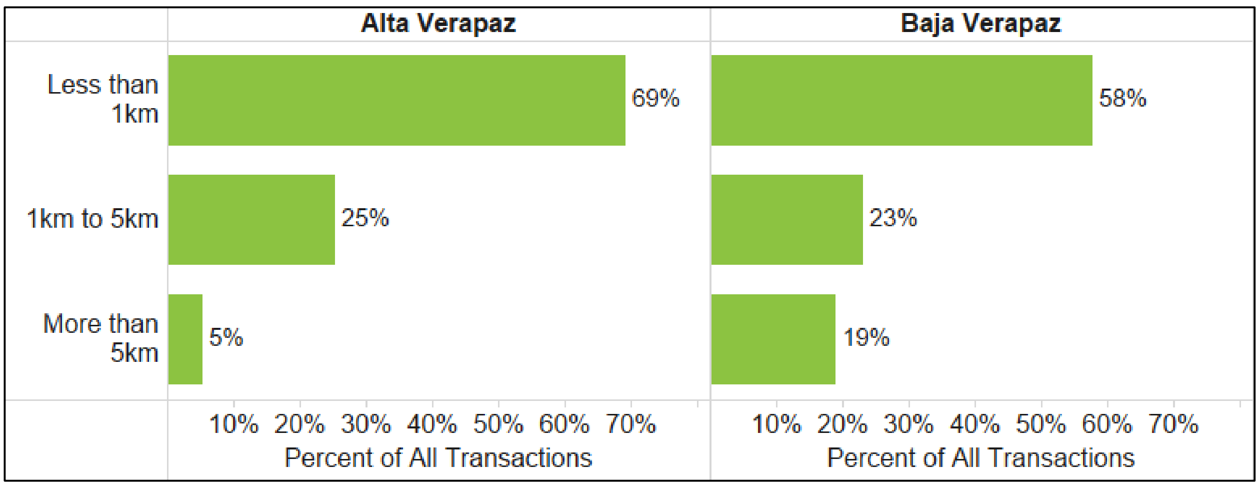


Figure 39 Distribution of Financial Transactions, Guatemala



The bulk of the financial activity that occurred closed to home involved family members and friends, although informal service providers also featured prominently within this distance. As the women moved further from their homes, the types of networks respondents interacted with changed. As a proportion of all financial transactions occurring within a given distance, more financial transactions were performed with formal providers as respondents traveled farther away from the home. This was the case in both El Salvador and Guatemala, although in Morazan the women conducted more formal financial transactions within one kilometer of their home (six percent of all financial transactions) than they did one to five kilometers of their home (four percent of all financial transactions). Nevertheless, in Morazan the women conducted the greatest number of formal financial transactions more than five kilometers from home.

Figure 40 Distribution of Financial Transactions by Network, El Salvador

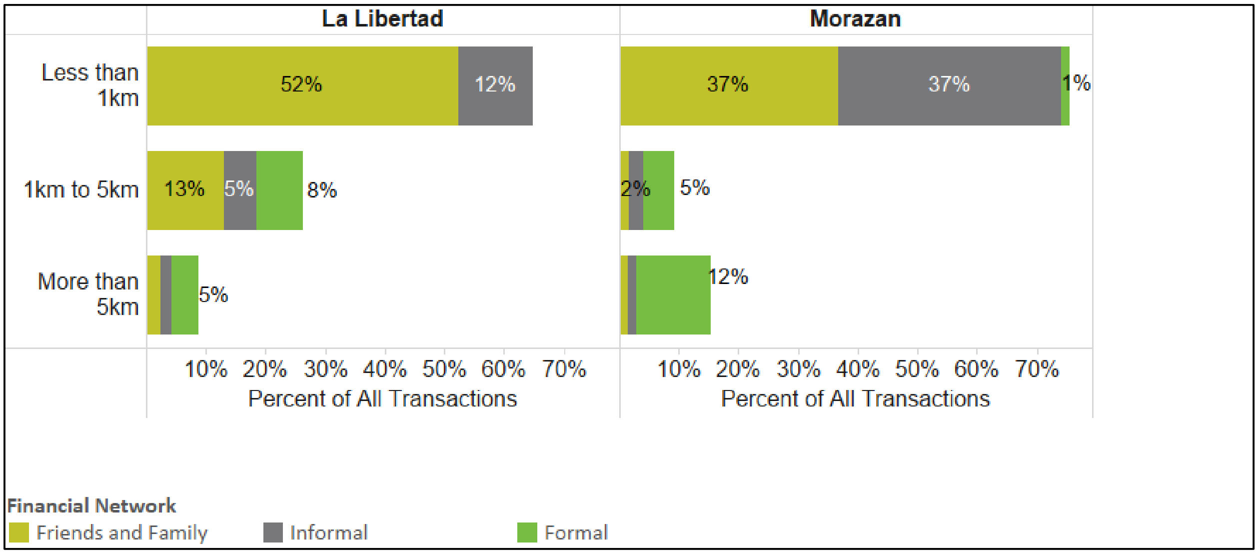
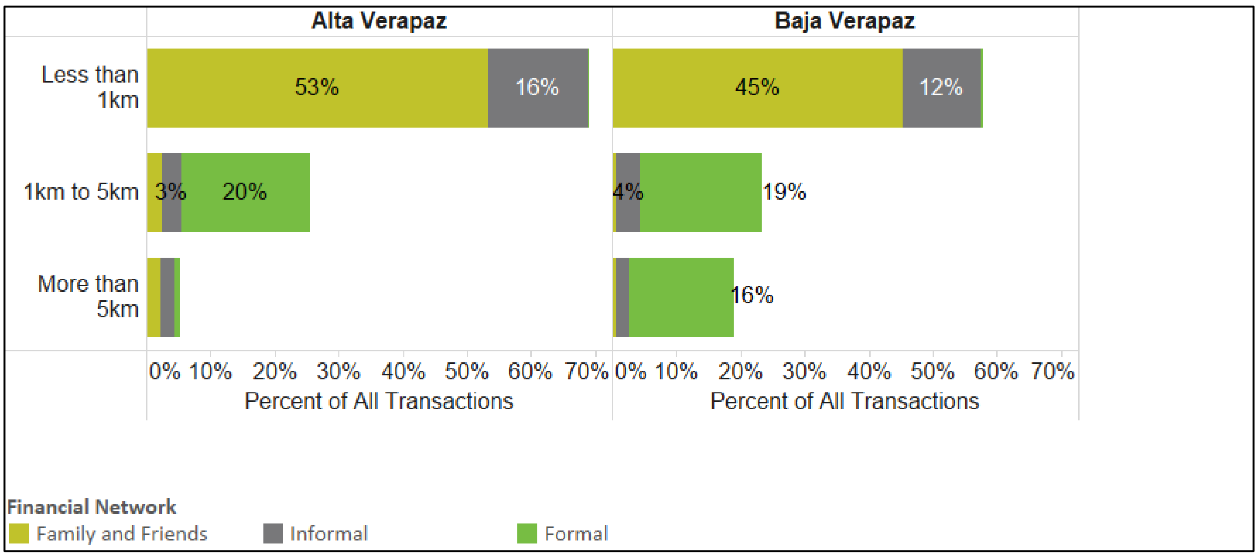


Figure 41 Distribution of Financial Transactions by Network, Guatemala



Distances to Formal FSPs

The average distance to the nearest FSP ranged from 0.3 kilometers to over 14 kilometers, depending on the communities the respondents lived in and the type of FSP. For example, respondents living in Quebradas near Morazan were, on average, only 0.3 km from a mobile money agent and an MFI while those in Matazano had to travel more than 3 kilometers to reach the same services (Table 11).

Table 11 ***Average Distance to Nearest FSP by Community***

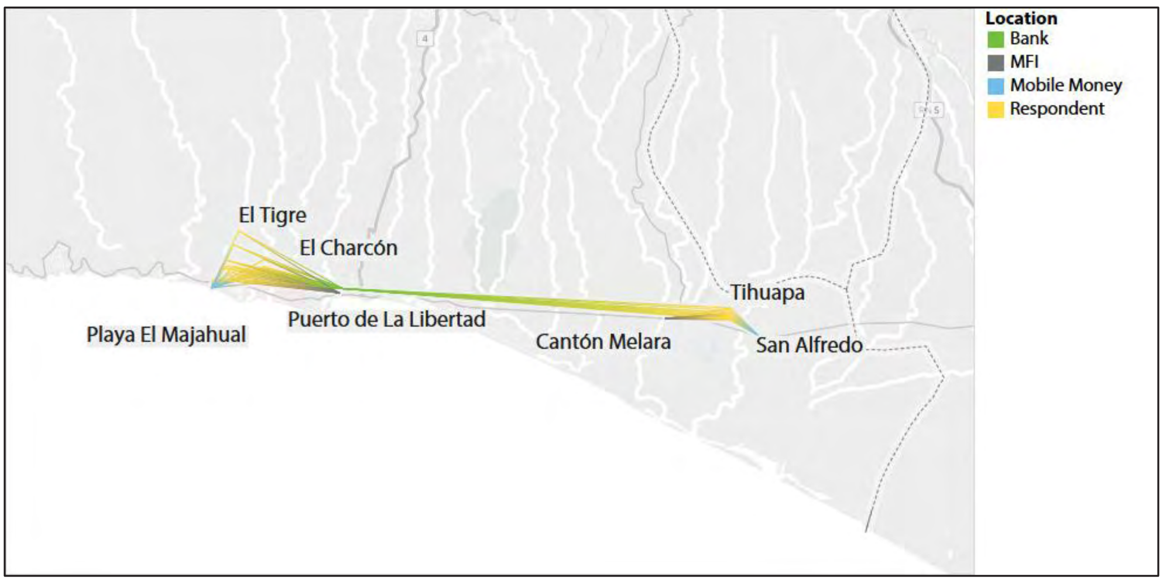
Region	Community	Bank	MFI	Mobile Money
La Libertad	El Charcón	3.2	3.0	1.9
	El Tigre	4.1	4.0	1.4
	Tihuapa	14.6	2.4	1.3
Morazan	Barrio El Calvario	8.8	0.3	1.6
	Barrio El Centro	8.8	1.7	0.3
	Carrizal	4.2	2.0	2.0
	Caserio Valle Alegre	9.1	2.4	2.3
	El Cerro	9.0	2.8	2.8
	Matazano	5.5	3.2	3.2
	Quebradas	5.5	0.3	0.3
	Tiquisera	7.4	1.3	1.4

Reading the maps

The maps show the nearest formal financial service provider (FSP) to each of the respondents, where the line connects each respondent with the nearest formal FSP and the color of the line indicates the type of FSP.

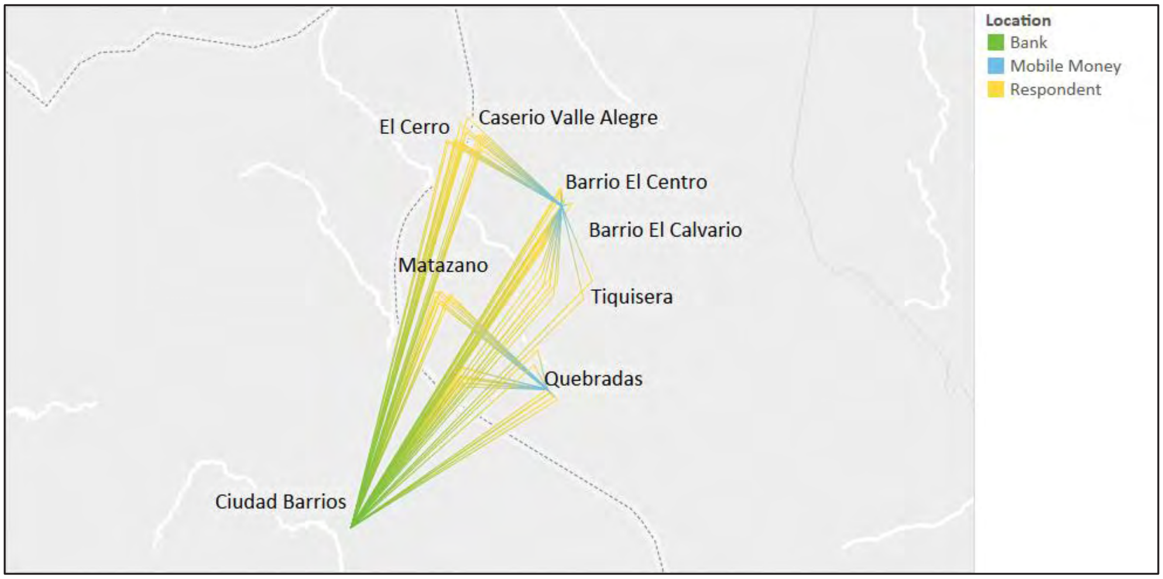
Looking at these data graphically we can see that in both La Libertad and Morazan there were multiple different FSP locations near to the different communities covered by our study. In La Libertad, the nearest bank for all respondents was in Puerto de La Libertad, but there were a number of different locations for the nearest MFI and mobile money agent.

Figure 42 La Libertad: Nearest Formal Financial Service Providers



Morazan followed a similar pattern. Cuidad Barrios was the nearest banking center for all respondents, but different MFI and mobile money locations were the nearest to the respondents depending on which community they lived in.

Figure 43 **Morazan: Nearest Formal Financial Service Providers**



It is clear that the geography of the research sites influenced the distances the women traveled to conduct formal financial transactions. In both research sites in El Salvador, there were mobile money agents and MFIs in close proximity to where the women lived—for some residents in the La Libertad research site the mobile money providers in Playa El Majahual and San Alfredo were within one kilometer of their home. The same was true in Morazan, where respondents living in Barrio El Centro, Barrio El Calvario, and Quebradas all had mobile money agents within their community.

Keeping Temptation at Bay, Damaris (101.1)

At the time of the study Damaris was a lively 23-year-old woman living in the coast of El Salvador in La Libertad; she had married early and had a child when she was only 17. Two years before the start of the study, times were hard for Damaris and her husband as they struggled to get jobs so her husband decided to make the journey to the United States by land to look for work. Two years on Damaris was dedicating most of her time to looking after her daughter and her father with the support of unwavering remittances from her husband in the U.S.. He sent money two or three times per month averaging $150 each time. Damaris typically travelled approximately 4 km to withdraw her remittances at the closest branch of Banco Agrícola.

Damaris also often travelled to Santa Tecla, located about 30 km away from her home. There, she made savings deposits at the Banco de Fomento Agropecuario, a different bank from the one where she received her remittances. The reason she said, was because she wanted to save and there was less of a temptation to withdraw the money if she had to travel to retrieve it. During the study she made seven trips to the bank and deposited a total of $175. To reach Santa Tecla she spent about $3.5 on bus fares in total. In Santa Tecla she also visited Banco Azteca once during the study; the reason was to retrieve a remittance, this time from her sister, who was also living in the US. Her sister was sending money to their father and Damaris was picking up the money on her father's behalf.

Once during the study, Damaris conducted a financial transaction in Santa Ana, located over 84 km away from her home. She retrieved a remittance at a Banco Agrícola. She had travelled there to celebrate her birthday with her cousin and she decided to spend a whole week with her family.

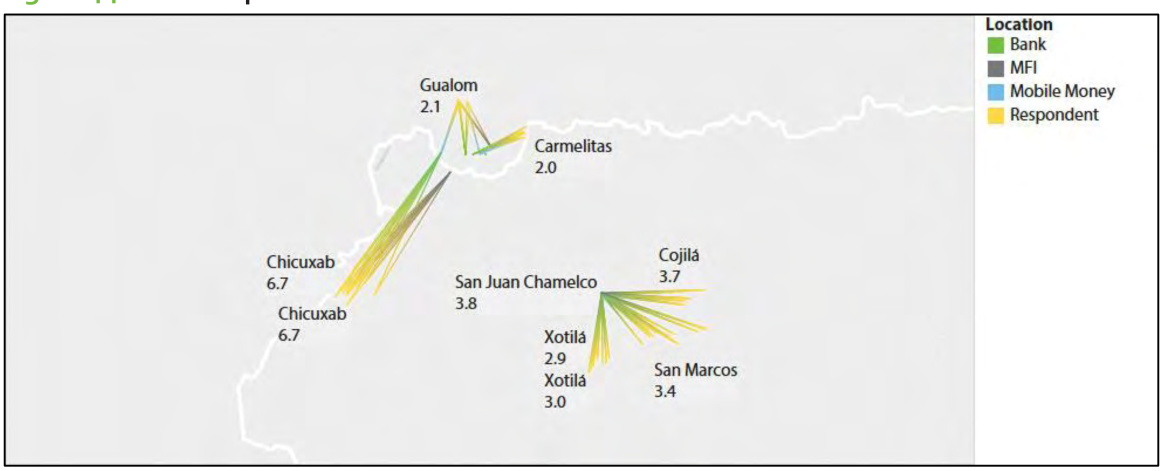
This was less the case in the Guatemala research sites where the distances to the nearest formal FSP were generally greater, although the range of distances was less. The average distance to the nearest FSP ranged from 1.3 km to 5.7 km depending on the communities the respondents lived in and the type of FSP (Table 12).

Table 12 Average Distance to Nearest FSP by Community

Region	Community	Bank	MFI	Mobile Money
Alta Verapaz	Carmelitas	2.0	1.3	1.8
	Chicuxab	5.7	5.4	5.7
	Chimox	2.5	2.5	2.5
	Cobán	3.7	3.4	3.7
	Cojilá	3.4	3.4	3.4
	Gualom	1.9	2.0	2.0
	San Juan Chamelco	3.0	3.0	3.0
	San Marcos	2.7	2.7	2.7
	Xotilá	2.8	2.9	2.8
Baja Verapaz	El Durazno	4.9	4.9	4.9
	El Jute	4.2	4.2	4.2
	Panimaquito	3.4	3.2	3.4
	Purulhá	4.0	4.0	4.0

In Alta Verapaz, there were two groups of FSP locations that the respondents were closest to: one was in Cobán and the other was in San Juan Chamelco (Figure 44). Within Cobán the nearest FSP location varied depending on which side of the city the respondents' community was located. In Baja Verapaz the nearest formal financial service providers were all concentrated in the commercial center of Purulha (see Figure 35).

Figure 44 Alta Verapaz: Nearest Formal Financial Service Providers

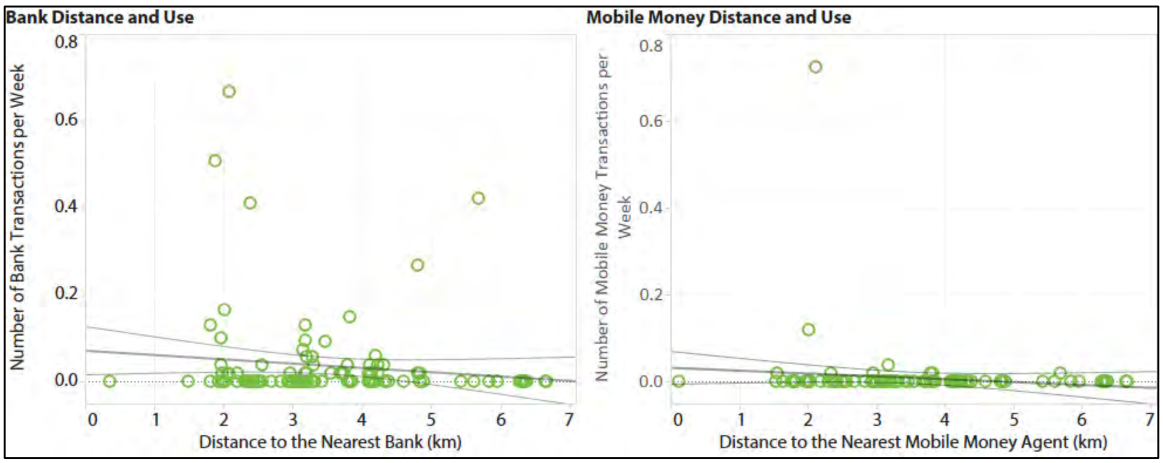


In sum, the women mostly had to leave their communities to conduct formal financial transactions.

Distance and Use

The previous analysis showed that respondents interacted with FSPs at varying distances from their home. This portends an important finding: in both countries, there was no relationship between how far a respondent's home was from a bank, MFI, or mobile money provider and the frequency with which she used those services. Part of this is driven by the fact that there were many women in the study who did not make use of any of the services, regardless of their distance from the nearest service point. Even when we looked at women who used the service at least once during the course of the study we found no relationship between distance and use, except in the case of mobile money use in Guatemala. Here there does seem to be some relationship between distance and use, but it is clearly driven by a small group of heavy users around Cobán in Alta Verapaz and many low-level users in Baja Verapaz.

Figure 45 **Use and Distance, Guatemala**



Spatial Distribution of All Transactions

The parallel between the spatial distribution of non-financial and financial transactions suggests a possible explanation for the lack of a relationship between distance and use, which is that in most cases respondents were sufficiently mobile performing non-financial transactions that they were able to combine trips to conduct financial transactions with other activities, and vice-versa. To understand whether this might be the case, we looked at the coincidence of travel to perform a financial transaction with a formal institution and to conduct other transactions.

To do this we isolated the women who conducted at least one formal financial transaction during the study period and identified the locations they most frequently visited and when they visited them. We can think of these locations as the respondents' local "commercial center." In El Salvador there were 77 out of 107 women in this group, while in Guatemala there were 45 out of 111.

We found that the women in our sub-sample in El Salvador visited their commercial center to conduct all types of transactions in three out of four weeks of the study, and only 16 percent of those visits included a trip to a formal FSP to conduct a transaction. We also found that the women in El Salvador who did not perform a transaction with a formal FSP during the course of the study also visited the same commercial centers on a regular basis—in about 80 percent of the weeks.

In the Guatemala sub-sample, we found that the women visited their commercial center to conduct all types of transactions in almost every week of the study (90 percent), and only 10 percent of those visits included a trip to a formal FSP to conduct a transaction. We also found that the women in Guatemala who did not perform a transaction with a formal FSP during the course of the study also visited the same commercial centers on a regular basis—in about 90 percent of the weeks.

In sum, our analysis suggests that the women in our samples in both El Salvador and Guatemala were highly mobile and visited commercial centers with formal FSP locations on a regular basis. As a result, it is unlikely that distance to an FSP was a barrier to the use of formal financial services.

Conclusions

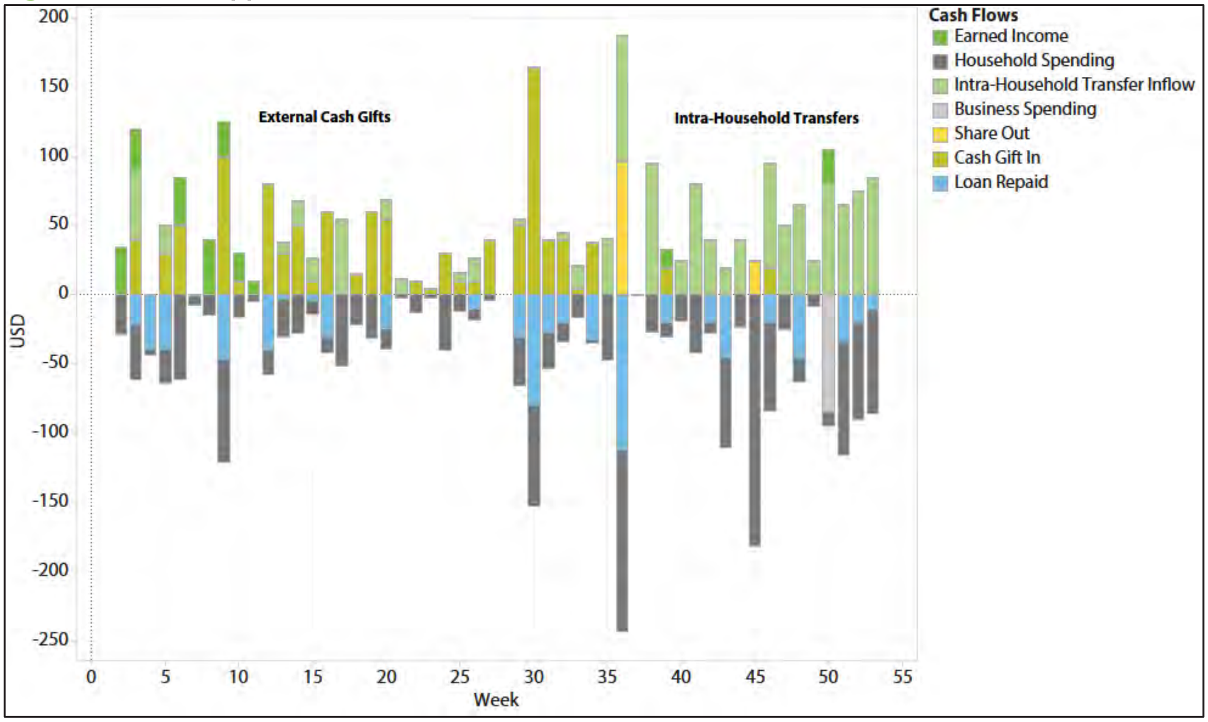
The women in Central America conducted most of their transactions close to their home, although they were also rather mobile. Women frequently traveled to their nearest commercial centers to conduct small numbers of transactions.

This mobility offers insight into one potential reason why there is no relationship between how close a woman lived to a formal FSP and how frequently she used that provider. Simply, they were geographically mobile enough anyway that they could get to a formal FSP if they wanted to. There may be other factors at play, such as the types of products the formal FSPs offer and the extent to which the women who participated in our study trust the FSPs to keep their money safe (in the case of savings) and can give them timely access to funds (in the case of savings and loans).

Child Support and Travel, Madeline (106.2)

Madeline is a 38-year-old mother of three. At the time of the study, her oldest child was 17 and her youngest was a thirteen-year-old boy. Throughout the study, her income fluctuated significantly, especially during the first 35 weeks, a time when her husband didn't have a job. It is during these months that most of her earned income is concentrated. She received multiple cash gifts, mostly from her mother and occasionally from other relatives or friends. She also received child support from her ex-husband, which he sent to her as remittances through a formal financial service provider.

Figure 46 Child Support and Travel



The amounts she received ranged between $38 to $60. Most of the time, the ex-husband sent money through a "Caja de Crédito", a non-banking financial intermediary that offers a variety of financial products including remittances. She typically withdrew the money at the closest Caja de Crédito branch but sometimes she took her youngest child to visit his father who lived in Zaragoza, located approximately 20 km away from their home. She dropped-off the child at the father's house for a few hours, to avoid potential confrontations. It was during these visits that she used a different branch of the "Caja de Crédito" for her money withdrawals.

Her husband was able to get a job in Week (December 2015) 35 of the study. This event marked a shift in her income patterns: the cash gifts from friends and family, alimony, and earned income all decreased or disappeared. Before Week 35, she received a total of $345 from friends and family but she only received a total of $40 in the 15 weeks following. Her alimony transfers stopped completely after Week 35. We also see a decrease in earned income. It went from a total of $195 before Week 35 to $38 in the following 15 weeks. There was one significant business effort after Week 35. Madeline bought $85 worth of drinks—soda, water, and beer—for a community fair that took place in Week 50 (March 2016). Unfortunately, not many people attended and they only earned $25 in sales, resulting in a significant loss.

CHAPTER 6: MONEY MANAGEMENT OVER TIME

Introduction

In Chapter 2, "Intermediating Cash Flow: Surpluses, Deficits, and the Use of Financial Tools," we showed which financial tools respondents used to manage windfalls and shortfalls of income as well as how they managed to fund large purchases. The data showed that when respondents had extra income they would spend it, sometimes repay loans, and save the remainder at home. When income was not adequate to cover expenditures, they would primarily rely on savings at home, cash transfers from friends and family outside the home, and—to a lesser degree—the share-outs from the savings groups. Formal financial services provided by banks or mobile money operators did not feature prominently.

That chapter presented the data as a cross-section of respondent activity, but understanding *when* respondents used financial tools is as important as understanding which tools they used and where they used them. Variations in surpluses and deficits overtime can provide stakeholders with insights into periods of economic opportunity and challenge while knowing which financial tools respondents used at different times can allow for a better understanding of tools' use-cases. This chapter explores these temporal variations in-depth, examining when surpluses and deficits occurred throughout the year and how respondents changed their use of financial tools in response.

Non-Financial Cash Flows over Time

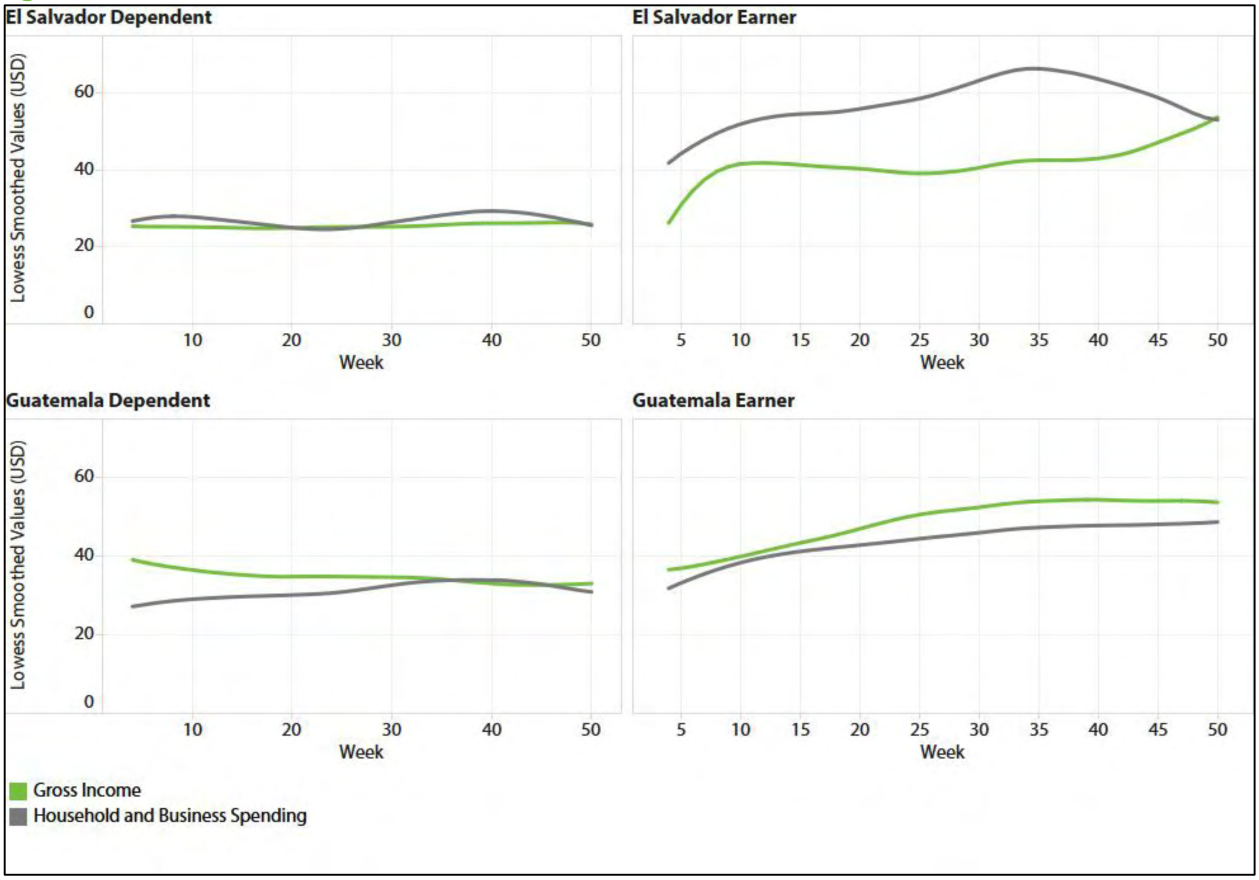
As a group, respondents' incomes and expenditures were not consistent throughout the year. The nature of this inconsistency varied between respondents in El Salvador and Guatemala and dependents and earners with few commonalities shared between the groups.

The graphs below present the smoothed values of income and expenditure overtime for dependents and earners in each country.[20] The data show that El Salvadorian dependents had consistent incomes during

[20] We used the lowess technique to smooth the data. This technique fits a smooth curve through a set of data, in this case weekly income and expenditures by respondent, to more easily identify trends. The lowess model identifies the center data point during each week and uses nearby observations to find a value of best fit. The approach gives the most weight to observations near the center of the distribution, which helps make it robust to outliers. Analysts can modify the sensitivity to outliers by adjusting a smoothing parameter, referred to as "bandwidth," which indicates that calculations of the fitted value should be performed with more or less data, making the model more or less sensitive to outliers. MFO performed these lowess calculations in Stata. Stata uses a default bandwidth of .8 while MFO utilized a bandwidth of .6 to better display variations of overtime.

the year while their expenditures reached relative high points during the agricultural and Christmas seasons (Weeks 7 to 15 and 33 to 37 respectively). El Salvadorian earners' income was consistent for much of the year before gradually trending upward during the last three months of the study. Their spending increased through the Christmas season and then declined. In Guatemala, dependents' income slowly fell during the year while expenditures were mostly consistent with the exception of a slight spending increase during Christmas. Guatemalan earners' income and expenditures increased throughout the year but at different rates.

Figure 47 ***Non-Financial Cash Flows Over Time***

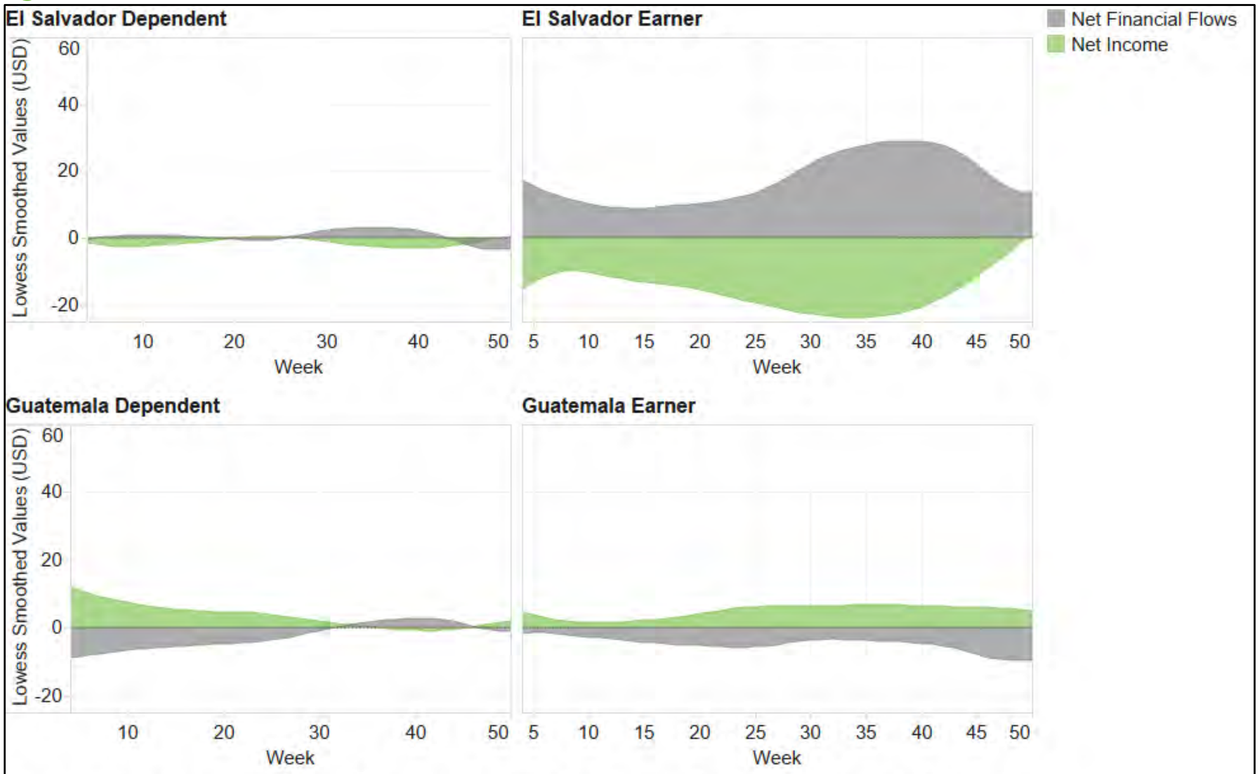


Despite the periodic variation, this data shows that respondents in El Salvador operated with persistent deficits while those in Guatemala operated with surpluses.

Financial Flows Over Time

Respondents' net financial flows moved opposite their net non-financial flows throughout the year. While the value of financial inflows and outflows changed over time, larger changes in financial inflows than financial outflows drove the net differences. In El Salvador, that meant that respondents tended to pull in more money through savings, loans, and cash transfers throughout the year, increasing the size of these flows during the Christmas season. The reverse was true in Guatemala—respondents were generally pushing money through financial tools. When there were changes in net financial flows, it was because of increases in financial inflows rather than decreases in financial outflows.

Figure 48 ***Net Cash Flows Over Time***



The graph above shows how net financial flows move in response to net income. Positive values show net positive flows. For net income, that means that gross income was larger than household and business spending. For net financial flows, that means that financial inflows (savings withdrawals, loans received, transfers received) was greater than financial outflows (savings deposits, loan repayments, transfers given). For negative values, the reverse is true.

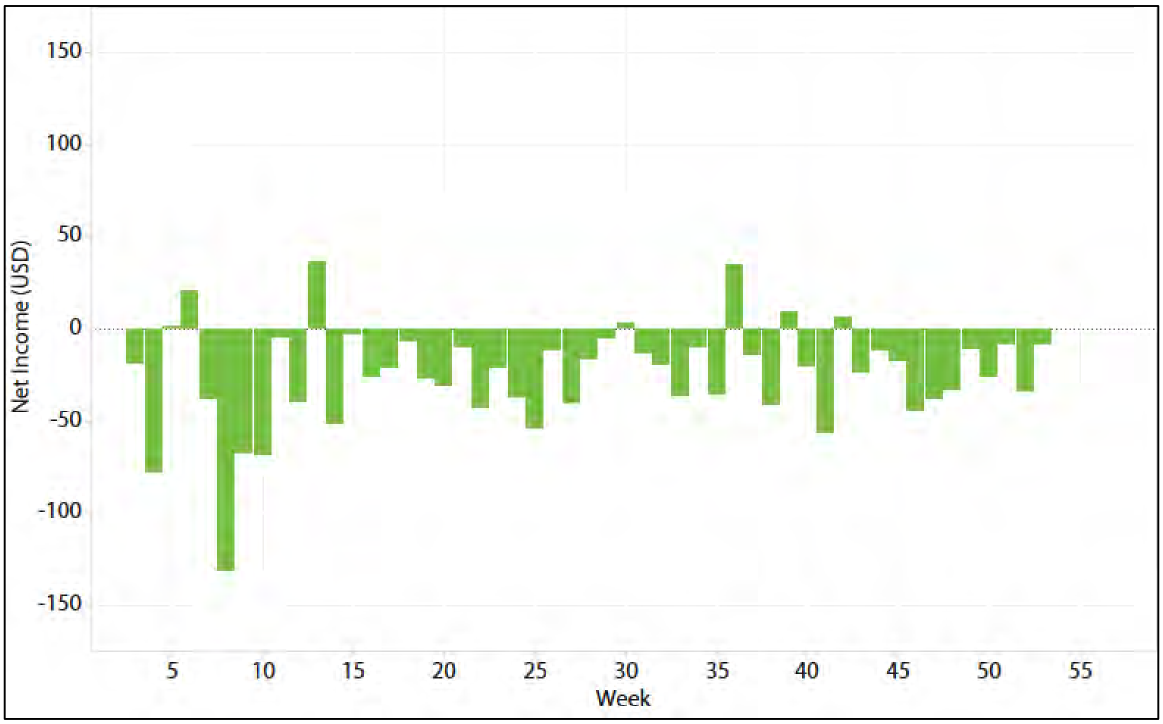
Using Financial Tools to Manage Deficits, Rosa (329)

At the start of our project, Rosa was 35 years old and lived with her two sons, aged 15 and 13, in the district of Morazán in El Salvador. She was not married. Her mother and sister lived nearby and she has a brother who worked in the United States.

Rosa ran a small dairy business. Each week, she bought inventory—like cheese and butter—from a wholesaler and resold it to customers in her village. Periodically, Rosa would engage in other activities to bring in money. She sold chickens a few times throughout the study, and she agreed to care for her sisters' child for two months for which she earned $75 per month. From all these activities, Rosa earned an average of $39 per week.

While her gross income was higher than much of the sample, it was not enough money for Rosa to cover all her expenses. Rosa's business expenditures averaged $22 per week and her household expenditures were an *additional* $41. Consequently, Rosa ran persistent deficits throughout the year.

Figure 49 **Rosa's Weekly Net Income**

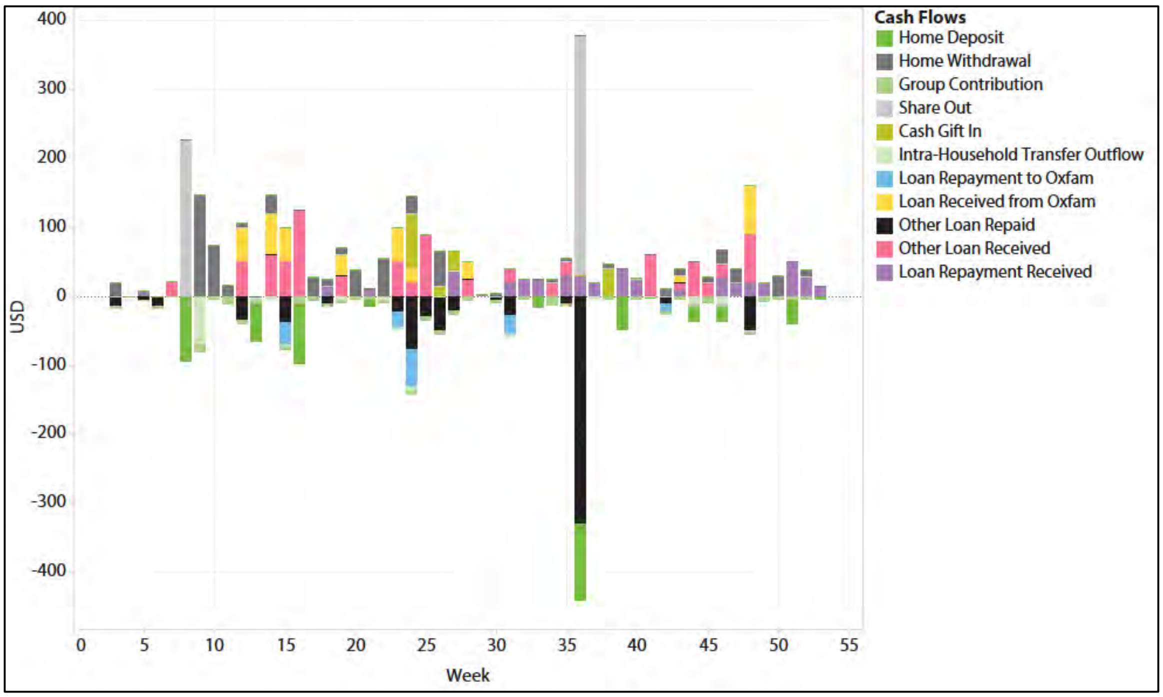


She used a variety of financial tools to help her fill the gap. Like the group of earners detailed in this brief, she used her home savings frequently, withdrawing money from it 25 times. Despite running persistent deficits she managed to deposit an average of $5 to her savings group each week and these yielded large share-outs—$226 in Week 8 (June 2015) and $348 in Week 36 (December 2015), although the majority of the latter share-out went to a friend for repayment of an in-kind loan of labor and building supplies.

Rosa was also a heavy user of credit, unlike many of the respondents in our data. She sold goods on credit and thus received many loan repayments. She also borrowed from her savings group nine times, borrowing anywhere from $20 to $70. In an indirect way, Rosa's brother was an important source of funds too. He would send remittances to Rosa's sister who would then manage the money between her, Rosa, and their mother. A few times, Rosa got cash transfers from the brother via the sister, but more often Rosa reported movement of cash between her sister and her mother as loans, although she never repaid them during our observation period. The loan repayments that Rosa did make were to vendors (for goods bought on credit) and her savings group.

Throughout the year, Rosa pulled in more money through her financial tools than she pushed through them. With an average net financial inflow of $20 per week, Rosa was able to cover the gap between her income and her expenditures.

Figure 50 **Rosa's Financial Cash Flows**

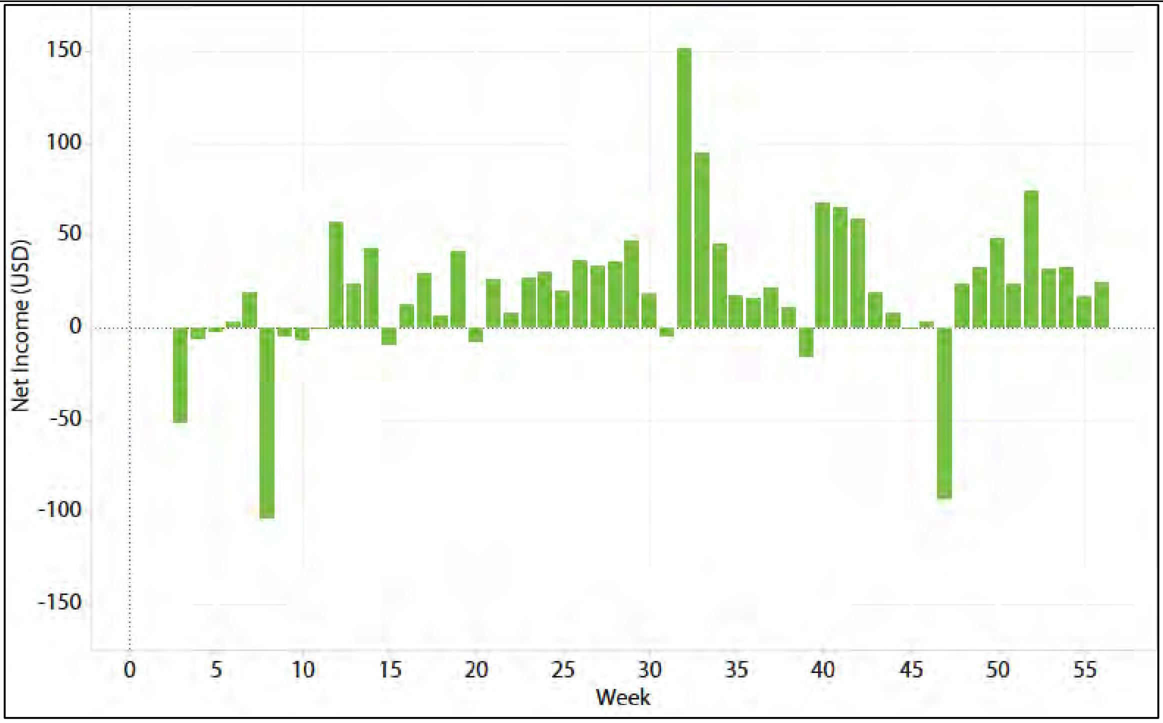


Using Financial Tools to Manage Surpluses, Yanina (603)

Yanina, who lived in the district of Alta Verapaz in Guatemala, was an earner like Rosa. She was 32 years old when we began our interviews and lived in a home with her husband and their four boys, aged 12, seven, five, and one.

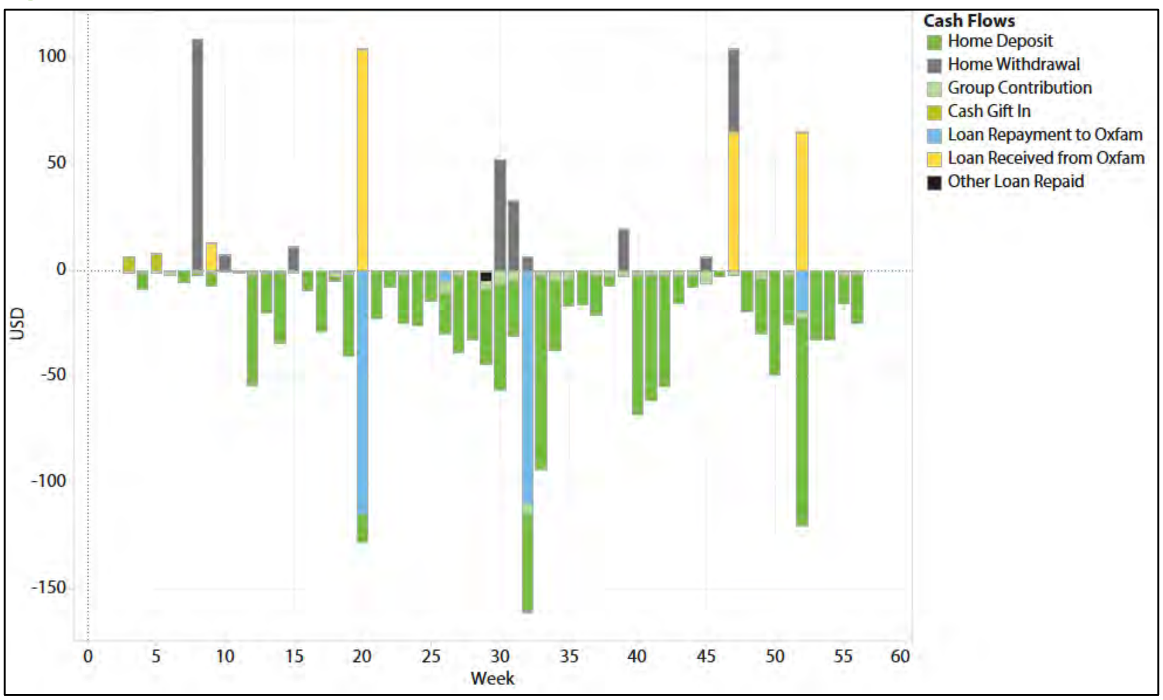
Yanina's business was shoes. Every five to ten weeks, Yanina paid about $1.25 to stand in the back of a pick-up truck to make the journey from her home to the closest town, which is 8 to 10 kilometers away. While there, she would buy pairs of shoes—anywhere from 30 to 70 at a time with each pair costing her between one and three dollars. She took her load back to her village to sell to customers in the market. Her business was good—she made about $52 per week on average. Her business expenditures were large when they occurred but they were infrequent, and she only pays $21 in household expenses on average. Consequently, Yanina spent most of the year with surpluses of cash.

Figure 51 **Yanina's Weekly Surpluses**



Unlike Rosa, Yanina did not make use of a variety of financial tools. Although she has periodic and large financial inflows (in the form of home savings withdrawals and loans from her savings group), Yanina mostly pushed money through financial tools as she worked to manage her surpluses of cash. The two tools of choice were both savings mechanism: home savings and savings deposits to her group.

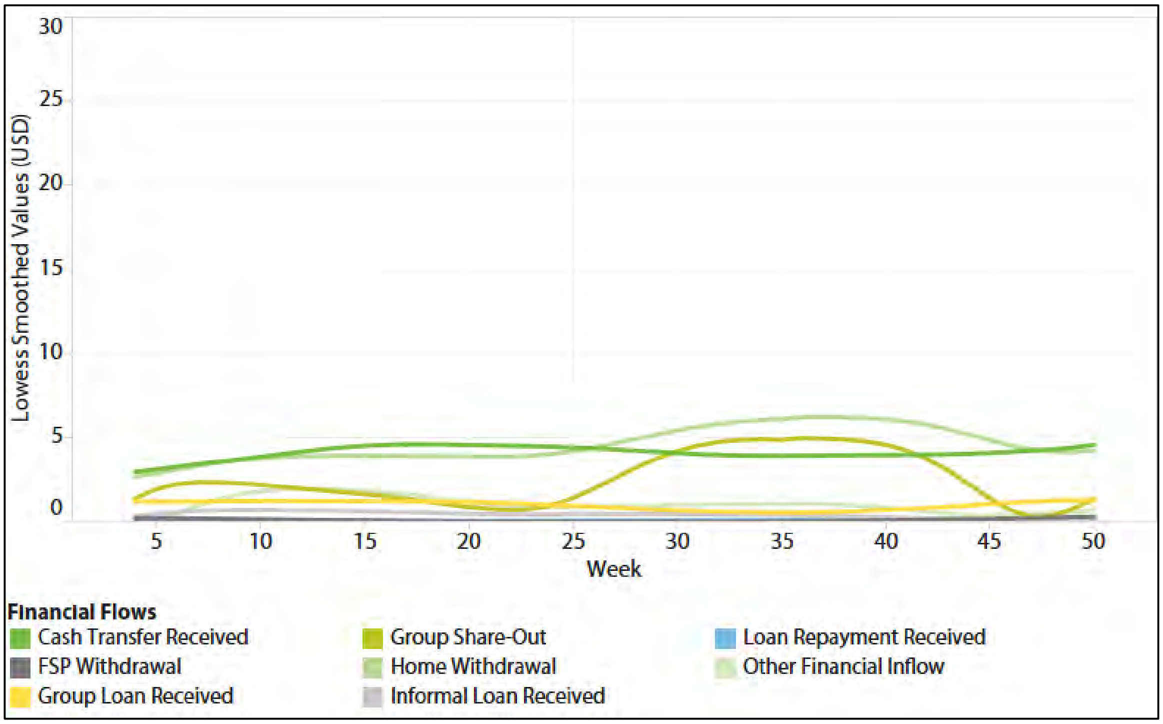
Figure 52 Yanina's Weekly Financial Cash Flows



Financial Inflows

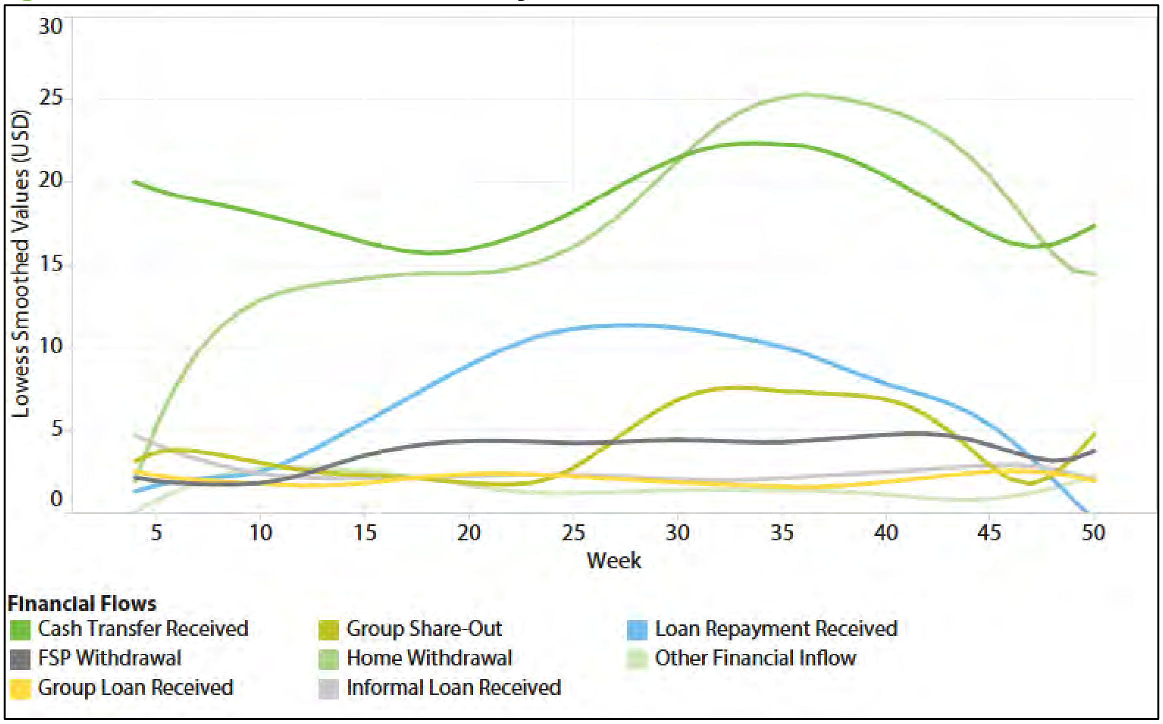
El Salvadorian dependents' financial inflows were relatively high during the agricultural and Christmas seasons. The relative peak during the agricultural season (Weeks 7 to 15) was commensurate with relative peaks in the value of cash gifts received, share-outs from savings groups, and other financial inflows like cash transfers from the World Food Program (WFP). During the Christmas season (Weeks 33 to 37), group share-outs and home withdrawals from home savings were the primary drivers of increases while the value of cash gifts and loans from savings groups fell. Inflows from other financial sources—like informal loans or repayments from loans given as well as withdrawals from accounts held with financial service providers (FSPs)—were constant throughout the year and accounted for only a small share of total financial flows.

Figure 53 **El Salvador Dependents, Financial Inflows**



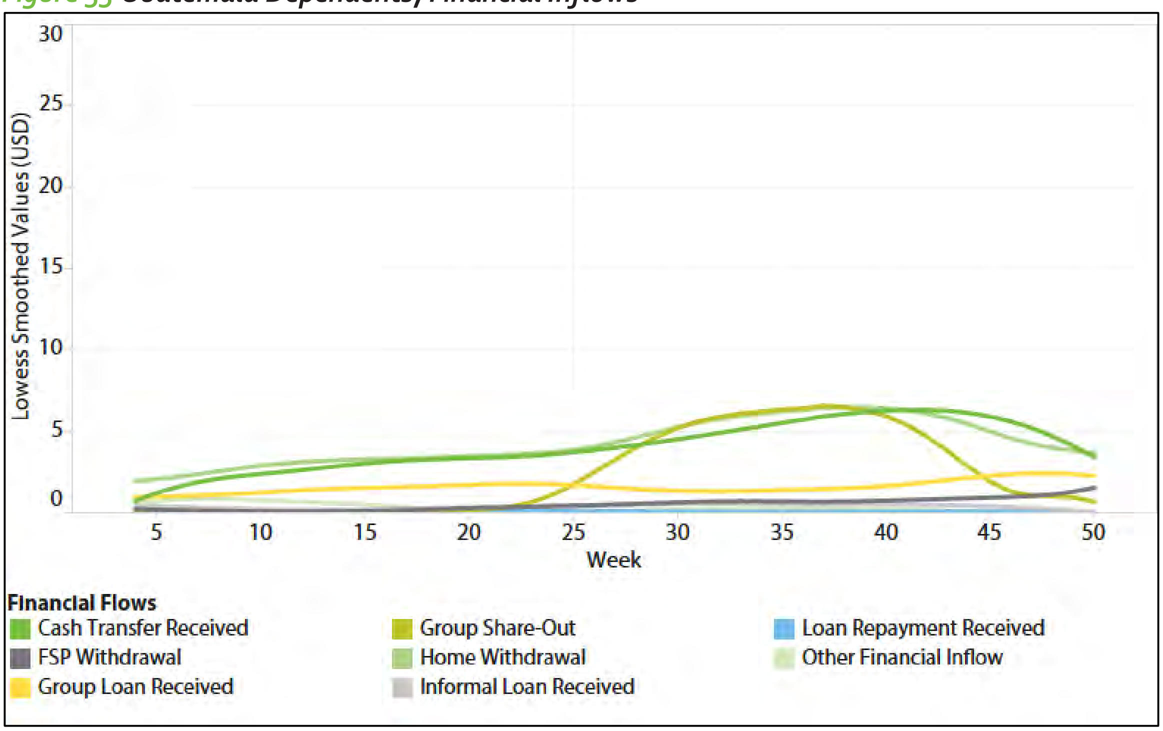
El Salvadorian earners relied on cash transfers and home savings to fill their deficits throughout the year, pulling in even more money through these tools during the Christmas season. The earners also sometimes lent money to family members and friends and repayments of the loans were a significant financial inflow in the fall (Week 25 to Week 33). Share-outs from the savings groups featured prominently during the Christmas season. Other financial tools were not a major share of total financial inflows, but earners used them throughout the year.

Figure 54 ***El Salvador Earners, Financial Inflows***



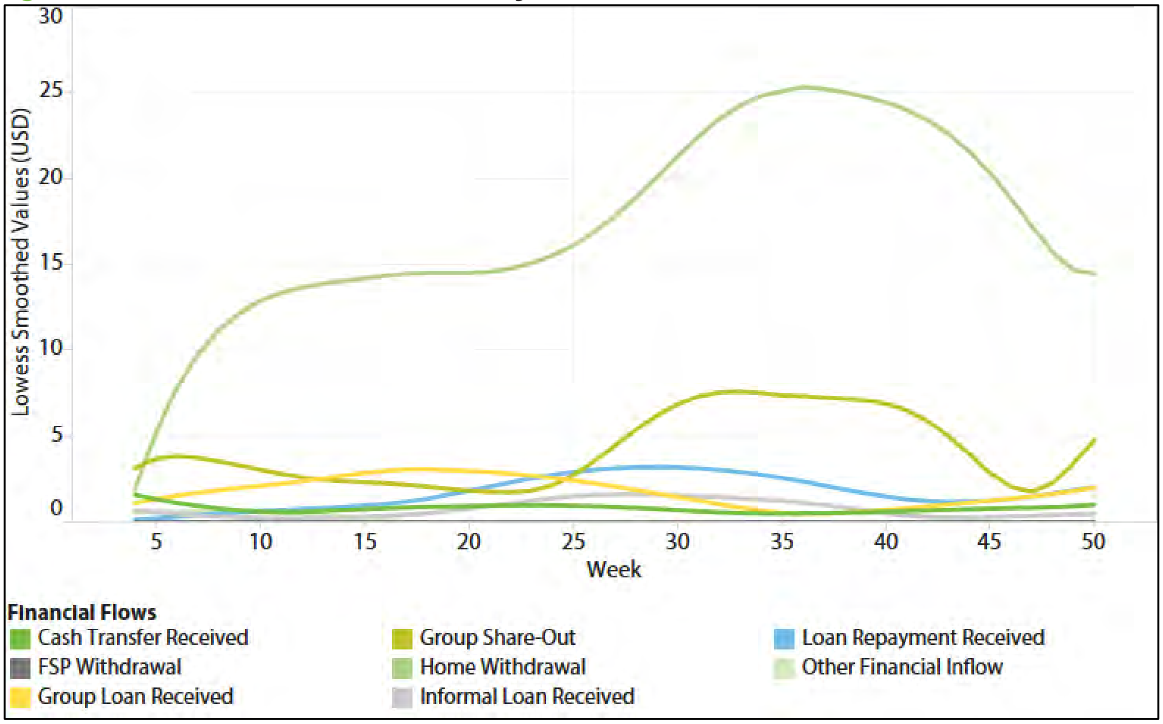
Dependents in Guatemala relied on withdrawals from home savings and cash transfers from friends and family living outside the home throughout the year and on share-outs during the Christmas season. They used other financial tools sparingly throughout the year.

Figure 55 ***Guatemala Dependents, Financial Inflows***



Earners in Guatemala had the least diverse set of financial flows—they pulled in the most money from home savings during the year and used their group share-outs during the Christmas season. Minimal amounts of cash flowed through other financial tools throughout the year.

Figure 56 ***Guatemala Earners, Financial Inflows***



Financial Outflows

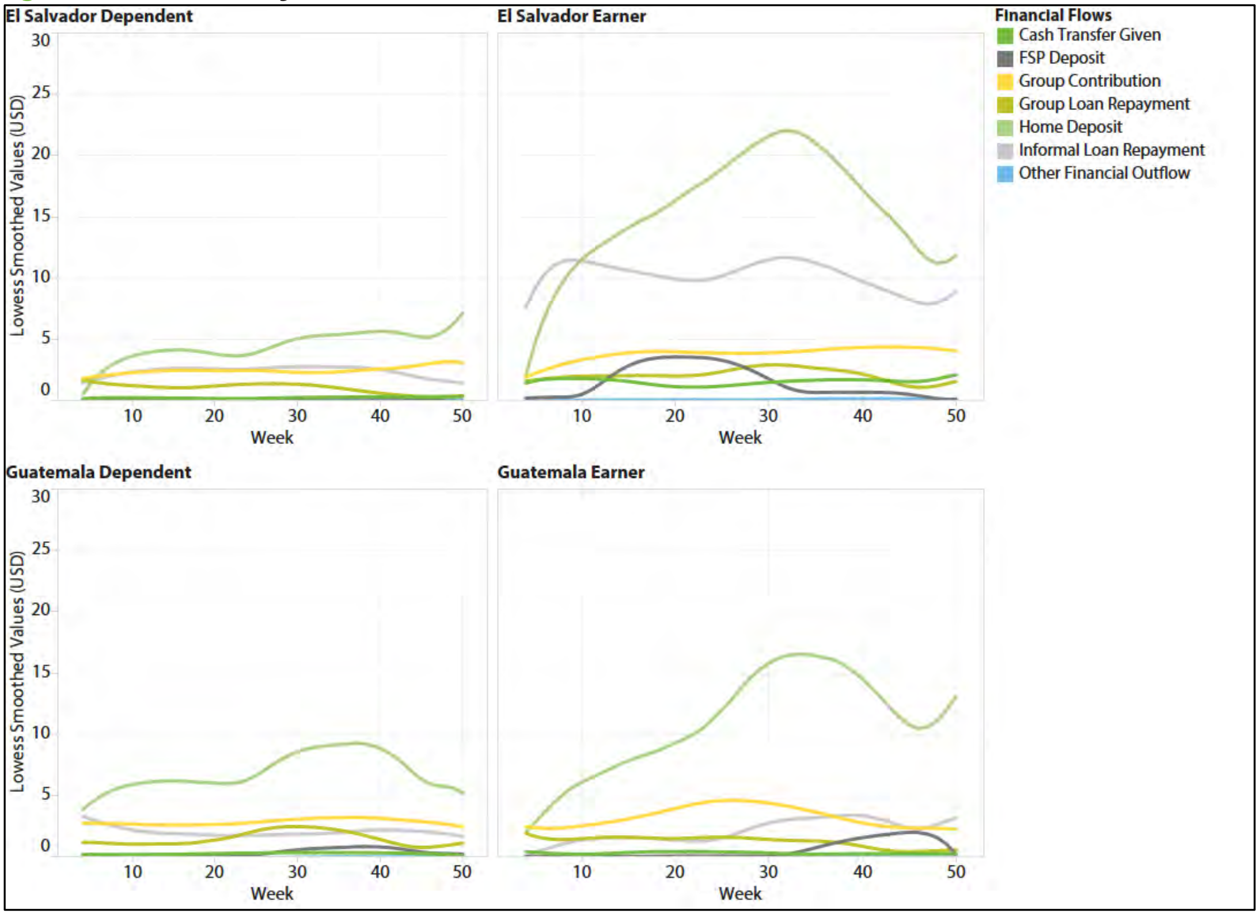
Financial outflows were smaller than financial inflows and most financial outflows were stable throughout the year.

Deposits of cash into home savings dominated the financial outflows of dependents and earners in El Salvador and Guatemala. For all groups except El Salvadorian earners, home savings deposits consistently counted for 50 percent or more of financial outflows during each week. They tracked closely with financial inflows. In other words, home savings deposits rose as respondents pulled large sums of cash through other financial tools, using this safe space to store money that they needed to meet weekly expenditures, especially during the Christmas season.

After home savings deposits, contributions to savings groups and informal loan repayments—which do not include group loan repayments—were the most prominent financial outflows. Contributions were very consistent throughout the year while informal loan repayments were consistent or exhibited a slight increase near the Christmas season.

Other financial tools did not see significant flows throughout the year. Less money flowed through loan repayments to informal sources than to savings groups and respondents infrequently transferred cash to people outside the home. Deposits to accounts held with FSPs were almost non-existent.

Figure 57 Financial Outflows



Conclusions

These data show that the Christmas season was the period during the year when respondents' cash flows varied the most. This is not to say that other seasonal patterns did not exist, merely that our respondents did not engage in economic activity linked to these cycles. While El Salvadorian earners received cash transfers from family and friends, most of the variation in non-financial net flows was financed using home or group savings. Savings groups structured their cycles specifically so that they could receive their funds during this season, helping them finance increased expenditures.

While the data showed that the Christmas season is one period during the year worthy of special attention, it also showed that respondents are plagued by persistent deficits in El Salvador and persistent surpluses in Guatemala. Savings groups are not the ideal financial tool for mitigating these persistent mismatches. which presents opportunities for innovation for savings groups and FSPs more generally. We discuss these opportunities in the following chapter.

Consistent over time, but is it common?

The data show that there were distinct periods when respondents used home savings and group share-outs to manage their cash flows while respondents appeared to use other financial tools more consistently, although the associated values were small. While the data show that use was steady, the value of flows through financial tools was, in many cases, dominated by a small group of respondents.

For instance, six respondents accounted for more than 50 percent of the value of all cash gifts received; 112 respondents did not receive a single cash gift during the study. Eighty-four (84) people received an informal cash loan during the study while 34 respondents made either a deposit to or withdrawal from an account held with a formal FSP, but only two respondents made a deposit *and* a withdrawal. Group loans were slightly better distributed—146 of 218 respondents received at least one group loan but 26 respondents accounted for just over 50 percent of total borrowing. In comparison, all 218 respondents utilized home savings and 192 respondents received a share-out from their group.

Thus, when reporting on trends it is important to consider that many of the tools that appear steady overtime and track close to zero do so because they are not widely used by respondents.

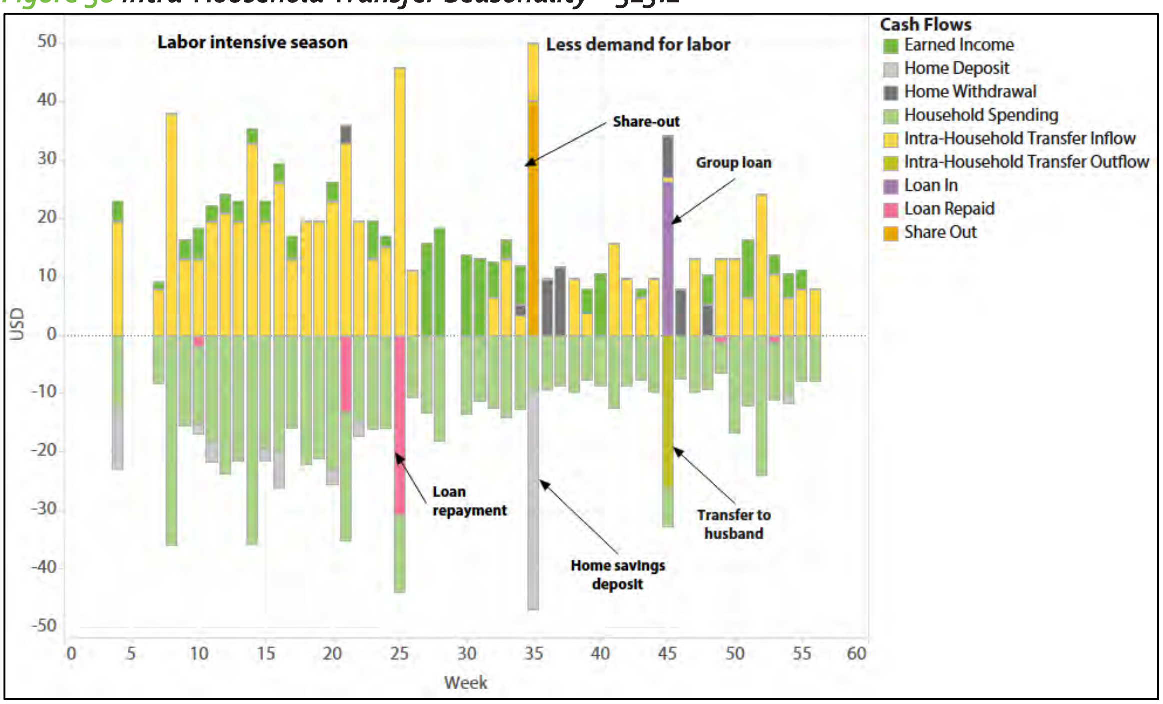
Seasonal Intra-Household Transfers, Fidelina (513.2)

Fidelina's life epitomizes that of many indigenous women in the rural areas of Guatemala. She grew up without a father, waking up at dawn and walking two hours to the nearest community with her mother to sell tortillas. Her mother arranged her marriage when she was only 14 but her husband left one year later, shortly after she had her first child. During that period of her life she worked in agriculture with her neighbours, most of the time, and helped her mother with their small garden.

She remarried at 25 and stopped working with her neighbours, instead dedicating most of her time to helping her husband with their agricultural tasks, rearing chickens and later looking after three more children. During the study, she received frequent money transfers from her husband; there was a transfer in three-quarters of the study weeks. When one takes a closer look at the amounts she received, you can start unraveling the household dynamics that speak to the lower autonomy levels experienced by Fidelina. We see that during the labor-intensive season for agriculture (weeks 4 to 26 in Figure 58) she received an average of $22 per week. During this season, Fidelina made many of the purchases of food for the household. The rest of the time, she received an average of $9 per week and it was her husband who made the purchases for the household. The weeks during which she did not receive any money from her husband were all during the months when demand for agricultural labor was low. The low amounts of money she received were a result of her husband earning less and his exerting control over the purchases for the household more.

Fidelina made two loan repayments during the initial weeks of the study at the Oxfam savings group. Her husband financed these repayments through higher transfers to her during the weeks when those repayments were due. She took another loan in week 45 (February 2016) at the request of her husband. On receipt of the loan from the savings group, she immediately handed over the full amount to him (Figure 58).

Figure 58 ***Intra-Household Transfer Seasonality – 513.2***



When we asked Fidelina about her household dynamics and the reason why the amounts she received from her husband varied, she explained to us that her husband preferred to make the purchases himself over giving her the money. Her husband also closely controlled the income she earned from selling vegetables—he authorized the amounts she sold. The exception was the earnings she received from selling wild flowers at the market, which yielded about $7 per month, although her earnings were significantly lower during the dry season. She received $40 at the end of the savings cycle (week 35, December 2015). These savings were equally split between her and her husband. She used her part to purchase five chickens.

CHAPTER 7: IMPLICATIONS

Introduction

The women in the Central America Diaries had diverse sets of cash flow challenges. The dependents relied on transfers from household members but the nature of this dependency, and the extent of women's agency, varied within and across countries. The earners in our project were income generators, working informal jobs, selling prepared foods, or operating small tiendas (informal shops) to support themselves and their families. Both groups regularly faced significant cash flow events as respondents experienced either a windfall, zero income week, or lump sum purchase about 40 percent of time. Additionally, the data suggests that despite these major events, and regular week-to-week fluctuations, respondents in the two countries faced persistent cash flow trends: In El Salvador, both dependents and earners operated with persistent deficits while the same groups in Guatemala operated with surpluses throughout the year. For almost all of our respondents, the Christmas season was a period of increased economic activity.

The analysis revealed that respondents predominantly used savings and cash transfers to manage their money; loans played in an important role too, but they were not used as frequently as the other tools. In terms of the providers of these tools, respondents themselves (as providers of home savings), savings groups, family and friends (as providers of cash gifts), and remittances stood out. Formal FSPs were only used periodically by our respondents.

Additionally, it was evident that respondents had preferred uses for different financial services. Home savings was used to manage both large sums of cash and intermediate small, week-to-week mismatches. Savings groups—the focus of this study—helped women build lump sums of cash which they used to increase the number of major purchases they made. Cash gifts from friends and family were important for managing weeks in which respondents did not receive any income. Remittances allowed respondents to increase their spending and make big purchases, but relatively few respondents received them.

These patterns of behavior suggest a number of opportunities for stakeholders interested in promoting economic development amongst women in rural communities, promoters of savings groups, and formal FSPs. In this chapter, we discuss these opportunities in-depth, emphasizing what we have learned about savings groups, and discuss how these learnings are relevant to policy discussion in which access to financial services are increasingly being viewed as a means to an end rather than an end in itself.

Saving Group Design

Savings group were effective at their most basic goals: they provided lump sums of cash, via savings and loans, to women in need. Furthermore, groups were able to structure their cycles to receive these sums of cash during periods of intense economic activity, namely Christmas.

The methodology had some unintended consequences, though, like providing so much cash that respondents inevitable had to use their home savings to manage it. Also, the design of the groups, including cycle length and group rules, also may have limited their effectiveness. Consequently, there are some modifications to the design methodology that may benefit savings group participants in Central America.

Shorten Cycle Length

Savings groups were so successful at building large sums of cash that respondents typically stored large portions of their share-out at home for long periods after a short-term increase in spending.[21] While there is value in having sums of cash easily accessible to respond to shocks, moving the cash from the group to the home account exposes the cash to risk of theft, fire, or undisciplined spending. Furthermore, this decision meant that respondents were moving cash from an interest-bearing account (the savings group) to an account offering no interest (the home account).

When respondents did get access to cash from savings or loans, they made large purchases more frequently in the following month than they did in other months. Even with this increased rate of purchasing, more than three-quarters of all large purchases happened during months when no share-out or loan was received, suggesting that demand for large sums of cash was unmet.

Shortening the saving cycle from the typical eight to 12 months to four to six months may help deal with both of these issues. By shortening the saving cycle, group members would be able to save sums of cash that are still usefully large but not so large as to require respondents to move money to home savings. For instance, in El Salvador, a group cycle of four months would allow the typical respondent to save about $60 while the average lump sum expenditure is $64. In Guatemala, a four-month cycle would yield deposits of $50, while the average lump sum expenditure is $41. In both instances, respondents would get lump sums of cash that could potentially cover their average major purchase three times throughout the year, rather than just once, without necessitating that some money eventually be re-deposited into unsafe home accounts.

Shortening the saving cycle could potentially impact the lending process negatively. Many groups have a lending cycle of three months. Longer cycles such as this make sense in communities where loans are more likely to be used for investments that may need time before yielding a meaningful return such as farming communities or communities with concentrations of micro-retail businesses. However, providing more regular access to savings-based sums of money may help to dampen the demand for these investment oriented loans. The remaining loans, helpful for covering short-term gaps in cash flow, may be repayable during a period that is conducive to shorter savings cycles.

Modify Group Rules

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[21] We examined how cash flows changed after share-outs were received. This analysis covered one-month, including the week of the share-out. Generally, respondents relied on home savings to cover deficits and to fund lump sum purchases at times that were not proximate to share-outs. Due to the fungibility of money, we cannot definitively say how much of the share-out-turned-home-savings financed that future spending, although it was certainly a contributing factor.

Savings groups captured small, regular deposits and appeared to have been unable or unwilling to handle larger deposits—three times as much cash was deposited into respondents' home savings account as was into the savings group. While some of these home deposits were short-term, such a discrepancy indicates that savings groups were not capturing as much money as they could. To some degree this is a practical reality—having the life-savings of an entire village stored in a box in someone's house is risky. But the groups' rules instituted deposit limits, which had a real effect on how much respondents deposited in our study irrespective of this concern. As a consequence, much of respondents' savings-related cash flows existed outside the purview of the group.

Promoters of savings groups could encourage groups to raise their deposit limits to capture more of this cash. There needs to be a balance between the risks related to storing too much cash in a group's box and the benefits of allowing group members to deposit larger sums. Promoters and groups could assess the best way to balance these demand during the group set-up stage or through an iterative process during subsequent cycles. The shorter group cycles mentioned above would be one method by which groups could lift deposit caps without storing too much cash in one place at one time.

The group loan facility was also infrequently used with respondents in El Salvador borrowing from the groups once every six months and once every nine months in Guatemala. While culture and need certainly factored into how many loans respondents' used during the study, the group rules that either dictated that respondents must take loans or limited the amount of loans they could take undoubtedly affected borrowing behavior. A specific concern is that, depending on the group rules, members may be "forced" to borrow to ensure a return on the groups' saving.

Group rules regarding loans could also be modified to eliminate such "forced" lending. Groups may like them because of the perceived need to get a return on savings but they effectively extort group members that do not have the need for a loan or the means to pay it back.

Save Earlier

In addition to smaller repayment periods, shortening the saving cycle has another potential downside—it limits the cash available for loans. One potential mechanism to ensure that cash is available for borrowing is to encourage respondents to save more earlier in their group cycle—Burlando, Canidio, and Selby (2016) argue that saving earlier in the cycle is always optimal for group members. The authors offer suggestions on how to encourage early savings, including modifying group rules to allow higher levels of depositing earlier in the group cycle than in the latter stages.

The Role of Cash Transfers

The El Salvadorian women in our study faced persistent deficits throughout the year. Respondents could use savings or loans to invest in income generating enterprises to lift themselves outside of poverty, but success via this method can be elusive for low-income women with little training in operating a business. One obvious, but not so easily implemented solution, is to offer training programs to these women, a topic discussed in more detail below.

Another method to filling the persistent gap between income and expenditures is to provide cash transfers. Many women in El Salvador already do this—they get cash gifts from family and friends in zero income weeks or receive domestic and international remittances. There were also many stories of women who received cash or in-kind benefits from the government or non-governmental organizations.

Our analysis suggests that strengthening remittance channels and expanding government programs may be beneficial for our respondents in terms of dealing with acute poverty. Women who received remittances, for instance, were able to increase their spending in those weeks and make large purchases of household goods. Recipients of government transfers and programs like those offered by the WFP also used those transfers to feed their families.

While we encourage these government programs, we also see ways in which they could be developed to strengthen the communities in which our women live. For instance, the WFP program appeared to be successful—women received money on the card and took it to formal supermarkets to use them. However, they did this at the expense of local vendors in the women's communities. An integrated solution that involves these vendors may be beneficial.

Opportunities for Formal Financial Service Providers

Formal financial service penetration in the LAC region remains low. Just over half of all people 15 years of age or older had an account of any kind with a formal financial service provider.[22]

Our respondents' use of formal financial services closely matched these figures. Fifty-four (54) percent of our respondents performed at least one transaction with a formal financial service provider during the year, but these interactions were not frequent. They occurred once every four months or so at the median. Additionally, seven times as much cash flowed through informal sources, including savings groups, as flowed through banks or MFIs. Total cash flows through banks—the sum of deposits and withdrawals—was $57,000, only a fifth of which was deposits while almost $100,000 flowed through savings groups, half of which were deposits.

If we assume that the 5,500 members of savings groups the IDB and Oxfam enrolled are similar to our 218 respondents, these data suggest that in one year, these savings groups would manage approximately $2.5 million in cash flows while almost $12 million in financial flows would occur outside the purview of formal FSPs. In sum, there is a great opportunity for FSPs to increase formal financial inclusion and capture meaningful sums of cash currently flowing through the informal economy.

Could savings group function as a meaningful link between these informal and formal sectors? The case for creating linkages with formal FSPs has been well-established by such organizations as CARE. Linkages via mobile money or directly to bank accounts could allow saving group members to lift deposit caps as they would be able to safely store larger sums of cash. Individual accounts could help members at the end of the saving cycle when they would otherwise have to move their bulk sum of cash to their home.

Non-traditional linkages are also worth examining. For instance, rather than linking directly to bank accounts, savings group promoters could work with retailers to provide asset-based, layaway linkages. Saving group members could be offered a catalog of products to which they could apply their savings, effectively establishing a savings goal. For example, stakeholders interested in promoting clean energy assets could offer solar panels, clean burning cook stoves, or water filters for purchase at the end of the saving cycle while promoters working in agricultural communities could partner with providers of inputs to pre-purchase fertilizer or seed. If successful, these linkages could help meet multiple goals—the desire to expand financial access, promote productive investment, and improve consumers' quality of life.

[22] Findex 2014

Similar financial product adaptations already exist, although many are in the remittance space. For example, Western Union and Sogexpress have partnered in Haiti to offer a platform to use remittances to finance renewable energy products.[23]

One potential challenge would be delivering assets to consumers when share-outs occur. Organizations like M-Kopa and One Acre Fund deliver clean energy and agricultural assets respectively over large geographic areas at set times and their models—or partnerships—could provide a blue print for how to expand access. A simpler solution is to work with local retailers to provide delivery services to rural areas.

The Case for Training

Provide Financial Capability and Business Training

Most of the spending that our analysis could link to either a share-out or group loan was related to consumption rather than investment. This is not always a bad thing—purchases of bulk food items in a household experiencing acute hunger are critical while purchases of things like cookware or furniture represent meaningful quality of life improvements for our respondents. However, the emphasis on consumption suggests that our respondents were not making productive investments to improve their living conditions, which was a project goal. In other words, the project aimed to provide women with a financing tool to gather capital to start a micro-business.

There were few instances in our data where respondents started businesses—most respondents were economically dependent on others in the household—while those that already ran micro-business did invest in these business. One way to encourage micro-business start-ups or the expansion of existing businesses is to offer training and/or coaching to group members. Evidence for the effectiveness of such programs exists, although delivery models vary significantly in cost and effectiveness. One possible, cost effective approach is to encourage mentoring within the group. Our analysis of the data suggested that there were a number of women who were successful businesswomen. They could serve as role models for other women in the group and be trained to be mentors to aspiring businesswomen.

Attitude, Knowledge and Skills

Before a link between savings groups and formal FSPs can be established, individuals need to be financially capable, meaning that they have the knowledge, skills, attitudes and self-efficacy necessary to engage with FSPs. Many of our respondents do not possess the knowledge or skills to navigate know-your-customer requirements or information on account fee structures. The majority of the women we interviewed received little or no formal schooling, leaving them functionally illiterate. Also, our respondents expressed meaningful attitudinal barriers to formal FSP use during qualitative interviews such as a lack of trust of banks. Consequently, FSPs need to invest in potential customers' knowledge, skills, and attitudes to build them into profitable lifelong customers.

Such financial capability trainings are non-starters in many formal FSPs—they are viewed as cost-centers rather than revenue generators and the effectiveness of such programs is viewed as suspect despite numerous studies demonstrating their potential impact on financial outcomes. However, breaking down attitudinal barriers can be part of FSPs core advertising operations if they use traditional marketing to frame their banks as welcoming, helpful, and trustworthy. To build knowledge and skills, FSPs could partner with foundations, non-governmental organizations, and other stakeholders to design and deliver

[23] http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=307768412

financial capability training to consumers. Savings group promoters—including CARE, Catholic Relief Services, and Oxfam—have experience offering financial education programs and have implemented or are attempting to implement linkage programs with FSPs. Adding training programs that help move members from savings groups to formal accounts may be a natural evolution of these relationships.

Mitigating Machismo

In both countries, it was typically men—often the husbands of our respondents—that dictated how much money women received and how they spent it. The nature of this dependency varied among households—some women were only given cash at the point-of-sale to complete a purchase while others got a weekly allowance. When households needed to interact with FSPs, it was often the men that were doing so. There were women in both countries that were economically independent, but in many cases they had to be—they had been widowed or their husbands had traveled to other areas within the country or to the United States to work.

For the women who live in the shadow of the financial decisions of their husbands, financial inclusion will not be enough. They also must possess the agency to utilize their financial tools to improve their quality of life. Consequently, we recommend an emphasis on programs that empower women and girls, especially in the realm of economic decision making. We also recommend that these programs engage women who operate with autonomy within these communities as role models and mentors, where feasible.

Safety First

Another major barrier to expanding financial access and encouraging economic growth in the specific contexts we studied was the issue of safety. The current gang activity and related killings have been well-documented in El Salvador and although there have been reports of a decrease in violent crime in Guatemala, it remains on the list of the most violent places to live in the Western Hemisphere. MFO's experience in the field provided a brief glimpse into the levels of violence and pervasive fear that our respondents experience. In El Salvador, children and adults were victims of violent crime in the communities we visited. The field teams were often monitored by gang members. When not being monitored, they heard whispered stories about mothers who would not let their sons collect firewood near their homes because of the fear that they could fall victim to gang violence.

Our respondents manage this circumstance as much as they can and live "regular" lives—they take pick-up trucks and mini-buses to town when needed and send their children to the local school. But there is no doubt from our qualitative observations that the risk of theft and/or physical injury impacts how much cash people carry, where they spend it, and what they are willing to carry with them as they travel. Consequently, governments, multi-laterals, private sector companies, and non-governmental organizations within these countries and internationally must continue to address the issue of security in order to promote development goals.

ANNEX 1:

DETAILED SAMPLE DESCRIPTION

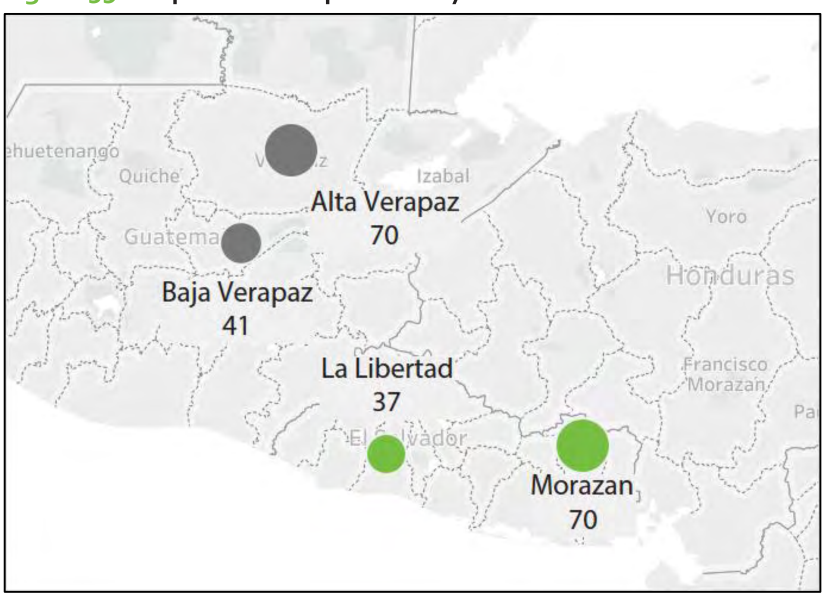
Distribution of Respondents

The sample consisted of 218 respondents—107 in El Salvador and 111 in Guatemala (Table 13 and Figure 59).

Table 13 Respondents by Country/Region

El Salvador		Guatemala	
Region	Total Number Respondents	Region	Total Number Respondents
La Libertad	37	**Alta Verapaz**	70
Morazán	70	**Baja Verapaz**	41
Total	107	**Total**	111

Figure 59 Respondent Map - Country View



Age, Household Role, and Household Size

During the enrollment process of the study, MFO conducted a survey to capture the socioeconomic characteristics of the respondents. The socioeconomic data gathered included: age, marital status, education and occupation of the respondents and all members of the household. Additionally, we gathered information regarding the financial services used by respondents at the time of the interview, an asset inventory and the characteristics of their houses including what kind of fuel was used more frequently to cook. Finally, we asked respondents about how they described their financial contributions to the household and their role in the administration of these contributions.

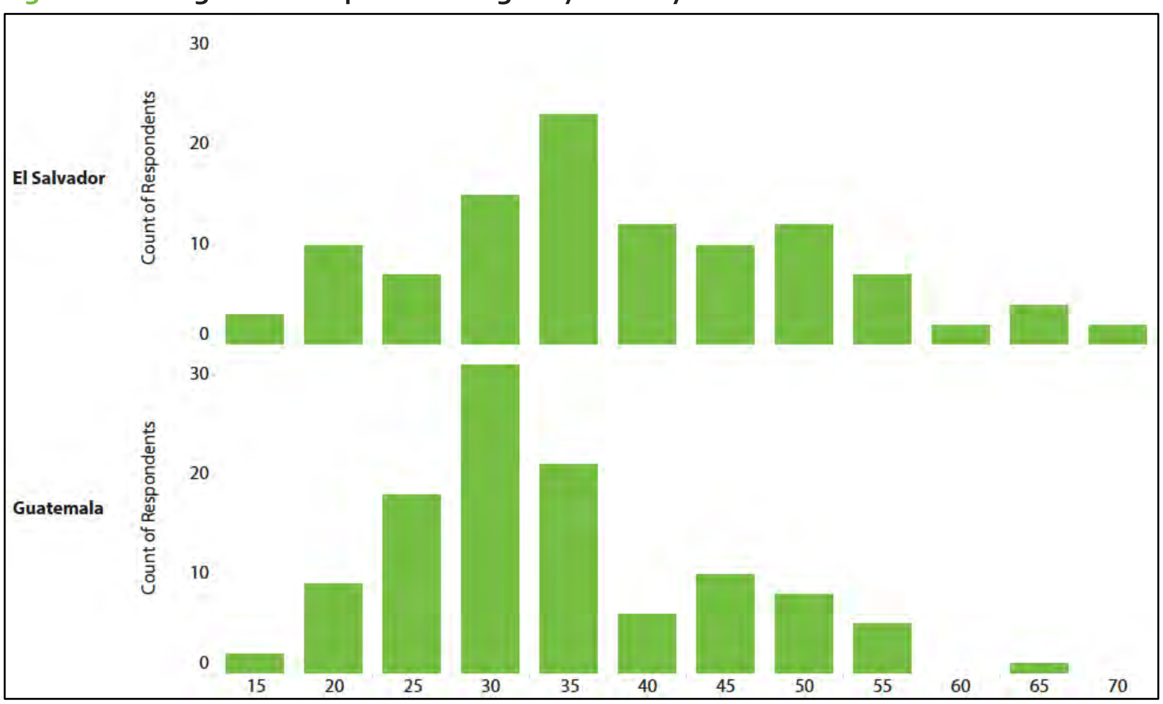
The average age of women in El Salvador was slightly over 40 and while in Guatemala they were, on average, 4 years younger. The women in Baja Verapaz were the youngest ones in the sample at an average of 34.

Table 14 Average Age by Country and Region

El Salvador		Guatemala	
Region	Average Age	Region	Average Age
La Libertad	38.4	**Alta Verapaz**	37.0
Morazán	40.9	**Baja Verapaz**	34.2
El Salvador	40.1	**Guatemala**	36.04

In El Salvador, respondents were fairly evenly distributed between the ages of 20 and 54, while respondents in Guatemala were more concentrated between the ages of 25 and 39.

Figure 60 Histogram of Respondents' Ages by Country



During the enrollment, we asked respondents to identify their role in the household. In the two research sites in El Salvador women reported being the head of the household at very similar rates—41 percent in La Libertad and 43 percent in Morazan. In Guatemala, women from Alta Verapaz reported being the head of the household at greater rates than in any other region of the study—73 percent. The lowest rate was in Baja Verapaz—34 percent.

Table 15 Household Role by Country / Region

	El Salvador		Guatemala	
Livelihood	La Libertad	Morazán	Alta Verapaz	Baja Verapaz
Head of Household	40%	43%	73%	34%
Spouse	57%	56%	23%	63%
Adult Daughter		1%	4%	3%
Other	3%			
Total	100%	100%	100%	100%

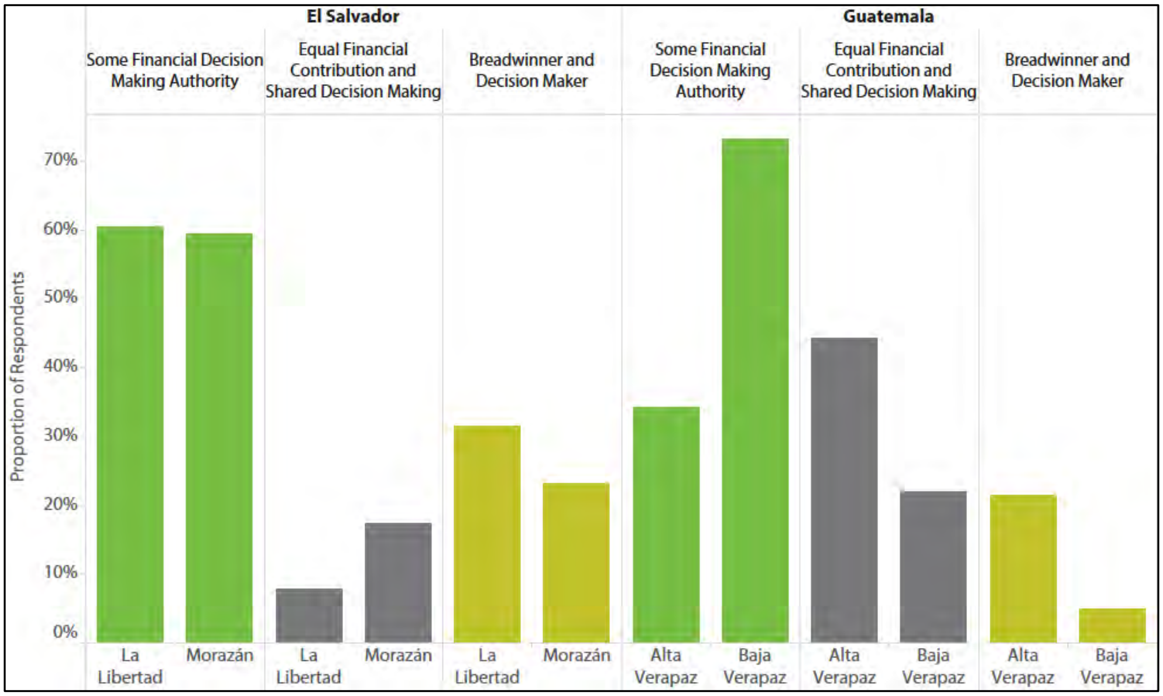
Most of the respondents in the sample were either married or living together, in cohabitation with a partner. These two categories alone make up 72 percent in El Salvador and 81 percent in Guatemala.

Table 16 Respondent Marital Status

	El Salvador			Guatemala		
Marital status	La Libertad	Morazán	El Salvador	Alta Verapaz	Baja Verapaz	Guatemala
Single	1%	5%	6%	8%	2%	10%
Married	8%	36%	43%	45%	23%	68%
Cohabitation	17%	12%	29%	4%	8%	13%
Widowed	3%	5%	8%	3%	2%	5%
Divorced	7%	8%	14%	4%	0%	4%

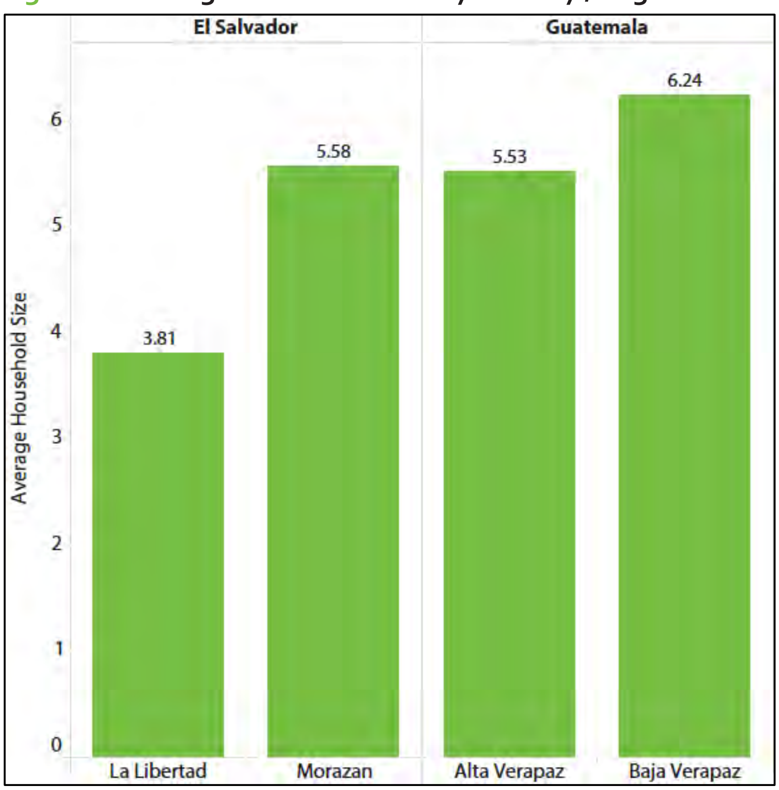
The majority of respondents from both regions in El Salvador as well as respondents from Alta Verapaz in Guatemala identified themselves as having some decision making authority in their households. Equal financial contributions and shared decision making was higher in Guatemala compared to El Salvador. Respondents that identified themselves as the breadwinners and the decision makers of their households belonged to the minority in both countries.

Figure 61 Household Contribution by Country and Region



In the three rural research sites—Morazan in El Salvador and Alta and Baja Verapaz— respondents had, on average, about six people living in their households, including themselves. In the peri-urban site, La Libertad, the average household size was much smaller—fewer than four people per household.

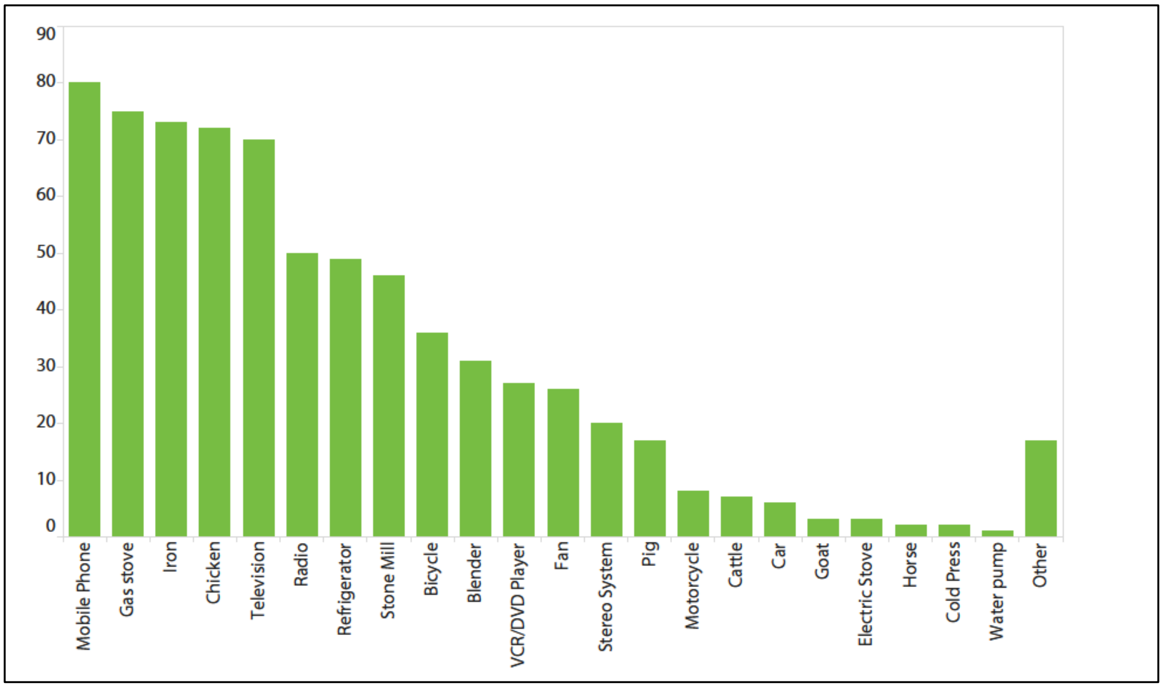
Figure 62 Average Household Size by Country / Region



Respondents' Asset Ownership

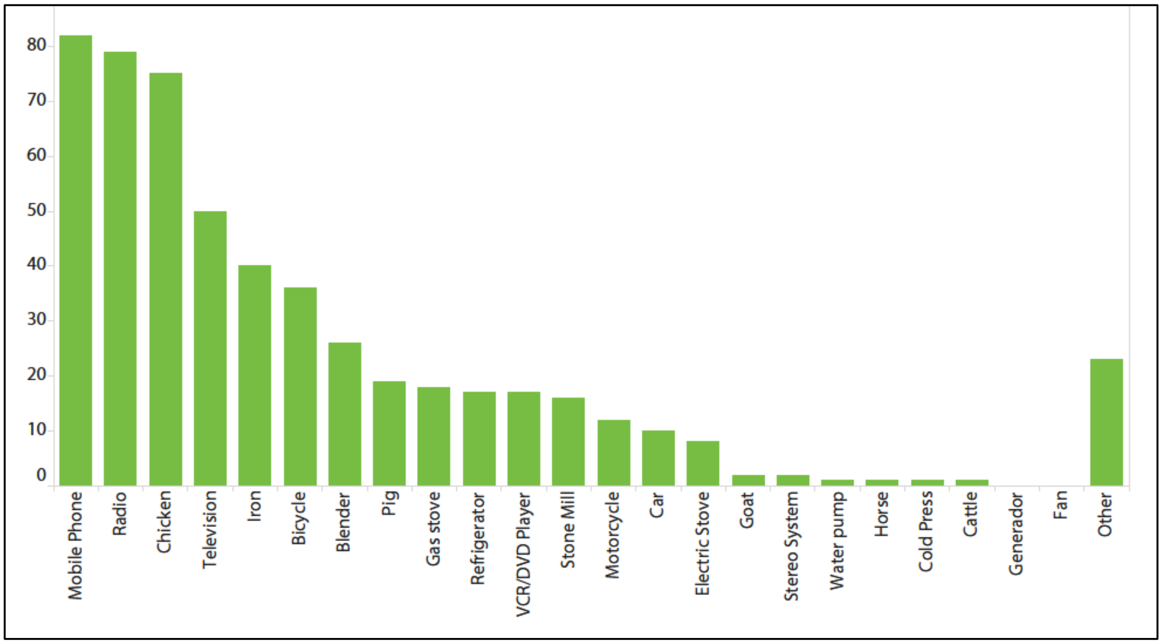
During the enrollment process, we asked respondents about the assets they owned. In both countries, the most common asset the respondents reported owning was a mobile phone—about 80 percent of respondents reported this. In El Salvador about 70 percent of respondents owned a gas stove, clothes iron, chicken or television; almost 50 percent of respondents reported owning a radio, refrigerator, or stone mill; over 30 percent of respondents owned a bicycle, blender, VCR/DVD player, fan, stereo system or pig. A handful of respondents reported owning higher value assets like livestock, a car or a motorcycle. Some of the assets in the "other" category are: sewing machines, computers, tablets, dining sets, cabinets or microwaves.

Figure 63 Respondents' Asset Ownership El Salvador



In contrast to El Salvador, Guatemalan respondents reported owning fewer assets in general. Seventy-seven percent reported owning a radio or chicken; about 40 percent reported owning a television, iron, bicycle or blender; 17 percent reported owning a pig, gas stove, refrigerator, VCR/DVD player or stone mill. A handful of respondents also reported owning higher value assets like livestock, a car or a motorcycle. Some of the assets in the "other" category are: sewing machine, solar panel or computer.

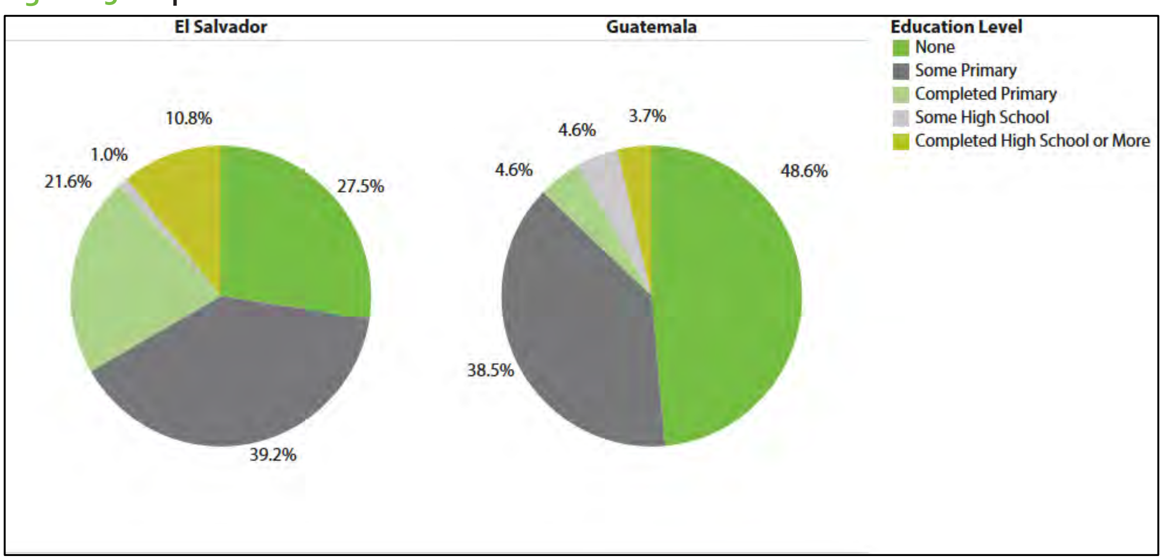
Figure 64 Respondents' Asset Ownership Guatemala



Respondents' Education

In El Salvador as in Guatemala, respondents' levels of education are distributed in similar patterns however, respondents in Guatemala had overall lower education levels than respondents in El Salvador. In both countries, the majority of respondents were concentrated in the "none" or "some primary" buckets; however, the percentage of respondents that had received no education was higher in Guatemala at 48.6 percent compared to El Salvador at 29.9 percent. The percentage of respondents who completed primary was also overwhelmingly higher in El Salvador at 21.5 percent compared to Guatemalan respondents where only 4.6 percent had completed primary.

Figure 65 Respondents' Education



ANNEX 2: DATA OVERVIEW

In El Salvador, three enumerators—two in Morazan and one in La Libertad—conducted 5,402 interviews over the course of the year, an average of 50 per respondent. In Guatemala, three enumerators—two in Alta Verapaz and one in Baja Verapaz—completed 5,615 interviews, an average of 51 per respondent. Data collection started in mid-April of 2015 and ended mid-April of 2016 in El Salvador. In Guatemala, the data collection ran from early May 2015 to early May 2016.

Table 17 Number of Weeks Interviewed by Country/Region

	Total Number Interviews	Average Number of Interviews per Respondent
El Salvador	5,402	50
La Libertad	1,927	52
Morazán	3,475	50
Guatemala	5,615	50
Alta Verapaz	3,546	51
Baja Verapaz	2,069	50
Total	16,510	50

In El Salvador, respondents conducted 100,124 transactions valued at $754,175 during the year. In Guatemala, the respondents conducted 104,664 transactions valued at $624,506 during the the study.

Table 18 Transaction Breakdown per Region – El Salvador

	La Libertad		Morazán		Non-financial / In-kind
	Number of transactions	Amount in USD	Number of transactions	Amount in USD	Non-financial / In-kind
La Libertad	3,437	$135,991	27,531	$116,204	2,173
Morazán	6,577	$ 232,962	51,942	$ 212,945	8,464

Table 19 Transaction Breakdown per Region – Guatemala

	Inflows		Outflows		
	Number of transactions	Amount in USD	Number of transactions	Amount in USD	Non-financial / In-kind
Alta Verapaz	5,788	$219,208	61,761	$200,177	1,789
Baja Verapaz	3,312	$94,720	30,135	$92,094	1,879

Earnings and Intra-Household Transfers

Average weekly earnings

In all four research sites respondents who were earners had, on average, more sources of income, than dependents. As would be expected, there was a large difference in the average weekly earnings of the women in the two categories within each region, with earners earning four to ten times what the dependents earned.

Table 20 Earnings and Sources of Earnings by Livelihood by Country / Region

	El Salvador		Guatemala	
	Number of Income Sources	Average Weekly Income (USD)	Number of Income Sources	Average Weekly Income (USD)
	La Libertad		**Alta Verapaz**	
Earners	2.6	27.1	2.7	44.7
Dependents	1.7	5.6	2.1	5.6
	Morazán		**Baja Verapaz**	
Earners	3.28	41.38	3.00	31.43
Dependents	2.31	3.81	2.49	7.93

Looking more closely at the dependents, we can get some idea of the relationship between the type of work their husbands performed and the transfers they received. In La Libertad, women whose husbands were in formal employment at the time of the study received the highest weekly transfer, on average about $32. Women married to men who were either farmers or informal workers received about $20 per week. The pattern was the same in Morazan, although the transfers from those working in formal employment were much lower than in La Libertad, about $22 on average.

In Alta Verapaza in Guatemala women dependent on farmers received the highest average weekly transfers—$39, followed by formal employment—about $33, and informal labor services—$23. In Baja Verapaz, women dependent on farmers received the same weekly transfer amount than their counterparts in Alta Verapaz, but those dependent on formal employees received more per week—about $48. Finally, those dependent on informal workers received about $24 per week.

Average Weekly Intra-Household Transfers

Table 21 Average Weekly Income, Based on the Occupation of the Husbands of Dependent Respondents by Country / Region

Occupation of Main Provider in Households where Women were Dependents	El Salvador Average Weekly Transfers (USD)	Guatemala Average Weekly Transfers (USD)
	La Libertad	**Alta Verapaz**
Farmer	19.5	39.3
Formal employment	32.2	32.7
Informal Labour Service	20.6	23.0
Unknown	29.0	44.8
	Morazán	**Baja Verapaz**
Farmer	17.6	39.3
Formal employment	22.2	47.6
Informal Labour Service	18.1	24.4
Unknown	18.2	37.9

Earnings variation

The respondents' earnings were highly variable during the study as measured using the coefficient of variation (COV, which is the standard deviation of the earnings distribution divided by the average earnings). This variability included many weeks when they earned no income—in more than half of the study weeks, respondents reported no earnings in both countries. Baja Verapaz had the highest number of weeks with no earnings: the women at that research site earned no income in 70 percent of the weeks that the study lasted.

Table 22 Average COV and Weeks with No Earnings by Country / Region

	El Salvador			Guatemala	
Region	Avg. COV	Zero Earned	Region	Avg. COV	Zero Earned
La Libertad	2.67	1,121 (58.1%)	**Alta Verapaz**	2.7	2,181 (61.5%)
Morazán	2.96	2,130 (61.2%)	**Baja Verapaz**	3.0	1,455 (70.3%)

Respondents who we classified as Earners had much less income variation and fewer weeks in which they earned no income than dependents.

Table 23 Average COV and Zero Earned Weeks, Earners Only by Country / Region

	El Salvador			Guatemala	
Region	Avg. COV	Zero Earned	Region	Avg. COV	Zero Earned
La Libertad	1.74	268 (13.9%)	Alta Verapaz	1.06	234 (6.5%)
Morazán	1.68	454 (13.0%)	Baja Verapaz	2.48	70 (3.3%)

*COV = Coefficient of variance
Zero earned = weeks when the respondent reported *no* earned income

Intra-Household Transfer Variation for Dependents

Given the reliance of dependents on intra-household transfers for the money flowing into their hands we looked at the variation in these transfers over the course of the study year. The data suggest that dependents received consistent transfers from the main provider in their household, usually their husband, and that the flow was generally more consistent than the earnings of the earners—in all of the research sites the COV of the transfers was lower than the COV of the earnings of the earners. But the dependents encountered many more weeks in which they received no IHTs than the earners earned no income. This suggests a difference in the pattern the two income streams. Earners tended to earn almost every week, but how much they earned week to week varied considerably. Dependents did not receive transfers every week, but the amounts they did receive were fairly consistent.

Table 24 Average COV and No IHT Weeks, Dependents Only by Country / Region

El Salvador			Guatemala		
Region	Average COV	Share of Weeks with No IHTs	Region	Average COV	Share of Weeks with No IHTs
La Libertad	1.4	35%	**Alta Verapaz**	1.0	19%
Morazan	1.1	29%	**Baja Verapaz**	1.0	17%

Spending

Household Spending

Respondents' average weekly household spending was similar across the two regions in El Salvador and Alta Verapaz in Guatemala, ranging from $34 to $36 USD per week. Household spending in Baja Verapaz, was one third lower than anywhere else reflecting the lower incomes of respondents in that region. The weekly number of transactions is similar across all regions although there were slightly more transactions in Alta Verapaz.

Table 25 Average Household Spending per Week for by Country/Region

El Salvador			Guatemala		
	Avg. Household Spending (USD)	Avg. number of transactions		Avg. Household Spending (USD)	Avg. number of transactions
La Libertad	36.14	12.7	**Alta Verapaz**	33.81	15.5
Morazán	35.14	13.2	**Baja Verapaz**	23.96	12.7

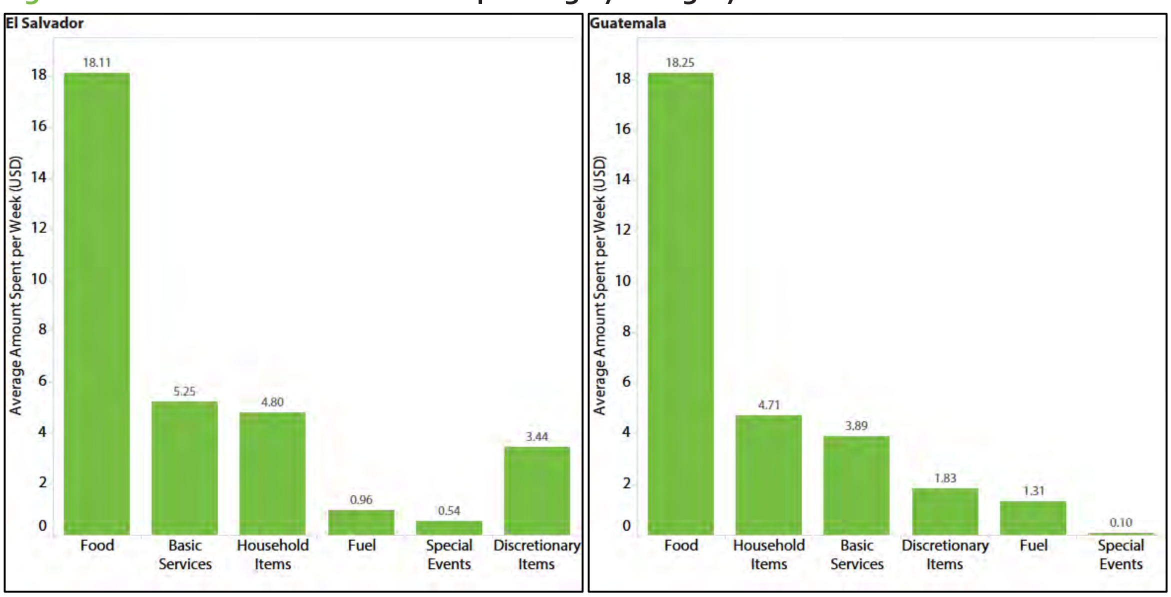
There is no clear pattern of spending based on whether a respondent is a dependent or an earner. In El Salvador, earners spent more than dependents. The same was true in Baja Verapaz, but the opposite was true in Alta Verapaz.

Table 26 Average Household Spending per Week by Livelihood by Country / Region

	El Salvador Average Household Spending (USD)	Guatemala Average Household Spending (USD)
	La Libertad	**Alta Verapaz**
Earners	40.59	27.43
Dependents	33.44	36.30
	Morazán	**Baja Verapaz24**
Earners	52.89	26.59
Dependents	24.17	23.67

We classified household spending into categories. These categories are food, household items, basic services, fuel, special events, and discretionary spending. In all regions across both countries, respondents spent the most on food. Respondents spent over three times more on food than on any other spending category. Respondents spent similar amounts on the second and third most common spending categories: basic services and household items. Discretionary items accounted for the fourth most spending in both countries, but the amount spent in El Salvador was almost two times as much as in Guatemala. Respondents in Guatemala spent almost twice as much on fuel than Salvadorian respondents each week. This was because the weather in the study sites in Guatemala was colder, increasing average fuel consumption.

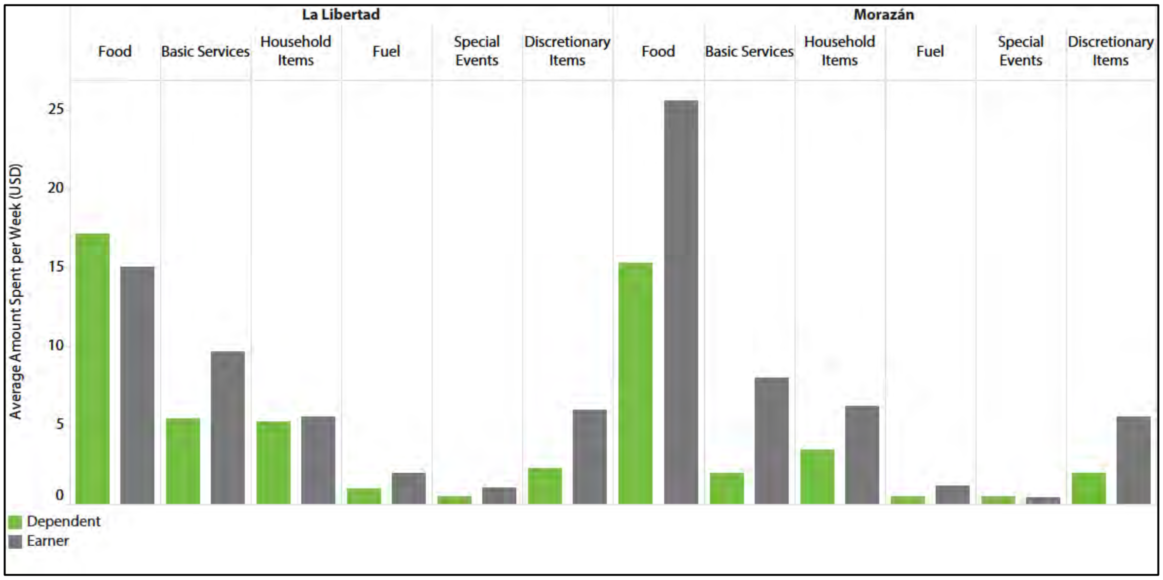
Figure 66 Distribution of Household Spending by Category El Salvador and Guatemala



In El Salvador, earners spent more on basic services, household items, fuel and discretionary items in both La Libertad and Morazán. In addition, earners spent about $10 more per week on food than dependents in Morazán.

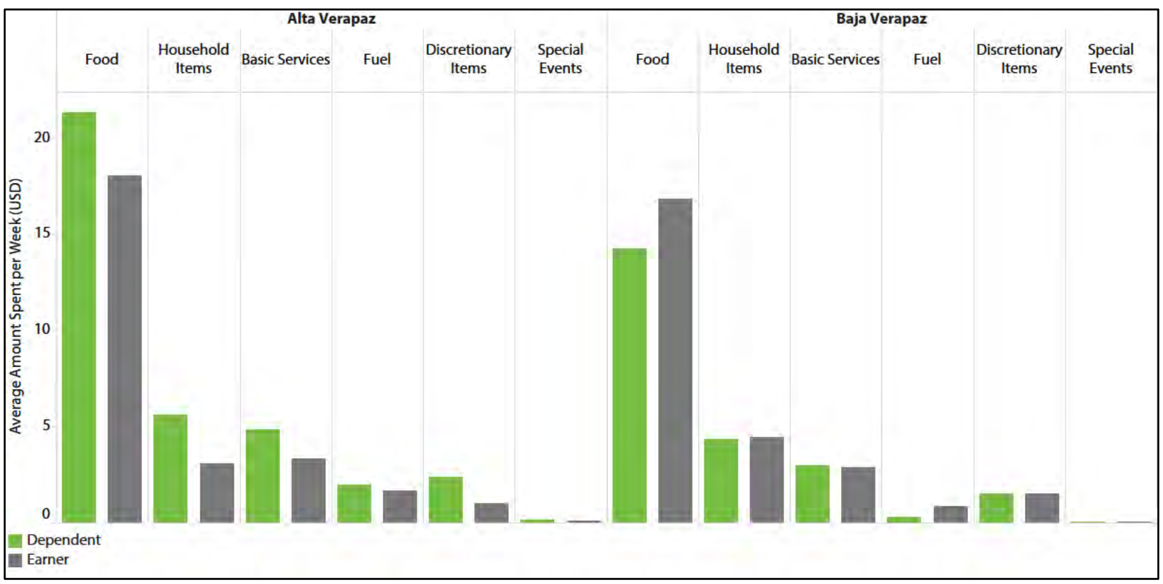
[24] Average household spending and average number of transactions in Baja Verapaz correspond to four earners respondent.

Figure 67 Distribution of Household Spending by Category and Livelihood



In Alta Verapaz in Guatemala, dependents spent more on food than did dependents in Baja Verapaz. Baja Verapaz had more agricultural activities and the households were more likely to harvest maize than some respondents in Alta Verapaz. It was also common for respondents in Baja Verapaz to gather firewood to cook, explaining the lower levels of fuel spending there.

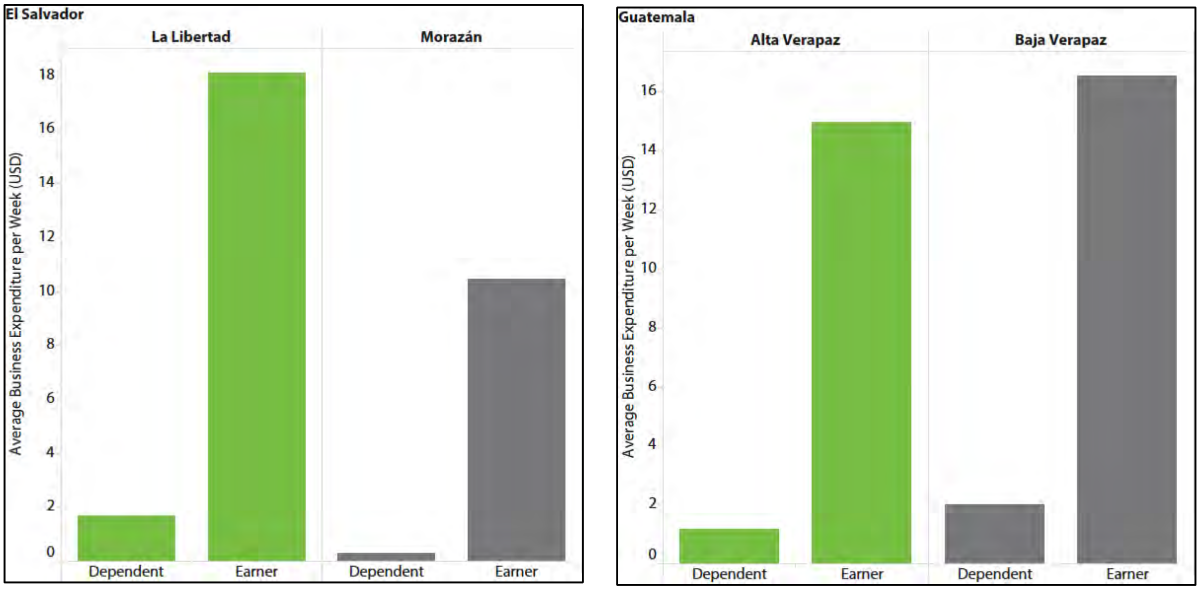
Figure 68 Distribution of Household Spending by Category and Livelihood Amounts for Guatemala



Business spending

As one might expect, respondents who were earners spent far more on business expenses than did dependents (Figure 69). Business spending was similar across the two regions in Guatemala and in La Libertad, ranging between $15 USD per week and $16.5 USD per week. In Morazan business spending was far lower—less than $10.5 USD per week.

Figure 69 Average Weekly Business Spending by Country / Region

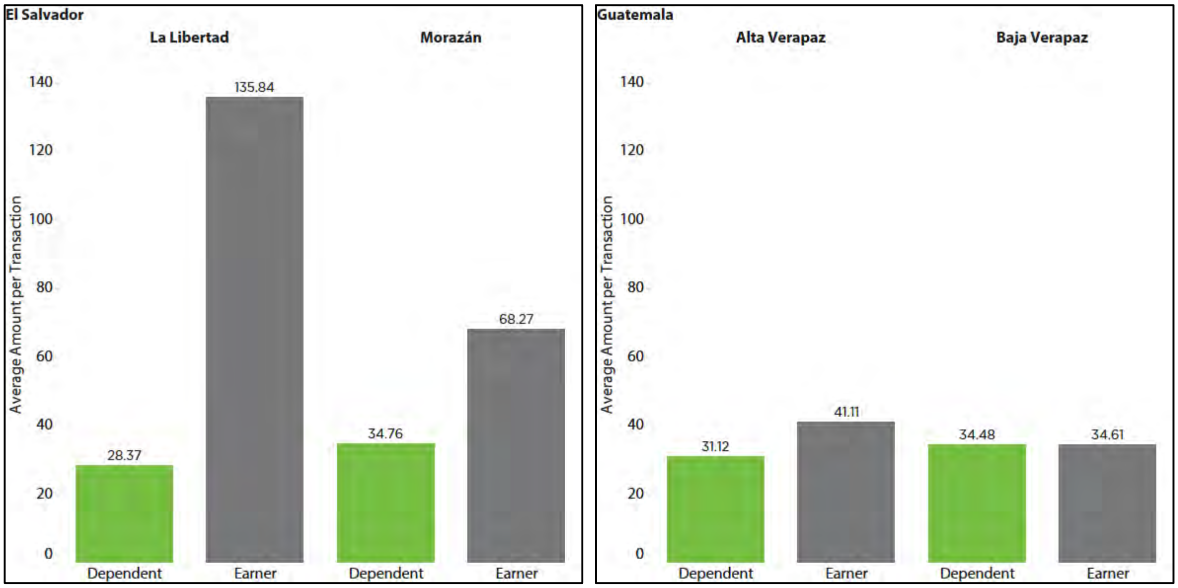


Lump Sum Purchases

Lump sum purchases are unusually large purchases made by the respondents. We identify lump sum purchases based on which expenditures are statistical outliers for each respondent.

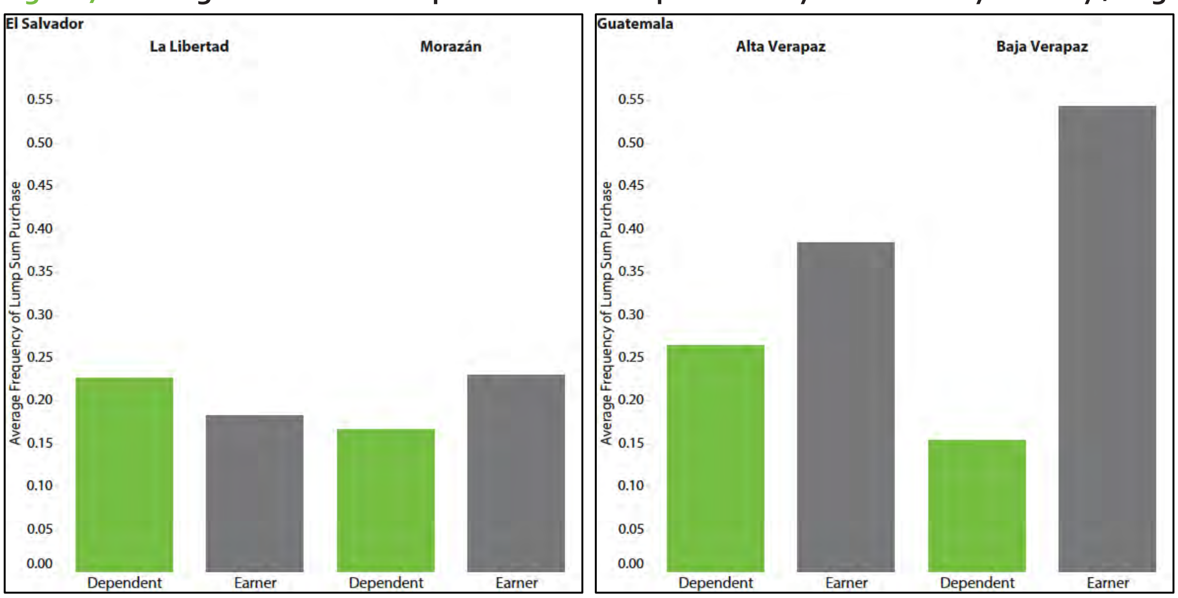
There is a clear difference in the lump sum purchasing patterns of earners and dependents in El Salvador. On average, earners in La Libertad spent over three times as much as dependents on each lump sum transaction. In Morazán earners spent about twice as much per transaction than dependents did. In Guatemala, there was little difference in the average amount spent by earners and dependents, on lump sum purchases.

Figure 70 **Average Size of Lump Sum Purchases by Livelihood by country / Region**



In El Salvador, most respondents made a lump-sum purchase about once a month, regardless of their livelihood. In Guatemala, the frequency of lump sum purchases varied considerably from once every two and a half weeks to once every six weeks.

Figure 71 **Average Number of Lump-Sum Purchases per Week by Livelihood by Country / Region**



Guide to interpreting counts per week	
Once per month	0.22
Once every six months	0.04
Less than once per year	<0.02

Financial Tools and Networks

People use financial tools to manage their money. Tools are different types of savings mechanisms, credit facilities, money transfer devices, and insurance coverage. These tools are offered by providers in respondents' networks. The network includes banks, moneylenders, and individuals who provided themselves with a financial tool. Table 16 illustrates this basic framework.

Table 27 Financial Tools and Networks Typology

Network / Tool	Self	Friends and Family	Informal financial service providers	Non-financial organization	Formal financial service providers
Savings	Home savings	One family member holds money for another	Savings group	Church-based savings club	Bank account or mobile money wallet
Loans	N/A	No-interest loan from a friend or family member	Loan from a money lender or Savings Group	Emergency loan from a disaster-response organization	Installment loan
Insurance	Self-insurance through savings	Cash gift from a family member to cover an emergency	Burial fund or Savings Group Social Fund	Emergency grant from a disaster-response organization	Life insurance or Health Insurance
Transfers (remittances or payments)	N/A	Cash gift	Money courier service through a local bus company	Grant from an non-governmental organization	Mobile money remittance; direct deposit into a bank account

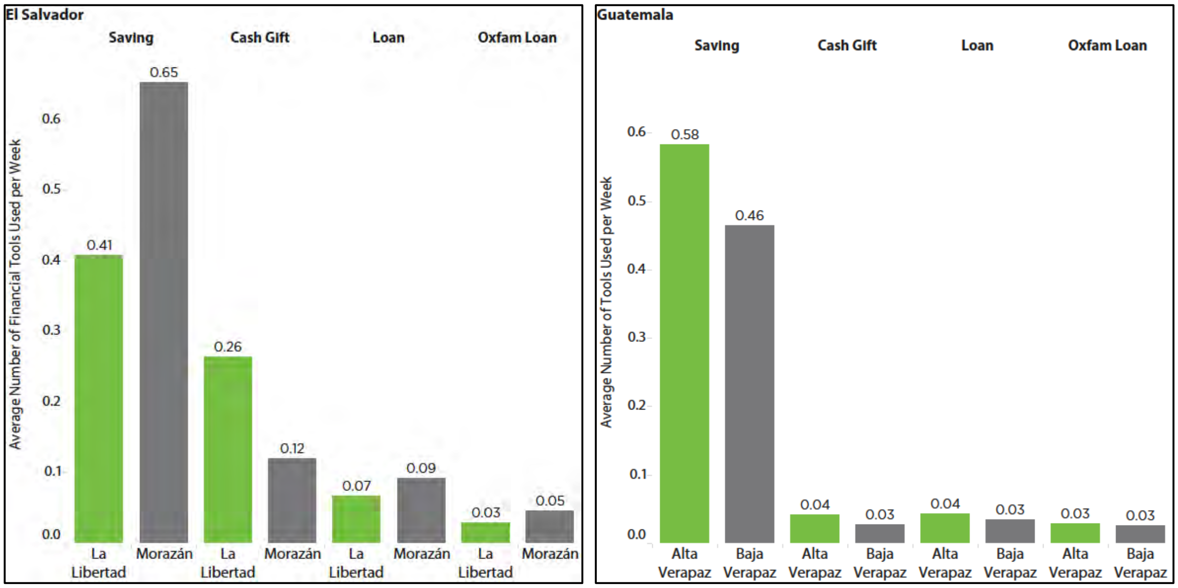
This section will focus on three tools: savings, cash gifts, and loans, although we emphasize the role of loans from Oxfam savings groups.

Financial Tool Use

The respondents in our sample relied predominantly on home savings and cash gifts from friends and family to manage their money. In El Salvador, respondents from La Libertad and Morazán used some sort of savings tool (home account, Oxfam group, or bank account) about three out of four weeks each month. Respondents in La Libertad were more likely to receive cash gifts than respondents in Morazán. Morazán's respondents were slightly more likely to take loans than La Libertad respondents.

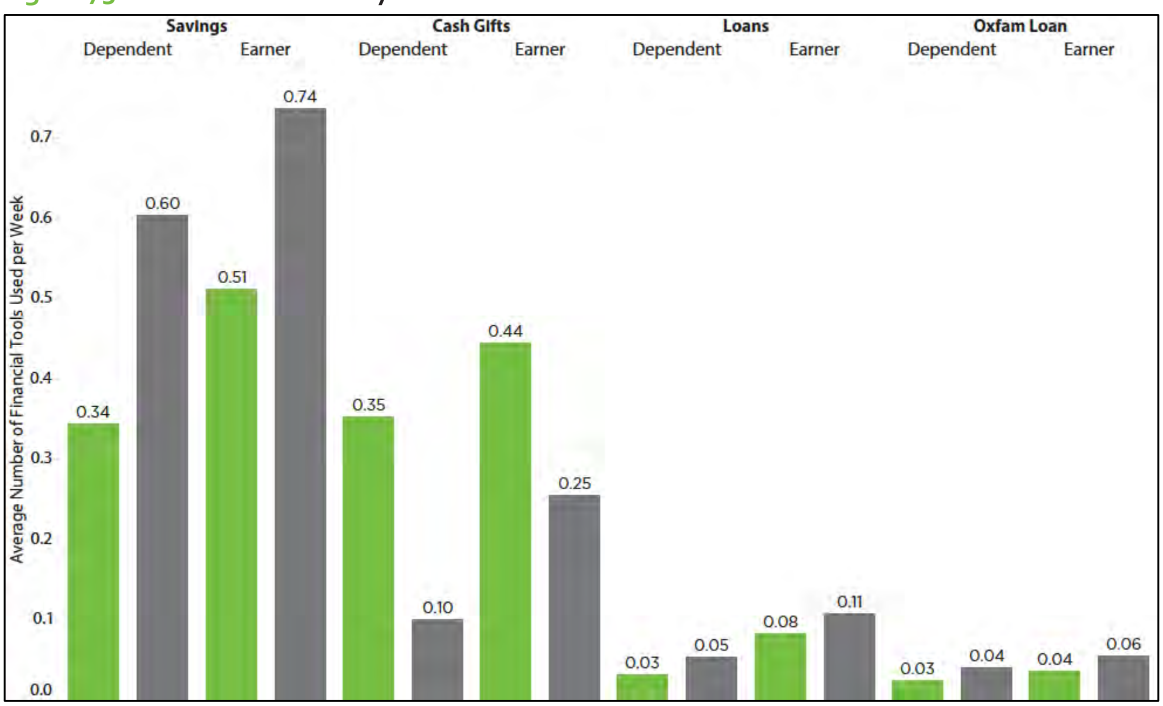
In Guatemala, financial tool use was, in general, lower than in El Salvador. Particularly, loans were rarely used, about once every six months or less. When it came to savings, Alta Verapaz respondents were more likely to save than respondents in Baja Verapaz. Respondents in the former region were more likely to receive a cash gift than those in the latter region, but the overall frequency of cash gifts was very low (once every three months in Alta Verapaz). Overall, respondents used these financial tools about once every six months or less.

Figure 72 **Financial Tool Use by Country / Region**



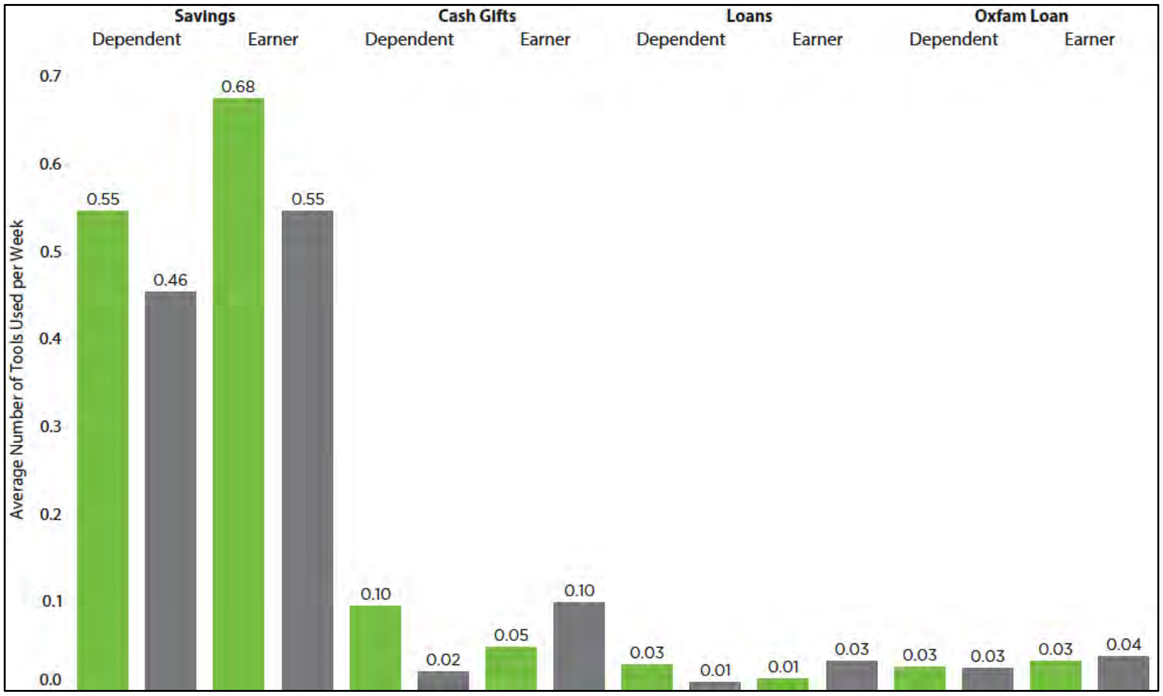
There were clear distinctions between how earners and dependents within each country used financial tools. Earners conducted savings transactions more regularly. They also borrowed more frequently, both loans from their Oxfam savings group and from other sources. But when it comes to cash gifts, earners in Morazan gave or received them more often than dependents..

Figure 73 **Financial Tool Use by Livelihood El Salvador**



In Guatemala, the clear differences between earners and dependents were confined to their savings behavior. Earners used savings more often than dependents did in both regions, about once a month or more. Dependents received more cash gifts in Alta Verapaz but the opposite happened in Baja Verapaz, where earners were more likely to receive cash gifts, about once every three months. The average number of loans in general was very similar across both regions and for all livelihoods; respondents took one about once every 6 months or less.

Figure 74 Financial Tool Use by Livelihood - Guatemala



Financial Network Use

The respondents in the study used a variety of tools through a variety of networks. Across all the research sites the pattern was very similar: the activity was concentrated in the use of savings and cash transfer tools through the Oxfam savings groups, informal service providers, or friends and family. Interactions with the informal sector were minimal. The one place where the formal FSPs did show some activity was in channeling remittances to the respondents as indicated by the Formal Cash Transfer bar at the top of each graph.

Figure 75 Financial Tools by Network, Number Transactions, El Salvador

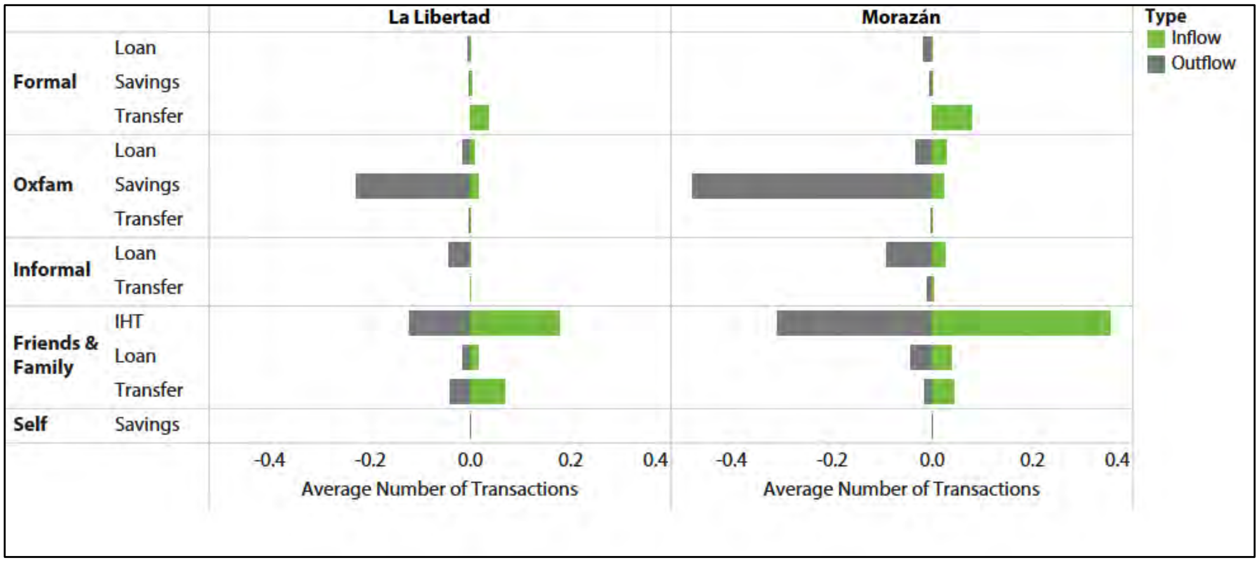
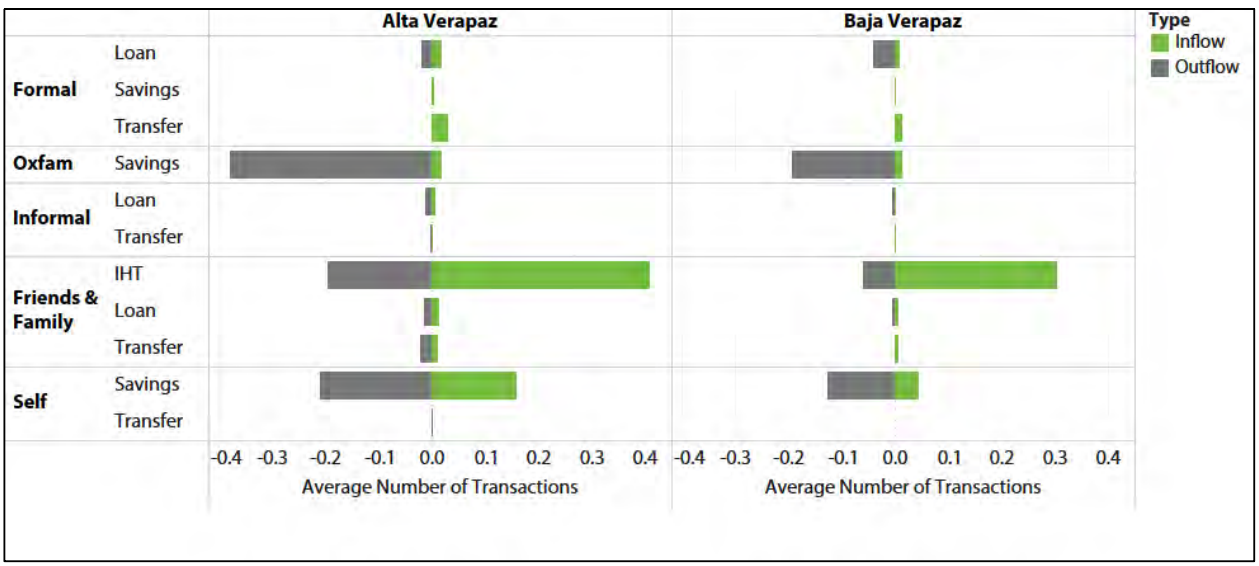


Figure 76 Financial Tools by Network, Number Transactions, Guatemala



But when it comes to amounts transacted, the transactions with formal FSPs were, on average, much larger than transactions with the Oxfam groups or with friends and family (Figure 77 and Figure 78).

Figure 77 **Financial Tools by Network, Average Transaction Amount, El Salvador**

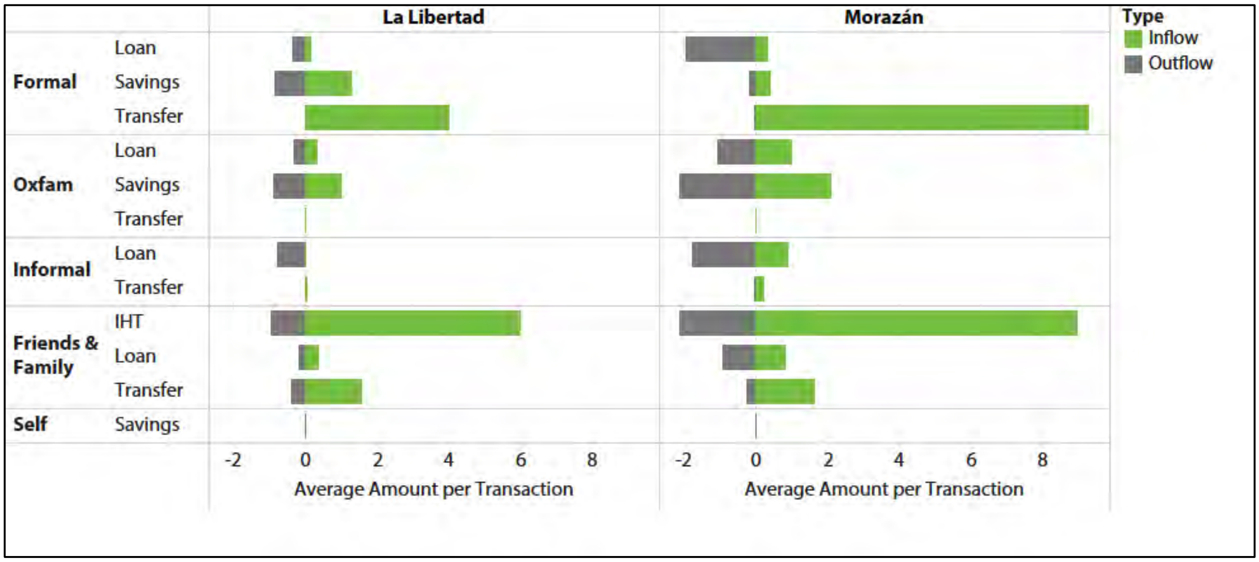
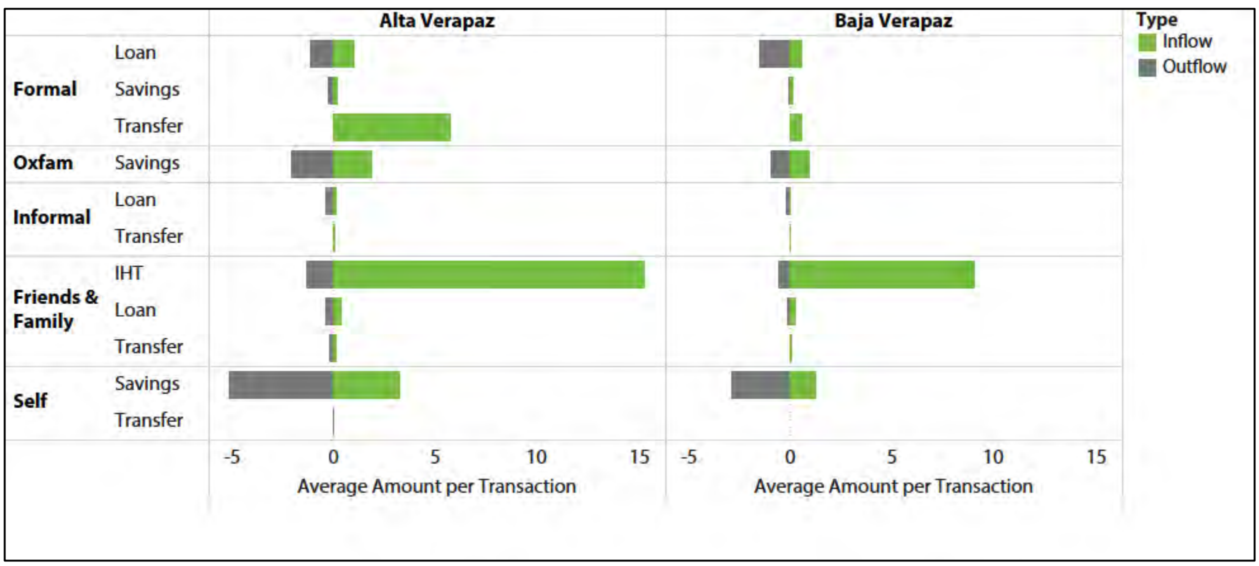


Figure 78 **Financial Tools by Network, Average Transaction Amount, Guatemala**



The result of these two patterns of activity—a large number of small transactions outside of the formal network and a small number of large transactions within the formal network—played out slightly differently in La Libertad than it did in the other research sites. In La Libertad savings deposits and withdrawals in formal FSPs per respondent were roughly similar to the savings deposits and withdrawals in the Oxfam groups. In the other three research sites, despite the large amounts involved, activity in the formal network, except in the case of cash transfers, did not add up to much in terms of amount per respondent.

Figure 79 **Financial Tools by Network, Average Amount per Respondent, El Salvador**

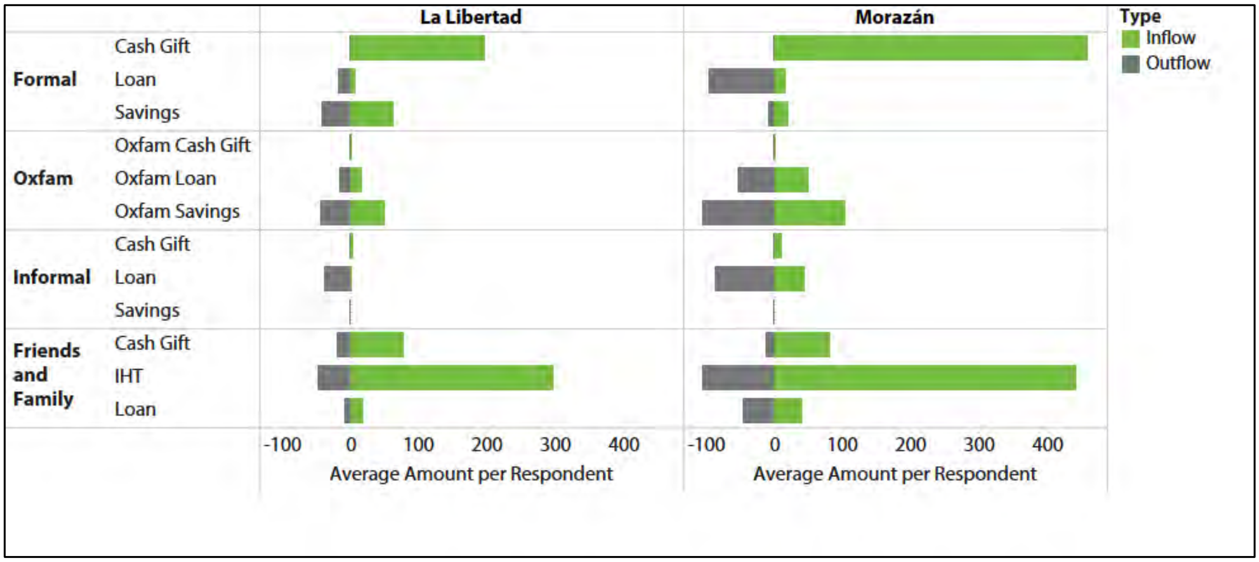


Figure 80 **Financial Tools by Network, Average Amount per Respondent, Guatemala**