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Tackling Overindebtedness Through Financial Education in Ecuador

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AN HONORS THESIS PRESENTED TO THE ECONOMICS DEPARTMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR HONORS IN THE MAJOR FIELD

Abstract

This thesis examines the growth and development of the financial sector in Ecuador, focusing in particular on the products and services offered to low-income individuals, including, but not limited to microfinance. I examine the current problem of over-indebtedness, and evaluate both the supply / institutional side as well as the demand / client side. I conclude that while the market for microfinance institutions and low-income products and services is highly saturated and very developed, governmental interventions, structural problems and lack of accompanying financial capabilities have limited the effectiveness of the industry, and perpetuated indebtedness. I propose mandatory financial education programs provided by all financial institutions that target low-income clients in particular. This policy recommendation will improve the current microfinance model by increasing client financial knowledge, hence mitigating the harmful consequences of governmental intervention in the financial system.

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Introduction

Microfinance, and the market for products and services targeting low-income individuals have been increasingly discussed over the past 20 years in particular. Many changes throughout the world have been witnessed, as microfinance has become a well-established industry in nearly every continent. In the wake of this growth and promise as a tool to help eradicate poverty, many have questioned the actual effects of this development strategy. Indeed, microfinance has not quite lived up to its original promise. Yet, as many scholars have shown through the use of impact evaluations, surveys and comprehensive studies, there is great potential. The model is not perfect, but it can be a critical tool to providing the financially excluded population with products and services to help them improve their economic situations. In order for this to happen, some reform is needed. In particular, a closer look at the microfinance model in each regional context must be taken, in order to address the issues most critical to the local institutions and populations.

The purpose of this thesis is to take a closer look at the microfinance model as it currently exists in Ecuador. I will show the changes that have taken place in recent years in the industry as a whole and how clients have been affected. The Ecuadorian context provides an interesting case study because it has one of the most saturated markets in Latin America and reflects the struggles many other countries are going through with regards to its microfinance market and clients. In particular, the problem of overindebtedness has been cited as the greatest threat to the microfinance industry in the world and is one problem the Ecuadorian economy has been grappling with more recently. As a number of institutional changes are taking place in Ecuador, the recent emergence of financial education has sparked a new discourse about what the country and its clients need.

Thus, using Ecuador as a case study, the paper will examine the issues faced by microfinance institutions (MFIs) and clients more carefully. Furthermore, it will provide an examination of the indebtedness challenge and evaluate to what extent it can truly be classified as an 'overindebtedness crisis' as the national rhetoric has suggested. Lastly, it will analyze the potential for financial education and give a policy recommendation for its most effective use to address the problems faced in Ecuador.

The research in this paper contributes to a deeper understanding of the microfinance industry in Ecuador. It also provides a solution for how to improve the existing model and makes a case for the greater use of financial education as a way of achieving greater financial inclusion of low-income populations, a critical issue facing the microfinance industry worldwide.

Chapter 1 presents a brief history of the emergence of microfinance, as well as a discussion of the various kinds of microfinance structures. It gives a global context of MFIs and their services and the most significant changes that have occurred in the industry over the past 40 years.

Chapter 2 discusses the challenges and achievements of the industry, and focuses on particular findings from randomized control trials. The chapter presents the main criticisms that have been voiced about microfinance as a development strategy and evaluates their validity. It also analyzes the major contributions of the field and highlights the most successful aspects of the model globally.

Chapter 3 focuses on Ecuador's regulatory framework, in particular how it has shaped and affected the financial and microfinance sector. The chapter provides a brief history of Ecuador's economic changes and contextualizes the presence of microfinance. The analysis focuses on policies most recently put in place by the New Left government of Rafael Correa and the changes taking place in the economic structure that have disrupted the operations of financial institutions within it.

Chapter 4 provides an overview of MFIs in Ecuador, highlighting two of the most important institutions in the market: Banco Solidario and Banco Pichincha's Credi Fé. This includes an outline of a brief history of these institutions and contextualizing their approach and client base. Furthermore, the chapter offers a financial analysis of both institutions, shedding light on the overall financial health and stability of the key players in the market.

Chapter 5 discusses problem of Ecuadorian overindebtedness in more depth. It gives a deeper insight into the financial trends and behaviors of clients, using a number of different indicators of indebtedness to do so. The section examines the increase in clients in the market, particularly the growth of the microenterprise portfolio, the rise in access to and circulation of credit cards, and the debates around the elimination of private credit bureaus. The chapter concludes with an evaluation of the extent to which overindebtedness can truly be considered a crisis in Ecuador.

Chapter 6 provides an overview of financial education and discusses the literature review on the subject. Studies show its effectiveness in inducing positive behavioral changes and financial behaviors in different contexts. The chapter also explains the need for more financial education globally to accompany the wide range of products and services available to clients. Moreover, it outlines the current governmental reforms pushing for mandatory education programs offered by all MFIs in Ecuador.

Chapter 7 highlights the importance of financial education in addressing some of the shortcomings of the current microfinance model as it exists in Ecuador. It focuses in particular on how the problems leading to overindebtendess can be mitigated and how financial behavior can be positively affected through the model. It serves as a recommendation to policymakers for how to best implement financial education.

Chapter 1: Global Context of Microfinance and Financial Inclusion

Over the past two decades, we have seen a significant increase in financial institutions, products and services being made available to low-income and poor individuals throughout the world. Why is this significant? One of the Millennium Development Goals, as stated by the United Nations, is to reduce poverty by half by the year 2015. This requires a sustainable, long-term strategy that will allow for an enhanced financial solvency in the world. Providing formal financial products and services to the world's poor is considered one way to promote greater financial independence, and move a step closer towards long-term poverty reduction. Moreover, microfinance – a collective term referring to financial services, including loans, made available primarily for the purposes of expanding small businesses, or microenterprises – has been seen as one method to increase financial inclusion and reduce poverty.

Within the rhetoric of the development challenge then, it becomes clear that one key aspect is providing products and services to the population who is not included in the commercial formal financial banking system. There can be a variety of reasons why certain populations are excluded from the financial system, such as lack of collateral, illiteracy, poor credit score, to name a few. In the past, this population was considered "unbankable," or a liability for most financial institutions who would not take on these clients. However, more and more low-income individuals are becoming a part of the formal financial system, thanks in large part to the rise in microfinance over the past 3 decades. This chapter will examine the global developments and spread of microfinance, as well as present a closer look at Latin American trends.

A Brief History of Microfinance

The 1970s and 80s were times of global economic recessions, and it is in this era that we first begin to see the development of microfinance organizations as we know them today. However, attempts to broaden financial inclusion occurred much earlier than that, but in different forms. Credit cooperatives and credit unions are cited as early microfinance organizational forms which date back to the beginning of the 20th century (Jurik, 2005).

Credit cooperatives included programs that granted loans to farmers and traders, often by rural development banks. Between the 1950's and 1980's, these kinds of lending programs tended to be government subsidized and high default rates were common. This was explained in part by inefficiency and bad business practices often fostered through subsidies. In addition, the agricultural industry was very vulnerable to seasonal and weather changes, making this kind of lending rather risky. Credit unions began in the Global South and are cooperative financial institutions which have no external shareholders, providing credits and savings to members. Overall, these forms of increasing financial inclusion have been said to benefit those poor who are better off than the indigent population including farmers without land. Furthermore, their structure only allows for a limited range of financial products and services such as working capital loans, short-term loans, and loans for restricted periods of time (Berger, Goldmark & Sanabria, 2006).

In the 1970s, a new wave of thinking about the development discourse emerged and challenged the prior beliefs that state-led interventions and large, centralized development projects were key to solving the development question. Thus, smaller-scale, private, and informal enterprises were seen as a more efficient strategy to tackle economic development. NGOs began to mushroom around the world, leading to the growth of what is known as the non-profit or third sector (Bédécarrats, Bastiaensen & Doligez, 2001). This also fit well with the neoliberal policies of the structural adjustment period, which called for privatization, market-driven production of goods and services and trade liberalization . It is in this context that the first MFIs that we know today began to emerge.

Perhaps the best-known example of such an MFI is the Grameen Bank. The story of the Bangladeshi "village bank" has been the model for many subsequent MFIs and the inspiration for several books and documentaries. Muhammed Yunus, a Bangladeshi professor of Economics at the University of Chittagong, is the founder of Grameen. Concerned with the level of poverty prevalent in Bangladesh, particularly in rural areas, the bank initially began as a kind of field study in 1976 (Yunus, 2008).

Only a few years after the Bangladeshi independence from Pakistan in 1971, the country was still in a political and economic phase of transition. Many individuals lived in dire poverty, and particularly the rural areas of Bangladesh were affected by economic struggles. Together with his students, Yunus visited such poor rural areas and began talking to individuals about their financial situations. They soon discovered that small-business owners (such as street vendors and weavers) relied on local loan sharks who charged exorbitant interest rates. The rates were so high, recipients would realistically never be able to repay them, causing small business-owners to pay back all their profits to the lenders, thereby remaining in a debt trap. Yunus realized that it wouldn't take much to set the borrowers free from the cycle of predatory loans and began a project with his students to give small loans (average of $160) to these individuals for their businesses at interest rates of approximately 20%; significantly lower than those of the loan sharks (Yunus, 2008).

The Grameen Model

Yunus applied a number of strategies to his small lending organization, which helped to make it successful. He primarily targeted women, who are the greatest victims of poverty. According to the Global Poverty Project, more than 70% of the world's poor are women. Furthermore, in the Bangladeshi context, many women were denied access to formal sector employment, forcing them to rely on loan sharks. Yunus also believed that women were more likely to invest their capital into child education and social infrastructures, beneficial to the community, while men were more selfish spenders (Jurik, 2005).

The second important strategy is the village-banking model, which gives the Grameen Bank its name. This village lending model involves the establishment of a bank branch in an area, with a field officer and staff members who cover an area of several villages. The ground staff recruits suitable clients in these villages. Groups of clients / borrowers are formed and for a test phase 2 selected borrowers are granted loans for a period of 5 weeks. If during this period, the clients repay on time, the other group members may also receive their loans. The date their payments are due, clients come together again as a group. If one member is not capable of repaying, the other women must step in and cover their costs. This lending technology is called "joint-liability" and attempts to minimize default rates. The charged interest rate covers operating costs and includes a small group fund and an emergency fund for clients. Thus, a portion of every repayment goes into a small savings account / emergency fund and another portion goes into a group fund, which the group members can spend as they wish. The group also meets weekly in the village to discuss business strategies, progress and give one another moral support (Grameen Bank).

This small-scale, experimental operation quickly grew into one of the largest MFIs in the world. It has become a for-profit institution, attainted formal bank status, and is part of a group of institutions which include both for- and non-profit segments. By 2010, Grameen had 6.61 million active borrowers and a loan portfolio of nearly 14 billion USD. Grameen has set up branches in 36 different countries, in Asia, Latin America, North America, the Middle East, and Africa (Gramen Foundation). Seen as an innovative and successful long-term development strategy, Grameen's microfinance model has since then spread rapidly to other countries. The creation of the Grameen Fund has also allowed for funding of MFIs throughout the world. By 2008 there were an estimated 2,420 MFIs and 99 million borrowers in the developing world (Gonzalez, 2008).

Departing from Grameen: Other Global Developments in Microfinance

While Grameen is considered one of the earliest and most influential formal MFIs, there are other significant examples of different models, organizations and institutions that have impacted the field of economic development and financial inclusion. In Latin America, the concept of granting small loans to micro-entrepreneurs was being developed around the same time that Yunus and his students were first experimenting with small loans in Bangladesh. In 1972, a Brazilian organization based in Recife called Projeto Uno, began offering small working capital loans to small business owners. An important contribution by Projeto Uno to the field of microfinance was the introduction of the role of a proactive loan officer, who formed a personal connection with clients. The loan officer has become a critical agent in the operation of microfinance around the world, and is present at all stages of the loan cycle. The officer recruits and evaluates potential clients, grants the loan, follows up on the client's progress, and is responsible for collecting the loan repayments from the client (Berger, Goldmark & Sanabria, 2006).

1975 marked the International Year for Women, which heightened discourse about ways to increase economic inclusion of women. During this time, many felt that greater access to credit would lead women to greater independence and allow them to spend money where they deemed it relevant, covering their needs. Thus, women's access to credit was viewed as the more pressing concern, above other issues such as health care or education. In response to these sentiments, a group of 10 women came together at the United Nations Women's Conference in Mexico City that year to establish the MFI network, Women's World Banking. This was a further turning point in the rapid growth and spread of development strategies geared towards greater financial access and inclusion of previously unbanked populations of the world (Berger, Goldmark & Sanabria, 2006).

A further pioneering MFI which affected the development of the industry emerged in Latin America: ACCION. ACCION was originally founded in Caracas, Venezuela in 1961 by a group of U.S. volunteers with a mission to improve neighborhoods near local corporate branches of U.S.-based multi-national corporations. However, by 1973 its focus shifted to providing loans to poor microentrepreneurs (Jurik, 2005). It has since grown into a large network of MFIs, operating in Latin America, the Caribbean, the United States and Africa. ACCION has relied on funding from private and public sources, but began to realize early on the importance of financial self-sufficiency. Thus, it began transforming a number of its branches to commercial regulated institutions. ACCION's model affected the way Latin American MFIs have moved towards commercialization and played a critical part in the establishment of some of the region's first commercial bank MFIs, BancoSol and Finamerica of Bolivia and Colombia respectively (Berger, Goldmark & Sanabria, 2006).

Upgrading and Downscaling of MFIs

The process of non-profit organizations transforming into formal financial banking institutions regulated by a central bank or regulatory framework is known as "upgrading." This process allows for financial sustainability and regulation of the MFI, while at the same time maintains loan sizes that are much smaller than commercial bank loans, thereby staying true to the original mission of microfinance. The realization that small business owners valued the availability of – and quick access to – financial services more than very low interest rates allowed for coverage of the high overhead costs of MFIs. It also gave institutions access to capital markets and interbank lending. This upgrading process enabled the provision of funding, considered one of the greatest bottlenecks of the industry. Furthermore, the process of upgrading broadened the institutional operational scale and reach at a national and international level, and gave them more credibility. It also provided clients with new financial products and services, including savings accounts, an important step towards truly increasing financial access, inclusion and sustainability of clients.

In response to these changes in the financial system and microfinance industry as a whole, the Latin American regulatory environment began to change too. Regulations for non-bank financial institutions tightened and the respective national financial supervisory institutions imposed capital and collateral requirements on them. Thus, the upgrading process of the industry led to changes of the regulatory environment, but upgraded MFIs also benefited from these changes (Berger, Goldmark & Sanabria, 2006).

With the upgrading process, MFIs were also able to broaden and diversify their client base. In many instances, in order to access more savings, commercial MFIs opened branches in wealthier neighborhoods. When upgraded MFIs increasingly began to develop deposits, other services like ATMs, debit and credit cards started to be added to the range of products and services offered. This meant increasing the size of banking operations through a larger number of branches, hiring more staff and adopting more advanced technologies which led to higher operational costs for the MFIs. In order to remain profitable and to keep interest rates low, financial institutions had to increase efficiency, thereby achieving lower marginal costs. This benefited not only the institution, but clients too, since reaching out to a wider client base allowed for expanded access to capital and also kept interest rates low as a result of higher efficiency. The upgrading and commercialization of microfinance also attracted national and international investors and changed the way the industry is viewed with regards to profitability. For the first time, MFIs are not just non-profit organizations, but also operate for-profits which has made the reverse effect, or the adoption of microfinance by a commercial bank, a more attractive prospect. This trend has been observed in recent years in the Latin American context, and is known as "downscaling."

Microfinance Mission Drift?

Both developments of upgrading and downscaling have caused people to question the original mission of microfinance and to criticize MFIs for being guilty of a mission drift. Many have argued that obtaining a profit through lending to the poor is not morally justifiable and constitutes a digression away from the original purpose of microfinance. If a profit is being made, the poor are being overcharged, so the argument goes. For example, the Mexican commercial MFI Compartamos charges women 90% interest rates, and earns a yearly profit of USD 80 million (Roy, 2010). On the other hand, Grameen Bank is also a for-profit institution, making more than USD 11 million in profits a year, but charges women an interest rate of less than 20%. Thus, in certain cases interest rates have been unjustifiably too high, leading in some cases to the adoption of a nation-wide interest rate cap.

However, policymakers and scholars have also argued that profitable MFIs are better at operating efficiently, thereby driving the price/interest rates down overall. Higher profitability rates and solvency reduce the leverage cost of funding for the financial institution. Thus, it is in their own interest to push efficiency up and lower average operation costs. Another effect of productivity gains is that it leads to more competitiveness, since institutions can fund themselves with lower rates and pass on those gains by offering lower interest rates for clients. This positively affects clients, as it raises their overall consumer surplus. It can be argued that when upgrading truly becomes effective at reaching people, it comes closer to achieving the Millennium Development Goals.

The question regarding the justifiability of a new client base of MFIs also has two perspectives. On the one hand, MFIs are no longer focusing solely on the truly poor, but spending time and money on expanding products and services to others, which is indeed no longer in line with the goal to eradicate poverty. On the other hand, it can be argued that this too is a way of expanding financial products and services to those who did not previously access them from formal banks, like the lower-middle income individuals or better-off poor. Furthermore, by providing services to a wider range of people and income levels, institutions have a more diverse portfolio, and are better capable to withstand economic shocks. Similarly, by pooling risks through an increased market size, financial institutions hedge themselves from concentrating risk exposure on one type of client. This allows for greater access to capital and cash flow, which can help offer a wider range of products and services to the poor.

Moving South to North

A further interesting development in the realm of microfinance has been the spillover from the Global South to the Global North. As outlined, microfinance was initially about the income-generating development strategy for the context of the developing world and poverty reduction. However, with the power of being replicated, different microfinance models have been implemented in various contexts throughout the world and allowed populations to access credits who were unable to before. In this sense, success has occurred in varying regional contexts, making it clear that microfinance could be applied as a way to provide financial access to all segments of a population that are excluded from formal banking systems, whether actually living in poverty or not.

Beginning in the 1980s, microfinance was introduced in the United States. For the U.S. context, this meant providing financial services to encourage entrepreneurs in target populations including minorities, immigrants, refugees, disabled and other marginalized groups. The structures had to be adapted to fit local demands, and thus diverged somewhat from the models described in the Asian and Latin American contexts; however, the basic premise remained true to the microfinance mission.

Chapter 2: Challenges and Achievements

Though the theoretical framework of microfinance sounds very promising, and has gained huge global acclaim, there a number of challenges that the industry still faces. These must be addressed in order to better understand the bigger picture of microfinance, but also to improve it in order to better help more of the world's poor.

Assessing the Impacts of Microfinance Products and Services

True impact assessments and microfinance outreach have not been measured extensively since the development of MFIs. Many individual cases of clients recalling heart-warming stories of how an MFI changed their life have been recorded and promoted. However, until recently 'scientific' studies that aim to measure real impact of products and services, using control groups and standardized methodologies have been scarce. This resulted in many people and institutions questioning how much positive change can actually be attributed to microfinance.

In many instances, MFIs attempted impact assessments by surveying clients before they received loans or other services, about various indicators that were supposed to improve over time (such as their standard of life, purchasing power, various financial indicators related to their businesses, child education and health care, etc.). Then, they asked the same questions after the microloans had been repaid to see what had changed. Any positive changes were attributed to the products and services the MFI provided. However, this kind of assumption is a dangerous and faulty one. These observed changes can by no means be attributed only to the workings of microfinance. Perhaps the client would have improved these factors on her/his own regardless, or by other poverty reduction programs that are either public or led by non-profit organizations. What is to say that the MFI was the cause? Also, what about clients whose situations did not improve? Is that also the fault of the MFI? Does that mean microfinance is ineffective? No, it simply means that an accurate way to measure its effects is needed.

The Power of Randomized Control Trials

In response to this lack of standardized procedures and reliable impact assessments, some organizations dedicated to this cause have since made a very valuable contribution to the field. Organizations such as the Abdul Latif Jameel Poverty Action Lab (J-PAL), as well as Innovations for Poverty Action (IPA) and the Financial Access Initiative (FAI) have begun to use replicable, scientific methods to conduct field studies, and evaluate impact. This has been achieved through the use of randomized control trials (RCTs). The methodology is explained by Innovations for Poverty Action:

> "In the simplest kind of study, the group we are looking at is divided randomly in two. One group receives the benefits of a program or intervention, and the other does not. We are basically flipping a coin for each person to decide whether they receive a program or not. With random assignment, each person in the study has the same chance of being assigned to a group as another person. This ensures that as long as the two groups are large enough, they will on average be statistically identical. Any change which we then observe between the two groups can be attributed entirely to the program or intervention itself, rather than other external or unobserved factors."[1]

[1] www.poverty-action.org

Findings from RCTs Around the World

A paper by FAI summarizes the most important recent findings from 20 randomized control trials conducted in India, Malawi, Morocco, Kenya, Ghana, the Philippines, Sri Lanka, South Africa, Peru, Bolivia and the Dominican Republic (Bauchet, Marschall, Starita, Thomas & Yalouris, 2011). It addresses a number of other criticisms regarding the effect of microfinance, including the question of true upward mobility of clients thanks to microfinance, as well as women's empowerment. These studies show that microfinance has not created the huge level of success many believed it would have, in the sense that clients did not suddenly escape poverty after taking out microloans to invest in their small businesses. However, the studies also demonstrated that owing debts by taking a microloan does not have negative impacts on the poor, as a number of critics had hypothesized (Dichter & Harper, 2007). Positive impacts have been observed, but were not as abundant or drastic as early proponents of microfinance believed.

Changes in Client's Financial Behaviors

More specifically, the single largest impact of microloans discovered is improved spending habits of clients. Clients that used the loan to start up a business or expand it changed their household spending in a positive way. They moved away from temptation goods, such as alcohol, tobacco, gambling and purchase of food at restaurants or outside the home and purchased more durable goods instead (Banerjee, Duflo, Glennerster, and Kinnan 2010). It was also discovered that in many cases clients did not use the loans to invest in their businesses at all, but used them for their households (Karlan & Zinmann, 2011). This casts light on the larger problem that microfinance, based on the idea that loans should be used for expansion of or investment in a business is perhaps a misguided concept. Rather, the majority of poor people need money to spend on daily necessities, such as food, school fees and supplies, as well as to cope with a family medical, or other emergencies (Dichter & Harper, 2007).

To confirm this point, a randomized control trial conducted in South Africa, which assessed the impact of consumer credit demonstrated that individuals who took out this kind of loan greatly benefited from it. 6-12 months after taking out the loan, individuals in the treatment group had higher overall income levels, were more likely to have kept their job, had perceived higher decision-making power within the household and community, and had on average improved food consumption (Karlan & Zinnman, 2010).

Savings products have also generally been coupled with microcredit. This has overall demonstrated very positive behavioral changes in clients. One of the aforementioned randomized control trials showed that providing formal savings accounts to women will greatly increase the amounts they save a month. Furthermore, these clients will on average invest more into their business than women without access to formal savings accounts. Daily private expenditures, as well as food expenditures increased for the treatment group, suggesting an increase in income as well. It was also observed that women without access to formal savings were forced to use capital from their business to respond to health shocks. The treatment group was able to use the savings and therefore did not have to access business capital when an illness in the family occurred (Dupas & Robinson, 2011).

Women's Empowerment

The effect that microfinance has on women's empowerment is also disputed. In various randomized control trials discussed in the FAI summary, women tended to not invest significant amounts of their loans into their businesses, thereby not generating more profits for themselves, whereas men did. Studies also showed that women were much more likely to invest this money into their households and cover other expenses. However, when in-kind gifts of equipment or inventory useful to the business were given to women, profitability of the businesses did increase, particularly for already more established, larger microenterprises (Fafchamps, McKenzie, Quinn, and Woodruff, 2011). Thus, we see that women's empowerment via larger profitability of their businesses, and thus greater economic power, cannot be so simply achieved by granting them loans. However, providing other kinds of products, like equipment or inventory for the business, may promote more profitability and economic independence for female microentrepreneurs. It is therefore very important to bear in mind the effect of the design of products and services offered by MFIs and other lending institutions.

While microfinance has thus not been as effective in the overall empowerment of women, in financial terms, there are still other factors to take into account, such as the power to make household financial decisions, and decisions about family planning. As stated in *What is Wrong With Microfinance?* with regards to a female-led self-help lending group in India (SHG), "Although the examples of SHG action that we found were not as numerous or as effective as hoped for, the fact that such initiatives happen at all can be seen as a good start in a traditional, patriarchal society that has usually marginalized women's roles and agencies." (Dichter & Harper, 2007).

Lacking Training to Accompany Products and Services

A further criticism of microfinance is that while access has been growing rapidly over the past decade, financial education to accompany this increased access has lagged behind. To put this into perspective, according to a comprehensive study by the Citi Foundation, between 500 and 800 million of the world's poor have access to finance, whereas only 110-130 million of them received any form of financial training (Deb and Kubzansky, 2012). This means that roughly 75% of low-income individuals must make financial decisions independently, without guidance or formal instructions.

Most higher income individuals will have received instructions before opening a savings or checking account, or guidance on how to improve one's credit score to receive a credit card, or take out a loan or mortgage, to give a few examples. Though we still find that the wealthy have made many poor financial decisions despite greater guidance, help from accountants and advisors, education and other services, at least they are given a greater chance to make smart economic decisions for themselves and their families. What they chose to make of these tools to aid them is another question. However, in many cases, these initial forms of financial education and guidance are not available to the poor, despite the fact that they are the ones who would most benefit from such services. According to the CGAP 2010 Annual Report,

> "poorer households in the informal economies of the developing world need financial services as much as wealthier families—actually more so, for two reasons. First, their income streams and bigger outlays tend to be irregular and unpredictable, and their income and expenses do not sync up as neatly as wealthier peoples' monthly paychecks and mortgage payments. Second,

> poor people obviously have less of a cushion to absorb economic shocks to begin with." (Access to Finance to the Poor: Annual Report 2010)

For these reasons, it is essential to not only provide them with services, but also to grant them the necessary tools to use them well. For true financial inclusion to occur, access *and* the skills to make best use of that access are required.

Summary and Conclusions

It can be seen that the industry as a whole has made significant progress, and that there is great potential to develop effective models that stay true to the mission of microfinance. It may be true that microfinance has not lived up to the expected role as a "miracle solution" to poverty. However, with some reform, and combined with the right products and services, studies have shown that it can be very beneficial to low-income populations.

Chapter 3: Ecuador's Regulatory Framework and its Impact on the Financial Sector

Though the focus of the paper so far has been on the general global state of MFIs around the world, and recent changes in the industry, this section will focus more specifically on the context of one country: Ecuador. Ecuador will serve as a case study example of the developments in microfinance, in particular with regards to a globally prevalent problem of overindebtedness of low-income families. Giving a detailed analysis of a wide range of factors that could contribute to these trends is crucial, but providing this for a range of regions and countries does not fall under the scope of this paper. Thus, Ecuador will serve as the primary example that will be analyzed in greater detail. The first aspect more closely examined will be its regulatory framework, and how this has affected MFI growth and development.

Historical Context

Ecuador's economy is largely centered around a few export commodities, including oil, bananas and shrimp (Seelke, 2008). The country's dependence on oil in particular since the discovery of large oil fields in the Amazon region in the mid-1990s, has allowed it to become very vulnerable to various economic shocks. In 1998 the El Niño weather phenomenon caused torrential rains detrimental to crop yields, resulting in $2.6 billion worth of crop damages. Furthermore, a disease affected the shrimp industry, and a global plunge in oil prices left Ecuador in a detrimental financial crisis from 1999 to 2000 (Beckerman & Solimano, 2002). The president at the time Jamil Mahuad, attempted to tame inflation and stabilized the economy by replacing the domestic currency for the US-

Dollar in 1999. Instead of implementing necessary structural reforms, and diversifying the economy, the proceeding Gutiérrez government took a different approach. Under this president, in 2003 taxes were increased, private investment – especially in the oil sector – was encouraged, and subsidies were removed. Not surprisingly, the majority of the population (40% of which lived in poverty, and 13% of which lived in extreme poverty)was unhappy with these economic changes. In part because of public discontent with the previous administration, and in part because of his left-leaning populist platform appealing to the "pueblo" (ordinary people), former economics professor Rafael Correa was elected president in 2007 (ECLAC Social Panorama, 2007).

Rafael Correa and the New Left

The new administration allowed for a number of significant changes in the political direction of Ecuador. In September 2008, Correa implemented a new Constitution, changing the entire institutional framework of the country. This allowed for a number of shifts in economic policy, including greater control of oil, and an emphasis on development through internal resources (Inter-American Development Bank, 2007). Correa scrutinized multilateral organizations, such as the IMF and the World Bank, and focused attention on a solidarity-based economy. This meant structuring the economy around three main sectors: public, private entrepreneurial, and popular. This structure has a significant effect on individual entrepreneurs and businesses, which now operate in an "economic sphere that is a hybrid between capitalism, mutualism and the state." (Bédécarrats, Bastiaensen & Deligez, 2011).

On May 11, 2011, a new bill was enacted to highlight the idea of 'popular finance' in the financial sector. Particularly, this affects MFIs, for it prioritizes this so-called popular finance (based on collective ownership) over other forms of microfinance. For example, the law does not recognize the status of microfinance NGOs, because these do not fall under the scope of the Central Bank and Superintendent of Banks. As of now, this law remains vaguely specified, and has not really been put into action, but the foundations are there for the microfinance sector to be severely harmed through subsidized competition like the 'popular finance' (Bédécarrats, Bastiaensen & Deligez, 2011).

The term "new left" has been coined for the emergence of a number of political leaders in Latin America who oppose neo-liberalism, and "willfully challenge assumptions of state inefficiency and the predominance of private initiative and markets as the most effective modes of organizing society and the economy." (Bédécarrats, Bastiaensen & Deligez, 2011). Such governments not only include Correa's Ecuador, but also Venezuela, Brazil, Argentina, Uruguay, Honduras, Bolivia, Nicaragua, Paraguay and El Salvador. These socialist governments have criticized the actions of multi-lateral organizations, private companies, NGOs, and other institutions and structures developed after the structural adjustment period. Microfinance, as discussed in Chapter 1, was implemented during the same time, and has presented an alternative to state-led intervention and development strategies.

In this sense, although the goals of microfinance to help the poor and reduce poverty are very much aligned with socialist objectives, the structural nature of MFIs directly opposes them. In other words, the ties of microfinance to neo-liberal organizations and institutions make them a target of criticism and opposition by Latin America's new left governments. At the center of these criticisms is the issue of interest rates, which are said to exploit the poor to benefit NGOs and private financial institutions.

Recent Regulatory Changes

Ecuador's policy regarding microfinance has includes an incremental interest rate reduction of all MFIs. The national average portfolio yield (serving as a proxy for interest rates) in 2007 was 21.1% interest annually. This is five percent less than the regional average of 26.2% for the same year. The reason for this is the interest rate limitation imposed by the government. This set of laws was intended to help the poor to not be exploited by MFIs who charge profitable interest rates. The Central Bank has been allowed to eliminate commissions, as well as limit the interest of the institutions regulated by it (Campion, Ekka & Wenner, 2010).

Although in theory such interest rate caps seem like a positive development for Ecuador's poor, they do not truly help the way Correa intended. In fact, such interest rate caps actually harm clients more than they benefit them. As discussed in Chapter 1, in a competitive market, MFIs will have to operate more efficiently in order to remain profitable. Thus, operating costs are positively correlated with interest rates, or portfolio yield, meaning that as operating costs increase, portfolio yield will also rise. In other words, countries where MFI operative costs are lower, or more efficient, have a lower portfolio yield too. This benefits the clients overall, because they will be able to take advantage of lower interest rates, and be served by more efficiently operated MFIs.

Consequences of the Interventions

In Ecuador, the operating efficiency is on average lower than many other countries in the region. This can be attributed to the fact that the interest rates have been artificially imposed by the government, and have not adjusted naturally in the economy. A further issue with the interest rate cap is that Ecuadorian MFIs are forced to extend larger average loans in order to compensate for the low interest rates. Thus, although the client's average income is not higher than that of most Latin American countries, Ecuador's average microfinance loan size is comparatively high. In 2007, the average loan size in Ecuador was 1,629 USD, while similar economies, such as Peru and Bolivia had 1,184 and 1,502 USD average loan sizes respectively. The problem with this is that many poor families are therefore excluded from taking out loans, and these interest rate restrict them further.

Another implication is that fewer women will be served in the microfinance market (Campion, Ekka & Wenner, 2010). In fact, it can be seen that the percentage of female borrowers has declined in Ecuador over the past few years. In 2008, 56% of clients were women while in 2011 only 49% were (MIX Market, 2013). A regression analysis by the Inter-American Development Bank (IDB) has shown that MFIs with a higher percentage of female clients also have higher interest rates. According to the same study, "Interest rate caps reduce outreach to women and to poor and rural clients" (Campion, Ekka & Wenner, 2010). Clearly, this is not aligned with the mission of microfinance, as it does not serve those who most need its services. The purpose of protecting the common people by imposing this law is therefore defeated.

Another issue faced by Ecuador is that Correa has replaced a number of technocrats within the main governing bodies of the financial sector with political appointees. This has meant the presence of fewer subject specialists, and more left-leaning bureaucrats in critical regulatory institutions, resulting in a reduction in expertise in the policy-making positions (Bédécarrats, Bastiaensen & Deligez, 2011). A 2010 article by Elisabeth Rhyne, Managing Director of the Center for Financial Inclusion, discusses the implications of government intervention in the MFI sector. According to the article, "One estimate is that the reduction in [interest] rates will squeeze nearly $300 million in annual revenue out of the microfinance market, and this means that new investment in microfinance delivery capacity is likely to dry up". Furthermore, these changes will have "heavy costs in terms of growth of services, especially for lower income clients" (Rhyne, 2010).

Outreach and Market Saturation

One positive development in the MFI sector of Ecuador is its large outreach to the population. According to one IDB estimate, in 2008, 41% of the potential market was being served by microfinance. This translates to 899,744 people, from a population of 13.3 million. The estimation assumes that 70% of the poor of the population could be served (just over 2 million). This overall level of market saturation is significantly higher than other countries of the region. Mexico, Peru and Bolivia have only 13%, 24% and 26% of market saturation respectively (Campion, Ekka & Wenner, 2010).

Despite high levels of outreach, Ecuador is not considered the most competitive market. Peru and Bolivia fared better in this category, resulting in the lowest, most competitive interest rates (Campion, Ekka & Wenner, 2010). In 2011, Ecuador had 45 MFIs regulated under the Central Bank, with a gross loan portfolio of 2.2 billion USD. With regards to both values, Ecuador is in the upper end of the region. In Latin America, only

Mexico and Peru had more MFIs. Similarly, only Bolivia, Colombia and Peru (in ascending order) had a higher gross loan portfolio (MIX Market, 2013).

Summary and Conclusions

Based on the data provided, it can be seen that Ecuador's MFI market is very sophisticated and expansive. However, due to government intervention, it may be limited from growing to its full potential. Particularly interest rate caps hinder MFIs from operating as efficiently as they could, and have harmed the populations they are trying to serve. Higher average loans mean many of the country's poorest, as well as many women are excluded from the microfinance market, contradicting its original purpose. The new left government of President Correa has made life difficult for MFIs, but has also harmed the poor populations these laws were supposed to help. This forces the underserved population to seek for loans elsewhere, including turning to predatory lending and other such harmful practices. The IDB study cited previously summarizes this sentiment well by saying, "Although it can be politically tempting to intervene in ways that seem likely to help the poor, government officials need to carefully consider the short- and long-term implications of such initiatives". Authors further suggest, "Avoid intervening in a way that distorts microfinance markets".

Chapter 4: MFIs in Ecuador

When examining the Ecuadorian microfinance sector, it becomes clear that although there are a range of 58 MFIs[2], the majority of clients borrow from only a few large banks.The five MFIs with the most borrowers have over 51% of all active borrowers. Moreover, the top two, Banco Solidario and Credi Fé, serve a 16% and 14% share of the country's MFI clients respectively. In numbers that equals more than 245,000 clients combined (MIX Market, 2013). Interestingly, while they are both banks, the nature of how they introduced microfinance into their portfolios is very different. I will outline a brief history of the two below, and provide more detailed information about their financials.

Banco Solidario

Banco Solidario provides a highly successful case study of the integration of microfinance into the formal structure of a bank. It was originally founded in 1995 as a finance company with a social mission to serve small-medium enterprises (SME). It was promoted by Fundación Alternativa, a social organization also involved in microfinance. One year after its foundation, it formally became Banco Solidario in 1996 and thus became the first private financial institution to serve the microenterprise sector in Ecuador (Harper & Arora, 2005).

In its early stages, the bank's microenterprise portfolio was less than 20% of its total loan portfolio, and the majority focused on SME. Realizing the demand and success in the market, the microfinance loan portfolio grew. By 2005, the proportions had reversed, and

[2] Figure includes banks, cooperatives/credit unions, NGOs and non-bank financial institutions

the microfinance portfolio increased to 62% (Berger, Goldmark & Snabria, 2006). Since then, Banco Solidario has expanded to provide a wider range of products and services to its clients. One of the key strategies boosting the bank's growth has been its array of lending products and loan sizes which allows microentrepreneurs of all different stages in their business's growth to take advantage of financial services. Aside from its microloans for small business owners, Banco Solidario also offers loans in change for gold or jewelry as collateral. This "Olla de Oro" program is available to non-microentrepreneurs too. Also, open to all individuals is the option to open savings and checking accounts, as well as insurance (Banco Solidario).

While boasting the largest number of active borrowers amongst MFIs in Ecuador, totaling 135,587 for the 2011 fiscal year, it ranks 3rd in terms of gross loan portfolio size, which totaled 324 million USD in 2011. It has an average loan balance per borrower of 2,394 USD. Its yield on gross portfolio in real terms was 17% and it also has a relatively high profit margin of 17%. Banco Solidario has 37 offices throughout Ecuador and has reached out to a considerably large population, including many women. This is critical, particularly with regards to the original mission of microfinance, which sought to target female clients in order to empower women and improve education and health of the next generations. 61% of Banco Solidario's clients are female, which is comparably higher than most of the other largest MFIs in Ecuador (MIX Market, 2013).

Credi Fé

Credi Fé provides a further interesting MFI case-study, because it too has experienced a lot of growth in recent years, but shows a different approach to incorporating microfinance into a bank's loan portfolio. Unlike Banco Solidario which was founded with a social mission and the intention of targeting the microfinance and SME sector, Credi Fé is a subsidiary of the commercial bank Banco Pichincha. Currently Ecuador's largest private commercial bank, Banco Pichincha has more than 200 branches in the country, as well as others in Peru, Colombia, Panama, Spain and the US. In 2007 it had over 1.5 million clients and a loan portfolio of more than 1.5 billion USD (*Business Standard*, 2007). Realizing the potential of the microfinance market, it established a subsidiary called Credi Fé in 1999 to administer services to the microenterprise sector and diversify the bank's portfolio (Berger, Goldmark & Snabria, 2006).

Credi Fé experienced rapid growth and within two years of its foundation had over 9,000 clients and a 3.5 million USD loan portfolio. By 2005 the number of active clients had grown to 38,000 and the portfolio to 53 million USD (Berger, Goldmark & Snabria, 2006). In 2011 the gross loan portfolio reached more than 453 million USD. This is the highest of any MFI portfolios in Ecuador. In terms of active borrowers it ranks second in the country with 118,477 borrowers (just following Banco Solidario), which equals 16% of MFI clients (MIX Market, 2013). Its products and services include microloans for entrepreneurs, which can take the form of housing loans, cash loans, "development" credit for inventory, raw material and supplies purchases, "investing" credit for purchasing machinery and vehicles, and an "agriculture" credit for the purchase of livestock, fertilizers and seeds. It also offers insurance, savings accounts and credit/debit cards (Credi Fé). Like Banco Solidario, its various kinds of microloans are available only to small business owners.

Interestingly, Credi Fé's average loan balance per borrower was 3,828 USD for the 2011 fiscal year, which is significantly larger than that of Banco Solidario. This helps to explain its large gross portfolio. Credi Fé has a profit margin of 16%, like Banco Solidario, but a much lower real yield on gross portfolio of just over 1%. It is also noteworthy that the majority of its borrowers are in fact men. Only 44% of its borrowers are female. This may also be due to its higher average loan size. Another important fact is that 824 clients had outstanding loans of one year or more in 2011, which essentially means that these individuals will be defaulting and the bank cannot recuperate these payments. This number is also much higher than that of Banco Solidario, where the delinquency number is only 335 (MIX Market, 2013).

Financial Analysis

In Chapter 1 some of the pros and cons of the MFI upscaling and downscaling process were discussed. In this section, I will conduct a more detailed financial analysis of the two leading MFI's in the market, Banco Solidario and Credi Fé, in order to examine more closely their financial viability and outreach. Both these aspects are important for the sustainable growth and survival of an MFI, and for the benefit of reaching a larger client base and achieving microfinance's mission of serving the poor populations. The values discussed for each indicator are displayed in Tables 1 and 2 at the end of the chapter.

<u>Productivity</u>

Productivity is an important measure of institutional health, as it allows us to see most basically what output is obtained per unit of input. If an institution is productive, it makes most efficient use of its resources to maximize profits.

- *Portfolio Yield*: This is a critical indicator which shows how much income an MFI has actually generated from its lending activities. A very good portfolio yield is similar to its effective interest rate charged to clients. In reality, the yield is usually somewhat lower due to other factors such as loan defaults. However, when the values are not too far apart, it can be assumed the portfolio is very productive (Brandt, Epifanova & Kamornikov).

  In the case of Banco Solidario, the portfolio yield has been steadily increasing over the past 5 years, from 16% to 19%. In 2012 it is nearly exactly the same as its effective interest rate of 20% annually charged to clients, demonstrating it has a highly productive portfolio. For Credi Fé this value has been rather small over the past 5 years, and in 2008 was even a negative value. It has increased each year since then and, though there is no data for 2012, it reached 2.42 in 2011. Comparatively, this is a very low figure and suggests the portfolio is not as productive as Solidario's.

- *Operational Self-Sufficiency*: this measure indicates whether or not a financial institution has generated enough revenue to cover its total costs (comprised of financial costs, loan provisions/net impairment loss and operational expenses). A percentage of 100% (or more) shows an institution is completely self-sufficient. If an MFI is not operationally self-sufficient, it will eventually use up its equity, leaving less to loan borrowers, and risk incurring insolvency.

  Aside from 2009 when Banco Solidario's self-sufficiency dropped to 99.11%, it has been self-sufficient for the past 5 years. In 2012 the ratio was the highest, at 122.06%. Credi Fé shows similar figures, though it has been self-sufficient every year since 2008. The latest figure for 2011 shows a self sufficiency of 119.53%.

- *Returns on Assets (ROA)*: This ratio expressed as a percentage measures the net income earned on the assets of the MFI. Therefore, it is an indicator of how well the institution utilizes its total assets (including fixed assets such as real estate). It is a measurement of both profitability and efficiency, and is used often within an MFI to compare and evaluate individual managers across multiple branches of the institution. Most commercial MFIs in developing countries earn asset ratios of less than 2%, and highly successful MFIs, as shown in a study by the US Agency for International Development, ranged between -18.5% and 7.4% (Ledgerwood, 1998).

  Banco Solidario's assets ratio ranged from -0.66% to 3.08% over the past 5 years, with its most recent ratio being 2.68% in 2012. By comparison, this seems to be a fairly healthy ratio. Credi Fé's ROA ratio has remained more constant since 2008 and fluctuated between 0.41% and 0.67%.
- *Returns on equity (ROE)*: This ratio measures how much net income was returned on the equity of the MFI. That is to say, it reflects how much the institution has earned on the funds that have been invested by the shareholders. This is different from the ROA ratio which includes both liabilities and equity, while ROE includes only equity. Whereas ROA ratio was important internally for institutional branch managers, ROE ratio is particularly critical for for-profit MFIs and commercial banks because this signals to investors and donors how the institution compares against other investment alternatives. Depending on the funding structure of an MFI, its ROE and ROA ratios will vary. Those that fund their assets largely with liabilities will show a higher return on equity than MFIs that fund their assets largely with equity. It is typical for commercial financial institutions to aim for a ROE ratio of 15% to 20% (Ledgerwood, 1998).

In the case of Banco Solidario the ROE ratio has varied greatly over the past 5 years. 2009 was an overall bad year for a number of indicators, including returns on equity with a ratio of -1.85%. However, all other years showed positive returns and the past two have shown ROE ratios of over 20%, with 24.32% and 20.14% in 2011 and 2012, respectively. Credi Fé has reported ROE ratios of more than 29% each year since 2008, and a ratio as high as 64.90% in 2011.

Operating Expenses

Indicators within this category demonstrate whether or not an institution is being cost-effective, which is a critical component to demonstrate its financial success.

- *Operating expense to loan portfolio:* This is a measurement of overall institutional efficiency and shows the institutional cost of providing loan services. The lower the operating expense ratio, the higher the efficiency.

  For Banco Solidario, the ratio has been increasing each year for the past 5 years. The bank's operating expenses have been increasing significantly each year, while the portfolio has been increasing in smaller increments, making the expense ratio grow overall. It can be said that the 2012 value of 59.4% is quite high – a bank should aim towards 15-25%.
- *Cost per borrower*: This measures how much monetary input is required to gain a certain level of output, or in this case, a certain number of borrowers. The higher the number, the higher the costs required to obtain a certain number of borrowers.
- *Average staff salary to GNI per capita*: This is the average salary ratio which measures the salary burden on the MFI per staff member.

Outreach & Efficiency

Particularly in the MFI context these indicators are important to show whether or not the target population of clients is actually being reached by the financial products and services. In order to remain true to the mission of microfinance, this category cannot be overlooked.

- *Number of total active borrowers to total personnel*: This indicator measures how many borrowers can be "produced" per personnel member. The higher the ratio, the fewer personnel is needed to obtain a given number of active borrowers. The literature has shown that this ratio is positively correlated with financial self-sufficiency.

  In the case of Banco Solidario, there were 141 borrowers per staff member in 2011.
- *Number of total active borrowers to loan officers*: This measure is similar to the borrower to personnel ratio, in that it measures how many borrowers are produced per loan officer. Again, a higher number means that fewer loan officers are required for a given number of borrowers, showing increased productivity and self-sufficiency.
- *Loan Income Ratio*: Derived by dividing the average loan size by the GDP per capita of Ecuador, this ratio helps to identify what sector of the population is truly being served by the access to credit from the respective financial institution. According to Kiva, only if the ratio is below 20%, are the poorest of the poor being served. Between 20% and 149% the middle poor are reached.

  In 2011, the average loan size of Banco Solidario was $2,394. Stated alone this already seems like a fairly high value, but without context it is not a particularly useful indicator. The GDP per capita for the same year is $4,496, slightly less than double the average loan size. Presented as a loan income ratio, this turns out to be 28.13%. This is an increase of more than 7% since 2008. We see a steady increase in this ratio which has grown by roughly 2% each year since then. This is an indicator that clients with slightly higher incomes are being targeted and reached by the bank each year. This may be an indication of the changing regulatory environment in which the MFI operates, making it difficult to serve the truly poor while remaining profitable. This aspect will be discussed in more depth later. Interestingly, Credi Fé's loan income ratio is even higher than Banco Solidario's. While in 2008 it was already at 76.78%, by 2011 it was at 85.15% - an increase of more than 8%. The average loan size was $3,828 in 2011, approximately $1,500 higher than Solidario's. Thus, Credi Fé reaches even fewer poor and has been shifting into higher income populations over the past years. This may also explain why only 44.51% of their client base is female, whereas the majority (61.04%) of Solidario's clients continue to be male.

Financial Structure

These measures are of particular importance to investors who want to see the success and stability of the bank's portfolio. This is crucial to attracting more capital and investors, which ultimately serves the institution and its clients, as it can expand and increase its outreach.

- *Capital/Asset Ratio:* This is a ratio of a bank's total capital and reserves to its total assets. The ratio helps to determine whether or not an institution has enough capital and is expressed as a percentage of its risk weighted exposures to credit (it is also known as *Capital to Risk Weighted Assets Ratio)*. A minimum ratio is usually set by the government or the institution in order to protect depositors and also promote the sense of stability and confidence in the financial system.

Banco Solidario's capital to asset ratio has remained above 10% for the past 5 years and fluctuated between 10% and 13%. This is a fairly normal and adequate ratio for a bank. Credi Fé on the other hand, has demonstrated a far lower ratio, which has fallen roughly around 1% since 2008, with 2011 being its lowest year at 1.08%. As Credi Fé is a subsidiary of the larger bank Banco Pichincha, it might be the case that it does not have significant amounts of independently earned capital but doesn't need to, as it can rely on Pichincha for funding in a crisis situation.

- *Debt to Equity Ratio:* This is one of the most important measures of capital adequacy of a financial institution and essentially shows the overall leverage it has. Specifically, it indicates the relationship between capital contributed by creditors and by owners in order to show how much protection is given to the creditors by the owners. The higher the ratio, the greater the risk that creditors are taking. The ratio is also critical for lenders because it tells them how much equity as a safety cushion the institution has in order to absorb losses. Essentially, it shows us how much debt per unit of equity (in U.S. dollars) an institution has.

  Banco Solidario has shown a debt to equity ratio that fluctuates between just over 8 to just over 6, with 2012 being its best year demonstrating a ratio of 6.35. By comparison, Credi Fé has a very high ratio, indicating it has little equity. Its ratio has increased since 2008 from 69.45 to 89.32 in 2011. This is a further indication that Credi Fé itself must rely on Banco Pichincha for capital and equity.

- *Portfolio at Risk:* This very useful measurement indicates the proportion of the total outstanding loan portfolio that it at risk of default. There are two different factors measured which are included here: portfolio at risk >30 days, and >90 days. The distinction is important because in some cases the 30 days outstanding balance will still be repaid by borrowers. However, the 90 day portfolio at risk is not likely to be recovered. Typically the >90 day value is smaller for that reason.

  For Banco Solidario both risk values have fluctuated over the past 5 years, but were highest in 2012. The 2012 values of over 6% and over 5% respectively are quite high. Typically a desirable risk would lie at around 2%. For Credi Fé this value has been very good over the past five years, ranging from 1.71% to 2.14% for the >30 days, and as low as 0.98% to 1.01% for >90. Overall this is a very positive trend and demonstrates that the majority of its clients are paying back on time.

Summary and Conclusions

Overall, the financial indicators and ratios of both Banco Solidario and Credi Fé are quite positive and promising, but with some exceptions. The most positive developments are in productivity, for we see an increase in portfolio yield, operational self-sufficiency, ROA, ROE and profit margin in both banks. Furthermore, financial structure of Banco Solidario is solid, as demonstrated by its capital-asset ratio and debt-to-equity ratio. For Credi Fé these values are skewed due to its nature as a Banco Pichincha subsidiary. However, there are increasing problems primarily in outreach and efficiency, as well as with operating expenses.

First of all, we see an upward trend in both institutions' overall operating expenses. While this alone is not bad, since the number of borrowers and therefore outreach is also increasing (which is very positive), we simultaneously find a steady increase in the cost per borrower over the past 5 years. This means that it is becoming more expensive for the respective MFIs to accept each additional client. A further reflection of decreased efficiency is the fact that there are fewer borrowers per staff member, indicating it has become more labor intensive to take on more clients. Another major problem is the increase in loan income ratio, demonstrating that fewer of the poorest/poorer individuals are actually being served by the MFIs. Lastly, risk ratios for Banco Solidario are higher than they should be, and though Credi Fé's portfolio is at less risk, the values for both >30 and >90 days have been steadily increasing over the past five years. These trends have serious implications not only for the MFIs, but for the borrowers who are not being served as well as they could.

Table 1: Financial Indicators and Ratios for Banco Solidario (2008-2012)

Indicator	*2008*	*2009*	*2010*	*2011*	*2012*
Productivity					
Yield on Gross Portfolio (real) (Credit Program Income/Ave. Outstanding Portfolio	16.12%	19.02%	16.55%	17.36%	19.07%
Profit Margin (Net Operating Income/Financial Revenue)	3.63%	-0.90%	8.35%	16.67%	18.08%
Operational Self-sufficiency (Financial Revenue/[Financial Expense +Net Impairment Loss+ Operating Expense])	103.76%	99.11%	109.12%	120.01%	122.06%
Return on Assets ([Net Operating Income -Taxes]/Ave. Total Assets)	0.69%	-0.22%	1.52%	3.08%	2.68%
Return on Equity ([Net Operating Income -Taxes]/Ave. Total Equity)	5.84%	-1.85%	12.58%	24.32%	20.14%
Operating Expenses					
Operating Expense	31,201,945	31,125,495	35,141,660	39,796,140	-
Operating Expense/Loan Portfolio	13.56%	13.75%	14.50%	49.8%	59.4%
Operating Expense/Total Assets	9.84%	9.89%	10.84%	11.50%	10.14%
Personnel Expense/Loan Portfolio	6.40%	6.46%	7.20%	8.29%	8.74%
Personnel Expense/Total Assets	4.64%	4.65%	5.38%	6.02%	6.03%
Ave. Staff Salary/GNI per capita	4.79	4.26	4.48	5.22	-
Cost per borrower (Operating Expense/Ave. Num. Borrowers)	$220	$228	$270	$296	-
Outreach & Efficiency					
Number of Active Borrowers	147,007	126,387	133,508	135,587	-
Percent Female Borrowers	60.81%	60.69%	61.16%	61.04%	-
Number of Depositors	75,874	72,626	76,803	55,623	-
Total Personnel	839	891	905	962	-
Borrowers per Staff Member (Total Borrowers/Total Personnel)	175	142	148	141	-
Borrowers per Loan Officer (Total Borrowers/Total Loan Officers)	488	399	424	399	-
Average Loan Size (Gross Loan Portfolio/Num. Active Borrowers)	$1,606	$1,714	$2,104	$2,394	
Loan Income Ratio (Average Loan Size/GDP per Capita)	41.65%	47.00%	52.50%	53.24%	-
Financial Structure					
Capital/Asset Ratio (Total Equity/Total Assets)	12.04%	11.80%	10.48%	10.95%	13.61%
Deposit to Asset Ratio (Total Deposits/Total Assets)	50.75%	50.51%	42.15%	41.49%	53.42%
Debt to Equity Ratio (Total Liabilities/Total Equity)	7.30	7.47	8.54	8.13	6.35
Deposits to Loan Ratio (Deposits/Gross Loan Portfolio)	66.00%	75.20%	58.43%	55.82%	77.11%
Portfolio at Risk >30 Days (Outstanding balance >30 Days + renegotiated portfolio/Gross Loan Portfolio)	6.56%	2.64%	1.54%	2.64%	6.27%
Portfolio at Risk >90 Days	5.45%	1.43%	1.15%	0.79%	5.69%

Calculations and ratios by author. Data from Microfinance Information Exchange at mixmarket.org

Table 2: Financial Indicators and Ratios for Credi Fé (2008-2012)

Indicator	***2008***	***2009***	***2010***	***2011***	***2012***
Productivity					
Yield on Gross Portfolio (real) (Credit Program Income/Ave. Outstanding Portfolio	-2.63%	0.12%	1.95%	1.42%	-
Profit Margin (Net Operating Income/Financial Revenue)	6.73%	9.91%	6.85%	16.34%	-
Operational Self-sufficiency (Financial Revenue/[Financial Expense +Net Impairment Loss+ Operating Expense])	107.21%	111.00%	107.35%	119.53%	-
Return on Assets ([Net Operating Income -Taxes]/Ave. Total Assets)	0.52%	0.61%	0.41%	0.67%	-
Return on Equity ([Net Operating Income -Taxes]/Ave. Total Equity)	40.50%	40.45%	29.40%	64.90%	-
Operating Expenses					
Operating Expense	11,176,918	11,440,806	13,601,440	18,885,656	-
Operating Expense/Loan Portfolio	5.10%	4.62%	5.12%	4.96%	-
Operating Expense/Total Assets	5.31%	4.90%	4.26%	2.60%	-
Personnel Expense/Loan Portfolio	4.12%	3.38%	4.18%	2.55%	-
Personnel Expense/Total Assets	4.28%	3.59%	4.26%	2.60%	-
Ave. Staff Salary/GNI per capita	6.02	4.83	5.39	3.87	-
Cost per borrower (Operating Expense/Ave. Num. Borrowers)	$136	$137	$158	$180	-
Outreach & Efficiency					
Number of Active Borrowers	85,682	81,912	93,390	118,477	130,922
Percent Female Borrowers	46.07%	45.61%	45.35%	44.02%	44.61%
Number of Depositors	0	0	134,434	163,974	-
Total Personnel	449	426	513	654	-
Borrowers per Staff Member (Total Borrowers/Total Personnel)	191	192	182	181	-
Borrowers per Loan Officer (Total Borrowers/Total Loan Officers)	269	281	271	260	-
Average Loan Size (Gross Loan Portfolio/Num. Active Borrowers)	2,961	2,952	3,319	3,828	
Loan Income Ratio (Average Loan Size/GDP per Capita)	76.78%	80.92%	82.81%	85.15%	-
Financial Structure					
Capital/Asset Ratio (Total Equity/Total Assets)	1.42%	1.59%	1.16%	1.08%	-
Deposit to Asset Ratio (Total Deposits/Total Assets)	0.00%	0.00%	16.59%	14.90%	-
Debt to Equity Ratio (Total Liabilities/Total Equity)	69.45	61.87	85.23	91.32	-
Deposits to Loan Ratio (Deposits/Gross Loan Portfolio)	0.00%	0.00%	15.99%	14.90%	10.78%
Portfolio at Risk >30 Days (Outstanding balance >30 Days + renegotiated portfolio/Gross Loan Portfolio)	1.71%	2.38%	1.69%	1.36%	2.14%
Portfolio at Risk >90 Days	0.98%	1.69%	1.36%	1.01%	-

Calculations and ratios by author. Data from Microfinance Information Exchange at mixmarket.org

Chapter 5: An Overindebtedness Crisis?

Based on the financial analysis of arguably the two biggest players in the Ecuadorian MFI market, it becomes clear that a number of problems have been deepening over the past five years that seem to be linked to regulatory framework changes. These connections tie together in the supply side of microfinance. Essentially, the policies in place create the regulatory framework that impact how banking institutions including MFIs must navigate and operate. This, in turn, alters its products and services and most importantly affects its clients. Thus, we have seen what is changing on the supply side of things, but what about the demand side? How are clients affected by these changes? The next section is dedicated to answer this question.

First, it is important to understand how critical microfinance is to the Ecuadorian workforce. According to a presentation collaborated by Banco Solidairo and the Pontifica Universidad Católica de Ecuador, over 40% of the country's economically active population is present in the microenterprise sector. Moreover, there are currently an estimated number of 2 million rural and urban microenterprises. Research indicates that the microenterprise sector has the potential of generating more than 3 million jobs, or the equivalent of 65% of private employment. This translates to an estimated 10 – 15% of Ecuador's GDP (PUCE, 2012). Thus, on an individual, as well as macro level, the microenterprise sector is critical to growth and development. Successful products and services provided by MFIs can therefore greatly help these small businesses to thrive and expand, coming closer to reaching the potential of job creation, as well as improving the lives of existing microentrepreneurs and employees.

Cause for concern amongst various MFIs in Ecuador over the past few years has been the increase of client indebtedness, which was also seen by the portfolio at risk data in the previous chapter. Similar trends have been observed in the MFI sector worldwide for a variety of reasons. One problem that is commonly cited is the fact that as MFIs become more established in a market, clients are more likely to borrow from a variety of institutions. A study of Bangladeshi borrowers of the three largest present MFIs in 2007 revealed "that borrowers continued to borrow from numerous sources, and they borrowed from one source to pay off another, a cycle that deepened during adverse economic times." (Karim, 2012). According to the 2012 *Microfinance Banana Skins* report, a survey of microfinance risk conducted by the Center for the Study of Financial Innovation (CSFI), the single largest threat to the industry is overindebtedness. Moreover, "the problem was blamed squarely on the sharp growth in competition from new entrants in recent years, and the deterioration in lending standards that this has brought. The lack of centralized credit information was identified as a contributory cause." (Karim, 2012).

Just in May of 2012 the Ecuadorian President Rafael Correa, gave a public address (Enlace Sabatino) to the nation explaining among others, the great danger Ecuador faces with its problem of overindebtedness. He explained that more than 40,000 households, or 41% of Ecuadorian families are over-indebted. Moreover, the demographic segments most prone to indebtedness are those that earn less than $500 a month, and $500-$1000 a month. These two combined low-income segments have increased indebtedness by more than 35% between 2006 and 2011. By 2011, 44% of the population earning less than $1000, that is to say more than 4 out of every 10 people, was already considered over-indebted. In total, the indebtedness of the overall population increased 26% from 2006 to

2011 (*El Comercio*, 4 June 2012). Given these statistics it is critical to see where exactly the indebtedness lies in order to understand how it impacts individuals.

Defining Overindebtedness

Prior to this analysis, however, it is important to examine the term overindebtedness more closely. Depending on the context and country, this term can be used in different ways and mean different things. In its most basic sense, an over-indebted individual carries too much debt. But what does it mean to have too much debt? Does it mean it is financially impossible for a person to repay that debt? What if it could still be financially possible, but shouldn't be humanly possible, since it might mean not eating well for an extended period of time, or giving up a different essential aspect of ones life? A CGAP report from 2011 explains, "Coming up with a precise definition of overindebtedness—e.g., for research or regulatory purposes—is a surprisingly complex challenge." (Schicks & Rosenberg, 2011).

The CGAP report goes on to state "We look at six different approaches that are used to define, or proxy for, overindebtedness. All have limitations." These six approaches include negative impact, default and arrears, debt ratios, multiple borrowing, borrower struggle and sacrifice, and composite indicators. Essentially, there is no one single standard definition, even within CGAP. Another study, from the Center for Microfinance at the University of Zurich, used an operational definition which describes indebtedness as "the ratio of a household's monthly repayments divided by its monthly net income, i.e. total monthly gross income minus total monthly expenses." Thus, "a ratio of 100% would mean that the total monthly income is used for installments on household debt." If the ratio exceeds this, either because repayments increase while net income doesn't, or income decreases disproportionately to repayments, or a combination, indebtedness turns into overindebtedness (Kappel, Krauss & Lontzek, 2010).

In the Ecuadorian case, the term "sobreendeudamiento" is used by a variety of sources, including the President himself. The precise meaning and definition of this term in varying contexts is also not uniform, but can be taken to mean that clients are facing realities in which their debts exceed their means to repay. For the purposes of my analysis, I also include various measures to analyze the prevalence of overindebtedness in Ecuador, including arrears, past-due loans, multi-institutional lending and debt.

Growth of the Financial System

In the analysis it is important to first examine overall market trends. Most obviously, it can be seen that the financial system and all its forms of credit (consumer, housing and microenterprise) have increased over the past five years. From the table below, it can be seen that both the financial system and the microfinance sector within it have grown significantly in value as well as pure size (number of clients).

Table 3: Growth of the Ecuadorian Financial System and Microfinance Sector

Date	# Clients Total Financial System	Total Value Financial System USD	# Microcredit Clients	Value of Credits USD	% Microcredit of Total Financial System
Dec-07	2,288,155	$ 23,798,779,295	774,636	$ 5,047,910,993	33.9%
Dec-08	2,259,024	$ 22,592,764,471	700,195	$ 5,082,289,513	31.0%
Dec-09	2,562,302	$ 23,587,309,244	1,025,828	$ 5,248,105,742	40.0%
Dec-10	3,120,430	$ 29,993,656,257	1,451,719	$ 7,089,131,997	46.5%
Dec-11	3,456,944	$ 35,038,743,507	1,640,921	$ 9,633,141,161	47.5%
Apr-12	3,541,130	$ 38,382,143,631	1,692,536	$ 9,908,464,549	47.8%

Table and all calculations by author. Data from Equifax Ecuador

It is significant to note that the number of clients who withdrew microcredits has increased more significantly in comparison to the rest of the financial system, as demonstrated by the growth from 33.9% in 2007 to 47.8% in 2012. More specifically, this means that of the various kinds of credits, including consumer credit and mortgages, microcredit comprises the largest portion. The proportions of creditors for each of the credit segments are shown in Table 4.

Table 4: Breakdowns of clients by credit type use, as % of total creditors in the Ecuadorian Financial system

Date	% Microcredit Clients	% Consumer Credit Clients	% Commercial Credit Clients	% Mortgage Clients	% Olla de Oro Clients
Dec-07	33.9%	67.3%	14.0%	5.4%	2.5%
Dec-08	31.0%	66.4%	12.3%	5.3%	2.5%
Dec-09	40.0%	60.6%	10.5%	4.5%	2.1%
Dec-10	46.5%	56.2%	8.9%	3.9%	1.7%
Dec-11	47.5%	56.2%	8.7%	4.0%	1.4%
Apr-12	47.8%	56.8%	8.3%	3.9%	1.3%

Table and all calculations by author. Data from Equifax Ecuador

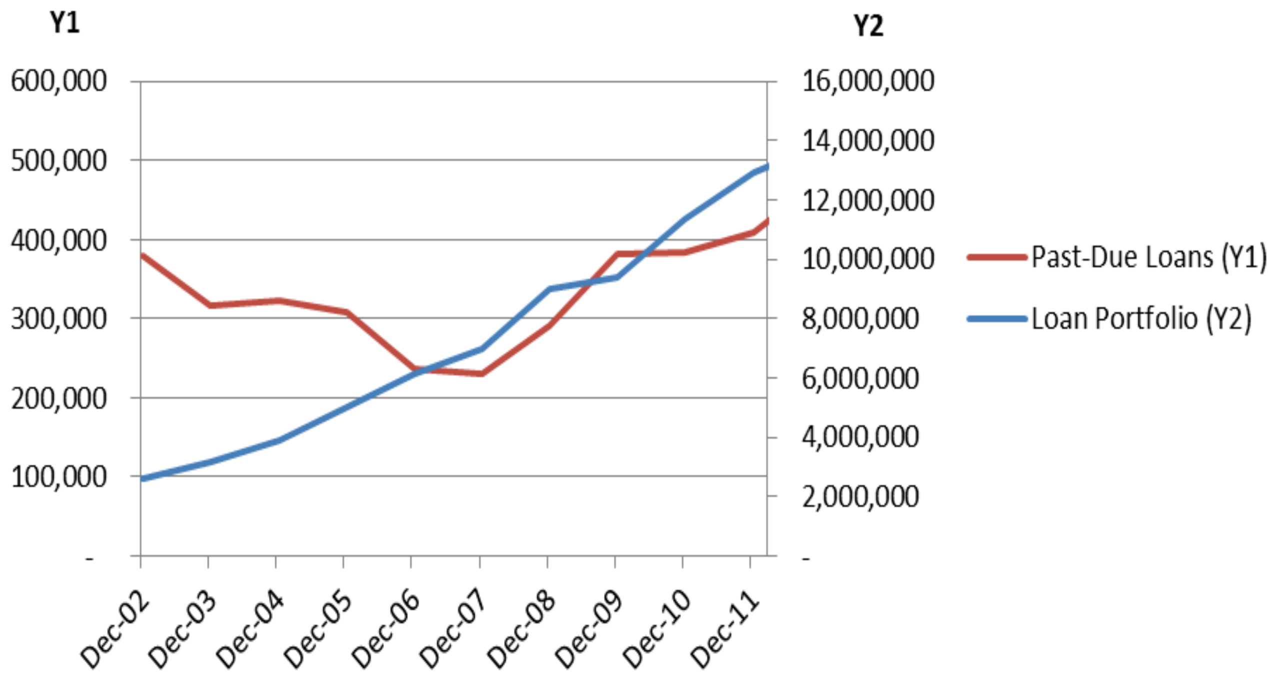
This breakdown demonstrates quite clearly how rapidly the percentage of microcredit clients has been increasing in comparison to the other segments. Commercial, mortgage and "Olla de Oro" credit clients decreased as an overall percentage of creditors significantly since 2007. Consumer credit decreased quite rapidly from 2007 to 2010, but since then has stabilized, and in the first quarter of 2012 the percentage actually began to rise again. This correlates to an additional nearly 70,000 clients since December 2011. By comparison, the growth of the percentage of microcredit clients has slowed since 2010, and from 2011 to 2012 there was only an increase of just over 51,000 clients. Overall, in April 2012 there were 1,692,536 microcredit clients, compared to 2,012,686 consumer credit clients.

An important aspect to discuss with regards to the increase in consumer loans is the fact that Ecuador has recently undergone some restructuring related to consumer credit and credit card use. While the central bank has limited the effective microfinance interest rate to between 22.93% and 26.93%, the interest for consumer credit lies at only 15.20% (PUCE, 2012). This creates a clear incentive for microentrepreneurs and potential microcredit clients to prefer a consumer loan instead, as costs are simply much lower. Combined with an increase in credit card circulation and access, low interest rates have been cited as a critical cause of overindebtedness. This combination of issues will be discussed in more detail.

Development of the Loan Portfolio

It is critical to find where the problem of indebtedness lies, by examining the portion of the total loan portfolio of the financial system that has not been repaid. In Graph 1 below the total unpaid or past-due loans are plotted together with the total loan portfolio.

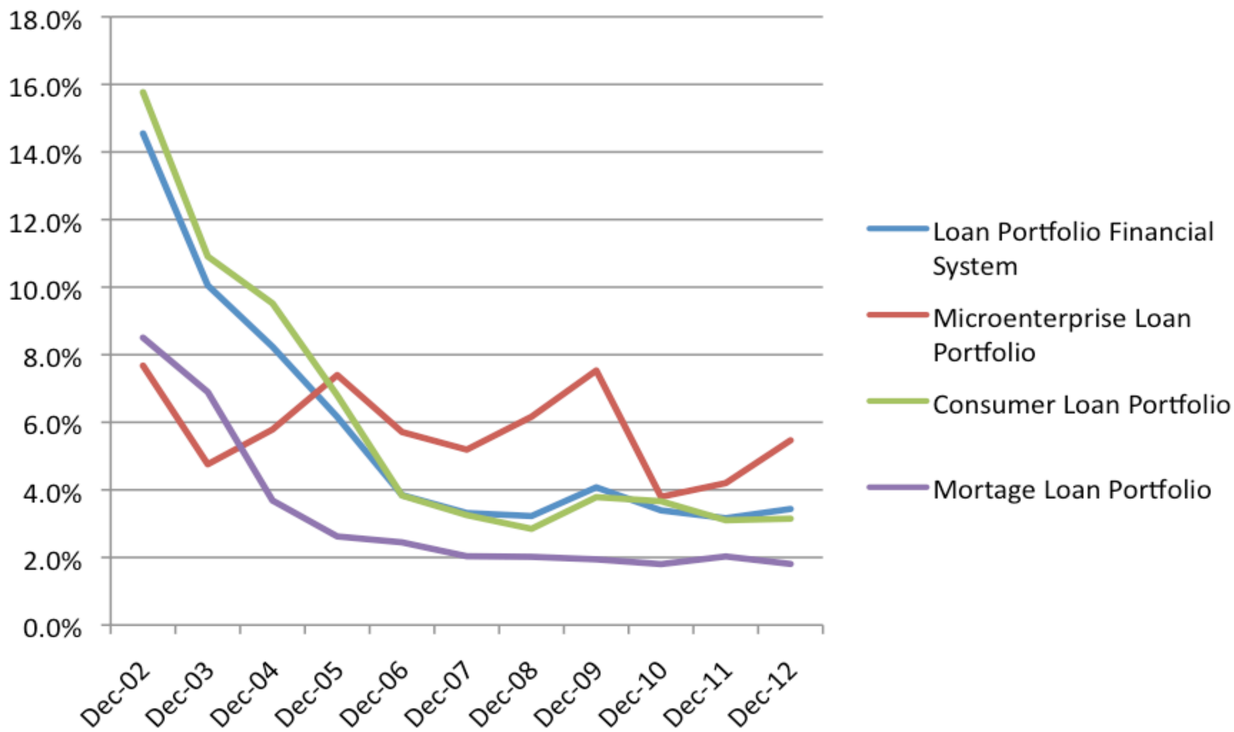
Graph 1: Growth of Total Loan Portfolio vs Past-Due Loans (in thousands of USD)



Graph and all calculations by author. Data from the Superintendence of Banks (Súper de bancos y seguros) Ecuador

The loan portfolio has increased quite steadily since 2002, resulting in a change from roughly 2.5 billion to 13 billion USD. However, by comparison the past-due loans have not grown in the same pattern. Rather, after an initial decrease until 2007, there has been a recent resurgence in the past five years. Thus, it is critical to examine the proportion of past-due loans compared to the overall loan portfolio. This is shown in Graph 2, and is displayed as a percentage.

Graph 2: <u>Percentage of Past-Due Loans of Respective Total Loan Portfolio (2002-2012)</u>



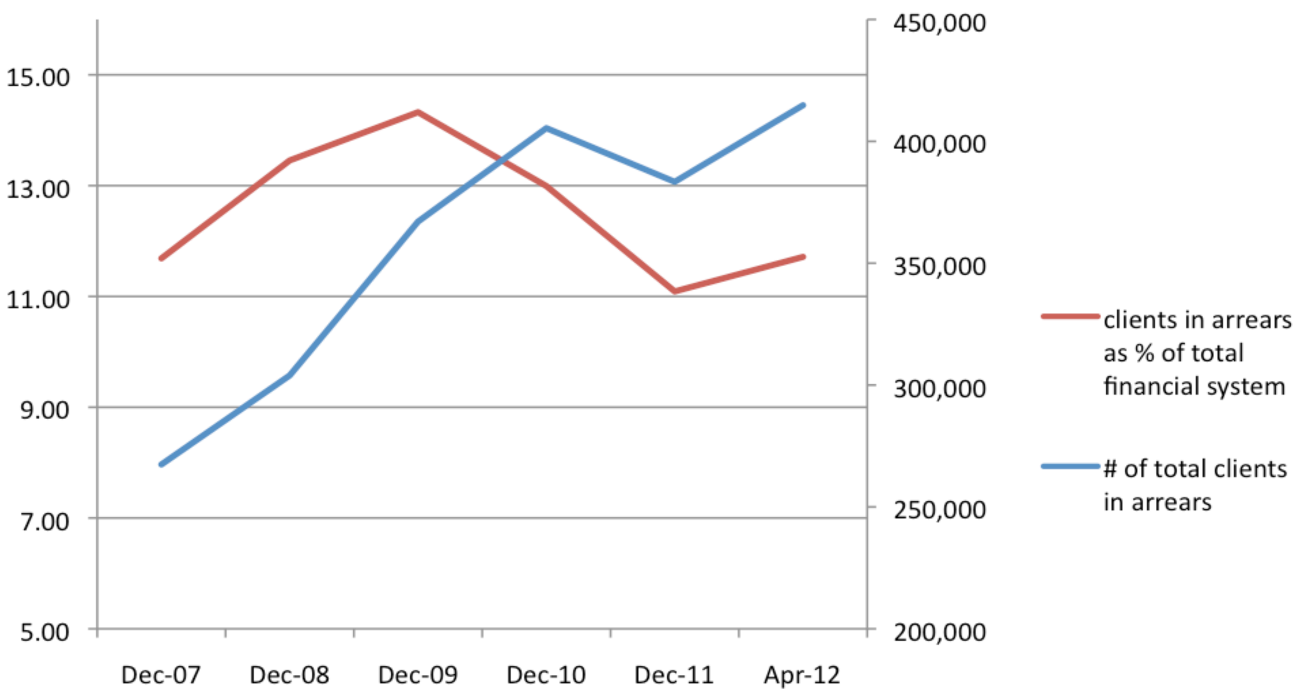
Graph and all calculations by author. Data from the Superintendence of Banks (Súper de bancos y seguros) Ecuador

The past-due loans overall percentage of the total loan portfolio (as depicted by the blue line) has decreased significantly from just over 14% in 2002 to just over 3% in 2012. The portion of past-due loans of the consumer loan portfolio has mirrored the overall system, as has the mortgage portfolio. The portion of the loan portfolio comprised of past-due microenterprise loans, however, has fluctuated throughout the 10 year time frame and has been increasing again for the past two years. Currently, the past-due loans for microenterprise credits comprise 5.5% of that portfolio. This is significantly higher than the average for the financial system. This suggests that the microfinance sector is suffering from greater repayment issues than other sectors. Moreover, the upward trend for microenterprise credits, an increasing value of USD, is not paid on time and supports the concern the most vulnerable, low-income population segment who would take out such loans is affected by the issues of repayment, default and indebtedness.

Clients in Arrears

The increase in USD value is a critical finding, but does not in and of itself show that there is a larger number of individuals or percentage of the financial sector that is in arrears and over-indebted. Graph 3 shows both of these values, with the total number of clients in arrears on the right Y axis and the percentage of the clients of the financial system in arrears on the left Y axis.

Graph 3: Clients in Arrears (2007 – 2012)

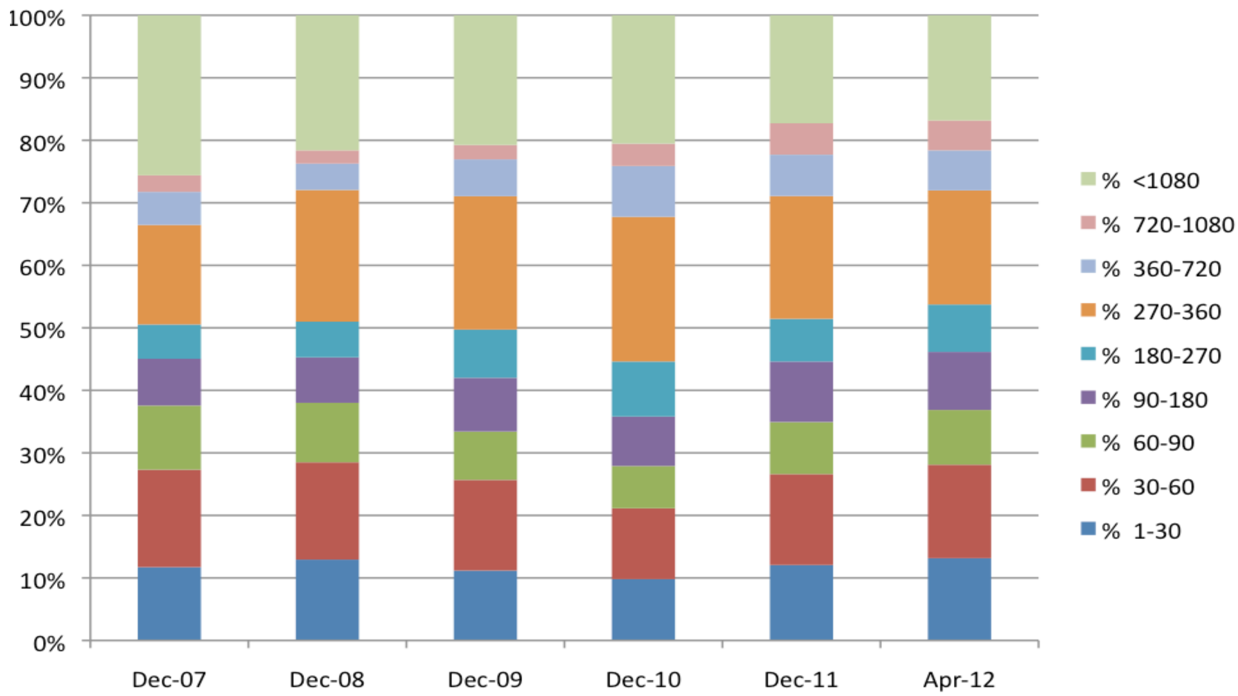


Graph and all calculations by author. Data from Equifax Ecuador

This graph demonstrates that the prior assumptions are true. The total number of clients in arrears has increased, but since the entire number of borrowers within the financial system also increased, the percentage of clients in arrears becomes very telling. That proportion has fluctuated over the past five years and, since 2011, the value has actually increased. In April 2012, 414,809 people within the Ecuadorian financial system were in arrears with their payments, or 11.7% of the total population in the financial system. This is a very high value and has serious implications for the health of the financial system and the economy, as well as for the clients who suffer from financial difficulties and an array of problems related to the actual process of the loan repayment.

In order to get a better sense of the values discussed above, an examination of the percentage of clients in different stages of arrears would be appropriate. In Graph 4, the percentage of borrowers is shown per year, and is divided into segments by their days in arrears.

Graph 4: <u>Percentage of Clients in Arrears, by Day (2007-2012)</u>



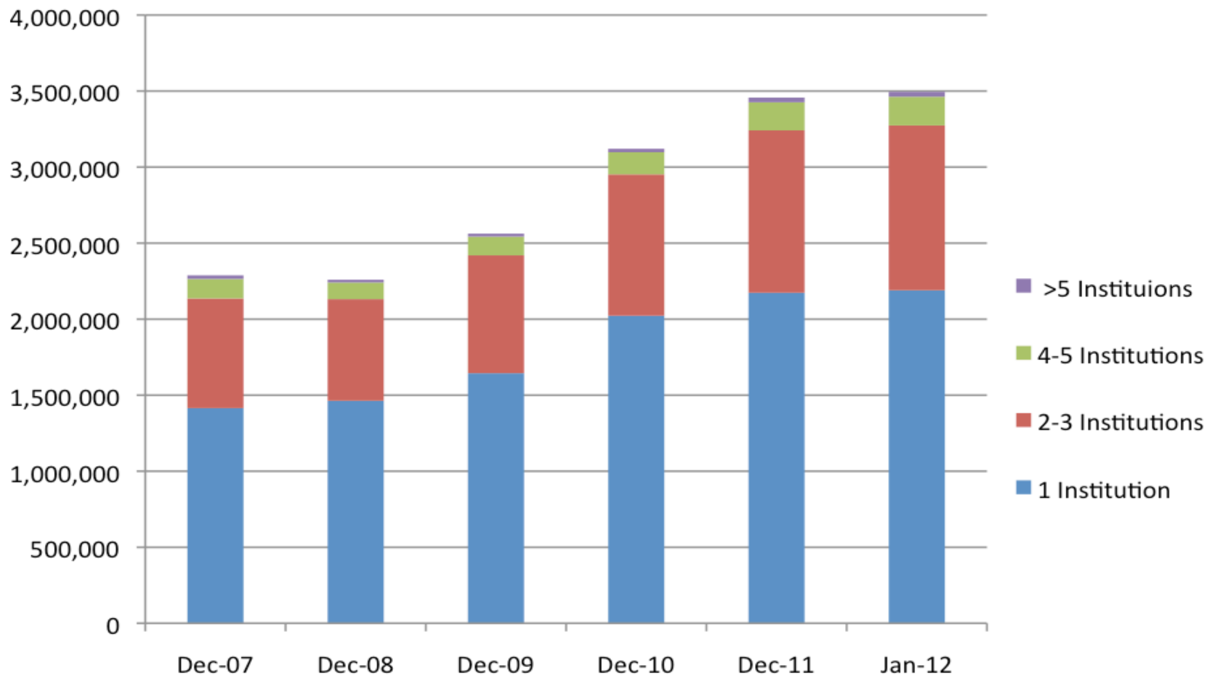
Graph and all calculations by author. Data from Equifax Ecuador

The majority of clients in arrears have not paid for more than 90 days. It could be argued that the 1-30day segment is not as serious since there is still a fairly reasonable chance that repayment will occur. However, beyond that, and certainly beyond the 90 day mark, it is increasingly less likely that loan repayment is possible and will occur. Thus, it can be said that these clients are suffering from overindebtedness. Particularly telling is the fact that the two largest segments are 270-360 and <1080 days. In terms of actual percentages of overall borrowers, 3.9% or 139,268 people are considered to be in arrears for between 270 and 360 days, and 3.6% or 113,393 are considered in arrears for more than 1,080. These are significant values, and result in several hundred thousand clients being unlikely to continue to operate in the formal financial system after being in arrears for such extended periods of time.

Competition and Multi-Institution Borrowing

As briefly discussed before, one of the causes cited for the increasing number of clients in arrears, and facing overindebtedness is the larger competition of financial institutions, particularly MFIs, which allow clients to receive loans from various institutions at the same time. This makes repayment far more difficult since often clients are overwhelmed by the amount of debt they have outstanding and it becomes much more difficult to obtain the funds in order to repay various loans, rather than just one. Moreover, the problem of borrowing from one institution to repay the loan of another has become more prevalent and creates a vicious debt cycle that becomes difficult to break. To gauge the prevalence of this in the Ecuadorian market, Graph 5 below depicts the growth of borrowers in the financial system, categorized by how many different institutions they received loans from at one time.

Graph 5: Clients by Number of Financial Institution (2007-2012)



Graph and all calculations by author. Data from Equifax Ecuador

Table 5: Clients by Number of Financial Institutions (2007-2012)

Date	1 Institution	2-3 Institutions	4-5 Institutions	>5 Institutions	Total
Dec-07	1,414,869	721,413	128,208	23,665	**2,288,155**
Dec-08	1,463,297	668,123	109,660	17,944	**2,259,024**
Dec-09	1,644,501	774,744	123,507	19,550	**2,562,302**
Dec-10	2,022,392	929,647	145,686	22,705	**3,120,430**
Dec-11	2,173,586	1,067,679	184,745	30,934	**3,456,944**
Jan-12	2,189,664	1,084,047	189,153	31,946	**3,494,810**
% increase	**54.8%**	**50.3%**	**47.5%**	**35.0%**	**52.7%**

Table and all calculations by author. Data from Equifax Ecuador

There has been a significant increase in number of clients taking loans from financial institutions across the board. There were roughly 53% more clients in January 2012 than there were in December 2007. There have always been a fairly similar percentage of clients over the years within the groupings by institution. By percentage, there aren't a larger proportion of clients taking out 3-4 loans in 2012 than there were in 2007. Nevertheless, the sheer number of clients is growing, placing a greater burden on the financial system as more lenders are struggling with their repayments than before. Moreover, the values are still high, with 31% of clients receiving loans from 2-3 institutions, more than 5% of clients have loans from 4-5 institutions and 1% has loans from more than 5 at a time. In total, 37% of borrowers, equaling 1,305,146 clients, borrow from more than one institution at a time. One would think that over time this value would drop, as clients learn more about wise financial behavior and what might hurt them as borrowers. However, this is not the case at all in Ecuador. Rather, the percentage of borrowers engaging in this kind of behavior has remained virtually the same, but the number of clients has increased by nearly 50% since 2007.

These developments have serious implications for the financial wellbeing of the institutions providing loans, and the clients who are at a higher credit risk the more institutions from which they borrow. A survey conducted by Banco Solidario with a sample population of 100 of their clients (55 women, 45 men) showed that clients borrowing from three or more financial institutions were more likely to feel uncomfortable with their level of debt than clients borrowing only from Banco Solidairo.[3] The same survey also indicated that 58% of clients borrowing from more than three financial institutions stated they have had to make some form of sacrifice in order to repay their loans on time. This is 16% more than the clients of Banco Solidario only. Below is a graph showing the most commonly cited sacrifices both client groups have made in order to ensure timely repayment.

[3] Survey: *Tabulación sobreendeudamiento*, 2012. Banco Solidario.

Particularly telling is the fact that 16% and 17% of clients (for the two groups respectively) have incurred another debt in order to repay a loan. This is in addition to the 43% and 34% respectively that have asked for help from friends and relatives. The circumstances of such help are unknown, as it is not inconceivable that repayment to friends and relatives would be expected, effectively meaning another informal loan was withdrawn by clients who already struggle to repay. These are not the best financial behaviors/practices and indicate clear struggles on the part of clients.

One explanation for this trend of multi-institution borrowing is the increase in competition between financial institutions. Simply put, clients have more institutions to choose from, and as these compete for clients, they may become strict about what requirements they impose on the borrower to qualify. A further prevalent problem in Latin America that both the 2011 and 2012 Banana Skins study find, is the lack of effective credit bureaus to give valid ratings of client credit history, making it more difficult for institutions to gauge how reliable a client will be. Claudia Valladares, the vice-president of community banking at Banesco in Venezuela was interviewed for the 2011 Banana Skins survey, and said: "with the rise of microfinance in many regions and countries, many MFIs tend to compete for the same customers and that carries the risk of overindebtedness if there is no effective credit bureau." (Center for the Study of Financial Innovation, 2011). In the 2012 survey, a bank auditor from Colombia explained that overindebtedness "has materialised in the last four years and continues to grow due to increasing competition from new players and the policy of aggressive expansion of current competitors" Thus, the 2012 study finds that in Latin America in particular, the four biggest risks as indicated by MFIs throughout the region, are (1) overindebtedness, (2) competition, (3) corporate governmance, and (4) political interference (Center for the Study of Financial Innovation, 2012). As we have seen, this has certainly been the case in Ecuador.

Threat to Credit Bureaus

The problem of credit bureau effectiveness as highlighted by Valladares' statement in the Banana Skins report, holds true in Ecuador. The country's credit bureaus and rating agencies have been limited for many years. While 10 years ago there were six independent bureaus, today only one remains. Even this last credit bureau, Equifax, faced regulatory restraints to provide only credit history of six years to financial institutions, in order for the institutions not to invade the client's privacy (*El Comercio*, 13 June 2012).

To make matters worse, since May of 2012, the government is pushing for the complete elimination of all private bureaus, as to enable the exclusive management of customer information by the Registry of Credit Data, which in turn functions under the National Directorate of Public Data Records. Moreover, the credit history would be further reduced to a maximum of four years per client. The law is still in the works and discussions have gone back and forth between government agencies, Equifax and financial institutions. There is great fear that with the removal of independent private credit bureaus, lots of know-how and information will be lost. Carlos Díaz, representative of Equifax, explained in an interview with the Ecuadorian newspaper, *El Comercio*, "we [Equifax] have made substantial investments and we know how to do things. To remove the bureau is to regress." (*El Comercio*, 18 Oct. 2012) Economic analysts in Ecuador have also reiterated the importance of financial modeling, risk analysis and warning systems bureaus like Equifax have specialized in. These are critical to financial institutions in order to gauge the credit risk of their clients better and to anticipate portfolio default. If overindebtedness is already a problem, the further elimination of checks and balances on client's financial performance and capacity will simply exacerbate the problem.

The Rise of Credit Cards

Another change that is important to highlight is the rapid increase in access to and circulation of credit cards in Ecuador. This has significantly affected low-income populations, as they are often the target of credit card companies that have expanded within the Ecuadorian market and are trying to further increase their client base. The growth of credit card access to low-income populations has further been facilitated by the structural changes allowing for consumer loans to be charged at a lower interest than microenterprise loans. This is particularly critical to microcredit clients since, compared to a microcredit loan, taking out a consumer loan means saving roughly 5% interest annually.

According to the Ecuadorian newspaper, *EL Telégrafo*, there are currently nearly 24.5 million credit cards (24,488,205) in circulation. This accounts for 42% of the total money in circulation in Ecuador overall (*El Telégrafo*, 23 Feb. 2012). *El Comercio*, further cites a study by the Association of Private Bancs of Ecuador (ABPE). It reveals that by the end of 2011, there were an estimated 2.2 million cardholders, which is a significant increase from 1.7 million just in 2008. Furthermore, by the end of 2011, 69.6% of the cardholders had multiple credit cards. This percentage has been growing very rapidly, as can be seen by the fact that just at the beginning of 2011 only 61% of the population held more than one card. More critically, 33.5% of cardholders had at least three credit cards at the end of 2011 (*El Comercio*, 14 June 2012). Similar to multi-institutional borrowing, having multiple credit cards can also lead to serious problems linked to payment overextensions.

This is tied in with the growing trend of the majority of cardholders choosing not to pay in deferred payments for their purchases, but rather pay only the minimum monthly fees without making actual payments for their purchases. According to the cited *El Telégrafo* article, this is common practice amongst 62% of cardholders. 84% even come close to maxing out their cards each month. The result is that cardholders do not end up paying for their purchases but continue to get by with the minimum monthly fees. However, by the end of the year they not only owe the value of their original purchase, but also the additional interest on it and accumulated fees.

While information indicating cardholder income is unavailable, breakdowns of how many cards per specific type are in circulation are available. This is important, because certain cards are targeted towards different population and income segments. One such example is a credit card called Cuotafácil offered by Ecuadorian bank Unibanco, whose target population segment is low-income individuals. In 2011, there were more than 3 million (3,271,708) cards of this type in circulation. It is important to emphasize that there have been very problematic practices involved in the distribution of these cards.

One tactic commonly used to increase client base is for banks associated with a credit card company or type to call their current clients and suggest they sign up for a card. They emphasize that it would be beneficial for them and improve their credit score if they were to take one. They also entice with deals such as allowing clients to sign up for a new card for free. Particularly for the low income population segments, such tactics can be very risky. Signing up for a card with no information other than what is given over a brief phone call and pressure from a bank can lead to misuse of the card. According to a bank official interviewed by *El Telégrafo*, he receives three to four calls a day with complaints by cardholders who feel wronged by the opaque terms and conditions of their card. Many clients do not realize what exactly they are getting themselves into, as they are unaware of the various fees and interest rates involved, particularly since the majority of clients that make payments in smaller installments rather than in a one-time payment when the credit card bill comes. This leads to purchases becoming as much as four times more expensive than they originally would have been.

Of the purchases most frequently made with a card, supermarket and pharmacy purchases (15.9%), car parts (8.75%), professional services (6.15%) and phone and communication (5.8%) rank as the top four (*El Comercio*, 14 June 2012). While the use of these purchases is not specified, meaning whether it is used for private, personal use or businesses, it should be noted that the majority of microenterprises are in sectors that would make use of such purchases. More specifically, in 2004, 55% of microenterprises were in the commerce sector, 19% in the production sector and 26% in the services sector (USAID, 2005). As Tables 6, 7 and 8 below show, within each of these categories, most common businesses spend on groceries, car parts and telephone/communications. Thus, it is plausible that microentrepreneurs would be likely candidates to make such purchases on credit.

Table 6: Breakdown of Principle Microenterprise Activities in the Services Sector

Service Sector Microenterprises	Percentage
Bars, restaurants and cafes	34.5%
Transportation (buses, taxis and trucks)	22.8%
Automotive and tire repair shops	11.2%
Beauty parlors and barbershops	7.4%
Percentage of Total Services Sector Microenterprises	**76.1%**

Table by author. Data from USAID Ecuador

Table 7: Breakdown of Principle Microenterprise Activities in the Production Sector

Commerce Sector Microenterprises	Percentage
Sales of food, beverages, and other items	50.5%
Sales of clothing and shoes	12.5%
Sales of products for personal use and cleaning	6.1%
Sales of other small items (knick-knacks)	5.1%
Other articles of commerce	13.9%
Percentage of Total Commerce Sector Microenterprises	**88.1%**

Table by author. Data from USAID Ecuador

Table 8: Breakdown of Principle Microenterprise Activities in the Commerce Sector

Production Sector Microenterprises	Percentage
Clothing (tailors and dressmakers)	25.6%
Wood furniture, windows and doors	15.7%
Nonalcoholic beverages and juices	15%
Metal products (furniture, gates, fences)	9.6%
Bread and pastry	7.5%
Percentage of Total Production Sector Microenterprises	**73.4%**

Table by author. Data from USAID Ecuador

There is no data to demonstrate whether or not microfinance clients prefer to use credit cards for these kinds of business purchases rather than withdrawing a microcredit loan but, given the available information, it is not inconceivable that this may begin to occur. What exists is a situation in which credit cards are becoming ever more accessible, to all income levels. Consumer credit interest rates lie approximately 5% below microcredit loans, there are fewer checks and balances with regards to receiving a credit card than other forms of loans like a microloan, presenting an instance that makes it all the more appealing to simply use a credit card make the very purchases the majority of people are already using cards for, rather than going through the more cumbersome process of withdrawing a microloan. It saves the time and effort of making trips to the loan office, saves the burden of making as many frequent payments to the bank, and the guilt of telling the loan officer if a payment cannot be made. It would be a rational decision, albeit a far more dangerous one for many clients. The danger of this trend emerging is a great one and it can cause a lot of problems to the most financially at risk segment of society which can least afford to become entangled in credit card debts, more risk exposure and a potentially lower credit score, without the checks and balances and support an MFI can provide.

Summary and Conclusions

Upon examining the evidence discussed in this chapter, it becomes clear why President Correa expressed concerns in his public address in May of 2012. Perhaps it cannot be argued that it an overindebtedness crisis yet but, given the data and current trends, there is certainly a crisis in the making if such patterns continue. First of all, there is a serious increase in individuals joining the financial system, in particular low income population who has joined an MFI. The population segment receiving microenterprise loans has increased more rapidly than any other type of loan. Moreover, past-due loans of microenterprise credits are rising, and have the highest percentage of all past-due loan types. This is also reflected in the number of clients of the financial system in arrears which has been consistently rising. In addition, the percentage of total clients of the system in arrears has increased since 2011. More critically, of the population in arrears on their payments, the largest segment is between 270-360 days in arrears, and more than 1,800 days in arrears. These are large time frames indicating that repayment is likely not possible for these individuals.

Other bad borrowing practices are indicated by the fact that 37%, or more than 1.3 million individuals borrow from more than one financial institution at the same time. In a survey of a sample population of microfinance clients, 58% borrowing from more than three institutions said they had to make a sacrifice in order to make their payments, compared to only 16% of clients borrowing from only one institution who claimed the same. In addition, there is the threat of the possible removal from the last private credit bureau, which could be detrimental for financial institutions to accurately gauge the risk of their portfolios, further exacerbating the problems the system faces. Lastly, increased access to and circulation of credit cards without increase knowledge of their use has led to bad practices, such as maxing out cards and paying only minimum monthly fees, causing many clients to be surprised and overwhelmed by their final bills after a year's time. Since the boom of credit cards is still beginning, this trend can be expected to continue and worsen over the next few years.

Thus, it can be seen that there is cause for strong concern and caution. Evidence shows that overindebtedness is already a problem, and it may become a crisis if trends continue and regulatory changes limit institutions further. This is a view shared by experts in the field, and in particular, MFI practitioners, as demonstrated by the Banana Skins survey results, confirming that overindebtedness is the single greatest risk to the MFI industry.

Chapter 6: The Importance of Financial Education

As the current situation in Ecuador has been laid out, it can be seen that there is plenty of room for improvement with regards to the sphere in which microentrepreneurs work. It seems that the greatest problems influencing indebtedness in microfinance clients are structural ones. The regulatory framework needs revision, and the persistent governmental intervention has limited MFIs to the detriment of its clients. While these problems must certainly be addressed, they are a much greater feat to tackle, in light of the power of the recently reelected neo-populist president, Rafael Correa. Changes by the powers of the Superintendence of Banks, as well as the Central Bank are necessary, but simply much harder to achieve and ultimately involve a slow, long process.

However, what can be implemented relatively quickly and easily in the short-term is a more transparent, system-wide, simple, free and easily available financial education program. Such a program can highlight the underlying implications of an interest rate cap, inform clients of wise use of credit cards, provide information on what type of credit to use and when, the risks of borrowing from multiple institutions at the same time, how to recognize signs of overindebtedness, how to build up and improve credit score, as well as recommendations on use of savings accounts. Essentially, it can help mitigate the harmful effects the changing regulatory environment can have on clients. It cannot solve the problems that exist, but it can help individuals operating within it to become more aware of how to do so, and it can provide them with the tools to make good financial decisions.

Defining Financial Education

Financial education has been defined in slightly different terms depending on the context, but it is possible to define it as a program to enhance the set of skills people have in order for them to be able to make better financial decisions. A quite suitable and encompassing definition has been provided in a report collaborated by Genesis Analytics, Microfinance Opportunities and the MasterCard Foundation, titled "Taking Stock: Financial Education Initiatives for the Poor." The report defines financial education as "the process of introducing people to the knowledge, skills, and attitudes required for responsible earning, spending, saving, borrowing, and investing. By broadening people's understanding of financial options and principles, financial education builds skills to use financial products and services, and promotes attitudes and behaviors that support more effective use of economic resources." (MasterCard Foundation, 2011). Linked to this is the concept of financial literacy, which is the ultimate goal of such financial education. This has been defined by Gale, Harris and Levine (2012) as "the ability to make informed judgments and effective decisions regarding the use and management of money and wealth, as well as the ability and discipline to implement intended or desired saving behavior." (Gale, Harris & Levine, 2012).

Throughout the world different approaches to financial education have been taken. In some instances they have been built into school education curricula. In other instances they have been private entities set up in order to help individuals who struggle financially. In the United States so-called credit counseling programs were pioneered in the 1950s in order to provide debt restructuring and guidance to individuals who had difficulty making their payments. This has been largely a program in place for individuals who have already gotten into financial trouble, and are in need of help to get out. It is not a preventative program in that sense. This model has been exported to a variety of countries, and exists in a similar form throughout much of the EU, for example. Other programs, particularly in developing countries, have been implemented more recently by external organizations and companies such as the World Bank, OECD, the Citi Foundation, Visa and MasterCard Worldwide (Zia, 2011). One of the largest initiatives has come from the Citi Foundation, which began in 2004, and is a 10-year, $200 million global program on financial education. So far it has helped to fund programs in 65 countries (Citi Foundation, 2013). These groups have largely begun investing in more financial education programs in developing regions where they were not established before. While financial illiteracy is a serious problem in developed countries too, there have been more attempts to try and solve this than in the developing world. Thus, a serious gap of financial education persists in developing countries.

The Financial Capabilities Gap

In a comprehensive study by the Citi Foundation, this lack of financial training and education, compared to the amount of financial products and services available, is defined as the financial capabilities gap. The study highlights, "Between 500 million and 800 million of the world's poor now have access to finance – yet our research suggests that only 110 million to 130 million of that number have received any sort of financial capability training. In other words, only 25% of these many millions have been taught how to use their newfound access to the world of formal finance wisely and to their advantage […] This is the financial capability gap – the chasm that exists between those who have been given the skills and knowledge to responsibly engage with a formal financial system that is utterly new to them and those who have not." (Deb & Kubzansky, 2012). The study argues that this gap, or the 75% of the world's poor who have not received financial capabilities, is predicted to increase. In particular, with the rise in other financial services that go beyond microfinance (mobile banking and remittances are cited), financial access will increase rapidly, without an increase in capabilities to go along with it. The consequences are serious not only for the clients of these products and services, but also for the financial services industry and financial institutions as a whole.

Overall, there has not been a large body of research done on financial literacy and education in the context of developing nations, which is a major criticism the Citi Foundation study points to. The focus of the literature has been primarily on the Global North. In this context, there is substantial evidence that financial illiteracy is prevalent across countries. Thus, the problem of lacking financial capabilities is prevalent throughout the world. The literature highlights the critical fact that financial literacy is more prevalent in some demographics than others. In a study by Lusardi and Mitchell (2011), they find that "financial illiteracy is widespread when financial markets are well developed as in Germany, the Netherlands, Sweden, Japan, Italy, New Zealand, and the United States." A further study by Lusardi, Mitchell and Curto (2010) finds that financial literacy in youth is particularly tied to socio-demographic characteristics. Based on the results from the U.S. National Longitudinal Study of Youth, authors found that women are less likely to be financially literate than men. In addition, whites were more likely to answer the financial literacy questions correctly than Hispanics and blacks. Another interesting finding is the fact that financial literacy was strongly associated with the education level of the respondent's mother. In particular, likelihood of being financially literate increased most significantly if the mother graduated from college. Furthermore, increased family wealth also affected respondent's level of financial literacy positively. Lastly, findings show that respondents surrounded by peer groups who plan to attend college also tended to be more financially literate.

These findings demonstrate a number of critical points. First, that the problem of financial illiteracy and lacking of suitable financial education programs is a global phenomenon, not tied only to the global North or South. However, the body of research has been far more limited in the South, as have been the attempts to implement education programs. Furthermore, family background, wealth, peer groups and status as a minority group in a population seem to be associated with level of financial literacy. While this study was conducted in the US context, these findings point to the fact that more privileged groups in society are more likely to be financially literate. In the context of microfinance clients, these are often women, and the less-privileged group of society. It can therefore be concluded that although such financial illiteracy is not a phenomenon of the developing world, it is these countries and its poorest populations that are least likely to be financially literate, and to have access to the resources or capabilities to change this.

With regards to microfinance clients, they would primarily be able to access such tools if they were provided by the MFIs. However, due to high competition, the trend has been for a reduction in mandatory client education or training programs, rather than an increase. With more saturated MFI markets, clients have the choice of where to withdraw a loan. Given the time commitment involved in attending classes or being part of a workshop, as well as the added transportation costs to and from the location, clients preferred to apply for credits from MFI with the least complicated processes. In order for MIFs to compete for clients, these programs became less and less available to the overall determent of the clients and the industry.

Financial Education in Ecuador

In Ecuador, financial education has grown in importance in the MFI industry. However, the changes that have taken place to include more comprehensive financial capabilities training have been very recent and not mandatory as part of the borrowing process. For example, among the most important MFIs in the country (including Credi Fé, Banco Solidario, Finca, and Fundación Espoir), two in particular developed very comprehensive free financial education programs for their clients. These two, Banco Solidario and Fundación Espoir, have taken different approaches, but don't make education or training programs for clients a mandatory part of withdrawing a loan. A study of the Superintendence of Banks of Ecuador showed that at least 60% of financial institutions did not have any kind of sustainable education programs for their clients (*El Diario*, 17 Feb. 2012).

Fundación Espoir has made it part of its mission to "contribute to the economic and social development and also to the health of poor female microentrepreneurs in Ecuador, through providing working capital credit and education, to enhance their capacity to generate income for their personal welfare and that of their family." This is a very important first step to increasing the presence and significance of financial education in the MFI industry. Through this approach, Fundación Espoir gives women in particular the opportunity to become more informed about issues pertinent to their health, empowerment and economic wellbeing. As the program website advertises, "The education component includes preventive health issues and business management to manage risks, natural disasters and gender equity, institutional credit policies focusing on the needs of direct program participants and their families, and also strives for a positive impact on the lives of the community." (Espoir.org.ec). This program certainly takes the right approach, but could do more to provide similar programs to other groups, including perhaps youth programs, and also programs for men, the minority of clients, but still comprise about 17% of Espoir's total client base. Moreover, while this outreach is important, other banks and institutions must follow suit in order to have a more significant impact. In 2012, Espoir had 71,582 active borrowers (MIX Market, 2013). Moreover, clients must make the effort to attend such programs and have to see the benefits independently in order for the programs to truly reach their potential.

Banco Solidario's approach to financial education has been different from Fundación Espoir's, since its mission was not to provide financial education from the beginning. Together with Unibanco, they have developed a separate program that focuses only on providing financial education to clients through a variety of media. The program, called Cuida tu futuro (which loosely translates to "take care of / safeguard your future") has its independent website (cuidatufuturo.com), which offers simply written articles providing helpful advice on wise spending behaviors or how to recognize signs of indebtedness, for example. It also offers educational podcasts, videos, tips and cartoon strips. In addition, Cuida tu futuro has weekly radio broadcasts, a Facebook page with daily updates, tips and links to more information, as well as informative brochures and printed publications.

This approach is very different from Fundación Espoir, since this type of financial education is a more independent one on the part of the client. It allows for clients to learn about specific topics he or she may be interested in during their own time, rather than providing an educational session or course for clients to attend. This has its advantages and disadvantages. For one, there is a significant dependence on the internet for Cuida tu futuro's outreach. If clients do not have frequent access to a computer and internet, many of these tips will largely go unseen or heard. Furthermore, it assumes a certain level of technological education in order to best make use of the website and social media so as to find the information most pertinent to each individual's needs. Being less elaborate and personal than a classroom setting, it can also only teach so much. Without having the ability to individualize a curriculum or to provide answers to specific questions, clients only gain a slightly more comprehensive understanding from the Cuida tu futuro tips and articles.

However, the great advantage of this approach is that clients don't lose time from work or taking care of the household by attending a class. It also allows for the uptake of small pieces of information throughout a longer period of time, as the client wishes, which may mean more retention overall. It further means no costs in terms of transportation to and from the class/workshop. It also reduces costs for the institution providing the services, since no additional staff is hired to run the lessons. Given the pros and cons of each, a more effective approach would seem to be a balanced combination of both services.

This is a mentality shared by the Ecuadorian government, which, in the wake of President Correa's statement about the overindebtedness problem back in May of 2012, has taken serious measures to begin the creation of a law making financial education programs mandatory for all financial institutions operating in the country. According to an

El Comercio article, the Superintendancy of Banks of Ecuador has been working to finalize the details of the law which aims to regulate the financial education programs in place by all financial institutions (Sarmiento, 2012). Some requirements will be to provide clients with an understanding of advantages, disadvantages, risks and the proper use of bank products and services. Moreover, all programs must be completely free for the clients.

Programs will provide information to clients via a range of different channels, including written media publications, television, radio, internet, virtual classrooms and personal counseling. The article also explains that clients can expect to be required to take part in different training programs targeted for different socio-demographics. The divisions listed are gender, age, marital status, education, occupation and geographic area of residence. The article also emphasized that the focus of the training may be based on level of client income and consumption. The nature of the programs will vary for each institution, and thus there will be no single mandated curriculum or method, but rather certain requirements each financial institution must comply with. As such, each program must include the development of six cited topics: structure and function of the financial system, banking services (savings and checking accounts, checks, deposits), savings and family budgeting, credit management, rights and obligations of the use of credit cards, general rights and obligations. Lastly, the article highlighted the growing importance of the internet as a medium for transmitting information, and therefore it will become mandatory for institutions to have a link to their financial education website or section prominently displayed on their homepage. A glossary of financial terms, as well as an online interest rate and cost calculator is also in the plan.

This outline of requirements sounds very promising, but has not been formalized as of yet. It has yet to be seen how this law will develop, and how comprehensive the individual programs will ultimately be. It is important that this concept is in the discourse and on the horizon of policymakers in any case. Some criticisms and further suggestions for a more comprehensive and structured financial education model will be provided in the next chapter. However, before going on to discuss this, it is important to outline the actual benefits of such programs.

The Case for Financial Education

Studies discussed thus far have shown that financial illiteracy is a reality worldwide. It is also true that developing countries are particularly at risk and have few established programs to help combat this issue – or bridge the financial capabilities gap as it were. The actual impacts of such programs, however, have not yet been discussed. As stated before, there is not a large body of literature and evidence to show impacts of financial education in the contexts of developing countries, even less so for Latin America, or Ecuador in particular. However, there is some work on the impact of financial education, as well as credit counseling programs in the U.S. and some other research from a variety of countries which can help to shed some light on the impacts more generally.

In a study by Collins (2010), a randomized control trial is used to examine the impacts of a financial education program in the U.S. "Very low-income families in a subsidized housing program were randomly assigned to a mandatory financial education program and tracked for 12 months." 144 clients participated in the survey, randomly divided so 73 clients were assigned to the treatment group, while 71 clients were assigned to the control group. Mean baseline income for the sample was $19,939, average balance on participant savings accounts was $286, and average outstanding debt was $7,957. After having completed the program, results show improvements in self-reported financial knowledge, as well as improved self-reported behavior, moderate improvements in credit score, and an average increase in savings of $377 (Collins, 2010).

The study also provides evidence of better budgeting practices as a result of the program. While there are some disadvantages linked to reliability of self-reporting, implications of the study are that mandatory financial education can have positive effects on financial behaviors on program recipients. As the author concludes, "Despite expected economic and social pressures faced by study participants, as well as predicted impatience and self-control failures, this study documents an increase in savings levels without corresponding increases in debt or poor credit management." (Collins, 2010)

As stated before, credit counseling is one form of financial education, which attempts to help individuals who are already indebted, rather than a preventative program for individuals at risk. According to two prominent studies on the subject (Xiao & Wu, 2006), the factors affecting the credit problems can be classified as: social (external influence or society) and personal (internal decisions and behaviors). Thus, credit counseling agencies should offer two basic types of services. 1) Technical service: education on financial terms and procedures to reduce debts, and 2) Changing behavior: identify root problems and how to solve them. Furthermore, there are two main types of customers for credit counseling and thus, there are also two distinct programs: 1) people whose financial situation is not yet dire, meaning they can help themselves out of financial problems, but they need proper guidance and information on how to manage their money and expenses through a preventative education program, (financial consulting) and, 2) people who are already in debt, who need a service to help them improve their situation with a rehabilitation program (debt management).

In a study by Elliehausen, Lundquist and Staten (2003), it was shown that individuals who participated in a credit counseling program in the U.S. improved their financial behavior much more than people of the same economic level, who did not participate one. The study was based on econometric regressions, comparing credit rating (empirica score) of clients who had already participated in a program to people who did not received any counseling. The program began in 1997 and lasted 3 years.

The credit rating factors included: current level of indebtedness, length of credit and number of credits, and credit history. All these variables were reflected in the empirica score of the clients, which were then distributed into percentiles, according to the rating. In other words, people with better empirica score were located in the upper percentiles (90th) and people with a lower empirica score, were located in the lower percentiles (10th). The study demonstrated that credit counseling has a greater effect on individuals with a lower empirica score at the start of the program, than those with a higher one.

Some more specific findings were that on average, program clients reduced their debt by $6,752 in a period of three years, while the control group with no counseling increased the average debt by $8,844. Also, people with a low empirica score reduced their debt by more than $10,000. Credit counseling clients reduced the number of credit cards in every empirica score percentile. On average, there was a decrease of 1.19 credit cards (52%) for counseled individuals, while the control group only reduced the number of cards by an average of 0.13 (10.5%) over the three years. Another observation from the study was that clients reduced the number and frequency of late payments much more than the control group. In addition, all counseled clients reduced the number of accounts during the three years. Program clients with lower initial empirica scores even reduced the number of accounts by more than 4.

Overall, the study shows that the program significantly improved the lives and behavior of these clients. This in turn is also very beneficial to the financial institutions and credit card companies that receive more reliable and timely payments from these individuals. Examples of overall benefits include, improved credit management practices, better use of credit and payment behavior, decrease in amount of client's debts, improved client credit score, increased health and family welfare and reduced financial stress.

Summary and Conclusions

Based on the findings from these various financial education programs in the United States, there is significant evidence that they can be very effective in improving the financial behavior of clients. It is reasonable to assume that financial education, if contextualized and refined for the varying regional target groups, can be equally successful in other regions, such as Ecuador. Given these findings, it becomes clear that finding the best practices and creating a comprehensive and effective financial education program for different socioeconomic groups in Ecuador should be a priority. Some important MFIs are already on the right path to this, as is the proposed law to make financial education mandatory for financial institutions. However, some light should be cast on what practices and program specifics should be kept in mind when shaping the various programs available to clients. This will be discussed in the next chapter.

Chapter 7: The Financial Education Model

Based on the findings discussed in this paper, it has become clear that a financial education program is necessary in the Ecuadorian context to help address the issues leading to overindebtedness, in particular for individuals at risk like microfinance clients. This chapter will serve as a policy recommendation and as a guideline for policy makers implementing free, mandatory financial education programs.

It should be noted that this recommendation serves to address some of the shortcomings of the current microfinance model that exists in Ecuador. Specifically it is an attempt to mitigate some of the problems the regulatory framework has caused, with focus in particular on addressing the rising issues of overindebtedness amongst low-income populations. This is not in any way meant to solve the underlying problems of poverty, and social, racial and gender biases that are tied to it. These are of course other critical issues and must be addressed separately and carefully, but this is not within the scope and purpose of this paper and recommendation. This chapter is merely a suggestion for a way to more easily implement an education program that can offer an additional set of skills to microfinance clients, so they receive more equal opportunities to compete in the market and make the best possible use of their financial tools and resources.

Methods of Implementation

As discussed in the previous chapter, financial education exists in some Ecuadorian MFIs already, but is not a mandatory aspect of the borrowing process. Even though the government is attempting to implement a law making it mandatory for financial institutions to offer such programs, it is not mandatory for clients to take part in them. However, this is a critical aspect that ought to be enforced by MFIs in order to truly provide the comprehensive coverage that is needed.

This brings up many questions, of course, and implementation must be more closely examined. One possible method would be to create a comprehensive exam, testing basic financial terminology and knowledge, including topics on interest rates, credit cards, household spending, the loan process, financial risks, credit score, and recognizing overindebtedness, to name a few. Passing the exam by correctly answering a certain percentage of it would allow the client to apply for a loan. Essentially, a good score on this test on basic critical financial knowledge would be one of the requirements to qualify individuals for an institution's products and services, and serve as a proxy for good financial behavior in the future. If clients cannot pass this test, they will be given various mediums to complete free financial education programs to help them pass it. This way, financial education will be mandatory in certain circumstances where clients arguably need it, but not if clients clearly have a solid grasp on this knowledge. It may be a test that must be retaken each year to ensure that clients remain up to date on their financial knowledge. The questions will be reviewed and updated if necessary each year by the financial institution, so as to guarantee that the most current and critical information is tested.

One of the criticisms of mandatory financial education has been that it prevents individuals from spending the time they are in classes actually working or tending to things at home, which adds another burden on them. In addition, it means spending money out of pocket to attend the classes, which can be particularly significant for individuals who live in rural areas. For these issues there can be a number of solutions. Firstly, while personal classes should be offered, other mediums should also be available. This can include an online course, a computer course on CD, a course/counseling over the phone, a radio class, and a manual/syllabus to learn and study from home. These free products and services provided by the institution allow clients to study and learn in their own time, without travelling far and spending money. Those that wish to take classes in person or who do not have access to computers, internet, phones or radio on a regular basis, they can attend classes in groups. These can be offered at the regional branches where clients receive MFI's products and services to combine the trips. Courses can be offered in evenings after working hours, or on weekends. Regional customer surveys can determine the most suitable hours for clients.

Establishing Target Clients

The target audience is also critical for this service. Even within the group of microfinance clients there is an incredibly diverse population. All of these individuals have different needs. Thus, aside from having the purpose of allowing clients to pass their financial knowledge test, courses can target different socio-demographic groups and address their needs more individually. This means considering that needs for women are different from men, that needs of rural clients are different from urban ones, that needs of microentrepreneurs working in agriculture are different from ones in manufacturing, or sales, etc. In this sense, individualized course materials offered through the range of mediums mentioned can be helpful to better address the needs of different clients.

Funding Options

These propositions might raise the concern of how these programs will be funded. Seeing as all services will be provided for free to clients, this is a legitimate concern. Remaining in line with the current changes to Ecuador's financial education policies that are already in the works, the MFIs themselves would be responsible for the costs of these programs. Finding efficient and user-friendly ways to convey the materials is in their self-interest. Moreover, based on the numbers showing default rates, days in arrears and credit-card debts in Ecuador, it is easy to see that institutions will themselves benefit greatly from their client's improved financial behavior. Fewer defaults, more timely payments, and more clients returning to the bank with higher credit scores and overall wealth are all financial goals for a bank, and will ultimately save MFIs money.

The Citi Foundation cites 'induction training', or mandatory financial education training for new clients, as one of the least expensive methods to bridging the capabilities gap. According to the study, induction training costs range from \$0.07 to \$0.54 per customer. Using a case study of KASH, a Pakistani MFI, KWFT from Kenya and Mann Deshi Mahila Bank in India, the cost of training all new customers is between 0.2% and 1.3% of annual profits, assuming an average customer acquisition growth rate of 24% (pegged to industry growth figures). Providing training to existing clients can be most costly, depending on the method – classroom setting classes are more expensive than online courses. (Deb & Kubzansky, 2012)

The example goes to show that the amount spent on providing the program will be recuperated over time with better client performances. Moreover, as time passes, the hope is that sustainable, comprehensive education programs will allow for long-term changes in behavior and attitudes. Investing in the education of current clients will lead to better overall behavior in next generations as well, as parents will pass along their knowledge and skills to their children. Thus, on the bank's part, it is a long-term investment in their clients and the financial stability of the bank and financial system itself, and can therefore be seen as a wise investment strategy.

Financial Education Departments and Impact Assessments

In order for these tailored financial education programs to operate most effectively, MFIs must create separate departments within the institution of trained personnel exclusively focused only on the development and implementation of effective and intuitive programs. This department should also include regular impact assessments to examine the true effects of the programs on clients and their financial behavior. As discussed earlier, random control trials can be an effective way to truly measure the impacts of an intervention, program or service. This involves active monitoring of clients, conducting surveys and extensive market research. A department focused on this work would be most capable to determine best practices and methodologies, and also show innovation to help improve the financial education programs regularly. Since client needs, political frameworks, the macro economy, financial supplies and demands are constantly changing, the adaptation of financial education programs to such changes is critical to the success of these services.

The Importance of Behavioral Economics

While the focus of this recommendation is on the financial education program, it is critical to emphasize the importance of developing consumer-friendly financial products and services. Much of the research and findings from the field of behavioral economics has shown that it is critical to improve the products and services offered so that they complement financial education. In many ways, better designed products and services can lead to better financial behavior and involve education as they promote good practices. These findings are particularly critical in the microfinance industry with regards to low-income populations.

Research from behavioral economics on consumer behavior shows that people discount the value of future consumption for present day benefits. Most simplistically, this means that people generally want things now rather than to saving to have other things in the future. This is considered an inconsistent time preference, meaning the further away something is, the lower we value it. This directly contradicts the necessity to save money. This behavioral pattern, also sometimes referred to as hyperbolic discounting, is cited as one reason for why people as a whole are bad at saving money (Wilkinson, 2008).

In addition, people are bad at following through, particularly when plans require continuous action. Thus, people prefer to adhere to default settings which reduce the active input required. This has been widely discussed by economists and policy makers alike, and is central to the influential book *Nudge*. The power of default options or 'nudges' thus becomes critical in shaping the kind of actions people take (Thaler & Sunstein, 2008).

Furthermore, people as a whole are bad at predicting probabilities, even when they are related to our personal lives (Pompian, 2012). Therefore, we are not good at foreseeing future risks such as the possibility of losing a job, larger health care expenses, accidents etc. Given these findings, among many others, that pertain directly to people's financial behavior and consumption patterns, it becomes clear that the design of products and services can go a long way to compensate in part for our human shortcomings.

Research has shown that many people often fail to think about the future and don't take into consideration what future expenditures they might have. A study by Karlan, McConnell, Mullainathan and Zinman (2012) found that simple reminders to savings accountholders (in Peru, Bolivia and the Philippines) to save more, increased deposits. Even more importantly, the study showed that if the reminders were not generic, but focused on a specific kind of future expenditure worth saving for, such as school fees, savings increased even more. Failing to consider future expenditures explains a significant portion of why people have difficulties saving and then later resort to high-cost borrowing. Including savings reminders, rather than just the course on savings practices, may affect even greater positive change in clients.

Furthermore, research also indicates that people are most effective at saving when there is a one-time change which is in some way continuous. Actively depositing money into a savings account is a process which many people would have a hard time following through, even with reminders. Thus, a better method would be to create a savings account where money would automatically be deposited from a paycheck every month.

The idea of default settings is also very important, as a study by the New America Foundation's "AutoSave" pilot program has shown. The Foundation implemented a pilot program of an automatic savings account in the U.S.. On the enrollment form for this account, 51% of participants chose the recommended amount of savings per month

(MDCR.org). This indicates that the majority of people are opting to trust the program and select the default choice. This has huge implications as a wisely selected default can greatly affect the way in which people save. Interestingly, the AutoSave account is not linked to a transaction account, which makes it more difficult for individuals to access their savings. This is a further self-control device that keeps people from spending the money.

A study by Morse and Bertrand (2009) shows that very high “payday loans” are taken out by individuals who often do not realize the financial implications because they cannot do the complex math in their heads. Thus, when provided with the precise calculations and total dollar cost of the loan fees, individuals were 10% less likely to take these loans. Thus, very clear presentation of total costs and calculations will also go a long way to alter the behavior of individuals and borrowers.

In a study by Dean Karlan, Melanie Morton and Jonathan Zinman (2011), titled “A personal touch: Text messaging for loan repayment”, they made important observations about the relationship between borrowers and loan officers, based on research in the Philippines. Repayment did not improve by simply sending a generic text message reminder, but it did improve when the message was personalized and sent by the client’s loan officer with whom he/she had previously been working. This did not hold true for new clients, only for those that had been able to establish some kind of connection with the loan officers. This hints to the fact that borrowers may feel a sense of obligation towards their loan officer, which increases their repayment efforts.

Overall, these examples and findings from behavioral economics go to show that the structure of all financial services offered affects a client’s behavior. Thus, financial education as an outside class or ‘intervention’ is critical but not the only way to address these issues. Financial education does not simply mean that education is limited to a classroom. There can be many other ways to convey these messages, and one way of affecting positive behavioral changes is through the wise development of the products and services offered.

Summary and Conclusions

Mandatory financial education is a critical strategy which provides microfinance clients with a better set of tools to use the services MFIs offer to them most wisely. It is beneficial to the clients, their children and families, as well as to the MFI itself and the total financial system. It is critical to provide education through a variety of mediums, so as to make it easiest for clients to obtain the necessary information. Using financial knowledge tests may be one effective way to gauge what knowledge is lacking, and which clients most need help to learn it. This can help tailor the materials covered by the program as well. Making more individualized lessons for certain client groups can also help them gain the most out from their education, as different populations have different needs. Using surveys and impact assessments will be essential for the development of the most effective strategies, and will require regular revisions of the needs of clients and the syllabus/materials taught and emphasized. Lastly, focusing on a more general sense of education, including lessons, but also other sources and types of materials, like online tips and articles, but also more refined and user-friendly products and services, can help to most effectively promote positive behavior changes.

Final Conclusions

Ecuador's microfinance market is one of the region's most mature and saturated. It has developed very positively as a whole, reflecting global trends of the upgrading process. Many of the most important MFIs are formal financial institutions, which has allowed them to be financially self sufficient and have a wide outreach to many clients throughout the country. Outreach has been one of the most successful aspects of the MFI market in Ecuador, as many of the potential clients are in fact being targeted and reached by the MFIs. A number of different models exist, including upgraded and downscaled banks, NGOs and cooperatives. There is a wide range of products and services for clients to choose from, and competition has largely led to increased efficiency, beneficial to clients.

However, recent regulatory changes are holding the sector back from reaching its full potential and serving its clients best. The populist agenda of President Correa has caused some changes to take place that are detrimental to the health and success of MFIs, which ultimately harm the consumer most. Implementing interest rate caps has caused institutions to attempt to recuperate the sums they miss out on through other means, and has also meant sacrificing some efficiency. Moreover, it has led to some MFIs moving out of the market entirely, as they can no longer remain profitable. Other MFIs have had to compromise their mission statements to a certain degree, as they simply provide higher average loans, which often means excluding the very poor, and women. The industry interventions by the President have harmed institutions and clients alike, rather than having benefitted them.

Upon closer examination of the overindebtedness crisis that President Correa announced in 2012, which ultimately sparked many of the changes in the regulatory environment that are taking place, it can be seen that there is indeed cause for concern. While it may not be a crisis at this point in time, if trends continue, it may easily become one. There is a large portion of clients who are in arrears. Past-due loans are highest in the microfinance loan portfolio, and the portion of the population in arrears has been increasing. Moreover, due in part to high competition amongst MFIs, a significant portion of the population borrows from multiple institutions at once, putting them into greater financial risk. The recent increase in credit card circulation has also brought with it a range of new problems. With little history of credit card use, many new clients are unaware of the exact interest rates, terms and fees connected to their cards upon signing up. Lured to sign up by adamant credit card companies, and sometimes even banks, clients are later surprised to find themselves with a significant sum of debts, unaware of how they got there. Combined with the threat of the last remaining independent credit bureau being forced to close down, so as to make credit rating a public entity, there is a serious risk of overindebtedness, which will increase to much higher and drastic levels in the future, if trends continue.

While it is clear that regulatory changes to reverse some of these interventions are necessary, such change is more difficult to achieve. However, financial education is one way to at least inform clients of wiser financial use and behavior, and mitigate the effects some of these interventions are having. This is a far easier change to achieve, and many MFIs have already begun developing and/or providing different forms of financial education to their clients. What is needed is to continue along this path, and develop them further, so all MFIs can provide such services to their clients. As studies show, mandatory financial education programs have achieved significant success in improving client's financial behavior. In Ecuador, system-wide financial education is critical in order to provide resources to financially at-risk clients, thereby enabling them to make better financial decisions. Moreover, having it be mandatory means financial institutions don't have to fear losing their client base due to competition.

These recent changes in Ecuadorian microfinance have largely mirrored many of the problems the industry faces globally. Various MFI administrators through Latin America have cited overindebtedness and political intervention as top problems facing the industry. The issues Ecuador is grappling with are not unique, and are reflected in other Latin American MFI markets, and in many instances throughout the world. The exact causes and issues faced in these various contexts are of course slightly different, but the fact that financial products and services have grown at a rate far faster than financial education and guidance on how to use these capabilities remains true worldwide. Thus, it is critical to begin addressing this gap, by examining MFI markets locally, conducting surveys and performing extensive market research, in order to best address the needs of clients, and provide them with the most effective and comprehensive tools so they can best make use of the financial services now available to more people than ever before.

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