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Establishing an Effective Interest Rate in Latin America's Microfinance Sector: A Comparative Analysis Between Mexico and Peru

A Senior Project Submitted to The Division of Social Studies

By

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Annandale-on-Hudson, New York

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I would like to dedicate this project to my loving parents, Kevin and Lisa, my three brothers Timothy, Colin, and Kevin as well as my beloved grandmothers Dorothy Szatkowski and Mary Yoder. Thank you for your support, patience, and sacrifice. I would not be in this position without you. I will never be able to thank you enough for everything you have done for me.

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Abstract

Microfinance is defined as small scale loans designed for less fortunate citizens. Ever since its creation, an economic development tactic that was hoped to greatly benefit developing economies, has been under much scrutiny. Why is this supposed poverty alleviating lending tool

under such scrutiny? Well a quick outlook on Compartamos Banco profit statistics along with knowing that their loan default rate is near one percent is a good place to start. Latin America has taken Yunus's social welfare Microfinance model and turned it into a profit generating giant with an interest income of 74.7% in the Mexican Microfinance sector.¹ Although profits are good for some, they usually come at a cost for others. The others in this case have been the public Microfinance institutions in Mexico. Compartamos has dominated the Microfinance competition in Mexico and been able to charge interest rates of up to 120%. Due to this competitive advantage, other Microfinance institutions have been forced to adopt this dangerously high microcredit lending rate. Unlike the country of Peru, Mexico's Microfinance institutions have stood out for their high profit business models. In Peru, the country has been able to establish a complétive microcredit rate that changes with the relative price of good in the market. The competitive rate has allowed for balanced competition along with a national commitment to Microfinance. Commercial banks have started to purchase Microfinance institutions in the country of Peru and this has had a large impact on the success of the sector. With the backing of a large corporate structure, Microfinance institutions have had the ability to expand operations to the rural sector of the economy which has a high demand for microcredit. Peru's has been the pioneer for Microfinance in Latin America and Mexico should learn from their success story.

Microfinance in Latin America

Throughout the history of society, humans have developed into three different social classes to determine one's wealth. Their is the upper class, the middle class, and the lower class. The upper classes consist of the individuals with the most wealth and the lower class are the

¹ Weissenbach, Greg 2017 "Study on Microcredit Interest Rates in Mexico." Triple Jump

individuals with the least wealth. Over time, there has been a desire along with a need to raise the income of the lower class citizens or the poor individuals. A group is only as strong as its weakest link. These lower income individuals, majority of the time, did not choose to be in the position that they are in. To try and help improve the livelihoods of these less fortunate citizens, governments along with global help groups have designed aid programs. These aid programs span from: conditional cash transfers; to microfinance; to the job guarantee program. All of these programs were designed and implemented with the same goal in mind. The plan was to alleviate as many citizens as possible over the regions poverty line. Poverty, negatively affects a nation economy in several ways.

What does poverty look like in today's world? Nearly 1/2 of the world's population, more than 3 billion people live on less than \$2.50 a day. More than 1.3 billion live in extreme poverty, less than \$1.25 a day. There are over a billion children worldwide living in poverty. According to UNICEF, 22,000 children die each day due to poverty, and 805 million people worldwide do not have enough food to eat. More than 750 million people lack adequate access to clean drinking water. In 2011, 165 million children under the age of 5 were stunted (reduced rate of growth and development) due to chronic malnutrition. Preventable diseases like diarrhea and pneumonia take the lives of 2 million children a year who are too poor to afford proper treatment. One out of every four humans live without electricity, approximately 1.6 billion people. Oxfam estimates that it would take \$60 billion annually to end extreme global poverty. ²This is still \$40 billion less than the net worth of current Amazon CEO Jeff Bezos. So why does poverty still exist today?

There is no concrete definition for the global phenomenon of poverty that persists in the modern world. The answer "greed" may suffice for some but in the grand scheme of things, each

²United Nations, "11 Facts About Global Poverty." DoSomething.org / Volunteer for Social Change, 2016

and every individual has not been presented with the same equal rights and the fight against poverty has been an ongoing battle since the start of mankind. Humans all across the globe are exposed to the deep dangers of poverty. The definition of the word poverty in the Merriam-Webster dictionary is defined as, "the state of one who lacks a usual or socially acceptable amount of money or material possessions." The term can be better defined as one lacking the necessary materials provided in an economy in order to succeed.

Poverty does not have a crippling effect on just the citizens living within it, but on the whole economy as well. For an economy to perform at an efficient and sustainable level, the amount of citizens living in impoverished conditions must be minimized as much as possible. As time has gone on, countries like the United States have been able to control the poverty level of its citizens. Due to our, non-corrupt political systems and an efficient economy, the United States has been fairly successful in its fight against poverty thus far. In America today, 12.3% of the population lives below the poverty line.³ The poverty line is different from country to country and varies upon the income level of each specific nation. A paramount example is the country of Mexico, with the percentage of citizens living below the poverty line is 46.2%.⁴

The level of poverty experienced by the Mexican economy has been fairly troublesome for its citizens. Poverty along with political corruption has stunted the growth of this economy overtime and Mexico is not just a unique case. The country of Haiti has the highest level of poverty with a poverty rate of 77%.⁵ As time has gone on, governments along with several non profit groups and organizations such as the United Nations, have developed policies and programs to aid in the fight against poverty. Countries have spent billions of dollars in this fight

³Semega Jessica, Fontenot Kayla, Kollar Melissa. 2017. "Income and Poverty in the United States: 2016" United States Census Bureau 1-72

⁴Rama Anahi and Yukhananov 2015. "Mexican government says poverty rate rose to 46.2 percent in 2014" *Reuters*⁵ Sauter Michael B., Hess Alexander, and Weigley Samuel 2012 "The 10 Poorest Countries in the World" *Fox Business*

and the general consensus on foreign aid and anti-poverty programs have been mixed so far. Their seems to be a desire for improvement in the realm of developing economics.

The funds these developing nations receive from foreign aid have been used in a variety of different ways to battle poverty. Foreign aid can be defined as more developed nations, such as the United States, providing funding to aid developing nations. Developed nations are countries with sustainable levels of GDP per capita, low poverty levels, and normal levels of income distribution. Developing nations are countries on a mission to establish these efficient economic levels as a whole, and the idea of foreign aid has existed since the early 19th century and has become a normal function of a developed nations economy since the 1920s.⁶ An example of an aid program, one that has been fairly successful especially within the education sector of the Mexican economy, is conditional cash transfers. Mexico has a program known as, Oportunidades. This anti-poverty program provides cash transfers to citizens contingent upon investments in human capital. The program focuses on improvement in education, health, and nutrition and works by providing cash to families an individuals who abide by regular school attendance and health clinic visits.⁷ This program resulted in an increase in school attendance along with a more balanced diet in the lives of these Mexican citizens.

The results of this three year anti-poverty program are great and if funding were to continue to flow into Oportunidades, Mexico could potentially see a school attendance rate as high as the United States. But foreign aid funding and government funding is not unlimited. Mexico is expected to receive \$78,910,000 in foreign aid for the year 2019.⁸A problem within these conditional cash transfers program is that when the funding for these programs evaporate, so does the increases in school attendance as well as the balanced diet. Conditional cash transfers

⁶ Phillips Keri, 2013 "The history of foreign aid" Australian Broadcasting Corporation

⁷The World Bank Group, 2017, "Mexico's Oportunidades Program" *Shanghai Conference: Case Study Summary* ⁸The World Bank Group, "Foreign Assistance in Mexico" *ForeignAssistance.gov*

can only last for so long and developing programs to fight poverty within a specific time frame does not seem to have an everlasting effect. These programs also target a specific group or population and most of the time fail to reach the poorest of the poor.

Conditional cash transfers are one of the most researched economic development initiatives that are used worldwide in the fight against poverty. In some countries, CCTs have become the largest social assistance program, covering millions of households, as is the case in Brazil and Mexico. CCTs have been hailed as a way of reducing inequality, especially in the very unequal countries in Latin America; helping households break out of a vicious cycle whereby poverty is transmitted from one generation to another; promoting child health, nutrition, and schooling; and helping countries meet the Millennium Development Goals.⁹ But this still has not changed the general mood on modern day anti-poverty efforts. Many economist believe that foreign aid and anti-poverty efforts have failed to meet their mark and the field seems desperate for a breakthrough in their efforts.

This breakthrough will not happen overnight but thanks to Muhammad Yunus, the breakthrough can happen in a couple years time. While the development aid program of Microfinance has existed for quite some time now, it has yet to make a significant impact in the field of developing economics. Microfinance provides credit to the hands of the poor individual and can help developing economies establish a sound financial sector. One of the main reasons why this development program is so effective, is that the program is very cost friendly. Due to the cost associated with welfare programs existing today, the United States spent roughly \$1.03 trillion in 2011 on welfare programs alone, Microfinance provides the most viable and everlasting opportunity to increase a lower class citizens wealth. Microfinance is realistically

⁹Fiszbein, Ariel, and Norbert Schady. 2009. *Conditional Cash Transfers: Reducing Present and Future Poverty. World Bank Policy Research Research Report*. Washington, D.C.

costless, if all loans are paid back in full. But with the potential to establish a sound financial sector within the region of a developing economy, Microfinance should be the main focus of a developing countries policy innovations related to anti-poverty programs. In theory the principle of Microfinance should never run out of funding.

Microfinance or micro-credit is defined as a banking service targeted for unemployed or low-income individuals or groups, who typically do not have access to credit. The loans derived from these institutions can range from a loan as small as a bar of soap to a loan as large as one needed to start a shoe company. Microfinance institutions enable the opportunity to save income generated from Microfinance loans or elsewhere. The concept of Microfinance was pioneered by Muhammad Yunus along with six of his colleagues shortly after the country of Bangladesh gained its independence in the year 1978. The Bangladeshian famine in the year of 1974 hit close to home for professor Yunus who was teaching at Chittagong University at the time. While at the university teaching traditional practices of economics, such as Adam Smith's invisible hand theory, he was having members of his class come in not having eaten in hours or even days. The famine provoked him to lend his own money to a group of local farmers in the village in order for them to continue to run their business. Yunus in his book, *Banker To The Poor : Micro-Lending and the Battle Against World Poverty*, reflected on why he gave out the money in the first place. He wrote,

"What I did not know yet about hunger, but would find out over the next twenty-one years, was that brilliant theorists of economics do not find it worthwhile to spend time discussing issues of poverty and hunger. They believe that these will be resolved when general economic prosperity increases. These economists spend all their talents detailing the process of *development and prosperity, but rarely reflect on the origin and development of poverty and hunger. As a result, poverty continues.*^{''10}

This prompted Yunus to think of credit as a human right and that credit can be scaled down to fit the demographic region a financial institution is operating in. Giving birth to the term microloans. Over the years Microfinance has evolved immensely. The first Microfinance organization was known as The Association for Social Advancement often referred to in Microfinance literature as ASA. ASA was created in Yunus's home country of Bangladesh with the intentions of targeting some of the poorest villages in the country. ASA is essentially, "a bank for the poor".¹¹ ASA stands as part of a global Microfinance movement dedicated to expanding access to small scale loans, savings accounts, insurance, and broader financial services in poor and low-income communities. ASA has received high praise for its successes as a Microfinance institution but the traditional model of Microfinance comes from Grameen Bank, a Microfinance institution in Bangladesh pioneered by Yunus. Yunus received the Nobel Peace Prize for his work with the bank in the year 2006.

The general purpose of microlending is to provide credit to the poorest citizens of society in hopes that the loan can transition into positive earnings or even potentially turn into a successful small business. The lending practice gives poor citizens the opportunity to make a progressive change in their own life. It gives them a chance to pursue a desire they have never been financially able to in their life and this makes these citizens feel like they have a voice in their overall economy. It also exposes them to formal financial sector may. Most of these citizens lack the collateral needed for loans by a traditional finance institution. Although some

¹⁰Yunus, Muhammad, and Alan Jolis. 2007. *Banker to the Poor. [Electronic Resource] : Micro-Lending and the Battle against World Poverty.* New York : PublicAffairs, 2007

¹¹Armendariz, Beatriz, and Jonathan Morduch. 2010. *The Economics of Microfinance. [Electronic Resource]*. Cambridge, MA : MIT Press

Microfinance banks do require initial collateral, most do not and these institutions tend to rely on social pressures for repayment.

Microfinance lending comes in two forms, individual loans and group loans. The group lending aspect, first introduced by Yunus and Grameen Bank, brings a dynamic to the lending tool that can alleviate a whole community out of the deep depths of poverty. The loan is given to the individual but each group bears the same risk of default. One defaulted payment can lead to a termination of the entirety of the loan, providing a great incentive for these individuals to meet the loan requirements. Not only will these citizens bear the potential of losing its creditworthiness with the Microfinance institution, these citizens could lose the trust of its community members. Much of the early and traditional Microfinance practices relied heavily upon group loans for consistent repayment rates. Group lending allowed for borrowers within the community to interact with each other in a progressive way. This form of lending was one of many Microfinance innovations in the field to date.

Microfinance has the potential to alleviate a whole group or region out of the deep dangers of poverty. All it takes is one successful microloan. A loan as small as \$200 could be given to a farmer in the Latin America region to buy a machine used to grind coffee beans. This machine could then make packets of coffee beans five times faster allowing the farmer to increase its target audience for his product. By increasing his supply of coffee packets, the coffee maker is increasing the size of his potential target audience. The increase in the size of the target audience could then lead to an increase in demand. This then provides an incentive for the coffee maker to increase the labor supply of his business in order to keep up with the increase in demand. This would lead to hiring more workers which brings even more citizens out of poverty. Microfinance's ability to impact a greater amount of a population along with its ability to have an everlasting effect on a nation's economy, presents itself as the most efficient form of an anti-poverty program. Money makes the world go round and by granting capital to the hands of the poor, they now have the ability to change their lives for the better. With proper guidance and a non corrupt banking system, which is what these Microfinance institutions are suppose to provide, these impoverished citizens will gain access to capital and figure out what they need in order to live life above the poverty line.

Microfinance is failing to meet its potential in the modern day market. Microfinance can be the driving force to end poverty by the year 2030, which was the goal set by the United Nations. This form of lending which is used by all countries world wide, has divided into two main frameworks. One model being known as the Southern Asia Microfinance model and the other model streams from the Latin American region. The Southern Asia model is based upon Yunus's idea of the lending practice being used for the "social purpose", whereas, the Latin American model is more focused on sustainability and microenterprises.

In Latin America, Microfinance operates more like a business and thus was seen as a branch of the commercial banking system. This difference in operation can potentially be attributed to the economic conditions of both regions at the time Microfinance began. Specifically, in the 1970s when Microfinance began in Bangladesh, it was driven by a strong sense of idealism to address issues of poverty in rural areas which was widespread in the country as a result of the aftermath of the Bangladesh Liberation War. In contrast, as a result of the collapsing Bolivian populist regime, there was a widespread unemployment which led to the establishment of Banco Sol to help address issues of urban unemployment. Thus, Microfinance emerged in Latin America as a tool to provide credit to the informal sector in building successful micro enterprises in urban areas. This led to the early embrace of the notion of profitability and commercialization in the region. Microfinance in Southern Asia developed as a aid program whereas Microfinance in Latin America started as program geared to serving microentrepreneurs. The Southern Asia Microfinance model was more suited to serve the poorest of the poor. However, the Latin American model started with serving the poor and as it has expanded due to the profit levels of these institutions, the Microfinance banks have started to serve the poorest of the poor.

With these initial ideological and economic differences surrounding the start of the industry in both regions, Microfinance in Southern Asia was more concerned about alleviating poverty than building successful microenterprises. In addition, Microfinance in Latin America focused on the poor rather than the poorest. Today, the industry in both regions is still characterized by these major differences, with Southern Asia being more inclined towards the alleviation of poverty while Latin America is more oriented towards the promotion of microenterprises.¹²

Since the 2006 initial public offering that generated Compartamos Banco \$468 million in profits, the Latin American microcredit model has incurred profits that has attracted global investors world wide. Compartamos Banco from its start in the year 2000 increased its target audience more than 15 times the initial amount. The bank today has branches spread out all throughout the country and even has branches in Guatemala and Peru. Compartamos Banco successes as a Microfinance institution has transitioned the small money lender into the size of a national bank.

¹²Churchill, Sefa Awaworyi, and Ana Marr. 2017. "SUSTAINABILITY AND OUTREACH: A COMPARATIVE STUDY OF MFIs IN SOUTH ASIA AND LATIN AMERICA AND THE CARIBBEAN." *Bulletin of Economic Research*

However it is still unsure just how much of an impact the bank is having on the lowest class citizens of the Mexican economy. Mexico accounts for about 2.6% of the 2 billion unbanked adults worldwide.¹³ However, Compartamos has the potential to serve the 5,200,000 citizens via Microfinance if the bank continues to expand in the proper form. The main reason why Compartamos is able to earn such high profit margins is the ridiculously high interest rates the bank charges on its loans. Compartamos average interest rate on a loan is close to 100% annually and for a citizen who does not have collateral to begin with, this is viewed as quite high. However the repayment rate on these loans is close to 97% as of the 4th quarter in 2017.¹⁴ So are these interest rates the ones Compartamos Banco should charge if it is still trying to reach its economic development goal of financial inclusion by the year 2020? This is what my paper will examine. In the next chapter of this paper, I will analyze the history along with the current state of Microfinance in the Mexican economy using Compartamos as the main focus. While providing a summary on the origins of the Microfinance institution in the process. Furthermore, chapter three of this paper will consist of a outlook of the leader in Microfinance in Latin America, Peru. Chapter four will consist of a comparative analysis between the two Microfinance sectors and the concluding chapter will discuss the results from the comparative analysis as well as the implications of an interest rate cap.

¹³The World Bank Group, "Mexico to Accelerate Path to Financial Inclusion"

¹⁴ Gentera, 2017 "Gentera Reports 4Q17 Results" Gentera 2Q17 Results

Microfinance in Mexico

_____One of the most difficult task a country faces when working to obtain sustainability along with alleviating citizens out of poverty is, financial inclusion. The World Bank Group (WBG) considers financial inclusion a key enabler to reduce extreme poverty and boost shared prosperity, and has put forward an ambitious global goal to reach Universal Financial Access by 2020.¹⁵ With the growth of Compartamos in recent years, Mexico, as a country, has a real chance to achieve this goal. Removing financial inclusion was the initial purpose of the bank in the first place, just at the community level. Compartamos was first started as a youth organization known as Gente Nueva. The group was founded in the year 1982 and the goal of the group was to improve the quality of life of Mexico's marginalized communities through social action, health, and food programs.¹⁶

It did not take long for the Mexican government to notice the success of this particular group. In the year 1990 the Gente Nueva group which in spanish translates to, new people, transformed into an NGO known today as Compartamos which is Spanish translates to let us share. Carlos Danel and Carlos Labarthe are the two responsible for creating the banking branch of Compartamos and shortly after the name transformation, the group launched a pilot

¹⁵Weissenbach, Greg 2017 "Study on Microcredit Interest Rates in Mexico." *Triple Jump*

¹⁶Rhyne Elisabeth and Guimon Andres 2007 "The Banco Compartamos Initial Public Offering" Accion International No. 23

community banking operation to fund income generating activities in two of the poorest states in Mexico, Chiapas and Oaxaca. The two were highly educated and both came from privileged families outside of Mexico City.¹⁷ They both had studied at disguised universities in their home country and Carlos Danel went to study at Harvard Business School. So one would assume they must've came across the works of development economist Muhammad Yunus at some point.

Three years after the groups formation, the two founders of the group had noticed that the operations were going surprisingly smooth. Repayments on loans were arriving on time and some borrowers were even saving sums of the money that they borrowed. With having this high of a degree of success in just three years of the project, the two believed that it was time to expand the size of the group. The successes of the group meant that it was time for the bank to be exposed to what a real Microfinance sector looked like. This prompted the leaders of Compartamos to send one of its own workers out to Bangladesh to examine what Microfinance looks like in Yunus's model. At the time Grameen Bank, the Microfinance institution pioneered by Yunus, had already been well established serving more than two million borrowers.

Machillas, the Compartamos employee the two founders sent out to Bangladesh, was amazed with what the bank had done. Grameen began to operate multiple branches and planned to continue increasing in size. The Grameen Microfinance model was solely based upon the social good of Microfinance. The model Yunus and his team choose was one where the bank planned to target the poorest of the poor. The bank started in the poorest regions of Bangladesh and transitioned out to serving millions of borrowers all over the country. Compartamos planned to mimic the Grameen model in the early stages of its formation as the group really focused on increasing the size of its target audience. However, increasing the size of the target audience meant increased cost. In order for the group to expand as a whole, the two founders would have

¹⁷Northeastern University Social Enterprise Institute 2010 "Banco Compartamos" Social Enterprise Case Series

to search for another means of funding. The aid they were receiving from groups such as, USAID, ACCION amongst others, was just not sufficient enough for the two founders to expand at the rate they were hoping for. In order to achieve the dreams the two founders of the bank had set out for one an another, they would need a more consistent flow of money.

In the year 2000 their prayers were answered thanks to the support group ACCION. The investment made by ACCION international began Compartamos' transition into a Microfinance institution. ACCION's investment, allowed for the group to obtain their SOFOL license, enabling Compartamos the ability to reach capital markets. A SOFOL license is a Mexican business license that allows a company to partake in certain financing activities and be for profit. Carlos Danel said that, "In the next five years, Compartamos grew from 60,000 clients to 600,000 with over \$200 million debt."¹⁸ The two founders dream had began to come true. The group now had the ability to access funds from all over the world but was still not operating as a "bank" due to the institutions inability to accept deposits. Fittingly, six years after the group obtained its SOFOL license, in the year 2006 Compartamos began to operate as a commercial bank.

The commercial banking license, one may argue, prompted the leaders of the bank to focus more on profit rather than the social good of Microfinance. In the first year as a commercial bank Compartamos as a whole was thriving. The bank had a return on equity of 55% and profits did not seem likely to slow down anytime soon. The banks had expanded to all areas of the country both rural and urban, with its headquarters being located right in the capital of the country, Mexico City. The group had planned to extend its lending practice to 1.4 million clients. Typically, the poorest of the poor are not living in the nation's capital. Which made some question the motive for the transition. The banks move into the nation's capital brought much

¹⁸Northeastern University Social Enterprise Institute 2010 "Banco Compartamos" Social Enterprise Case Series

attention to the bank around the world. Once people got a chance to look at the profit margins, investors became very interested. Compartamos was growing at unprecedented rates.

Although profits continued to increase, funding from the initial help group ACCION international became much more limited and the two founders wanted to expand even more. The two at this point, had a vision to dominate the Microfinance sector in Mexico. To do this, the bank would need an everlasting stream of funds and where better to go than the global capital market. Compartamos began its initial public offering process in the year 2007 which sparked a hot debate across development economics. Economist were quick to deem Compartamos as a "for-profit institution" especially the Microfinance pioneer Muhammad Yunus. He refuses to even use the words Compartamos and Microfinance in the same sentence. When being asked how he felt about the initial public offering with Compartamos, he responded with, "When you discuss microcredit, don't bring Compartamos into it," he instructed. "Microcredit was created to fight the money lender, not to become the money lender." Needless to say, Yunus was not amused with Compartamos move to become a public traded company. However, the initial public offering of Compartamos went more affluent that even the initial investors expected. ¹⁹

In April of 2007, Compartamos held a secondary initial public offering. The investors that sold 30% of their holdings made over \$450 million. While some of the investors were NGOs who would be reinvesting their profit returns into economic development aid groups, others were just private investors that walked away with millions. The bank for sure incurred its profit with the initial public offering and this is one of the main reasons how Compartamos Banco became the largest microlender in Mexico today.

Compartamos Banco unique market approach has given them an immense competitive edge in the Mexican Microfinance sector. The bank's loans are intended for mostly women

¹⁹Weinstein Josh 2010 "The Royal Rumble: Yunus v. Compartamos" Kiva Fellows 9th Class

borrowers. Historically, women borrowers have outperform male borrowers in terms of loan repayment and profit generated from the initial principle. Since its inception, Compartamos has mostly served women entrepreneurs largely in rural settings, with 98 percent female clients. However, in modern times, a fair amount of its business stream from the urban sector of the country. Its clients are involved in a variety of economic activities, such as food trade, handicraft production, and farming. At commercial banks where middle class men are the primary borrowers, repayment rates are typically less than 70 percent. Women borrowers at the Grameen Bank have repayment rates that have been 97 percent year after year.²⁰ Women also spend the money generated from the Microfinance loans much more efficiently than men. Table 1 provides a general outlook of what Compartamos Banco looked like following the initial public offering.

Type of Organization	Commercial Bank
Coverage (Number of States)	29
Number of Branches	187
Number of Employees	3,203
Number of Clients	616,528
Percentage of Women Clients	98%
Average Loan Size	US\$446
Average Loan Balance per Borrower/ GNI per Capita (2005)	5.8%
Gross Loan Portfolio	US\$271 million
Portfolio at Risk > 30 Days	1.1%
Return on Equity (ROE)	56%
Return on Assets (ROA)	23%
Effective Interest Rate (Yield on Average Portfolio, excluding. VAT)	82%**
Operating Expense / Loan Portfolio	33.45%

Table 1: Compartamos at a Glance (December 31, 2006)

Sources: Compartamos Annual Report, 2006; Credit Suisse "Offering Circular;" and Microfinance Information eXchange, profile of Compartamos (www.mixmarket.org).

 ²⁰Esty Katharine, 2014 "5 Reasons Why Muhammad Yunus Focuses on Lending to Women" *Impatient Optimists* ²¹Rhyne Elisabeth and Guimon Andres 2007 "The Banco Compartamos Initial Public Offering" *Accion International No. 23*

Compartamos Banco offers four core products to its consumers. These four products are known as, Income Generator, Solidarity Group, Individual Credit, and Parallel Credit. The income generator product is used to generate income for micro entrepreneurs. The income generator product is ran through the Credito Mujer branch of the bank which specially focuses on loans directed towards women borrowers. This product requires a group of fifteen or more borrowers and accounts for over 87% of the loan portfolio for banks. The main focus of this product is to develop micro enterprises that could potentially lead a whole group or region out of the deep depths of poverty. With having a business continuously generating profits, more and more workers are going to be needed to uphold the market demand. Creating a need for the supply of workers in hopes that the group would hire from the local community that the micro enterprises is operating in.

The next product the bank offers are loans generate towards solidarity groups. These loans are created for a group with the same general economic interest. The groups for these specific loans are made up of 3 to 8 men or women. Solidarity group loans can range from loans needed by individuals for necessities such as water or food or loans needed by a group of micro entrepreneurs with the same general interest in business. These loans only account for 3.9 percent of the banks total loan portfolio.

The individual credit product the bank offers works similarly to a personal loan offered by the typical commercial lender. The loans are offered to both men and women and offer a personal guarantee of repayment. These loans are typically much less common than group loans and come with an immense pressure to repayment. Defaulted individual credit loans will significantly lessen a borrowers chance to receive another loan from the bank. This product is responsible for 6.6 percent of the banks loan portfolio. The fourth and final product Banco Compartamos offers is parallel credit. These loans are targeted for specially women who already have had an existing income generating loan. This product was created to eliminate the currency risk associated with borrowing the Mexican peso. In order to account for the impact of inflation, Compartamos would borrow the equivalent amount of funds from another local lender in a different country to match the loans present value amount with the future payment stream. Although the amount of these loans only account for 2.1 percent of the total portfolio, as Mexico begins to develop its financial sector the amount of these types of loans are expected to increase.

An analysis of the performance of these four products was discussed in authors Manuela Angelucci, Dean Karlan and Jonathan Zinman article titled, *Microdit Impacts: Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco.*²² This article reflects on a case study the authors performed within the northern region of Mexico. This case study was designed to test the economic impact at the community level, of the largest microlender in Mexico, Compartamos Banco. Using a clustered randomized sample made up of all female borrowers and over 16,000 household surveys, the authors analyzed the case study to estimate the impact of a group lending expansion at an annual interest rate of 110%, which was 20% lower than the market rate. By assigning a controlled and a treated group to the citizens residing in the Sonora region of Mexico, the case study was organized to show the overall economic effects of this microcredit experiment.

The two groups were designed so that one group had access to Compartamos loans along with being provided advertising, such as door to door promotions and/or radio ads. The other group was not granted access to loans from Compartamos and was forced to go elsewhere for

²²Angelucci, Dean Karlan, and Jonathan Zinman. 2015. "Microcredit Impacts: Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco." *American Economic Journal: Applied Economics*, no. 1: 151

their borrowing needs. The case study tested for community level impacts across 6 domains: micro entrepreneurship, income, labor supply, expenditures, social status, and subjective well being. The case study results showed that borrowing at high interest rates leads to negative economic impacts as expected by many. Having these less fortunate citizens borrow at such a high interest rate makes it nearly impossible to intake any profit. But these businesses are making money.

In this experiment, it was evident that the businesses receiving the loans were spending the money properly along with experiencing increasing revenues. Yet, they still failed to generate increased profits. The authors also mentioned another implications as to why the case study did not significantly impact the economy is because of the demographic region in which they operated in. In specific, they mentioned that the region dealt with high crime rates along with individual migration due to the location being so close to the American border. Which would have effects on how these citizens spent the profit intaken from the loan. However the authors were skeptical about statistical significance of the case study. They suggested further research to identify the extent of heterogeneous effects from expanded access to credit.

This article amplifies the modern day debate within Microfinance. Muhammad Yunus's depiction on the bank is not the kindest to say the least. He believes Compartamos is nothing but a brute moneylender, the very beast that Grameen Bank was built to root out. For Yunus, Microfinance institutions should be "social businesses" driven by social missions. After all, like most other Microfinance institutions, Compartamos could have substantially reduced interest rates which would than have lead to a decrease in profit rates and nonetheless expanded. Just at a somewhat slower pace.²³

²³Robert Cull, Asli Demirgüç-Kunt, and Jonathan Morduch. 2009. "Microfinance Meets the Market." *The Journal of Economic Perspectives*, no. 1: 167.

In the fourth quarter of 2017 Compartamos Banco had a loan portfolio consisting of 2,457,090 clients. The bank has more than tripled in size since the initial public offering and has now expanded to Peru and Guatemala.²⁴ The bank has over 268 branches spread out through the country and is still charging interest rates in the triple digits. When asked about where the profits are being invested in, the two founders continue to respond with expansion along with increased salary for their workers. The two co-CEO's made millions of dollars from the initial public offering and profits have not decreased since than. The bank has repeatedly posted positive earning portfolios and this begs the question, when will Compartamos begin to focus their Microfinance operations strictly for the social good of the country?

Microfinance in Peru

The profits Microfinance institutions earn are beginning to scale up to the profits earned by a typical bank in a developed country like the United States. The interest income earned from the publicly traded Microfinance corporation Gentera was 271.22 million US dollars in the fiscal year of 2017.²⁵ Gentera owns three separate Microfinance institutions in Latin America. One in Guatemala, Compartamos S.A., one in Mexico, Banco Compartamos, and one in Peru,

²⁴Gentera, 2017 "Gentera Reports 4Q17 Results" Gentera 2Q17 Results

²⁵Gentera, 2017 "Gentera Reports 4Q17 Results" Gentera 2Q17 Results

Compartamos Financiera. The company has become a household name in the Microfinance industry. However, Gentera is generally known for its presence in the Mexican Microfinance sector. This is in large part do to the competition in other Microfinance sectors. Which is why Peru is known as one of the most efficient Microfinance sectors in the world.

Competition is immensely important for the stability of an economy. As seen with the rise of towns and village enterprises in China during the mid to late 20th century, efficient regulation and business experimentation can lead to stable and consistent economic growth. China was experiencing an economic drought during the 1950-1970 and began to produce in mass amounts in order to boost economic growth. With efficient regulation and continued experimentation, the country was able to grow into one of the largest economies of the world. Before the Chinese government introduced several economic growth reforms in 1979, the average annual GDP growth rate in China was an estimated 5.3% from 1960 to 1978. But in the year 2010, this number almost doubled and the economy began to grow at a rate of 10.5%.²⁶

China's economic success was in large part do to the growth of its rural sector. China wanted to decentralize the economy and began to focus their economic development on the rural sector. In the year 1996, 48% of exports were from town and village enterprises located in the rural areas of the country along with generating 107 million new jobs from the years 1978 to 1996.²⁷ The socialist structure of the country made it easier for the country to monitor funding and control business operations but this is not to say that it isn't possible for a capitalist economy to perform the same way. A "bottom" up economic transition, similar to China's, was drawn out by the country Peru with help from Germany and their German Agency for Technical Cooperation. (GTZ)

²⁶ The Guardian "China GDP: How It Has Changed since 1980."

²⁷Albert Park "The Rise and Fall of Township and Village Enterprises"

Peru is one of the world's most competitive and innovative Microfinance markets and often finds itself atop international country rankings for having the best business environment for Microfinance. The Microfinance industry in Peru has contributed to the development of the Peruvian economy and has greatly benefited the general population. Over the past decade, Peru has been one of the fastest-growing economies in Latin America, with an average annual GDP growth rate of 5.9 percent and a low average inflation rate of 2.9 percent. Peru experienced strong growth in both employment and income as well as lowering lower poverty rates. In 2005, an estimated 55.6 percent of Peru's population was in poverty; in 2015, the poverty rate declined to approximately 21.8 percent.²⁸ GDP during this time frame increased from 76 billion to close to 190 billion.²⁹

Peru's bottom up economic transition began during dark times. When Mohammed Yunus initially began to practice Microfinance in his home country of Bangladesh during the year 1976, Peru was in the start of a brutal Civil War. Along with recovering from one of the worst earthquakes the country had ever seen in the year 1974. The country was in a context of high inflation, virulent terrorism, institutional breakdown, economic collapse and a once in a century natural disaster.³⁰ However, economist Gabriel Gallo still had hope for the success of the Peru economy. Gallo at age 21, came up with a thesis that suggested the key factor to economic growth in Peru was the implication of a municipal bank. He believed in the importance of strong government regulation in the early stages of Microfinance institutions.

The Caja's, the name given to the municipal banks Gallo came up with, started with funds from both the public and private sectors. But after the initial capital is put up, the Caja's

 ²⁸ Chen Hilbert, 2017 "Peruvian Microfinance: Mergers and Acquisitions and Industry Outlook" Lehigh University
 ²⁹ The World Bank, 2019 "Peru GDP Data"

³⁰Conger Lucy, Inga Patricia, Webb Richard, 2008 "A History of Finance in Peru" The Mustard Tree

are really pushed to generate their own profit in order to continue performing business initiatives and keep up with the demand from the market. The main reason behind this, for the start-up Microfinance institution, is that this will encourage the bank to promote savings. Promoting savings provides the bank with more leniency when going about their loan processes along with furthering the financial education of the borrowers. The principal sources of funds for Microfinance between 1989 and 2009, were deposits (58 %), market borrowing (24 %), and reinvested earnings (18 %). The Peruvian Microfinance sector received a jumpstart from a numerous amount of individuals. The impact of Germany and their foreign aid efforts really paved the way for the economic successes of this industry. Germany provided mobile banks, better known as Mercedes-Benz buses, along with educational classes in both their home country and in Peru. They were the guiding hand in the early stages of growth for the Microfinance sector. This allowed for Peru's policy makers to gather knowledge on what microcredit was suppose to be and how it works. This led to the country establishing a formal business plan for the Microfinance model and allowed for the sector to establish core principles which have had a large impact on the overall economy. These core principles that exist for these Microfinance institutions consist of, attracting savings and deposits, targeting entrepreneurs, and targeting women. The end goal of the business model for all of these Microfinance institutions in the industry is to become a full service bank.³¹

MICROFINANCE INSTITUTIONS IN PERU

A wide range of institutions offer financial services for micro and small enterprises and for the poor. These include:

Bank: Banks in Peru are full-service regulated institutions. In addition to offering deposit services, banks began to lend to small and micro enterprises in the 1980s, and today some of Pern's leading banks are major participants in this sector. Mibanco, founded in 1998, is a specialized bank focused on serving microenterprises.

Finance company: These regulated institutions did not offer checking accounts until 2009 but have long offered most other universal banking services. In practice, two finance companies are specialized in financial services for microenterprises.

Municipal Caja: A Caja is a regulated institution, owned but not majority-controlled by the municipal government, which receives deposits and specializes in micro and small enterprise loans. The Cajas began as local pawnshops in 1982. Since 2002, they are allowed to operate anywhere in the country and offer many banking services.

Rural banks: A rural bank is a regulated institution authorized to receive deposits and offer all types of loans but not allowed to provide checking accounts. The rural banks were created in 1992 as specialized banks to focus on agriculture. In practice, since their early days, rural banks have offered financial services to agriculture, commerce and services in urban areas and to agribusiness. Beginning in this century, rural banks diversified their operations to include micro and small enterprises.

Edpyme: An Edpyme is a non-bank regulated institution specialized in lending to micro and small businesses which does not receive deposits. Almost all Edpymes began as NGO microlenders and converted into regulated institutions in the late 1990s.

Credit Unions: A credit union is a credit cooperative and is supervised by the National Federation of Cooperatives of Peru. Credit unions are authorized to receive deposits and make all kinds of loans to their members.

NGO: Many non-governmental organizations operate microfinance programs as their leading program or as one of their service programs. In Peru, leading NGOs with microfinance services are members of Copeme, a trade association that promotes small and micro enterprise. These NGOs regulate themselves under the tutelage of Copeme which advises on international standards in best practices and good governance in microfinance. Depicted above are the classifications of the different entities that provide micro-loans to the poor. Regulated institutions fall into six different legal structures: Banks: full-service regulated institutions that cater to individuals and small and micro businesses, Finance Companies: offer most banking services to 9 corporate clients and some have begun to focus on micro enterprises Municipal "Cajas": municipally owned institutions that can receive deposits and lend, Rural Banks: originally focused on the agricultural sector, can lend and accept deposits but do not offer checking accounts, EDPYME (Entities of Development for Small and Micro Enterprises): non-bank regulated institutions that are not permitted to receive deposits and Credit Unions: cooperatives that can accept deposits and lend, however these companies are held to ambiguous regulatory standards.³²

The key factor for growth of the Peruvian Microfinance sector is the impact of competition. Due to a real decentralized Microfinance sector, institutions all across the country have an opportunity to start as a money lender. With the obvious need for finances for these less fortunate citizens, the demand for a micro loan is extremely high leading to a large amount of micro institutions. In order to remain self sufficient and appeal to a specific customer base, the market plays more of a role in setting the interest rates rather than the institution. The Microfinance sector in Peru has established a competitive interest rate, which is what the Mexican microcredit sector is missing. Along with establishing a bridge between the public and private sector in Microfinance that allows for efficient regulation as well as a real effective foreign aid division.

³²Mauricio Concha, Zegarra Thomas, Leonard Renato, Sabato Felipe Santos, Jade Smith, 2016 "MICROECONOMICS OF COMPETITIVENESS FINANCIAL SERVICES CLUSTER IN LIMA FINAL REPORT " Harvard Business School

Peru has been able to use its social relationships to their maximum potential. This immensely important economic tool has had a trickle down effect from the political body of the country to the citizens in the country trying to make a difference. Establishing sound foreign aid practices within the Microfinance sector has proved to be very beneficial for the people of the economy. As seen in the early stages of the sector with the bottom up economic transition designed by the GTZ, the private sector has been used productively in order to boost economic growth. And this trend has continued throughout time in the country of Peru.

In the year 2005, a Peruvian NGO known as PRIMSA, began to work with local communal banks and researchers in order to build up the local rural economies of the country. The company designed a program for Microfinance institutions that provided a unique twist to the concept of "group lending." The lending practice stemmed from the idea of collateralized risk in the economy and the reliance upon social pressures in order to reinsure loan repayment. The researchers and PRISMA, "...implemented a new loan product and administered surveys to 9,000 shantytown households. This program sought to use social connections to screen for responsible clients, outside of the traditional group lending model, by requiring new clients to match up with sponsors who were already bank clients in order to obtain a loan." ³³ Which in a sense became a model of innovative group lending. Authors Dean Karlan, Markus M. Mobius, Tanya S. Rosenblat, and Adam Szeidl performed a case study on the matter. In their article titled, "*Measuring Trust in Peruvian Shantytowns*" the four researchers hosted a field experiment in two Lima, the capital of Peru, shantytowns.

The experimented consisted of 200 individual households and was used to monitor the impact of an interest rate as well as social trust. The interest rate on the loans were randomly

³³ Innovations for Poverty Action, "Trust and Microfinance in Poor Communities in Peru"

generated as the researchers became very clever when designing the experiment. They hired a company to generate these random Microfinance rates that would not exceed above five percent. The company also helped with locating co-signers from local community banks. The borrowers were then provided with a card that looked like this.

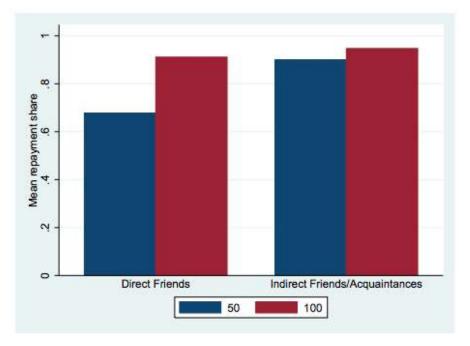
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Martha Norma Castro Espinoza	3%	Luis Santos Barilles	4%	Rosa Pari Condori	3.59
Rosa Edith Panduro Ramírez	3.25%	Aura Sandoval Valiente	4%	Andres Diosquez	3.5%
lulia Sabina Maguiña Toledo	3.75%		3.75%	Ivan Diaz Malima	3.25%
Pedro Francisco Salazar Aquino	3%		3.25%	Carmen Diaz	4.5%
Della Rodriguez Encamación Bladys Selene Alvarado Saldaña	3.5%	Balvina Alcalde Vizconde Manuel Medrano Gómez	3%	Jesus Lopez Marisol Julca	3.25%
Aurelio Pedro Oscanoa Rosas	3.23%		3%	Marisol Julca	43
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With this card the borrower was able to find a cosigner to his loan in order to enforce social pressures when making the loan repayment. However, to account for the risk of loss, after the loans are processed a second randomization relieves some co-signers from 50% of their financial responsibility.

What the authors wanted to test for in this case study was the trade off between having a direct friend co sign the loan versus an indirect friend. As seen with the country Mexico, group

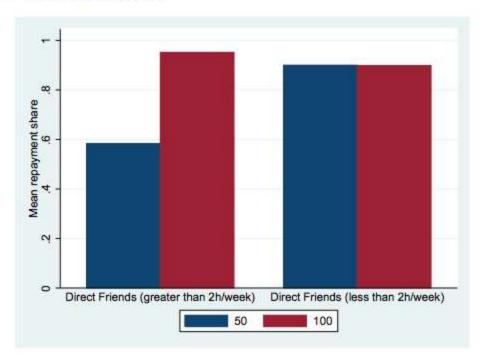
lending can have a great impact on the Microfinance sector of an economy. Instilling social trust within a community will eventually lead to financial trust and that has been the case with Mexico thus far as their group borrowers have been able to repay loans with an APR of up to 100%. In the Peru case, the results were not what most would have expected.

Figure 2: Difference in repayment rates for loans where borrower and cosigner are direct friends (left) and indirect friends (right)



NOTE - Repayment rates are calculated for each group of loans when the loan is due (6 months).

Figure 3: Difference in repayment rates for loans where borrower and cosigner are direct friends and spend more than 2 hours a week together (left) and less than 2 hours a week together (right)



NOTE - Repayment rates are calculated for each group of loans when the loan is due (6 months).

Direct friend co-signers had less of a total repayment rate than indirect friends. In their article, the authors describe the event by saying,

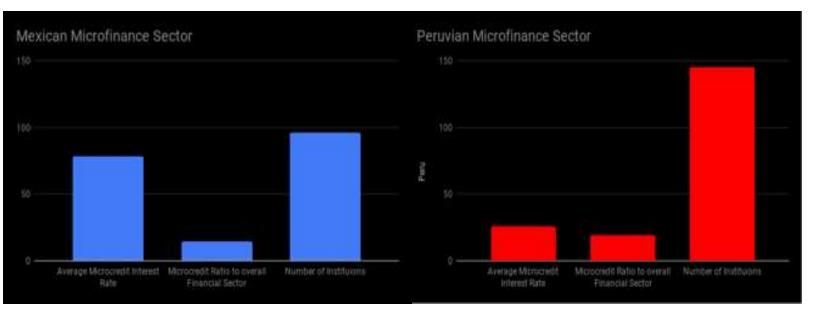
"Cosigning by a friend vs. a stranger is equivalent to about 3 percent change in monthly interest. Cosigners rely on multiple mechanisms when deciding whether to sponsor friends. In contrast, non-friends mostly sponsor high-quality borrowers. This result suggests that microfinance programs that rely on informal enforcement, such as group lending, might be necessary to reach a larger pool of borrowers." Social trust is an important aspect of the Peruvian economy but this characteristic seems to be lacking in terms of the countries Microfinance sector. ³⁴

Peru Vs Mexico

³⁴Dean Karlan, Markus M. Mobius, Tanya S. Rosenblat, Adam Szeidl, 2009 "Measuring Trust in Peruvian Shantytowns"

As time has gone along, Microfinance has continued to grow. Microcredit is represented by 19.2% of the credit portfolio in Peru and 15% in Mexico. In Peru, 2,839,649 citizens have participated in Microfinance and their microcredit portfolio is a little bit over 8.2 billion dollars. In Mexico, 5,630,677 citizens have received microcredit loans and the country's microcredit portfolio is just over 2 billion dollars. The average microcredit rate in Peru is 25.7% and in Mexico, the rate is 74.7%

As seen from just these base statistics, it is no surprise as to why Peru is ranked as the better business environment in the Microfinance industry according to the Economic Intelligence Unit. Peru has been able to establish a competitive microcredit rate that fluctuates with changes in price of the market. The two countries Microfinance business model and structure differ but both still keep the same general principle of profitability and sustainability. This chapter will



discuss, in more detail, the business approach of each industry along with analyzing how funding is generated in both Microfinance sectors. ³⁵

One of the driving forces in the Peruvian Microfinance sector was the adaption of the Cajas. Between 2002 and 2013, Peru was one of the fastest-growing countries in Latin America, with an average GDP growth rate of 6.1 percent annually. In terms of GDP, the financial sector grew at an average annual rate of 8.3% in the six years prior to 2013.³⁶ An efficient Microfinance sector along with sound foreign aid policies, strong macroeconomic policies and structural reforms in different areas created a scenario of high growth and low inflation. The efficient growth in employment and income sharply reduced poverty rates. The poverty rate, the percentage of the population living on US\$ 5.50 a day, fell from 52.2 percent in 2005 to 26 percent in 2013. This is equivalent to 6.4 million people escaping poverty during that period. Extreme poverty, the population living on US\$ 3.20 a day, declined from 30.9 percent to 11.4 percent in the same period.³⁷ In terms of GDP, the financial sector grew at an average annual rate of 8.3% in the six years prior to 2013.³⁸

The design and implementation of the municipal banks was the building block of the Microfinance boom in the country of Peru. All of the time spent working with the German GTZ organization paid off and Peru's Microfinance sector business environment is now atop the world. The Cajas humble origins most definitely played a role in their success.

The Cajas rely heavily on funding received from the government in their early stages of operation. The money the Caja's receive from the government comes from three different funding pools. These are, the taxes and income generated by the Peruvian government, foreign

³⁵Statistics compiled from Trujilo Veronica, 2013 "MICROFINANZAS EN AMÉRICA LATINA Y EL CARIBE: EL SECTOR EN CIFRAS"

³⁶Oxford Business Group, 2019 "Peru leads region with range of banking services"

³⁷World Bank, 2019 "Country Overview Peru"

³⁸Oxford Business Group, 2019 "Peru leads region with range of banking services"

direct investment into the government of Peru, as well as NGOs. The savings-and-credit Municipal Cash Shop System in Peru are known for their decentralized structure. The decisions the Caja's make are without majority control and by a diverse board that includes civil society representation. Cajas Municipales are one of five institutional modalities for Microfinance subjected to official regulation by the Peruvian banking authority. Better known as the Superintendence of Banking, Insurance and Private Pension Funds (SBS). The entire Microfinance system includes 42 regulated and 76 unregulated MFIs. There are 13 Cajas in Peru today, with 91% of lending and 73% of savings being held outside of the capital, Lima. The Cajas Municipales hold a 40.6% share of the Microfinance industry. Between 1982 and 1986, six Cajas Municipales were founded in five different regions across Peru. Today there are twelve, with 514 offices spread through every one of Peru's 25 regions. Initially Cajas only offered pawn-secured loans and were restricted to operations in their own region. According to the Economist Intelligence Unit, in 2011 "Peru finished atop the Global Microscope for a third straight year, buoyed by an excellent legal framework, sophisticated regulators and a government commitment to use Microfinance to expand financial access to the poor".³⁹ The Caja's relationship with the government paved the way for a sound regulation system as well as a great lender of last resort in case one of the Caja's were to struggle with funding loans. Caja Trujillo is known as one of the pioneers in the industry. It is known by its official name in Spanish, the Caja Municipal de Ahorro y Crédito or CMA

As the Microfinance institution had grown larger and larger, they started to provide loans to micro and small enterprises, offer savings accounts and other saving instruments and, since 2002, supply a diverse range of banking services. One of the keys to the Caja approach is the

³⁹Economist Intelligence Unit, 2011 "Global Microscope on the Microfinance Business Environment."

openness of the risk management methodology, with business procedures centred on the customer and not the institution. Cajas were allowed to operate outside of their region with a cost. This cost was a more complex legally authority. These institutions were allowed to move into different regions if the Caja had proved an ability to conduct simpler operations and fulfil certain capital and risk-provision requirements. One of the most important banking operations the Caja's have adopted is its credit evaluation methodology, which moved away from formal guarantees or collaterals to a cash-flow analysis of customers' repayment capacity.⁴⁰

The Cajas are incentivized to serve customers primarily in the private sector. There has been instances where the government has been involved in the Cajas operations but these scenarios typically take place in a densely poor populated community. The government is aware that the borrowers may not be as credit worthy as other regions in the county and they focus on bringing all regions out of poverty. A wise man once said, you are only as strong as your weakest link, and the phrase seems to have stuck with the policy makers of the Peruvian government.

This is not to say that Mexico does not try to accomplish the same goal. Mexico has also adopted a Caja municipal system to try to regionally develop its economy. The Mexican government has also prioritized this policy goal and launched its National Financial Inclusion Strategy in June 2016, which plans to accelerate access to financial services for more than half of the population currently left out of the formal, regulated financial system. The Mexican government is at the frontier of this important initiative to promote access to basic financial services and fund investments in the country's medium to small micro-enterprises. It has been one of the fastest growing Microfinance sectors across Latin America as well as Peru, and is impressive in its focus on women, and consistently, small average-loan sizes, a testament to the

⁴⁰Evidence and lessons learned from Latin America, 2013, "PERUVIAN MICROFINANCE'S CAJA MUNICIPAL MODEL"

success of the institutions in serving low income communities in peri-urban and rural areas. Unfortunately, the Mexican Microfinance sector also stands out for the prohibitive cost of credit.⁴¹

The Cajas in Mexico have fallen far short of their potential and this is in large part due to the structure of financing in the country. Mexico is too reliant upon public funding in their development process and it have led to an over abundance of public Microfinance institutions. These institutions have struggled to earn a profit that would allow them to compete with the private Microfinance institution's. This is in large part due to Compartamos ability to dominate the sector.

Compartamos has been one of the best happenings in the Mexican microfinance sector as well as one of the worse. Compartamos, since it's IPO has absolutely dominated the private Microfinance sector. The bank began with humble origins and now one could argue, it functions along the lines of a brute money lender. Mexico City is the headquarters of the bank as well as the financial capital of the country. If the bank is able to gain less fortunate urban customers, the bank may be able to transition into a full service commercial bank which would have a huge impact of the deposits taken-in by the bank. Compartamos Banco currently has an average deposit account balance of 53 US dollars. MiBanco, a Microfinance institution in Peru, has an average deposit of 2,468 US dollars. Compartamos seems to be content by serving as solely a Microfinance institution. However, if the bank were to transition into a full fledged commercial bank, the bank will be able to experience higher bank deposits which would have a significant impact on financing the operation cost of the bank.

⁴¹Weissenbach, Greg 2017 "Study on Microcredit Interest Rates in Mexico." *Triple Jump*

A case study performed by the impact investing group Triple Jump summarized the

statistics for the institution along with a little background information as to what the experiment

Figure 2. Case Study: Compartamos Bank MULTI-PURPOSE FINANCIAL INSTITUTIONS

In Mexico, Compartamos has been a leader in the consistently growing microfinance sector with high levels of profitability, consistent asset quality and adherence to best practices. It began operations under the Private Assistance Institution in Oaxaca and Chiapas in 1990. At the end of 1993, Compartamos agreed to IDB financing in 1996 from CGAP, and in 1998 it entered into a strategic alliance with Acción.

To finance its growth, it adopted a commercial strategy and pioneered the use of innovative financial instruments. In 2000, it was transformed into Sofol, which allowed it to have access to credits with financial institutions¹⁶. In 2002 it established the first program of stock certificates, to issue debt in a public market. In 2006, it became a multiple banking institution and in 2007 successfully completed an initial public offering (IPO) of its shares, becoming the first MFI in Latin America to raise capital through public offerings on the Stock Exchange¹⁷. In 2011 it extended its operation to Guatemala and Peru.

By the end of December 2016 in Mexico, Compartamos had a loan portfolio of 25,063 million Mexican pesos, provided comprehensive financial services to more than 2.8 million customers, and boasted national coverage. 87.4% of its clients are women with basic productive activities and whose average credit is MXN \$ 6,993. Its main credit products operate under group methodologies and represent 94% of its loan portfolio, which has allowed accelerated growth; However, being a mass method is not significant enough to meet the needs of different customer segments.

As a sign of its adherence to best practices, the quality of its Loan Portfolio has kept the NPL ratio below 4.4% and its customer retention rate is 87.4% ¹⁸; With more than 17 thousand employees, has a productivity index of 187 clients / employees, a staff turnover rate of 37.1%, as well as cutting-edge technology, as it provides electronic banking, mobile banking and ATM services. Fintech, through its Finlab platform¹⁹.

Regarding their financial performance, as shown in the table, their Interest yield, operating costs and funding are below the industry average. Its efficiency has enabled it to generate profits higher than the industry average, which allowed it to build a solid capital base, since its creation and until 2004, all the profits were retained to finance the expansion.

	Compartamos Bank					Sector average				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
RI	72.6%	62.1%	69.6%	70.3%	70.4%	73.3%	71.9%	70.9%	71.2%	74.7%
co	32.0%	33.4%	37.0%	37.4%	40.8%	38.1%	39.4%	39.4%	40.5%	42.9%
CF	3.3%	3.5%	3.6%	2.8%	2.7%	5.4%	5.6%	5.9%	5.3%	4.7%
EP	4.1%	5.7%	8.6%	7.7%	8.3%	5.3%	6.7%	8.0%	7.9%	8.2%
Profits	17.8%	14.2%	15.6%	17.5%	13.5%	12.9%	10.3%	10.2%	11.5%	10.5%

As the sector leader in Mexico, its commercial strategy has influenced the price level and supply of financial products. Younger MFIs have tried to emulate their success with lending group methodology. They have adopted their interest rates as a benchmark but failed to scale up their operation. This has prevented the replication of operational efficiency and consequently similar levels of profitability have not been forthcoming.

Source: Authors' calculations.

consisted off and what its findings were.

By efficiently lowering the interest rates, Compartamos will make room for more

competition in the industry. Mexico is currently experiencing a case of over funding in the public

sector and it now needs to crowd into the public sector. Recently, a report was compiled by the

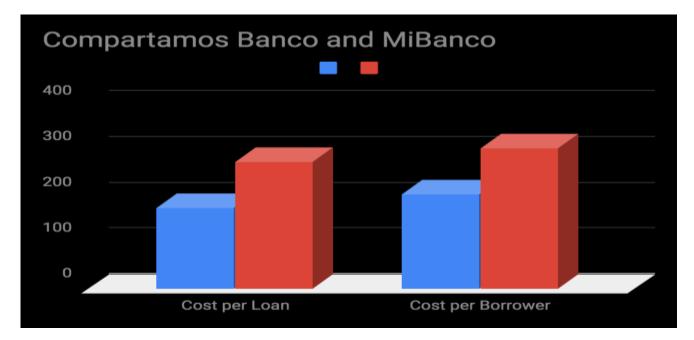
World Bank titled, "Financial Sector Assessment: Mexico". In the article, the authors analyze the

overall finance sector and talk about what is needed for a more efficient and growing sector. The article mentions the importance of development banks in Mexico's Microfinance sector. In the opening pages of the report, the authors talk about suggestions for the country's finance sector. They write,

"...policies should be more focused on "crowding-in" the private sector, avoiding market distortions, ensuring sustainability of pricing programs, and phasing-out gradually from those beneficiaries that can already be served by the private sector. Financial access could be broadened through a vibrant ecosystem of financial institutions complementing the commercial banking sector. The numerous types of "other financial institutions" already coexist in Mexico but lack the scale to provide an alternative solution to banks. They attend a large number of clients in remote areas but offer limited services. Consolidating and articulating common initiatives to reduce costs could overcome the issues posed by their small size, limited funding capacity, and low profitability, which remain big challenges."⁴²

⁴² World Bank/IMF, 2017 "Financial Sector Assessment: Mexico"

A problem in the Mexican finance sector does not seem to be the capability of their funding. Their is enough money allocated in the system for it to function efficiently and effectively just like Peru. One of the most interesting statistics of the direct comparison between Compartamos Banco (Mexico) and MiBanco(Peru). The chart below shows that the cost of lending along with the cost of borrowing are lower in Mexico. ⁴³



This would entail that Compartamos gets their loans for a cheaper price along with having their customers pay a cheaper price for each loan they recieve. So how has MiBanco become able to produce such efficient growth statistics while keeping the idea of social welfare in tact? This is in large part due to the structure and business model of the institution. The transformed Microfinance institution has established innovative products in a competitive monopolistic sector.

⁴³Evidence and lessons learned from Latin America, 2013, "PERUVIAN MICROFINANCE'S CAJA MUNICIPAL MODEL"

In 1998, Grupo ACP an impact investing group, converted part of its division into a separate entity know as Mibanco. Mibanco was Peru's first full service Microfinance bank. Mibanco offers both credit and savings products and has since become the leader and largest MFI in the Peruvian Microfinance industry. In addition to Mibanco, one of its main competitors is known as Financiera Edyficar (Edyficar).

Edyficar was originally founded in 1997 as an NGO but transitioned into an EDPYME in 1998 when it realized it could not access the financing required to expand its Microfinance operations under a non-profit structure. Their transition was very similar to the one of Compartamos, except Edyficar received funding from international aid organizations such as the IMF. By the end of 2006, Edyficar was the largest EDPYME in Peru. Its main product, which accounted for approximately 90 percent of its loans, was individual loans to micro- and small enterprises. By 2008, Edyficar reconstituted as a financiera (a deposit-taking financial institution), a corporate formation just short of a fully functioning bank. Edyficar went on to become Peru's second-largest MFI. Peru clearly had an abundance of foreign influence early in the development of its Microfinance industry. Soon, with the foundation provided by foreign influences, Peru would build its own unique Microfinance structure.

Prior to the success of Edyficar and Mibanco, traditional commercial banks were reluctant to enter Microfinance markets due to a lack of transparency regarding the risk of lending to the poor. The established banking sector believed that the poor were financially illiterate and did not have adequate cash flow generating capacity. Therefore, they would not be able to pay back the interest and principal on loans. In addition, banks were worried about the poor's lack of collateral to secure these high-risk loans. However, as the profitability of Microfinance in Peru was proved by Edyficar and Mibanco, the big Peruvian banks began to enter the sector. Due to this increase in competition, MFIs needed to improve efficiency, expand services, increase innovation, and reduce interest rates on loans.

In 2009, BCP, the largest bank and supplier of integrated financial services in Peru, owned by the financial holding company Credicorp, demonstrated its interest in the thriving Microfinance sector by acquiring Edyficar, the second-largest Microfinance institution in Peru, for \$95 million. In 2014, BCP also acquired Mibanco, the largest MFI in Peru, for \$179.5 million through Edyficar. These two deals were by far the most significant in shaping the future of Peruvian Microfinance.

The acquisition of Mibanco was intended to create value through economies of scale, savings through more appropriate funding structures, and reduced client acquisition costs. Although BCP decided not to merge these institutions into its own brand and instead chose to maintain them as separate companies dedicated to serving the Microfinance sector, the newly formed entity would become the largest Microfinance institution in Peru, with a 19.5 percent market share. As the major commercial banks joined in the wave of consolidation, Microfinance was amalgamated with the commercial banks and solidified its place as an integral part of the Peruvian financial system.⁴⁴

So should Mexico's finance sector begin to expand its merger and acquisition division into Microfinance? The Peru story provides a prevailing case but this may lead to Compartamos only becoming even more dominant in the private sector. What is needed for the Mexican Microfinance sector is an interest rate cap along with more funding allocated into the private sector. An interest rate cap will allow for more freedom of entry and exit into the sector along with establishing a competitive rate. The cap does not have to and should not last forever. But,

⁴⁴Chen Hilbert, 2017 "Peruvian Microfinance: Mergers and Acquisitions and Industry Outlook" Lehigh University

for Mexico, an interest rate cap is needed in order to balance the competition between the public and private sector.

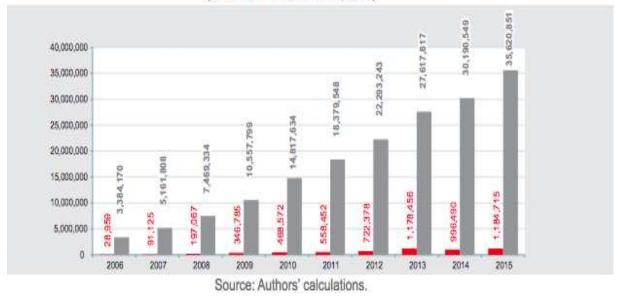
The structure of the funding plays a huge role in the progress of the Mexican Microfinance sector and Peru's mergers and acquisitions Microfinance division should be used as a model to overcome the challenges within it. By allocating an interest rate cap in the field, the public sector Microfinance institutions will be able to gain some ground against Compartamos. Instead of having to borrow from 6 MFI's just to get one of Compartamos loans.⁴⁵ Compartamos will have to re-emphasize its business model to maintain a plan of slowth growth and continued expansion or they will have to acquire smaller Microfinance institutions in order to function along the lines of a commercial bank. This would allow for more players to get into the field of Microfinance and spread out the competition.

Establishing an Effective Interest Rate Policy in Mexico

⁴⁵Rozas Daniel, 2018 "Microfinance in Mexico: beyond the brink" European Microfinance PlatForm

The main implication of the previous chapter is that the interest rates charged on Compartamos Banco Microfinance loans could potentially lead to a financial crises. A great analogy to use when talking about the current state of the Microfinance sector in Mexico is the game of musical chairs. The game of musical chairs is set up by players sitting on chairs arranged in a circle. The music starts and the players start circling, dancing, and running. While chairs are progressively removed. Then the music stops and chaos erupts as the players seek to find a place to sit. In Mexico, the number of chairs remaining is few indeed, even as the MFIs continue to dance. The recently published study by the Microfinance CEO Working Group shows just how few chairs are left. The published numbers seem bad enough: some 21% of the Microfinance loan applicants to FINCA Mexico already hold four or more loans. Adding those holding three loans, we get 33% of applicants. ⁴⁶

Figure 3. The Evolution of the Gross Loan Portafolio and and Non performing Loans 2006-2015. (amounts in thousands of pesos)



⁴⁶Rozas Daniel, 2018 "Microfinance in Mexico: beyond the brink" European Microfinance PlatForm

By looking at the Triple Jump chart depicted above, it seems as if the Mexico Microfinance sector may be dancing with a financial bubble. It is beginning to get to the point where this bubble, may pop. Financial over-indebtedness in the microcredit division of the country is beginning to become seriously alarming. Mexico's low income community has the highest amount of multiple borrowings in any microcredit sector. However, this may not be the worse thing if the country is able to formulate policy in the correct way to ensure repayment of all microcredit loans.

The multiple borrowings in Mexico shows that the low income community is very interested in receiving credit. By having loans with multiple financing institutions, they also create relationships that build financial trust. Having this financial trust from multiple Microfinance institutions will make it even easier for the borrowers to access credit. It's just that in the case of Mexico, this over borrowing is in large part due to customers wanting to maintain an everlasting relationship with Compartamos.

Compartamos credit divisions are not what the low income borrowers are particularly interested in. It is the other products that the institution provides such as life-insurance policies and home insurance which really garner the attention of the borrowers. It comes as no surprise to see that the Credito Mujer division of the bank, translated in english as woman credit, is the highest profitable section of the bank. The woman who borrow from Compartamos do it to benefit themselves and not their finances. This speaks volumes to the job Compartamos has done in raising the financial education for the low income community but more can be done to further economic growth. Compartamos has done their part and it is now time for the government to step in and take the Microfinance sector to where it needs to be. The equilibrium level for the Mexican Microfinance sector may take years to achieve and this is something that the Compartamos Banco executives have failed to realize. Profits can run out but let's hope that for Compartamos they do not. The finance sector will definitely feel the impact if this were to happen. In the Mexican Microfinance sector, one would have to start with calculating where the money is spent from the interest yield. Operating costs are the largest component and account for 57% of its structure. Its value increased from 30.8% in 2006 to 42.9% in 2015. By disaggregating operating costs, it was identified that the most significant subcomponent is personnel expenses, which represent 70% of the operating costs substructure. The main concern with the level of this subcomponent is the reasonableness of wages, coupled with the low level of productivity and the high level of staff turnover.

Compartamos is known for its operations in the rural sector of the Mexican economy which is known to have a high operating cost. Some of the bank's customers will ride with loan officers for distances up to two hours just to deposit a check at a Compartamos Banco. In order for the interest rate cap to have a real impact in the microcredit industry, the government would have to regionally adapt the cap to fit the demographic region in which it is operating in. For areas of the economy with established Microfinance institutions in the rural sector, a cap may be heighted while a cap in the urban area of the city may be lower to attract more competitors. Lowering the interest rate cap in the urban areas would also attract more borrowers which is a characteristic the Mexican sector is missing. Peru's Microfinance profits started in the urban sector and then had a trickle down effect to the rural sector. The Microfinance institutions were able to use their profits earned from the densely populated city area to expand business operations in the rural sector which had a high demand for credit. The commitment to Microfinance by commercial banks in the country had a significant impact on the growth of the Microfinance industry as well.

In conclusion, a regional interest rate cap would greatly benefit the Mexican Microfinance sector. Along with better regulation and increased funding to the private sector. There are several lessons that the Mexican government can learn from the Peru industry. Peru's development of the Caja's in the early stages of their Microfinance industry paved the way for monopolistic competition and a competitive interest rate. The Caja's have been the backbone for Peru and their heavily regulated structure gives them a competitive edge against other public Microfinance institutions in Latin America. The growth of the mergers and acquisitions division in Peru played a huge role in shaping the Microfinance sector as well. Having the ability to gain microcredit from all financial institutions possible in a developing nation is vital for economic growth. But so is the sustainability and profitability of these institutions. Mexico's adoption of an interest rate cap will incorporate these two factors while increasing the level of competition. A policy initiative the government should try is allocating different interest rate caps to the regions that the Caja municipal systems operate in. This cap can be monitored and effectively placed according to the financial and demographic region the Microfinance institutions are operating in. The cap will drive the demand up for technological innovations in the field to increase financial monitoring. Another aspect of the economy the Mexican sector can most definitely improve.

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