MICROFINANCE AS AN EMERGING ASSET CLASS

Show Me the Money: Helping Wall Street Help Microfinance

Analyzing the Tensions between doing well and doing good and how the growth of Wall Street’s newest niche market can affect the future of banking

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“The big take-away from this event is that microfinance is no longer the exclusive domain of philanthropists, but has gone mainstream. This trend will likely continue, with investors becoming increasingly involved and enjoying competitive returns through microfinance opportunities.”

Special Thanks…

To Professor Jentleson, for your guidance, suggestions and careful commentary all along the way.
To Professor Rogerson, for your support and encouragement even when progress seemed rocky at points.
To my Honors Seminar peers, because stress loves company and it would have been difficult to make it through the late nights without your moral support.
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INTRODUCTION:

Microfinance as a Paradox in Investment and Aid

April 20th, 2007 was a landmark day for the world of microfinance. Banco Compartamos—an esteemed microfinance institution founded in 1990—completed a milestone initial public offering of its stock. The IPO was thirteen times oversubscribed and in financial terms was considered a remarkable success.¹ In the first day of trading following the IPO, the stock’s share price surged by 22 percent. For the first time, truly commercial investors, not just socially responsible ones, bought the majority of shares. One would think proponents of microfinance would have been thrilled about this great success demonstrating how mobilization of private capital can successfully make its way to assist the poor. However for many of the same reasons traditional investors found this transaction a success, individuals rooted in the philanthropic roots of microfinance found it appalling. Many asked if Compartamos’ exceptional profits and high interest rates were in line with the social bottom line that the company claimed to be part of its central purpose. Many asked if Compartamos’ social objectives were consistent with those of its principal shareholders profiting handsomely from this transaction. Many complained that initial aid money in the form of grants and donations from non-governmental organizations (NGOs) used to fund Compartamos was being misused to enrich private investors and that the IPO signified a shift in priority from social to commercial objectives in the field of microfinance field.

The April IPO did not create new shares for Compartamos but instead, existing shareholders sold approximately 30 percent of their shares to new investors—namely money

manager and purely commercial investors. These existing investors gained approximately $450 million for this percentage of sold shares, which amounted to more than 12x the book value of those shares. This demonstrated a market valuation of Compartamos at over $1.5 billion and an internal rate of return on the original investment of $6 million or 100 percent per year, compounded over a period of eight years.² Complaints were rampant despite the fact that most of the proceeds went to public-purpose institutions including International Finance Corporation and ACCION. The Compartamos NGO received over $100 million from the IPO which was used to fund initiatives to improve health and nutrition for poor Mexicans. Only a third of the proceeds (roughly $150 million) went to private shareholders.³

This case demonstrates the internal paradox of conflicting interests and motives central to the collaboration between microfinance as it enters into the realm of mainstream investment and commercial funding and simultaneously struggles to adhere to its roots in social development. The focus of this report is on commercial or private funding, or monetary capital that is privately owned by institutional investors and invested via intermediaries. This project utilizes a combination of quantitative and qualitative information to evaluate the microfinance landscape that appeals to the investors. With this knowledge, I hope to suggest targeted strategies to incentivize and promote increased microfinance investment among institutional investors, commercial banks, and “the Street” to better foster partnerships to benefit both financial and social objectives.

² Rosenberg p 4
³ Rosenberg p 5
CHAPTER ONE

Microfinance History and Perspective

I. Double-Bottom Line Focus: Roots in Corporate Social Responsibility

Microfinance—an effort to provide credit in the form of small loans to the poor and previously undesirable communities—began as a subcategory of the larger corporate social responsibility (CSR) movement, which is the commitment of business to forego maximization of profit and behave ethically to increase the overall positive impact on society. Microfinance is regarded as an effective way to reduce poverty in developing and developed economies. Microfinance borrowers are typically small business owners, farmers or entrepreneurs who want to launch or expand their enterprises. Loans—ranging from a few hundred to a few thousand dollars—help with start up costs, hiring employees and supporting inventory purchases. Since its modest beginnings several years ago microfinance activity has demonstrated tremendous growth. As of last December, the Consultative Group to Assist the Poor (CGAP), a research institution supported by the World Bank, estimated that annually over the past five years there has been a 30% increase in funds flowing into microfinance activity around the world. Microfinance was initially financed by actors in the nonprofit sector, but now banks and for-profit investors are beginning to realize that microloans can be used to reach millions of individuals who currently operate outside of their economic reach. Promises of sustainability and profitability in this new


niche market are overcoming initial investment concerns dealing with collateral and loan size. The challenge is finding investors who not only want to make a profit but also see eye-to-eye with the mission of microfinance institution. The age-old questions remain whether or not businesses can really do well by doing good and if so, what strategies should they employ to do so?

Microfinance entered the mainstream vernacular in 2006 when Mohammed Yunus and the Grameen Bank won the Nobel Peace Prize. The Grameen Bank, started by Yunus, began operation in 1976 and was based on a grass-roots village banking model to bring credit to impoverished areas. Individual bank units and field managers in charge of areas of about 15 to 22 villages worked with families to familiarize them with the bank loan process and form groups of prospective borrowers. Group peer pressures essentially served as informal collateral on the loan when no monetary collateral was available. Yunus's long-term vision is to eliminate poverty in the world and although that vision cannot be realized by means of micro-credit alone, his work has helped millions get out of dire poverty and gain some semblance of financial independence.

II. Assessing the Market: Global Demand for Microfinance

This theory of providing loans to an untapped layer of the world’s poorest individuals is demonstrated through the “bottom of the pyramid” concept, as discussed by C.K. Prahalad who reveals a marketing approach aimed at targeting the poor and supplying them with cheaper and better products. Prahalad claims that the main hurdle is finding a way to get the poor sustainable

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jobs, allowing them access to savings, credit, insurance and other developed economy features, and somehow linking this to the profit-making, daily operations of the donor corporation. The pyramid figure below represents the distribution of purchasing power around the world with the bottom representing the world’s 4 billion poorest people. Although this number cannot compete with those of developed nations, it still represents a sizeable portion of the world’s population and potential clientele that is yet to be tapped.

[Source: Prahalad 2006]

A December 2007 Deutsche Bank report estimated that only about ten percent of potential borrowers around the world get loans, due mostly to microfinance organizations’ funding limitations. This same report indicates that the current population of clients serviced by microfinance organizations (MFIs) would need to expand by 150% to cover the total demand, and even this target would not come close to reaching the world’s total number of working poor. As of 2007, the microfinance sector had estimated total loan volume of USD 25 billion. Despite this significant size, the sector is unable to serve more than a fraction (~100m) of today’s total

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sector demand of roughly one billion micro-borrowers, translating into a funding gap estimated at around USD 250 billion. MFI capacity and foreign direct investment are catching up to meet this demand shortage. Between 2004 and 2007, foreign investment in microfinance institutions more than quadrupled to reach a total of US$5.7 billion. Fifty-three of the 93 largest investments funds that focus in microfinance today were established in the past three years. Between 2004 and 2006, total assets of MFIs increased by 453 percent, the number of borrowers increased by 296 percent and loan portfolio size surged by 463 percent. CGAP analysts believe that by 2011, there will be over USD 40 billion in assets and over USD 30 billion in loan portfolios in the microfinance industry.

There are two types of investors that provide funding for MFIs. The first are international financial institutions (IFIs) comprised of bilateral and multilateral development agencies such as the World Bank and the European Bank for Reconstruction and Development. Secondly, there are a range of private investors including NGOs, individual donors, foundations, individual and institutional investors. Type and complexity of investment typically aligns with the level of MFI maturity. The concept of “NGO transformation” describes the process by which an MFI becomes less reliant on soft loans as private debt capital becomes more available and useful. In recent years, there has been an increase in both internal and external pressure for MFIs to decrease dependence on subsidized or grant funding. After maturation, MFIs become increasingly dependent on institutional investors and eventually large scale capital market financing. Since

9 Dieckmann p 4
more money can tangibly be invested in the capital markets, this provides a greater risk-reward potential, therefore MFIs with stronger risk profiles, tighter organizational management systems and high levels of technology are usually selected as partners. The chart below outlines this process of MFI maturation as it corresponds with different types of investment opportunities.

CHAPTER TWO

Research Questions and Testable Hypotheses

I am extremely interested in the potentially symbiotic relationship between capitalism and philanthropy embodied in the relatively young field of microfinance activity on Wall Street and the implications this niche market has for the future of banking in emerging markets. Traditional CSR theory has based its incentive structure analysis on the demand-side in reaching out to firms and institutions to get them to become involved. Here, I want to look at the supply side and determine which factors make one MFI succeed in getting funding from major institutional investors. That said, for my main research question, I would like to look into how the banking industry participates in microfinance and determine what characteristics and trends among MFIs are well or ill-suited to institutional investment.

Main Question:

I plan to look at series of financial and social ratios for six different MFI case studies in order to evaluate trends in financial and social performance that correspond to these cases as they belong within three distinct institutional investment funding strategies. More specifically, I hope to get a better idea of:

- What kinds of social indicators and frameworks can be used to evaluate MFI performance and to what extent do these results matter to institutional investors vs. general MFI benchmarks and benchmarks of other mainstream industries?
- Is there a difference between how financial and “non-financial” (or social variables) respond to evaluation frameworks and does it change based on the investment strategy?
- What do these ratios indicate about the social element of an MFI’s mission and how might this reflect traditional microfinance concerns of mission drift or social negligence coinciding with increased MFI maturity?
What lessons can be learned as we emerge from a global financial crisis and what types of MFI partnerships do we expect to succeed in the coming years, in the crisis’ aftermath?

How can this knowledge about financial and social indicators help us to increase institutional investment in microfinance?

Hypotheses

As the microfinance industry has matured with the evolution of increasingly complex investment products and partnerships, the literature has indicated that MFI performance—financially and socially—has been impacted. Given previous research done on the life cycle of an MFI and how MFI maturity corresponds with increasing complexity of investment and based on the research questions above, I propose the following:

**Hypothesis 1:** We will see a steady increase in financial and social performance of the MFI case studies as we move to increasingly complex investment strategies from whole sale loans to securitizations, which should manifest itself in the financial and social variables under analysis.

**Hypothesis 2:** We will see financial and social ratios of the sample outperform those of the average MFI market (represented by 2007 MixMarket benchmarks) since these six cases are known in the industry as notable and sustainable examples of each investment type.

**Hypothesis 3:** We expect financial variables to follow the MFI funding cycle more closely than social ratios since financial ratios are testable, mainstream ratios used outside of the MFI sector and should demonstrate closer congruence to traditional business cycle theory/MFI maturity cycle.
CHAPTER THREE
Case Study Introduction

To investigate these research questions and test the hypotheses, I plan to focus on institutional investment in the wholesale market. The previous reigning method of microfinance investments was that of wholesale loans, and even before that, non-commercial loans were the main focus of funding. Innovations in structured finance and securitization, however, have been steadily emerging in the past decade. This evolution of financing models has created a gradual transitioning process from traditional lending to asset-backed securitization, credit derivatives and mezzanine financing. Now that MFIs are more mature, more complex and risk-seeking, investment strategies are being employed in the capital markets with equity and debt instruments. Thus, to get a sense of how MFI performance differs among investment structures, I have selected two case studies for analysis in each of the following strategies: i) whole sale loans, ii) direct equity stake to MFIs and iii) securitization of MFI loans portfolios.

By evaluating several financial and social variables for each case study within each of the investment strategies outlined above, and also comparing this data to benchmark numbers for both “for-profit MFIs” and the “normal” business world, this will give me an idea of which factors must be in place to predict successful ventures in these areas and how these endeavors hold up against other investments in the non-microfinance market. The exact case selections do not matter as much as the three investment types that they represent. I limited my selection to MFIs that: a) reported to MixMarket \(^{13}\), b) have gross loan portfolios—all with exception of SKS

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\(^{13}\) MIX Market ™ is a global, web-based, microfinance information platform that provides information to sector actors and the public on MFIs worldwide, actors who invest in microfinance, MFI networks, raters/external evaluators, advisory firms, and governmental and regulatory agencies.
Microfinance—that qualify them as “Upper Tier 2” MFIs, have audited financial statements in English, have been ongoing (as of 2007 data) recipients of each type of investment strategy they represent and lastly and most importantly resulted from suggestions from experts in the field. Each MFI in this study has also been the sole recipient of investor monies. Some large capital markets transactions, such as BOLD I and II and BOMS I which will be discussed in more detail later, are examples of securitization transactions benefitting a dozen or more MFIs. This was not advantageous to my study because this would make it difficult to isolate the characteristics of a single MFI recipient for comparative analysis. The six case studies selected are listed and described below.

<table>
<thead>
<tr>
<th>Wholesale</th>
<th>Equity Stake</th>
<th>Securitization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda Microfinance Limited</td>
<td>China Fund for Poverty Alleviation</td>
<td>ProCredit Bank Romania</td>
</tr>
<tr>
<td></td>
<td>SKS Microfinance</td>
<td>SHARE Microfin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equitas</td>
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<td></td>
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</tbody>
</table>

I. Wholesale Loan Cases

Case A: China Fund for Poverty Alleviation (CFPA)

The China Foundation for Poverty Alleviation was established in March of 1989 with the mission of alleviating poverty in China, as a national non-profit registered under the Ministry of Civil Affairs. To date it is the biggest NGO in China in the field of poverty alleviation. Among several of its poverty alleviation initiatives including those for maternal and infant health care, financial support for poor college students and disaster relief, their microfinance initiative will be

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14 According to 2009 CGAP data MFI are classified as follows: Tier 1 (assets above $50m), Tier 2 (assets between $3m–50m), and Tier 3 (assets below $3m)
the focus of this analysis. The State Council’s Leading Group Office for Poverty Alleviation and Development (LGOP) permitted CFPA to initiate a pilot institution for microfinance in 2001. Due to the complex legal status of NGOs and MFIs in China, the CFPA activities are conducted via local NGOs called Support Service Cooperatives of the Poor (SSCOPs).\textsuperscript{15}

The microfinance arm of CFPA provides loans to the rural poor under Grameen’s “village bank” model. Due to the rapid development of the national economy and various government reforms, the Central Government has enhanced its determination to provide adequate microfinance services in rural farming areas. Commitment from leaders of the LGOP and its Deputy directors have supported the cause. In 2005, CFPA’s microfinance department changed from a project-based to an institution-based strategy and accomplished major reforms in management structure. In June CFPA opened its first directly managed microfinance branch (SSCOP). In 2005, CFPA received its first wholesale loan from the China Development Bank (CDB) in the amount of 100 million yuan which helped alleviate their principal input problems, making it the first Chinese NGO to receive wholesale funds from a bank. This allowed for disbursement of loans in the amount of 47 million yuan which was lent to 20,948 households and generated a total of 28 million yuan in outstanding loans by the end of 2006.\textsuperscript{16} The Microfinance Project was expanded to ten counties within seven provinces in 2006. More so than any of the other case studies, CFPA combines the market, NGOs and most importantly, the government

\textsuperscript{15} Wen, M. Liu Dong. (2005) “(CFPA) China Foundation for Poverty Alleviation-China Zuoquan and Fuan Branches.” Planet Rating. p 6

\textsuperscript{16} Wen p 7
into its operation. By the end of 2006, portfolio at risk (PAR)\textsuperscript{17} was less than 0.1\% with overdue loans in only one of the ten branches.\textsuperscript{18}

In 2007, to further diversify their funding, CFPA closed funding deals with a new set of commercial banks by securing a RMB20 million line of credit from Standard Chartered Bank (SCB) in London.\textsuperscript{19} This was the first time an international bank provided credit loan facilities to an organization dedicated to microfinance projects in China. The loan was to be funneled to farmers and owners of micro-enterprises in ten counties, most of which are nationally designated as “poor counties” by the Government. Standard Chartered and CFPA also established a strategic partnership to cooperate on best practices sharing and technical issues. Under this agreement, Standard Chartered brings to CFPA its global expertise in wholesale rural finance while CFPA shares its domestic retail microfinance execution experience to assist Standard Chartered in launching rural finance related business throughout China.\textsuperscript{20} Peter Sands, Group Chief Executive of Standard Chartered PLC, said, “This [wholesale loan] initiative is part of Standard Chartered’s commitment at the second Clinton Global Initiative to establish USD 500 million microfinance facility across our markets by 2011, which is estimated to benefit 4 million people currently excluded from participation in the financial sector.”\textsuperscript{21}

\textsuperscript{17} PAR >30 measures the amount of outstanding balance of all delinquent loans (over 30 days) divided by total portfolio outstanding and is a measurement of risk and liquidity of an MFI

\textsuperscript{18} Wen 20


Case B: Uganda Microfinance Limited

Uganda Microfinance Limited (UML) was established in 1997 as a commercial microfinance institution by a local Ugandan and an American citizen. UML began operating competitively as one of the largest and most well-known MFIs in 2005, when the Aureos East Africa Fund’s KES 60 million (USD 1 million) investment allowed it to become a deposit-taking institution. UML grew out of Uganda Microfinance Union (UMU), a non-governmental organization set up in 1997 to provide financial services to micro-entrepreneurs and low income people throughout Uganda. In 2006, UML received another wholesale loan—a $240,000 line of credit from Incofin, a socially responsible investment company. UML also received a UGX 2bn (about USD 1.1 mn) loan from Oikocredit in that same year.

In 2008, UML was acquired by Equity Bank, a leading provider of microfinance services in Kenya, in an all-share deal worth KES 1.7 billion or USD 26.9 million. UML attracted Equity Bank’s interest in 2007 after UML amplified its favorable position for growth with another capital investment in the form of a wholesale loan from Britain’s Helios EB Investors, amounting to 11 billion (USD 175.7 million). The acquisition allowed Equity Bank to take part in the “exponential growth” in Uganda’s microfinance industry and Equity plans to transform Uganda Microfinance into a full-scale commercial bank in line with Equity’s current microfinance model and regional strategy which includes pan-African diversification.

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24 For this reason, UML’s ratios are listed in the MixMarket database under the Equity Bank name. p 2
II. Equity Stake Cases

Case A: SKS Microfinance

SKS was established as a nonprofit organization in 1997 and was converted to a for-profit Non-Banking Finance Company (NBFC) in January 2005 under regulation by the Reserve Bank of India. The company operates on three inter-linked principles to scale microfinance: a) using a for-profit methodology to access capital, b) drawing on best practices from the business world and c) using advanced technology to overcome high loan delivery costs. SKS has a presence in over 20,000 Indian villages across fifteen states in India. SKS focuses on lending to rural women in South India and has adapted the Grameen Bank approach with five-member lending groups of women. SKS focuses on the use of social collateral, providing door-to-door banking service, flexible interest and loan repayment options and customized products such as small weekly repayments, to continually expand its reach.26

SKS has raised over $100 million in four equity capital raises since March 2006. In the most recent transaction SKS announced the closing of a fourth round of equity financing which raised 366 crore or USD 75.4 million.27 Sandstone Capital, a U.S. hedge fund based in Boston, led this transaction; Kismet Capital and SVB India Capital partners also participated and Edelweiss Capital served as the investment banker. In February of this year, SKS also sold USD 44 million of its loan portfolio to Citigroup as another way to generate liquidity and fund its rapid growth. In 2007, SKS’ loan portfolio grew by 300 percent and this trend continued in 2008. Sequoia’s


27 Microcapital (2009) “SKS Microfinance Raises Rs. 75 Crore (USD 15.8 million) Debt and Lists Bonds on Bombay Stock Exchange.” p 1
third equity transaction that closed in January 2008 included an exit clause which required that within 3-5 years, SKS will either have an IPO or be acquired, thus providing them with an opportunity to make money off of their stake and also mitigate some of their current investment risk. Vikram Akula, the SKS Microfinance CEO said the investment led by Sequoia Capital is “the first purely for-profit private equity play” that the microfinance industry has seen. Sequoia Capital, Vinod Khosla, SIDBI, Unitus and Columbia Ventures Corporation are among the current equity partners of SKS Microfinance.

Case B: Procredit Bank Romania

Procredit Bank Romania is part of the ProCredit Group which is in turn led by Procredit Holding, the Frankfurt-based parent company that manages a total of twenty-two ProCredit banks around the world. ProCredit Bank Romania was founded in May 2002 as Banca de Microfinantare MIRO SA by a group of international development-oriented investors with a goal of establishing a new kind of financial institution to serve in a socially responsible way the small and very small businesses. The bank operates on a non-subsidized, fully commercial basis, assisted by the German consulting firm IPC. The founding shareholders in addition to ProCredit Holding were Commerzbank, the IFC, the European Bank for Reconstruction and Development and Deutsche Inventions-und Entwicklungsgesellschaft (DEG). Unlike many of its peer commercial banks who give priority in their lending operating to maximize individual consumer finance, ProCredit believes that this leads to “irresponsible lending and over-indebtedness on the

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28 Microcapital (2007) "Sequoia Capital Leads USD 11.5mm Investment in SKS Microfinance based in India." p 1
part of the client’s and instead focuses more on long-lasting relationships and careful analysis of borrower’s debt capacity and focuses their lending on small enterprises and groups of people. Also, unlike other peers, ProCredit strives to foster a savings culture as opposed to a borrowing culture, offering simple saving precuts with no minimum deposit requirements. As a testament to this mission, 80 percent of their deposit accounts hold less than 100 EUR. As of 2007, we can see below the top shareholders of ProCredit Romania, with the majority shareholder being the parent company and the secondary being Commerzbank as mentioned earlier.

<table>
<thead>
<tr>
<th>Shareholder</th>
<th>Sector</th>
<th>Headquarters</th>
<th>Share</th>
<th>Paid-in Capital (in EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProCredit Holding</td>
<td>Investment</td>
<td>Germany</td>
<td>32.22%</td>
<td>6,082,383</td>
</tr>
<tr>
<td>Commerzbank</td>
<td>Banking</td>
<td>Germany</td>
<td>21.03%</td>
<td>3,969,972</td>
</tr>
<tr>
<td>EBRD</td>
<td>Banking</td>
<td>UK</td>
<td>16.53%</td>
<td>3,120,478</td>
</tr>
<tr>
<td>KfW</td>
<td>Banking</td>
<td>Germany</td>
<td>13.21%</td>
<td>2,493,739</td>
</tr>
<tr>
<td>IFC</td>
<td>Banking</td>
<td>USA</td>
<td>12.05%</td>
<td>2,274,759</td>
</tr>
<tr>
<td>IPC</td>
<td>Consulting</td>
<td>Germany</td>
<td>4.96%</td>
<td>936,332</td>
</tr>
<tr>
<td>Total Capital</td>
<td></td>
<td></td>
<td>100%</td>
<td>18,877,664</td>
</tr>
</tbody>
</table>

[Source: Procredit Annual Report 2007]

Since 2000 Commerzbank has acquired an equity stake in seven ProCredit Banks. This consists of 15-20% equity stakes in the ProCredit Banks of Kosovo, Serbia, Bulgaria, Albania, Romania, Bosnia-Herzegovina and a small stake in ProCredit Bank Georgia. Commerzbank shareholders measure the success and significance of the banks not only in terms of business volume and profit but also by the number of customers reached. Commerzbank’s involvement is aimed at supporting the development of a small and medium enterprise (SME) sector in the

respective countries as well as servicing its German clients with activities in Central and Southeast Europe.

**III. Securitization Cases**

**Case A: SHARE Microfin**

SHARE is another example of a NBFC focusing particularly on poor, rural women in India. SHARE started its operations in 1989 as a not-for-profit society and was the first MFI in India to obtain a NBFC license. SHARE has since adopted its for-profit approach to create returns by channeling funds from commercial banks as collateral-free loans to joint liability groups (JLBs), thus replicating the Grameen lending model.³³ In 2004, India's biggest private financial institution, ICICI Bank, securitized $4.3 million of SHARE’s microloan portfolio and wrapped it up with $1 million in crop loans from Basix, India's oldest microfinance institution. With the money from ICICI, Share was able to add $4.3 million to its $137 million microcredit budget to support growth projections in 2004. ICICI is currently working with 30 different microfinance groups to similarly securitize their loans in the coming months and years.³⁴ Grameen Foundation USA supported the transaction through supply of on-going technical assistance and a cash collateral deposit of $325,000, which accounted for 93% of the guarantee required by ICICI Bank.³⁵ The deal opened up new avenues for SHARE to acquire funds and served as an impetus for growth in the Indian microfinance sector. Under the terms of the agreement, ICIC Bank was

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to receive payments from micro-borrowers and SHARE was to act as a collection agent. Citibank India and specifically, Harmohan Ahluwalia a former senior international Citibank executive, played key advisory roles in the securitization transaction.

The model above illustrates a graphical representation of this transaction. As we can see, Grameen Foundation provided funding to SHARE to guarantee the first transaction. Two pools of microloans were created. They were sold in the ICICI Bank, in addition to the first loss guaranty, and in exchange, SHARE received an inflow of cash from ICICI which they could use to provide services to their lenders. From ICICI, the two microloan pools were then sold to other commercial banks and primarily Indian investors on the secondary market in exchange for cash. Thus, the original loans reached mainstream investors and SHARE gained access to significant capital inflows via accept to capital markets.

**Case B: EQUITAS Micro Finance India Ltd**

Equitas Micro Finance India Ltd was started in December 2007 with the goal of providing finance at a reasonable cost to women engaged in microenterprise activities under the Grameen
banking model. Equitas is one of the fastest growing “start up” microfinance institutions in India. The strong and growing disbursement and portfolio sizes shown below in the five quarters the MFI has been in operation are proof of this.

![Chart 1: Disbursements (in Rs. million)](chart1.png)  ![Chart 2: Portfolio size (in Rs. million)](chart2.png)

[Source: CRISIL Ratings 2008]

Equitas is a NBFC and is registered under the Reserve Bank of India as a loan company. Several distinctions that separate Equitas from other MFIs following the Grameen lending method include Equitas’ allowance of fortnightly repayment collection (vs. weekly for most MFIs) and its promise to quickly disburse loans in 14 days from the day membership applications are collected. Equitas has also set up separate teams for business origination and collection, a separation unique in the group-lending model. The results of this infrastructure are yet to be seen. The Indian MFI is also the only to date with a service guarantee, which requires a high level of standardization of customer sourcing, loan disbursement and back-office support. Equitas boasts a strong centrally organized structure where collections are done in central meetings held once every two weeks. Unsurprisingly, collection performance has been good thus

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far with negligible delinquencies. Currently, its major focus is targeted in several towns, including Tamil Nadu, Madurai, Erode and Salem but CRISIL—India's leading Ratings, Research, Risk and Policy Advisory company—expects the MFI to expand very quickly given the appropriate and necessary capital instruments. Equitas’ management has also committed to transparency which entails openly communicating interest rates and fees charged to customers. Given high operation and start up costs, however, Equitas’ operational efficiency is likely to be below other comparable banks and CRISIL expects the MFI to post marginal losses through the 2009 fiscal year and profitability margin is expected to remain negative in the medium term.38

This year, IFMR Capital and Equitas completed the first rated microloan pool-backed securitization in India, equal to Rs. 157 million. The underlying loan portfolio included priority sector urban micro loans with final maturity in October 2010. Series A1 and Series A2 are rated on level of credit-worthiness as AA(so) and BBB(so) by CRISIL.39 Several rating drivers that CRISIL identified in this transaction are listed below.40 Some of these are unique to Equitas while other such as negligible historical losses, political and regulatory risk and inherently weak credit profiles are typical among these kinds of MFI securitization transactions.

39 This rating is based [with minor adaptations] on the Standard & Poor's rating scale which is as follows from excellent to poor: AAA, AA, A, BBB, BB, B, CCC, CC, C, D. Anything lower than a BBB rating is considered a speculative or “junk” investment.
<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>-negligible historical losses observed in</td>
<td>-limited track record for Equitas (started business in 2007)</td>
</tr>
<tr>
<td>this asset class across MFIs</td>
<td>-geographic concentration (entire portfolio comprise of loans originated in</td>
</tr>
<tr>
<td></td>
<td>Tamil Nadu)</td>
</tr>
<tr>
<td>-strong loan tracking mechanism</td>
<td>-inherently weak credit profile for borrowers</td>
</tr>
<tr>
<td>-payment mechanism for transaction</td>
<td>-political and regulatory interference risk</td>
</tr>
<tr>
<td>-sound legal structure</td>
<td>-relatively longer tenure loans (2 year loans vs. typical 1 year MFI loans)</td>
</tr>
</tbody>
</table>

IFMR Trust Pioneer I acted as the special purpose vehicle (SPV) to issue the securities. Often when an asset is securitized it is restricted into different tranches with different risk exposures to align with different risk tolerances of investors. Subordinate tranches bear losses before senior tranches, so investors pay a premium in proportion to the size of their tranche. A subordinate tranche can be made large enough to bear defaults in underlying loans so senior tranches can have AAA ratings. In this transaction, the AA rated securities were fully underwritten and IFMR Capital served as the sole structurer and arranger and provided mezzanine financing by investing in 100% of the BBB(so) securities. The senior AA(so) rated securities have seen strong interest from domestic banks. Two series of securities were issued, as noted below: Series A1 and Series A2. Series A1 is senior and holds priority on loan receivables. IDBI Trusteeship Services Ltd. (ITSL) is the trustee to monitor the transaction on behalf of the holders of the securities and Equitas will continue to service the pool contracts as the servicing agent. \[^{41}\]

Again, in the diagram above we can see how IFMR works as the intermediary distributing the securitized loan portfolios to two classes of investors—senior and subordinate—based on which series of securities they purchased. On the other end on the right, Equitas can now use the cash from IFMR to allow them to fuel: credit enhancement, excess interest spread and fortnightly collection and payout account.
CHAPTER FOUR

Methodology: Cross-Sectional Case Study Analysis

Thus far we have discussed general concepts of microfinance and how it evolved from a largely philanthropic effort into a sustainable and complex business strategy. Microfinance can be studied through models, institutions and case studies. The research for this report was conducted via literature research, microfinance database research and telephone interviews with experts in the field. The literature review includes materials and data from MixMarket, corporate annual reports and rating agency publications for the MFIs in the sample in addition to various studies and releases published by third parties like CGAP and the IMF.

I. Documents and Data

CGAP and MIX Market are the two primary sources of data and quantitative evaluation criteria. Today CGAP is widely recognized as the leading industry resource mandated to set standards and identify best practices, advise governments on formulating policies that address the needs of the poor, and provide technical assistance to financial institutions. CGAP distributes industry information and research through a variety of free publications and websites. The MIX Market™ seeks to develop a transparent information market to link MFIs worldwide with investors and donors and promote greater investment and information flows. The MIX Market currently provides data on over 1400 MFIs, over 100 investors and almost 200 partners. MixMarket also provides MFI industry benchmarks broken down into various ratios and variables of analysis, which were useful in this study.
II. Elite Interviews

To complement my case study analyses, I have conducted several informal interviews with the directors of microfinance at several major banks, representatives from the rating agencies and also representatives from third party global institutions such as the CGAP. I have spoken with Lynn Martin, Director of Investor Relations at BlueOrchard Finance USA Inc. because of her work on the BOLD 2 securitized loans, in order to gather more information on how the securitization process works and who the major actors are. I spoke with Henry Gonzalez, Vice President in Morgan Stanley's Microfinance Institutions Group. He provided insight on the Bold 2 transactions as well, which he also helped oversee and he was also an invaluable resource giving Morgan Stanley perspective on Wall Street involvement and the “core four” Wall Street banks that engage in microfinance operations. Mia Feldman of the Social Sector Finance Group at J.P. Morgan and Justina Hierta from Goldman Sachs were also helpful in getting this institutional investor perspective. I have also communicated via e-mail with Perrine Pouget, Risk Analyst & Africa Office Manager at Microcredit Africa who provided me with various criteria standards the rating agency uses to evaluate MFI performance in addition to Peter Wall from MixMarket and Christophe Kneiding of CGAP who were able to give an objective third party analysis of the market and also provide insight on their organization’s respective MFI rating criterion. A list of these interviewees can be found in Appendix A.

III. Rationale for Quantitative Variables of Analysis

Ratio analysis is a common financial tool used for comparing various aspects of business operations. It is optimal because ratios allow companies or MFIs in this case to be directly compared, regardless of relative size. This makes it an excellent way for Wall Street banks and
other investors to evaluate different investment options among a wide variety of MFIs and also among investment opportunities in other sectors. CGAP put out the following list of criteria in 2009 to evaluate MFI social and financial performance. I have used the following rubric as a guideline and have subsequently added several other ratios, which I will further explain.

![Summary Table]

[Source: Measuring Results of Microfinance Institutions, CGAP, 2009]

Below are the variables that I have taken from CGAP’s methodology and several that I have added on my own based on additional reading and comparison of various rating agency methodologies. Through cross-sectional analysis and comparison of these ratios for each of the six MFIs in the three cases, I will be able to test my hypotheses to see what ratio trends may exist. Calculation of each of these variables can be found in Appendix B.
Below, I have further categorized each of the ratios based on MixMarket classifications in order to evaluate trends for broader categories of MFI performance.

a. Financial Variable Categories

<table>
<thead>
<tr>
<th>Overall Financial Performance</th>
<th>Revenues</th>
<th>Risk and Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>Profit margin</td>
<td>PAR (&gt;30 days)</td>
</tr>
<tr>
<td>ROA</td>
<td>Yield on gross portfolio (real)</td>
<td>Write-off Ratio</td>
</tr>
<tr>
<td>OSS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>gross loan portfolio</td>
</tr>
<tr>
<td>number of active clients (borrowers)</td>
</tr>
<tr>
<td>Borrowers per staff member</td>
</tr>
<tr>
<td>% women borrowing</td>
</tr>
<tr>
<td>cost/borrower</td>
</tr>
</tbody>
</table>
b. Social Variable Categories

<table>
<thead>
<tr>
<th>Outreach</th>
<th>Productivity</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross loan portfolio</td>
<td>Borrowers/staff member</td>
<td>Cost/borrower</td>
</tr>
<tr>
<td>Total # active borrowers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% women borrowers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c. Benchmarks

To compare these financial and social ratios to other similar cases in the microfinance world, I have used MixMarket’s 2007 MFI Benchmarks publication, based on the most recent data from microfinance institutions throughout the developing world. This data set—the largest ever compiled—is comprised of information from 890 MFIs in 94 countries, including participants from Burundi, Gambia, Guinea, Laos, and Iraq. Mix produces benchmarks and trend reports covering the microfinance markets in the developing world and this one is sorted by medium performance variables for non-profit and for-profit MFIs. See Appendix C for a chart of benchmark ratios used. Additionally, I have compiled some benchmark data for the banking sector, the S&P 500 Index and other non-MFI industry sectors in order to put these MFI ratios into a more expansive field to acknowledge how an investor might perceive an MFI’s valuation in the context of the broader mainstream investable market. This benchmark data was acquired from publically available Thompson Reuters data.

42 http://www.mixmarket.org/mfi/benchmarks
CHAPTER FIVE

The Competitive Marketplace and how Wall Street gets Involved

In the 1990’s commercial banks gradually expanded their activities in the microfinance sector. Some MFIs also transformed from NGOs into licensed banks so that they could officially become part of the regulated financial services industry.43 In between the traditional domains of non-commercial (NGO) MFIs and commercial banks, a new hybrid sector emerged where mainstream financial institutions and specialized microfinance institutions can meet and influence each other.44 Financial institutions can provide many different products to provide the poor with access to financial services—both directly and indirectly. According to Henry Gonzalez, Vice President in Morgan Stanley's Microfinance Institutions Group, in 2006 after Yunez’ Nobel Prize win, Morgan Stanley and Citibank were the most active mainstream banks on the microfinance front. JPMorgan moved in during the troubled financial times of 2008 with a solid microfinance presence. Today, Citibank, Deutsche Bank, JPMorgan and Morgan Stanley are the four major players in the industry, although they are all involved in different ways. According to Mr. Gonzalez, Citi is involved largely in the retail sphere, Deutsche Bank is primarily involved with social funds, J.P. Morgan with principal capital and private equity and Morgan Stanley with investment banking as a niche business.45

A group of specialized funds, including BlueOrchard and Microvest now also invest private money in securities backed by pools of MFI loans. Microfinance investment vehicles (MIVs) –such as Dexi/Blue Orchard and Gray Ghost, the largest commercial MIVs— are private

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44 Kiszelnik p 15
45 telephone interview with Henry Gonzalez, Spring 2009
investment funds that serve as middle men to package investor money before it reaches MFIs and ultimately goes to individual lenders. The diagram below is a good visual representation of this development from NGO-based retail support to more complex institutional investment with third party actors like MIVs.

![Diagram](source: Detusche Bank Research 2007)

The light blue boxes on the bottom left of the diagram indicate the traditional, underdeveloped world of microfinance, funded by donors, foundations and development agencies where funding moved directly to the pockets of microlenders. Today, with a more developed microfinance environment with more mature MFIs, we must take into account the dark blue boxes denoting investment by institutional investors, private investors and domestic capital markets. These investments are packaged into tranches and handled by MIVs, going through several intermediary underwriting transactions before ultimately reaching the MFI and the individual microlenders. Since MIVs invest in areas where ratings are typically below
investment grade, it is important to offset some of the risks for investors, which is typically achieved by structuring debt products into tranches with senior, mezzanine and junior debt as indicated in the middle of the flow chart. Each tranche has its own risk appetite, repayment scheme and class of investors.

I. Appeal to Institutional Investors

The chart below indicates several of the key incentives for microfinance investments according to 2007 Deutsche Bank report “Microfinance: an Emerging Investment Opportunity.”

![Chart showing incentives for microfinance investments](Image)

[Source: DB Research 2007]

Building off of this, ING’s 2006 “A Billion to Gain” report notes two major motivations that make microfinance worthwhile for institutional investors. The first is the notion of enhancing corporate citizenship policy, which in turn improves corporate reputation with key stakeholders. The second is that microfinance can serve as a way to achieve immediate business targets, leading to market expansion in developing and emerging markets. Many investors believe that microfinance will become a crucial niche market in coming years.46

46 Kiszelnik p 22
In addition to social motivations, arguably more important for mainstream investors is that microfinance investments have seen increasingly positive returns. Some MFIs have double digit return on equity, the aggregate industry portfolio value has reached the billions and increasingly uniform organizational structures are aligning the market with uniform best practices helping to mitigate risks and lack of transparency. In 2007, MixMarket documented that the average asset size of microfinance banks grew by 40% and returns were solid with a median ROE of 14.1% that same year. The median PAR >30 was a mere 1.4%, indicating high asset quality. Among roughly 1300 MFIs reporting to the MIX Market for 2006, about 565 or nearly half showed a positive return on assets.\footnote{O’Donohe, Nick. (2009) “Shedding Light on Microfinance Equity Valuation.” J.P. Morgan Global Research. p12}

II. Concerns for Institutional Investors

Despite financial sustainability, ignoring the unique corporate citizenship component of microfinance is impractical because in the short run, microfinance is still a modest operation and costs and risks are high compared to traditional banking activities. A common concern with any investment is that you may lose the money you invest. This risk is therefore referred to as "capital risk." In microfinance loans, there is also the concern of currency risk when assets are held in another currency and movements in that currency alone may affect the value of the asset. This is especially true with unstable local currencies of many developing nations. Due to the typical small size of microfinance investments, there is also a heightened problem of liquidity risk. Many forms of microfinance investment may not be readily saleable on the open market and
individual emerging markets often have small overall capital capacity making it harder to unload acquired assets and harming illiquid.\textsuperscript{48}

Additionally, B. Harrington stresses several problematic issues in terms of aligning MFI and investor goals. The first is corporate form. Since many MFIs are structured as non-profit organizations or NGOs with a governing board and no owners and no share of ownership to sell, this eliminates that source of capital traditionally raised by equity. This applies less to Tier 1 and upper Tier 2 cases such as those in this sample. The second is corporate governance differences between MFIs and the banks that fund them. This causes concerns that priorities of MFI founders and investors are not aligned, since investors want to maximize the return on their investment and MFI founders typically have a stronger sense of commitment to social concerns. This phenomenon is often called “mission drift,” a concern regarding dismissal of an MFI’s original and core values with increasing financial performance and growth, as we saw with the Compartamos case at the beginning of this discussion. Feared results of the “drift” could include: damages to the MFI’s reputation among stakeholders and the public; disruptions in funding due to investor misunderstanding of double-bottom line and disruptions in the original MFI organization culture by applying new market-based approaches.\textsuperscript{49}

Another common ethical concern is known as the “missing middle” phenomenon which involves problems associated with a lack of funding for small to medium sized enterprises.

Traditional venture capital firms are often interested in much larger investment of ten to twenty


million dollars and microfinance currently targets the very bottom of the pyramid leaving out this middle sector. In high-income countries, these SMEs create more than sixty per cent of all jobs, but in the developing world they are relatively rare, due to a lack of institutions able to provide them with the capital they need and many suggest that SME growth is integral for poverty alleviation. Close contact between a loan officer and the client has been a key to the success in microfinance, but a different approach is needed for SME lending. Typically SME investments involve financing for a much longer period, usually with some period of grace, offering more potential reward but higher risk than traditional microfinance investment.50

There is also often a lack of exit opportunities in microfinance, or the potential to receive investment plus expected return after a period of time. Mapping an exit strategy might include guaranteed exists and disbursement mechanisms such as put options and liquidation, although none of these necessarily guarantee a successful exit. In the formal sector, traditionally investors exit via IPOs and although this is possible for a few MFIs, the vast majority of developing countries do not have equity markets that are developed enough to support this. This is the reason that Sequoia’s equity stake in SKS Microfin was contingent on creation of an exit strategy in the form of a pending IPO in 3-5 years. The hope is that continued evolution and sophistication of securities exchanges, capital markets and banking systems will prove increasingly more exit opportunities to entice investors.

Finally, one last critical argument is that microfinance loans are impractical in many developing countries that lack the infrastructure and receptive environment to make best use of them. In rural areas, such as the regions of Argentina that Mark Schreiner discusses in his paper

“Microfinance in Rural Argentina” for example, sparse populations and long distances create a weak local infrastructure, high transaction costs and high risk—creating less than ideal conditions for microfinance loans.51 These high transaction costs lead to imperfect information, which lessens the flow of money and knowledge necessary for loans markets. On the supply side, rural loan officers must make special house visits to homes or workplaces and when farms are few and far between, lenders cannot easily monitor the risk of moral hazard or keep up with farmers and their ability to repay loans and keep up with agricultural production. Additionally, banks and borrowers still do not have the adequate systems to control or gauge agricultural risk well because the risk is so dependent on individual households and is highly correlated across neighboring households. Furthermore, uncontrollable natural events like drought or floods can ruin entire regions.52 Schreiner’s findings can be generalized across many typical underdeveloped MFI environments around the world. Echoing many of Schreiner’s concerns, Annabel Vanroose generated a list of policy factors that determine success in a certain region including: level of income, macro-economic stability, density of local population, education level of client base and level of international community involvement from multilateral organizations such as the World Bank and IMF.53 See Appendix D for geographic breakdown of MFI and investment activity in the world.

52 Schreiner p 9
III) Ratings Agencies and Transparency

For the reasons noted above, MFIs face a distinct challenge when trying to encourage prospective donors and financial markets to back their activities. Although evaluations and assessments are available to MFIs from credible agencies, these tend to be expensive, and lack a common standard that can be applied to the entire industry. Today the market for specialized rating is very small mainly because the microfinance industry itself is still so small. But demand for ratings is rising. For example, a major specialty rating agency MicroRate provided 37 ratings in the first half of 2005 compared to 28 in all of 2004. The market is busy sorting out which raters it finds credible. In the future, we are likely to see conventional credit ratings and specialized performance ratings move closer to each other until they finally merge. To date, the mainstream rating agencies, Moody’s, Standard & Poor’s and Fitch have only rated a small percentage of MFIs including ProCredit of Germany, Fundacion MICROS, FUBODE, Pro Mujer, and Vision Microfinance Fund to name a few. Microrate, MCRIL, PlaNet Rating and Microfinanza are all well-known and respected microfinance rating agencies.

IV. Risk Preferences: Categorizing MFIs

Due to these investor concerns—both economic and social—it is considered common practice that only the “Top Tier” of microfinance institutions are considered “investable” or reputable enough for partnerships, consisting of 150-350 MFIs from the thousands in operation, or around 1 to 2 per cent. According to the latest study done by well-known MIV Microcredit Enterprises, out of an estimated 10,000 MFIs worldwide, 7,000 are start-ups, 2,000 are

55 Dieckmann 6
approaching creditworthiness and only 800 MFIs are operating sustainably, or in other words, profitably, meaning that they are at least covering expenses. Around 150 MFIs have reached a large scale and can be considered “top-tier.”\(^{56}\) The following graphic illustrates the breakdown between “tiers” of MFI classification. As is evident below, the number of capital market transactions—here represented by microfinance collateralized debt obligations (CDO) and direct foreign investment (DFI)—has focused on Tier 1 MFIs. Additionally, MFIs need powerful management information systems (MIS) to compile data in the form required by investors to perform these transactions so it is often naturally the case that only top tier MFIs have access to these systems and are targeted for securitization activity. The blue arrow indicates where the case studies in our sample fall with the exception of SKS Microfinance which is larger. The arrow indicates our sample of upper Tier 2 MFIs on the verge of crossing into Tier 1 territory.

As a result of favorable comparative returns on investment and positive publicity, top tier MFIs can negotiate reasonable prices and terms for capital whereas second or third tier MFIs cannot afford this luxury. In order to better induce investor participation and confidence across the

board, top tier and even lower-ranked MFIs have made great strides in reporting transparency of their performance metrics, namely through common standards of microfinance rating industries.

V. Wholesale Investment Strategies

Although purely social incentives are still an important component, according to a study commissioned in 2005-2006 by ING Microfinance Support and the Netherlands Ministry of Foreign Affairs, banks are trying to orient their microfinance strategies to better integrate them into their “normal” business. Banks have established entire teams of specialists to achieve these goals of integration and cost-effective proceedings. Direct financial distribution takes on two forms. International banks can either provide funds to local banks for microfinance (wholesale) or they can directly offer financial products to end users (retail). Below we see the different products, both wholesale and retail, that institutional investors can provide along with options for non-financial services as well.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Financial products</th>
<th>Non-financial products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale</td>
<td>• Loans to MFIs</td>
<td>• Technical Assistance</td>
</tr>
<tr>
<td></td>
<td>• Guarantees</td>
<td>• Credit, Risk Management and IT systems</td>
</tr>
<tr>
<td></td>
<td>• Securitisation</td>
<td>• Entry to banking networks and platforms</td>
</tr>
<tr>
<td></td>
<td>• Equity stakes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Provision of bank accounts</td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td>• Provision of bank accounts</td>
<td>• Business services for SMEs</td>
</tr>
<tr>
<td></td>
<td>• Individual or group loans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Savings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Insurance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Remittances</td>
<td></td>
</tr>
</tbody>
</table>

[Source: ING “A Billion to Gain” 2006]
International banks are primarily involved in offering wholesale products and services to MFIs which in turn provide financial products to end users. Retail microfinance such as individual loans, micro-insurance and provision of current accounts is still a relatively small part of banks’ total business activities, increasing only slightly in the past few years. As the case study selection indicates, this analysis will focus on wholesale involvement in the form of wholesale loans, equity stakes and securitizations of loan portfolios.

i. Wholesale Loans

Wholesale loans—thus far the most important and popular financial product offered to MFIs by large international banks—are a sum of authorized loans to MFIs provided by the global participating banks in amounts ranging from 1 to 1.4 billion US dollars. At the end of 2006, wholesale loans totaled $450 million and $550 million as compared to $100 million in 2005. Wholesale loans are sometimes secured by pledges of the MFI’s microfinance loan portfolio and sometimes are guaranteed by a parent entity of the MFI in a short-term loan structure.\(^5^7\) Often, Wall Street banks distribute loans via internal “funds” which allow a number of institutions investment opportunities in microfinance. Deutsche Bank sees itself as the investment bank for fund lending. Deutsche Bank started the first commercially-oriented microfinance fund launched by a global bank, the DB Microcredit Development Fund, in 1997 with total assets under management of $5 million. The fund provided credit to 50 MFIs in 27

countries with loan sizes varying from US $25,000 to US $250,000 at commercial interest rates.\textsuperscript{58}

MFI lenders will typically charge at least market-rate interest and additional fees for wholesale loans and the loans are typically denominated in US dollars, British sterling or the Euro and then converted into the recipient’s local currency. Most credit offerings by international commercial institutions to MFIs are in hard currency, meaning the currency exchange risk is born by the MFI. This naturally weeds out lower level MFIs that cannot bear this risk and are only interested in local currency financing.\textsuperscript{59} Currency risk can be mitigated by international banks via products like forwards and swaps or hard currency guarantees. Deutsche Bank, for example, offers hard currency guarantees that can be used by an MFI to mitigate such currency risk.

\textbf{ii. Equity Stakes}

Some institutional investors choose to take equity stakes in MFIs in order to have some degree of influence at management level. Private sector investors who buy equity stakes in MFIs seek to create a more liquid market for MFI shares by encouraging dividend payments and access to formal capital markets. Of course, equity stakes are also riskier than wholesale loans. What drives the MFI should drive the interests of the investor since he is becoming a shareholder, however many MFI missions are still heavily skewed toward alleviating poverty and not about making a profit first and foremost. Additionally, the non-transparency of the

\textsuperscript{58} Kiszelnik, Kim “A Billion to Gain? A study on global financial institutions and microfinance.” INC Microfinance Support. February 2006. p 23
\textsuperscript{59} Kiszelnik p 25
market, valuation problems and poor share liquidity are all problematic for taking on this
ownership risk. Equity stakes are on the rise, fuelled by the increasing profitability of MFIs and
the increased issuance of equity stakes of MFI seeking to increase their revenues. The total
number of banks’ equity stakes in MFIs has increased to 22 from 10 in 2007.60

iii. Securitization

In securitization of an MFI’s loan portfolio, the income stream from thousands of microloans
is packaged into an asset that mutual funds, insurance companies and other institutional investors
can buy in the form of interest-bearing notes, just as they would other kinds of assets in the
secondary market. Securitizations are clearly not new to Wall Street, but they are for
microfinance. More specifically, securitization occurs when assets, such as microfinance loans,
are transferred from the originator of the loans (typically the MFI) to a special-purpose vehicle
whose function is to hold the transferred loans ensuring they are administered according to the
terms of agreement. The SPV issues its own securities as collateral, often called “asset-backed”
securities or ABS. The SPV sells the securities to investors, generally with the assistance of an
investment banker. These securities or bonds in many case, are typically very liquid, making
them very attractive to the investment community—a huge bonus for MFIs.61 This “sale of
assets” transaction means that originator no longer has the securitized loans on his balance sheet.
The loans are replaced with cash that the bank or MFI can use to offer additional loans. The hope
is that securitized microfinance receivables could provide real returns for a broad array of
investors while MFIs could use the increased liquidity provided by securitizations to multiply the
number of loans they can make to micro entrepreneurs.

60 O’Donohoe 11
For investors, securitizing microfinance loans may provide a higher yielding instrument than investments currently available with similar short maturities typically issued by governments. Traditional asset-backed securities do not tend to mature earlier than five years after the date of issue while microfinance loans mature anywhere between six months to three years. As previously noted, most asset-backed securities also have some form of credit enhancement structure, such as a guarantee or credit tranching mechanism, to mitigate risk. Several key transactions in recent years have also helped to break through initial hesitancy from the institutional market. The world of “true sale” securitizations reached the microfinance market in 2006. The May 2006 ProCredit Bank Bulgaria and July 2006 BRAC securitizations were two landmark issuances for the microfinance industry. Additionally, in 2007, Morgan Stanley partnered with BlueOrchard Finance to issue their “BOLD 2” loans. BOLD 2 was a $110.2 million equivalent collateralized loan obligation to twenty MFIs in twelve different developing countries including Azerbaijan, Bosnia, Cambodia, Colombia, Georgia, Kenya, Mongolia, Montenegro, Nicaragua, Peru, Russia and Serbia, and is widely cited as a successful in the microfinance world.

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62 Stieber p 204

CHAPTER SIX:
EXPLORATION OF EMPIRICAL FINDINGS

Now that our background knowledge about the precedent, structure, strengths and weaknesses of various institutional investments strategies is complete, we can evaluate the results of the cross-sectional ratio analysis on the six case studies and determine what these findings may have to confirm or refute in the hypotheses and existing literature in the field.

Discussion of Empirical Results

i. FINANCIAL VARIABLES

Overall financial performance

Overall financial sustainability speaks to what mainstream investors are really concerned about: whether or not a firm can produce excess returns. These are the most universal ratios used in this analysis and can be used to compare banks and institutions in fields other then microfinance. Return on assets (ROA) measures the net income generated via a firm’s assets. Return on equity (ROE) rates the firm’s investors by determining the rate of return based on invested equity. Of all the financial indicators ROE requires the least specialized knowledge. ROE speaks the same language no matter the industry, the country, or the currency. For this reason, it is also reasonable to assume that an above average ROE would be the most compelling reason for a mainstream investor who is not intimately familiar with the microfinance industry to invest in a particular MFI.

64 2007 MixMarket data used for this section—I chose the most recent available data pre-financial crisis to eliminate any distorting effects this would likely incur.
Return on Equity

<table>
<thead>
<tr>
<th>Company</th>
<th>ROE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>-1.38%</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>22.31%</td>
</tr>
<tr>
<td>SKS</td>
<td>11.94%</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>4.82%</td>
</tr>
<tr>
<td>SHARE</td>
<td>8.32%</td>
</tr>
<tr>
<td>Equitas</td>
<td>4.02%</td>
</tr>
</tbody>
</table>

Since ROE measures how much profit a company essentially generates with its’ shareholders money and is arguably the single-most important variable that investors and analysts look at, it is the most disappointing here that there does not seem to be an increasing trend as data moves from wholesale loans to securitizations as hypothesized based on the MFI maturation cycle. Here, not only do we have outliers with UML and CFPA but we also have the MFIs with the most “complex” investment strategies coming through with two of the lowest numbers. CFPA has a negative ROE of -1.38% which most likely has something to do with an internal situation. On the other hand, UML, the other wholesale loan case, has very high ROE of 22.31%. The median ROE of the MixMarket MFI “for-profit” benchmark is 5.1% and the
median of the six cases here is 6.57%, which is 1.2x the size of the benchmark ROE indicating that although there may not be any clear trends between MFIs with different funding strategies, the investors in these case studies are receiving better returns than they would likely receive from the typical MFI reporting to MixMarket. This makes sense, since these cases are being used as proxies here for “successful” implementations of each investment types as determined by industry professionals and continuous installments of institutional monies, as of 2007.

**Return on Assets**

<table>
<thead>
<tr>
<th>Organization</th>
<th>ROA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>-0.82%</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>5.39%</td>
</tr>
<tr>
<td>SKS</td>
<td>1.99%</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>0.37%</td>
</tr>
<tr>
<td>SHARE</td>
<td>1.10%</td>
</tr>
<tr>
<td>Equitas</td>
<td>1.52%</td>
</tr>
</tbody>
</table>

Next, in looking at ROA, just as we saw with ROE, CFPA demonstrates an outlier ratio of -0.82%. Similarly with ROE, Uganda has a strong outlier ratio of 5.39% while the remaining
cases have ROA figures just under 2% and lower, without showing any clear trend. As compared to the median benchmark of 0.7%, the median of the six cases is 1.31%, which is 1.87x or almost twice as large the benchmark indicating strong asset performance among these cases versus the benchmark.

In order to give a little more comparative context since ROE and ROA are such universal ratios to be used in all industries and fields, below is benchmark data from Thompson Reuters for the Banking Industry (a logical alternative to MFI investment), the S&P 500 (a proxy for the largest and most established corporations in the world), several of the largest retail banks in the world, (Citibank, Bank of America, HSBC), and two “hot names” in investment options in recent years (Google and Apple). Five-year average, ending in the 2008 fiscal year, is used instead of TTM (trailing 12 month) because this is the best benchmark data to eliminate the distorting affects of the last year of financial crisis on the ROE and ROA numbers.

<table>
<thead>
<tr>
<th>Benchmark/Institution</th>
<th>ROA (5 year average)</th>
<th>ROE (5 year average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking Industry</td>
<td>1.38%</td>
<td>16.44%</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>5.32%</td>
<td>15.31%</td>
</tr>
<tr>
<td>Citibank</td>
<td>0.33%</td>
<td>4.71%</td>
</tr>
<tr>
<td>Bank of America</td>
<td>1.03%</td>
<td>12.08%</td>
</tr>
<tr>
<td>HSBC</td>
<td>0.84%</td>
<td>13.69%</td>
</tr>
<tr>
<td>Google</td>
<td>18.14%</td>
<td>20.12%</td>
</tr>
<tr>
<td>Apple</td>
<td>13.93%</td>
<td>24.99%</td>
</tr>
</tbody>
</table>

[source: Thompson-Reuters]
When comparing our sample set of ROE and ROA numbers to these commercial benchmarks we find that the median ROA for the sample of 1.31% is in line with the 5 year average of the banking industry ROA of 1.38%. This is a strong indicator that as far as this variable goes, the sample MFIs are competitive with alternate options in terms of investment potential. When comparing against the specific ROAs of Citi, Bank of America and HSBC, our sample median outperforms all three. The S&P ROA was better at 5.32%, indicating that as an alternative to the entire world of investment options, MFI investment might not match up, although when compared against its closest affiliate, the banking sector, it does. An explanation for Google and Apple’s extremely high ROA (and ROE for that matter) numbers versus the rest is that, although ROE and ROA are the most universal of variables discussed here, there are differences between industries and sectors tend to trend toward certain “good” and “bad” ROEs determined in part by intrinsic characteristics unique to the nature of the industry or typical companies in the industry. As members of the high-growth technology sector, Google and Apple exhibit some of the highest ROE and ROA numbers of investable companies in all sectors and they are included to get a better a sense of the entire spectrum of investable options. Neither are likely to a substitute for investment in one of the six MFIs in our sample.

ROE shows a less favorable outlook for MFI investment as our median benchmark underperforms that of the banking sector with a comparatively weak 5.1% vs. 16.44%. Although this 5.1% outperforms Citi individually, both Bank of America and HSBC show higher numbers, although the ratios are in the same playing field, indicating that the MFI investment is not out of the question. However, it is important to remember that our cases here are upper level Tier 2 MFIs, so they are not the very cream of the crop Tier 1 MFIs. According to the MicroBanking Bulletin last year, the top microfinance institutions enjoy an average return-on-equity of 14.1%,
which compares more favorably than our sample in the commercial sector. Additionally, there are several critical differences between ROA and ROE that could account for the varying comparative success of our sample measurements against the mainstream benchmarks. ROE measures the return on funds that are owned by the MFI as opposed to ROA which measures total assets which includes both liabilities and equity. Additionally, ROE varies greatly depending on capital structure of the MFI. An MFI that funds its assets primarily with equity will show a lower ROE than an MFI that funds its assets primarily with liabilities. What we find when analyzing these two ratios is that both have advantages in specific situations. ROA is more suitable when MFIs are building up a balance sheet through leveraging because it takes into consideration that added risk of the additional fixed costs. ROE is more suitable when MFIs are experiencing a period of steady growth and increased member demand because it lacks the volatility associated with ROA. This could possibly account for the weaker ROE numbers in the more established MFIs in our study, since they have already experienced major growth stages. Although the purpose of this study is to observe cross-sectional trends and not dig into the balance sheets and cash flow statements of each individual MFI, doing so could definitely shed light on additional nuances explanations for why ROA fared better than ROE against the mainstream benchmarks.

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The third of the overall financial performance ratio triumvirate is operational self-sufficiency. Revenue is generated when MFI assets are invested in ways that produce excess financial returns. Revenue or yield is compared to total expenses and when revenue is greater than expenses, we can say that an MFI is self-sufficient. There are two variations on self-sufficiency by which MFIs are measured: operational self-sufficiency and financial self-sufficiency. To be self-sufficient, an MFI cannot rely on donor funding to subsidize its costs. Since we assume that these six tier-one MFIs are all financially self-sufficient on the most basic
level in that they do not require the use of subsidy-dependence indexes to remain afloat, we focus on their relative efficiency on an operational level.\(^{67}\)

This variable is very interesting as it demonstrates a clustering of strong ratios towards the center with lower OSS numbers at the two extremes. The results are also interesting because we would expect this to trend along with ROE and ROA which followed similarly shaped patterns since ROE, ROA and OSS comprise the three key “overall financial performance” ratios. The benchmark median is 115%, so surprisingly we see that the median OSS of our sample of 106% falls below this benchmark, again even more surprising because ROE and ROA medians outperformed the benchmarks.

Revenues:

Portfolio yield and profit margin fall under this category. As mentioned above, yield is essentially the income return on investment, compared with expenses to determine minimum efficiency. Since we assume basic efficiency for these six cases, we are looking at which provide the highest yield on investor money—a crucial element of an investors decision, since focusing on attaining the highest possible yields while still balancing a certain risk tolerance is the ultimate goal. Profit margin indicates the relative cost of management abilities and denotes what percentage of financial revenue a corporation or MFI can retain as earnings. The nature of small microcredit necessitates that interest rates need to be high to return the cost of the loan. This is often a point of concern for many observers, but in reality, the high interest rates are justified. MFIs need to cover three costs when making microloans. The first is the cost of money that it

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lends, the second is the cost of loan defaults and the third is transaction costs.\(^{68}\) In terms of transaction costs, loans of all amounts require roughly the same amount of staff time, loan processing time and follow-up monitoring so when loan sizes get very small, transaction costs loom larger because these costs can't be cut below certain minimums.

**Portfolio Yield (Real)**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>11.23%</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>44.73%</td>
</tr>
<tr>
<td>SKS</td>
<td>17.78%</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>14.31%</td>
</tr>
<tr>
<td>SHARE</td>
<td>14.95%</td>
</tr>
<tr>
<td>Equitas</td>
<td>21.42%</td>
</tr>
</tbody>
</table>

Again, for real portfolio yield there do not seem to be any striking trends. CFPA comes in with the lowest yield at 11.23%, Uganda has the highest at 47.72% and the remaining teeter in

mid- to high-teen region. As compared to the benchmark, the median of the six cases is 16.365% which is actually below the benchmark median of 22.5% which again is unexpected.

**Profit Margin**

<table>
<thead>
<tr>
<th>Profit Margin</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>-5.54%</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>19.3%</td>
</tr>
<tr>
<td>SKS</td>
<td>16.50%</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>2.63%</td>
</tr>
<tr>
<td>SHARE</td>
<td>9.61%</td>
</tr>
<tr>
<td>Equitas</td>
<td>8.20%</td>
</tr>
</tbody>
</table>

With the exception of CFPA, which showed a very weak profit margin of -5.54%, there does not seem to be any real trend demonstrated here either. If anything, there seems to be a decreasing trend moving from wholesale loans to securitizations, moving from Uganda with a profit margin of 19.3% moving downward into the mid-teens to high single digit profit margin percentages, which would be directly opposite to expectations. As compared to the benchmark
median of 6.9%, the median of the sample outperforms at 8.9% which is expected. An interesting and unexpected finding here as well is that Equitas has a respectable, middle of the pack ratio when CRISIL rating agency expected it to have a negative profit margin for the next several years due to high operational costs in their first few years.

Risk and Liquidity

Risk management is very important for MFIs and other banks that rely on lending as one of the primary generators of income. If a manager can promptly identify when a certain borrower or certain region is falling behind on payments, he can mobilize a loan officer to resolve the situation before it creates significant damages. Risk management metrics are good at representing a firm’s overall management capacity, IT infrastructure capacity and quality of overall infrastructure. PAR (> 30 days) and Write-off ratio are two common ratios used to measure risk assessment capacities of MFIs.

<table>
<thead>
<tr>
<th>Portfolio at Risk (&gt; 30 days)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>0.05%</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>3.4%</td>
</tr>
<tr>
<td>SKS</td>
<td>0.15%</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>1.31%</td>
</tr>
<tr>
<td>SHARE</td>
<td>3.73%</td>
</tr>
<tr>
<td>Equitas</td>
<td>0.04%</td>
</tr>
</tbody>
</table>
Portfolio at risk takes into account an MFI’s entire outstanding balance on all delinquent loans as opposed to other risk assessment measures. PAR is thus a measure of on-going portfolio quality. Ranked inversely, this metric may favor group-based methodologies with internal accounts or group guarantees or MFIs with aggressive write-off policies. Since all of our cases except UML and Precredit Romania are currently operating under a group-based approach, this should not be too much of a confounding variable. Looking at the median PAR number of 0.73% in our sample as compared to the benchmark of 2.7%, the median outperforms as expected. It is very interesting that Uganda showed this higher, “bad” PAR number given unusually high performance in other financial categories. No real trend can be seen however, since half of the cases are at high repayment risk and half are low, with one of each existing in each of the three investment strategies.

Loan repayment is an important area of concern for MFIs, since they are often dealing with populations that may struggle to gain the means to do so, and also MFIs often encounter various logistical and geographical barriers to repayment that normal banks typically do not.
explains the 30 day lag period, which allows leeway for payments to come in. The reason why I have chosen not to use the basic “repayment rate” here, a variable often cited and found in MFI reports, is that often times MFIs have tendencies to misrepresent this rate. Microfinance as an industry is over-sold, claiming "98-100% Repayment Rates," which draws investor interest, although this is often exaggerated. Additionally, very low default rates might actually mean poor management and an insufficient amount of risk-taking.69

### Write-off Ratio

<table>
<thead>
<tr>
<th>Institution</th>
<th>Write-off Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>4.2%</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>3.27%</td>
</tr>
<tr>
<td>SKS</td>
<td>0.29%</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>0.00%</td>
</tr>
<tr>
<td>SHARE</td>
<td>1.79%</td>
</tr>
<tr>
<td>Equitas</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

The write-off ratio measures the amount of actual loss on a portfolio as recognized by the MFI’s policy on portfolio management. Ranked inversely, this metric favors MFIs with no or very lax write-off policies. Thus, the write-off ratio measures actual loan losses in a given time period based on one year incremental periods. As we move from wholesale loans to securitizations, write-off ratios seem to decrease, with values of 4.2% and 3.27% with the wholesale loans, moving downward into the single and decimal percentages. This might suggest that write-off performance improves with increased complexity of loan structures, supporting the hypothesis and literature review that with complex financial investment comes more complex MFI measures to maintain and evaluate the loan proceedings, leading to proportionally fewer write-offs. As compared to the benchmark of 1.4%, the sample outperforms with a median of 1.04%. This seems to be the only financial ratio that follows my original hypotheses in terms of what can be expected based on the MFI development cycle in terms of investment.

Interestingly also are the 0% write-off ratios of Procredit Bank Romania and Equitas, which is due to either phenomenal risk management policies or more likely, certain flattering nuances in write-off recording policies. This introduces the one caveat to keep in mind when evaluating this ratio, that MFIs have incentives to provide misleading statistics and figures especially in attempts to impressing donors and investors. Often, MFIs write off bad loans or leave them on their books for extended periods of time instead of categorizing them as delinquent loans in order to secure continued funding. This does not indicate that this should be a concern when evaluating the ratios for Procredit and Equitas, but is something to consider when viewing these strikingly impressive 0% write-off ratios.
ii. SOCIAL VARIABLES

A challenge for MFIs is to develop metrics for social return that are comparable to the way mainstream ratios evaluate financial performance. Doing so is necessary for any MFI that is client-centered and concerned about the achievement of its social mission. Since “social variables” are strongly linked to the specific MFI and its particular objectives and missions, in order to make some generalizations across a sample of MFIs, I have selected social variables that fall under broad categories defined by MixMarket as “outreach variables,” “productivity variables” and “efficiency variables.” These are typically variables not focused on by mainstream investors and certainly more relevant to an institution with a double bottom line intending to not only be profitable but also serve the largest amount of people and provide them with the best service and opportunity.

Outreach Variables

Gross loss portfolio and the number of active borrowers are two great outreach indicators, although not of course the best comparative ratio tools since absolute size is not always the most important characterization in an MFI’s “success.” The percentage of women borrowers, also under this category, is an interesting variable because the vast majority of MFIs have in their mission a distinct goal to provide assistance to the female portions of populations, so often this variable is evaluated on a more case-by-case instead of cross-sectional analysis. Regardless, these three outreach variables all focus on the depth and diversity of services which sheds light on clientele base and market niche according to social mission and diversity of products offered.

### Gross Loan Portfolio

<table>
<thead>
<tr>
<th>MFI</th>
<th>GLP (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>9,593,841</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>24,262,672</td>
</tr>
<tr>
<td>SKS</td>
<td>261,686,364</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>314,462,960</td>
</tr>
<tr>
<td>SHARE</td>
<td>151,664,954</td>
</tr>
<tr>
<td>Equitas</td>
<td>43,401,148</td>
</tr>
</tbody>
</table>

There seems to be a loosely increasing trend in terms of gross loan portfolio size from MFIs funded via wholesale loan moving up through MFIs with securitized loan portfolios. Although there is of course no linear progression upwards, the last four cases in the equity stake and securitization categories have higher GLPs that the wholesale loan cases. The MFIs with the two largest GLPs are SKS and Procredit at $261,686,364 and $314,462,960, two equity stakes. The relatively low GLP number for Equitas can be simply due to the fact that it is so new, and although its financials are strong and growth is expected, it has not yet had the time to amass a portfolio that is comparable to more seasoned MFIs. The median GLP for the sample, $97,533,051, is larger than the MixMarket median benchmark of $8,780,943, possibly indicating...
that as six generally successful MFIs cases this naturally corresponds with MFIs that have larger absolute portfolio size, as the literature supports.

**Total Number of Borrowers**

<table>
<thead>
<tr>
<th>MFI</th>
<th>Total Number of Borrowers</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>24,735</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>29,610</td>
</tr>
<tr>
<td>SKS</td>
<td>1,629,474</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>39,269</td>
</tr>
<tr>
<td>SHARE</td>
<td>989,641</td>
</tr>
<tr>
<td>Equitas</td>
<td>16,166</td>
</tr>
</tbody>
</table>

There does not seem to be an increasing trend as there was with gross loan portfolio, possibly indicating that different MFI strategies call for different allocations of their gross loan portfolio, either in terms of how selective they are with choosing borrowers, or perhaps with the size of the loan that each borrower receives. SKS and SHARE are strong outliers. In the case of Procredit, a potential reason for their relatively low number could be that they strive to maintain
a very specialized, specific model where they do not focus on consumer lending but instead on business lending. High transaction and reviewing costs go into each loan acceptance, making lending a slow and arduous process which could account for their low numbers. Although again, all six cases serve a larger number of active clients or borrowers with a sample median of 34,440 versus MixMarket’s 2007 benchmark of 15,524. This variable typically favors larger MFIs as well as MFIs with larger potential markets. Thus, it is strange that this does not correlate more strongly with the trends found above in gross loan portfolio. It is also strange that CFPA has such a relatively low number here, since the potential borrower market in China is greater in terms of absolute size than the potential markets for any of the other case studies.

**Percentage of Women Borrowing**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>56.84%</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>47.74%</td>
</tr>
<tr>
<td>SKS</td>
<td>100%</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>100%</td>
</tr>
<tr>
<td>SHARE</td>
<td>100%</td>
</tr>
<tr>
<td>Equitas</td>
<td>100%</td>
</tr>
</tbody>
</table>
This final variable, as mentioned earlier, is an interesting one that I included for the “image” or “outside appearance” purposes of social impact. Generally, since individuals associate microfinance success with empowerment of women and number of loans to help small enterprises among female borrowers, it could be hastily presumed that greater percentage of women borrowing equates to better social mission or social success. This is not always the case, however, since social success is so closely tied to an MFI’s particular mission and for this variable how important it does or does not view the significance of lending exclusively or more frequently to females. Unsurprisingly, the data here shows no real observable correlation between increasing complexity of finance structure and increasing percentage of female borrowing. For wholesale loans, the two cases feature 56.84% and 47.74%. The two equity stake cases show 100% women borrowing. SHARE and Equitas both demonstrate 100% lending to women. The four MFIs with 100% women borrowers have this specifically assigned in their charters/mission statements. The only MFIs where this is not the case are the two wholesale loan cases. This could indicate that the MFIs more accessible to capital markets have greater emphasis on women as a result of a) scale and ability to be selective or as b) marketing strategies.
to attract this kind of investment. This is also a strong argument against “mission drift” since the most “complex” cases here are the ones that demonstrate and maintain the strongest allegiance to female borrowers which is part of the original mission. The sample median is 100%, since four of the six cases represent 100% ratios. On the surface, this outperforms the benchmark of 55.8%, although for this variable, the benchmark comparison is less important since these values are based largely on individual, internal mission statements of particular MFIs.

**Efficiency Variables and Productivity Variables**

Efficiency or operational performance measures the extent to which an MFI operates productively and utilizes its management expertise and systems management. This is particularly important because of the high fixed costs in the microfinance sector and opportunity for competitive advantage. For the purposes of this analysis, this translates to cost per borrower and number of borrowers per staff member. These variables demonstrate a pointed interest in the individual borrower and the capacity for personalized attention and the most efficient way to allocating resources to an individual—two considerations unlikely to receive priority in mainstream investment analysis, and thus earning it a place in the social variable category.

**Cost per Borrower**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Cost per Borrower</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>35 USD</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>203 USD</td>
</tr>
<tr>
<td>SKS</td>
<td>19 USD</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>901 USD</td>
</tr>
<tr>
<td>SHARE</td>
<td>14 USD</td>
</tr>
<tr>
<td>Equitas</td>
<td>21</td>
</tr>
</tbody>
</table>
With the exception of outlier Procredit Romania with a very large cost per borrower ratio of $901—which again can likely be explained by Procredit’s dedication to individual attention and maintenance of long-lasting individual relationships with borrowers—there seems to be relative consistency across the board. The sample median strongly outperforms the benchmark, with a median of $28 versus median benchmark of $129, meaning that MFIs in the sample are operating less costly. Share and Equitas do have the lowest costs per borrowers, however, which could possibly indicate that with increasing complexity of financial structure comes improved efficiency in terms of loan allocation, leading to minimization of transaction and operational costs per loan. This could support a theory that MFIs are inherently more “commercialized,” operating more and more with the efficiency of banks operating in the traditional sector.

In general, compared to other types of banks, the costs of providing microcredit are high because of the small size of loans, the location of clients, and the high level of interaction clients have with MFI staff. Efficiency is a key concern because MFIs require much more staff and administrative efforts per dollar lent than mainstream banks. However, the improvement curve for MFIs is steeper than traditional banks, since MFIs can drastically improve their cost structure.
via economies of scale, increase in average loan size and technology improvements. The figure below demonstrates the higher general operating costs (as measured by operating expense to gross loan portfolio) for prominent MFIs versus emerging market banks on the far right.

**Borrowers per staff member**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Borrowers</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Fund for Poverty Alleviation</td>
<td>104</td>
</tr>
<tr>
<td>Uganda Microfinance Limited</td>
<td>75</td>
</tr>
<tr>
<td>SKS</td>
<td>-</td>
</tr>
<tr>
<td>Procredit Bank Romania</td>
<td>32</td>
</tr>
<tr>
<td>SHARE</td>
<td>353</td>
</tr>
<tr>
<td>Equitas</td>
<td>484</td>
</tr>
</tbody>
</table>

[Source: Mix, J.P. Morgan Data as of 2007]
With borrowers per staff member, as expected, we see that the securitization cases have more borrowers per staff members than wholesale loans. It is unexpected that equity stake ratios are so low (again likely due to personal attention model of Procredit). The sample median of 104 is larger than the benchmark median of 93 which is expected. More borrowers per staff member may not seem efficient because it means less individualized attention, but in the microfinance world, this is actually viewed as a measure of productivity, meaning that larger number of borrowers per staff member is a positive sign since each staff member is adequately managing and serving a larger number of clients. The large numbers of borrowers per staff for Share and Equitas, 353 and 484 respectively may indicate that for these MFIs that are receiving the most complex form of funding via securitization of loan products, individualized attention to single borrowers is generally less given the total number of borrowers is large and also given that staff members are more productive in their relationship management and fewer are needed to accomplish the same task.
HYPOTHESES REVISITED

Hypothesis 1: Do we see a steady increase in financial and social performance as we move from MFIs who are recipients of loans to equity stakes to securitizations, manifested in our analysis of comparative ratios? →NO

Hypothesis 2: Do we see median ratios of the set outperform those of the 2007 Profit MFI benchmarks? →YES

Hypothesis 3: Do we see a difference in performance of social and financial variables →YES

Hypothesis Findings: What this tells us about the Data

Hypothesis 1

Financial Variables

When looking at financial variables, only the write-off ratio seems to confirm the hypothesis while the rest of the variables refuted it, a weak showing for conformity of traditional financial ratios to MFI maturation cycle literature. Since the write-off ratio falls under the general risk and liquidity preferences category, this could suggest that an MFI’s ability to mitigate risk is a quality that is most malleable and responsive to increasing maturity and complexity of investment and one that should be highlighted or emphasized to institutional investors as a uniquely telling indicator of MFI performance as linked to maturity.
Social Variables

In terms of social variables, more ratios confirmed the first hypothesis than refuted it, a hopeful sign for the social roots of microfinance and its unique goals and missions as an asset class possibly indicating that more mature MFIs are not necessarily lacking in “social” attributes as compared to younger MFIs more focused on NGO and IFI-based funding.

Hypothesis 2

For both financial and social variables shown in the tables below, we see that overwhelmingly the median ratios of the sample set outperformed the MixMarket benchmark.
ratios, particularly with 100% general trend adherence for social performance ratios. This is expected, since we would assume that MFIs that are recognized amongst professionals in the field and have a positive track record of investment partners would have stronger ratio valuation than the average MFI that reports to MixMarket that do not necessarily have these attributes. This is an important finding because it serves as a check on the methodology, to make sure that the variables selected are effective in aligning with market knowledge and accurately checking the validity of insiders’ perspective and validity of this choice in case studies.

Financial Variables

<table>
<thead>
<tr>
<th>Confirmed hypothesis</th>
<th>Refuted hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>OSS</td>
</tr>
<tr>
<td>ROA</td>
<td>Portfolio Yield</td>
</tr>
<tr>
<td>Profit Margin</td>
<td></td>
</tr>
<tr>
<td>PAR &gt;30</td>
<td></td>
</tr>
<tr>
<td>Write-off Ratio</td>
<td></td>
</tr>
</tbody>
</table>

Social Variables

<table>
<thead>
<tr>
<th>Confirmed hypothesis</th>
<th>Refuted hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>gross loan portfolio</td>
<td>NONE!!</td>
</tr>
<tr>
<td># active clients</td>
<td></td>
</tr>
<tr>
<td>Borrowers/staff member</td>
<td></td>
</tr>
<tr>
<td>% women borrowing</td>
<td></td>
</tr>
<tr>
<td>cost/borrower</td>
<td></td>
</tr>
</tbody>
</table>
Outlier Analysis

In addition to the general trends and confirmation/lack of confirmation with original hypotheses above, I have included several additional tests to try to account for some of the outliers in the observed variables.

**Procredit Romania:**

When we compare Procredit Romania with other “micro bank” models in Eastern Europe (MixMarket sample size=26) in terms of cost per borrower, one of the ratios for which it showed its largest status as an outlier, we see that indeed, it has almost double the cost of other “micro bank” modeled MFIs in Eastern Europe and this result is not exclusive to our sample. I have also included the number of active borrowers to see if that is a possible factor impacting cost per borrower. The number of active borrowers is relatively similar in both columns, however ProCredit does have slightly fewer than the MixMarket sample, further supporting their emphasis on individual attention to each client and that even with fewer clients to spread their time, resources and energy, it is still costing ProCredit more per individual customer than the comparative sample.

<table>
<thead>
<tr>
<th></th>
<th>Procredit Romania</th>
<th>MixMarket Comparative Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost/borrower</td>
<td>901 USD</td>
<td>457 USD</td>
</tr>
<tr>
<td># active borrowers</td>
<td>39,269</td>
<td>46,220</td>
</tr>
</tbody>
</table>

71 MixMarket has a comparative analysis tool allowing users to select variables and regions by which to compare MFIs one-to-one or against certain groups by charter type. The available charter type options are: bank, credit union/cooperative, NBFI [referred to as NBFC in this paper], NGO, rural bank and other.
This crosses out the possibility that some external or environmental factor might account for these outliers and supports the notion of high level of selectivity in borrowers and high level of time and attention for cultivating existing clients in Procredit’ mission statement.

**China Fund for Poverty Alleviation:**

Next, when we compare CFPA—which was the only MFI in the sample to demonstrate negative ratio variables—with the sample size of “NGO-modeled” MFIs in China (MixMarket sample size =5) we see that CFPA is alone in its negative numbers for ROE, ROA and profit margin. There is an argument that Chinese NGO-modeled MFIs have recently been passed over on the investment front and Chinese MFIs operating like micro bank models are gaining foreign direct investment, supporting a “missing middle” hypothesis that the Tier 2 NGO-based MFIs are being passed over in favor of the more financial viable Tier 1 bank-modeled MFIs. However, the variables shown here indicate that the other NGO models reported positive ROE, ROA and profit margin, and it was only CFPA isolated that seems to be suffering on the valuation front, thus weakening this argument in favor of the “missing middle” and suggesting that it is an internal problem unique to CFPA, not the Chinese microfinance environment or NGO charter model.

<table>
<thead>
<tr>
<th></th>
<th>CFPA</th>
<th>MixMarket Comparative Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>-0.82%</td>
<td>0.21%</td>
</tr>
<tr>
<td>ROA</td>
<td>-1.38%</td>
<td>0.26%</td>
</tr>
<tr>
<td>Profit Margin</td>
<td>-5.54%</td>
<td>2.42%</td>
</tr>
</tbody>
</table>

We can look further at the graphs below—a longitudinal analysis of ROE and ROA for CFPA—to see that the negative trend in ratios seems to have been triggered after 2005. This was
the year that CFPA’s microfinance department underwent major changes, transforming from a project-based to an institution-based strategy in addition to opening up its first directly managed microfinance branch and receiving its first major wholesale loan from China Development Bank. Perhaps this amounted to a managerial and operational overload which negatively affected ROE, ROA and profit margin numbers.

The separate analysis of Procredit Romania and CFPA strengthen the notion that MFI valuation is highly dependent on specific factors pertinent to the MFI alone, and not necessarily regional or sector trends. Although this is true for the rest of the world in terms of valuing any kind of company, the wide variation and inconsistency between MFIs could lead to misleading
representation of financial and social ratios in the microfinance realm, leading to a necessity for more conformity and uniform standards in the industry.

**Limitations to Empirical Findings**

The case studies represent a small sample size and although representative, they do not provide a complete and exhaustive proxy for each type of investments strategy. Thus, there are a series of potential confounding variables that could impact an MFI’s relative “success” in the way that I define it here. This accounts for the notion of false positive and false negatives, where external factors not tested under this study or related to investment strategy could impact the trends we see in ratios. The sample represents six cases with a broad microfinance focus, each with a different risk and return profile. These institutions do operate in the same market and provide logical valuation comparables and although my criteria for selecting each case study was supported by input and advice from professionals in the microfinance industry, the process of selection could most likely be streamlined in future research endeavors, with more variables and criteria considered for each MFI to eliminate as many possible confounding factors as possible. Finally, this study is subject to human error and inconsistency in variable analysis. I considered applying a simple t-test to determine whether the differences between the median ratio values of the six cases and those of the benchmarks were statistically similar to justify my reasoning, however, I concluded that the crux of my analysis was on observable trends and not comparing overall medians to benchmarks. This was used to put the ratios into perspective but not meant to be the heart of the discussion.
CHAPTER SEVEN

Conclusions and Recommendations

I. Implications for Institutional Investors

As we now know, mainstream financial ratios and other factors used to analyze banks are used in the MFI world, however, due to the unique business model and client base relevant to MFIs, there are several ways that valuation of MFI success differs from the traditional sectors. The Modigliani-Miller theorem is often used to indicate the optimal capital structure of corporate firms, but since there are tangible differences between how lenders and corporations operate, there seems to be no clear theoretical notion of an optimal capital structure for microfinance institutions.\(^72\) The investment opportunity presented by MFIs will not be fully seized by the broader public until the investment community and policy makers refine their approaches. Part of this is establishing a valuation system that is accurate and consistent with traditional concepts about MFI maturation cycles. If we cannot accurately correlate financial and social success with MFI growth then there is no way that investors can accurately determine future trends and profitability. Investors do not like this kind of uncertainty when their money is on the line.

From this analysis, we saw that the financial ratios—what traditional investors care most about—do not follow traditional MFI maturity hypotheses. It turns out that social indicators match this cycle much better but problematically still, a) investors care less about social variables and b) social variables are typically nebulous and hard to measure. Although one of the most universal proxies for “social welfare” is outreach, which we analyzed in several of our

social variables, often times social ratios are very dependent on the individual MFIs and not easily generalized across groups. We saw examples of this with the percentage of women borrowers and the outlier analysis of CFPA and Procredit Romania. Invalid control variables, biased sampling, misestimation of program benefits and misestimation of opportunity costs all make it hard to quantify social benefits such as gained knowledge or human empowerment. As a result of these hazy characteristics often associated with the soft side of the double bottom line, many insiders in the microfinance world have suggested that MFIs need to become more streamlined to meet the needs of mainstream institutional investors. In fact, critics have urged much of the NGO world to adopt Wall Street policies of management and functionality.

President of the World Bank Robert Zoellick said in 2007 that “Wall Street has pioneered many of the concepts and tools; the World Bank can help apply them as a package of development solutions for problems and clients that are not priorities for Wall Street. The [World] Bank needs to be faster, better and cheaper without compromising standards.”\textsuperscript{73} Although no one will question the efficacy of such techniques for the private sector, as the results of this study indicate, the microfinance sector might not necessarily align as well with mainstream evaluation ratios. Perhaps traditional valuation metrics to rate and compare for-profit banks and corporations do not properly account for MFIs’ unique commitment to double-bottom line standards.

Before we establish a way to compare MFIs to mainstream banks, we must first create a standardized set of variables to be used internally. The most challenging part of completing this

project was not in the actual analysis but in pouring over countless rating agency metrics and evaluation techniques to find the ratios that best suited my purposes. As opposed to standardized rating agencies, each specialized MFI rating agency has an idea of its own as to what variables are most important. With this kind of uncertainty in the market, it is impossible to attain a consistent and generalized criterion to hold MFIs accountable. The first step to get to this point is increased transparency and regulation in the microfinance industry. I had to eliminate several potential cases studies from my analysis due to a) lack of existence of MFI data as a result of inefficient book keeping on the MFI side and b) lack of transparency and public availability of data. One of the few resources I came across that attempted to monitor this inefficiency in transparency was MixMarket. This database keeps records of two important variables: 1) Annual Reporting on Mix Market and 2) Audits on Mix Market, which respectively measure the availability of publically available performance results and the ability of MIX or outside sources to validate reported financial performance records.74

In mainstream markets, all publically traded companies are required to make this financial information available. While MFIs understand it is advantageous to do so, this is not always the case because their incentives to spend the time and money in developing these accounting mechanisms are not strong enough. These incentives will not be strong enough without the proper regulatory and governing bodies in place to enforce this behavior. Where is the microfinance version of the Securities and Exchange Commission (SEC), or the National Association of Securities Dealers (NASDAQ) or the Federal Trade Commission? I understand that most MFIs are not publically traded but where is any sort of overarching regulatory body? What is it that binds MFIs together? All MFIs are theoretically in line with the UN Millennium Goals

74 http://www.mixmarket.org/service-providers/mftransparency
to eliminate poverty. The World Bank has several loose guiding bodies such as a Corporate Social Responsibility Practice within the Financial and Private Sector Development branch. The IFC is moving ahead with an initiative to build standardized “best practices” for MFIs to make: (1) a list of prohibited practices, (2) standards for consumer education, and (3) standards on disclosure/transparency. These multilateral efforts, however, are at best loose guidelines to which few MFIs actually pay attention.

The extreme variety in lending model and organizational structure among MFIs makes it hard to establish overarching standards. Additionally, there are gaping differences between mainstream and specialized rating systems that prove to be problematic. The most important difference between mainstream and specialized raters is that while commercial ratings focus primarily on creditworthiness, specialized ratings place much more weight on microfinance performance. Mainstream raters focus more on credit risk and solvency and benchmarking against the banking sector. Specialized raters put more emphasis on portfolio structure and quality, in addition to operational risk and efficiency. Kylie Charlton argues that policy makers could greatly improve the attractiveness of MFIs in the eye of the typical investor by simplifying procedures that try to straddle the profit and not-for-profit realms—such as differences in rating standards and valuation ratios—by establishing regulation that blends the new hybrid field.

At this point, performance standards are self-regulated and voluntary. The degree of regulation for a licensed nonbank MFI is much lower than a traditional bank. Regulatory standards differ across the broad spectrum of MFI loan structures meaning that NGOs and

75 “IFC Advisory Services: Access to Finance” Highlights Report 2009, IFC.
76 Farrington p 3
cooperatives and micro-banking models are all held to different standards. For example, NGOs typically face no capital adequacy requirements but have a loan limit requirement per individual and a reserve requirement, although many NGO-based MFIs operate at a loss, so these requirements are not strict. Licensed cooperatives face minimum capital requirements and more stringent loan classification but supervision is at best perfunctory. Many stakeholders in microfinance believe that there is a need to enact separate regulatory law for microfinance to both encourage client’s savings and encourage investment, however generally MFIs resist due to the fear of bureaucracy and losing the relatively free reign in operations that they currently enjoy. Until some kind of regulatory body is created to standardize the industry it will be difficult to get investors to trust the accuracy of applying mainstream ratios to microfinance operations.

II. Social Implications: Bridging the Gap between Institutionists and Welfarists

As we started off with the Compartamos example, the microfinance industry is characterized by a "schism," or debate, between two camps that represent broadly different approaches to microfinance: the institutionists and the welfarists. The institutionist approach emphasizes financial self-sufficiency, institutional scale, complex capital markets transactions and profitability and the welfarist approach focuses on direct poverty alleviation. The findings in this study might be used as a preliminary resource to quiet the naysayers of microfinance and


believers in the “evil commercialization” of an industry that was intended to do good before doing well. By evaluating MFIs at various stages of maturity, social variables tended to improve as the MFI investment strategy became more complex. This suggests that perhaps the precursor to serving the poor and increasing the global impact of microfinance is to first establish well-run MFIs that are sustainable and integrated into mainstream markets with an eye for profit. This is a comforting finding in my mind, because it helps to reconcile the two opposing camps of microfinance to help foster a combination of time, money and effort to improve the financial profitability of an MFI as a way of increasing its social impact in tandem.

The only way to achieve this aim is to partner institutional investors and socially-oriented NGO groups to work toward a common goal. Some examples of successful hybrid implementation strategies include Credit Suisse’s co-founding of “responsAbility Social Investments AG,” an organization that provides loans to MFIs and manages a microfinance fund, collaborating with public and private partners including BluOrchard, ProCredit, FINCA Internationa, Symbiotics, Opportunity International and PlaNet Finance. Another example is the Global Commercial Microfinance Consortium launched by Deutsche Bank in 2005 as a unique partnership of thirteen institutional investors and three major development agencies and venture philanthropists. The Consortium offers co-lending with local commercial banks, deposit structures with local banks, loan guarantees and partially subsidized loans. Recognizing strengths is important. Institutional investors may be able to provide the capital when MFI operations expand beyond the means of donor funding and NGOs and socially based partners can add expertise in on-the-ground assistance with loan disbursement or possibly serve on the board of an MFI to offer a differing opinion. It is not about extending an MFI’s dependence on

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80 Kiszelnik p 38
subsidized capital, but rather on finding collaborative methods to engage both ends of the spectrum.

One of the eleven key principles of microfinance, as determined in 2004 by CGAP and endorsed by the G8 Sea Island Summit that same year is that “Donor subsidies should complement, not compete with private sector capital.”\textsuperscript{81} We are operating in an environment where this is a problem. MFI maturation theory suggests that NGO and public subsidized funding should be used as a starting point and that once an MFI becomes sustainable it should focus predominantly on private capital and given this mentality, it is no wonder that the public sector feels snubbed and that this public-private tension exists. As mentioned above we should not treat different stages of investment types as exclusive and restrictive. Instead, we should establish a system where donors and private money can co-exist at all stage of MFI maturity. The traditional maturation cycle can be flexible and longer-term donor subsidies can be used for more mature MFIs in addition to younger ones. Ultimately microfinance does not have to be a zero-sum game. Making the pie bigger by improving MFI performance not only makes institutionists happy because it increases their returns, but it also makes welfarists happy because the better an MFI functions, the better it can help its clients.

\textbf{III. Implications in Light of the Global Financial Crisis}

Much of the literature says that securitized products and access to the debt and capital equity markets are the way of the future in the microfinance market.\textsuperscript{82} The data gathered in this study show that for the variables analyzed, increasingly advanced methods of securitized

\textsuperscript{81} “Key Principles of Microfinance.” CGAP. January 2004.
products do not necessarily go hand in hand with MFIs operating leaner, sleeker and more efficiently. Although the numbers in the literature might show that these types of complex transactions are increasing in volume, this study did not show any noticeable increase in financial performance as a result. The data collected here is intentionally pre-crisis. Much has been theorized about how the crisis has and will impact the microfinance industry. My hope was that this research would indicate which MFI characteristics suit each of the three investment strategies and how this could help investors predict future trends in where to invest their money coming out of the crisis.

The microfinance world has certainly not come out unscathed after the past tumultuous year. According to CGAP CEO Elizabeth Littlefield, microfinance will certainly feel the effects of the current economic and financial contraction in the short term due to liquidity shortages, currency dislocations, and the global recession. MFI valuations in the next twelve months are likely to resemble the approximate 50% drop seen in traditional banks since September 2008. Christophe Kneiding and his colleagues at CGAP are currently working on an updated MFI equity valuation report for their 2009 data collection. Preliminarly, they observe a rise in portfolio at risk (from ~3-5%) which has led to a substantial drop in profitability over the past twelve months. On a more positive note however, Ajit Jain and Caroline Norton of Deutsche Bank, assert that microfinance as an asset class enjoys a strong lack of correlation with overarching trends in the global economy, theoretically shielding the industry from

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84 correspondence via e-mail, Fall 2009
macroeconomic booms and busts as a result of the informality of most micro businesses. \textsuperscript{85} A recent CGAP/JPMorgan paper indicates that we might see a step backwards in the MFI development cycle. In the next few years, MFIs will have to seek funding from public agencies and foundations to fill in for the commercial funds that have been lost. Although they expect slight consolidation in the industry and pressure on valuations, the steadfast commitment of socially responsibly investors will allow MFIs to continue pushing forward through difficult times—an advantage that most mainstream companies do not enjoy. This is a phenomenal opportunity, while the rest of the financial world is in a state of flux and transformation, for the microfinance world to reevaluate and improve its own methods primarily in the areas of a) increased regulation, b) standardization of best practices and improved transparency and c) new hybrid investing relationships between public and private investors. In order to increase institutional investment, the MFI world should look within to improve and not try to adapt their performance to the mainstream market and how non-microfinance banks are evaluated.

IV. Recommendations and Suggestions for Future Research

For future research, it would be interesting to further analyze the nature of the MFI maturation cycle to find core intrinsic differences between this and the traditional business cycle, the Modigliani-Miller theorem and other adjacent theorems. I would suggest a more careful and methodical set of criteria to be used to screen options for selection for the cases in a future study. Especially if the sample used is small as it was in this study, each individual case is that much more important in affecting the data. Also, since this analysis focuses largely on social factors that are intrinsic or unique to each MFI, selection of the “right” MFI is crucial. I might also

\textsuperscript{85} Jain p 1
suggest a longitudinal as opposed to cross-sectional study to isolate all confounding variables across MFIs to see if each particular MFI’s ratios improved as it matured along the cycle. This may have problems of its own, however, due to varying speeds of maturity and development, exemplified by Equitas for example, which is the youngest and one of the most profitable MFIs in its region already. It might also be interesting to do a cross-sectional analysis of individual MFIs versus traditional banks. Lastly, with more time and possibly a deeper familiarity with valuation models, it would be interesting to dig deeper into each of the specific variables that were studied here to go into a more complex analysis of possible correlating factors in addition to identification of overall trends.
REFERENCES


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Sy, Amadou, N. R. (2001) “Emerging Market Bond Spreads and Sovereign Credit Ratingss:


APPENDICES

APPENDIX A: Elite Interviews

<table>
<thead>
<tr>
<th>Focus Bank/Institution</th>
<th>Person Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morgan Stanley</td>
<td>Henry Gonzalez</td>
</tr>
<tr>
<td>BlueOrchard Finance USA</td>
<td>Lynn Martin</td>
</tr>
<tr>
<td>MicroRate Africa</td>
<td>Perrine Pouget</td>
</tr>
<tr>
<td>J.P. Morgan</td>
<td>Mia Feldman</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>Justina Hierta</td>
</tr>
<tr>
<td>CGAP</td>
<td>Christophe Kneiding</td>
</tr>
<tr>
<td>MixMarket</td>
<td>Peter Wall</td>
</tr>
</tbody>
</table>

APPENDIX B: Calculation of Financial and Social Variables

FINANCIAL VARIABLES:

Overall Financial Performance

\[
\text{Return on Equity} = \frac{\text{Net Operating Income} - \text{Taxes}}{\text{Period Average Equity}}
\]

\[
\text{Return on Assets} = \frac{\text{Net Operating Income} - \text{Taxes}}{\text{Period Average Assets}}
\]

\[
\text{OSS} = \frac{\text{Financial Income}}{\text{Financial Costs} + \text{Operating Costs} + \text{Loan Loss Provision}}
\]

Revenues:

\[
\text{Portfolio Yield} = \frac{\text{Adjusted Yield on Gross Portfolio (nominal)} - \text{Inflation Rate}}{(1 + \text{Inflation Rate})}
\]

\[
\text{Profit Margin} = \frac{\text{Net Operating Income}}{\text{After Tax Net Income}}
\]
Risk Management/Loan Loss Ratios

\[
\text{Portfolio - at - Risk > 30 days} = \frac{\text{Outstanding balance of all loans delinquent > 30 days}}{\text{Portfolio Outstanding (including amounts past due)}}
\]

\[
\text{Write - Off Ratio} = \frac{\text{Write - offs for the 12 - month period}}{\text{Average portfolio outstanding for the period}}
\]

SOCIAL VARIABLES:

Efficiency Variables

\[
\text{Borrowers Per Staff Member} = \frac{\text{Number of Active Borrowers}}{\text{Number of Personnel}}
\]

\[
\text{Cost Per Borrower} = \frac{\text{Operating Expense}}{\text{Period Average Number of Active Borrowers}}
\]

APPENDIX C: MixMarket MFI Peer Benchmarks Medians

i. Financial Variables

<table>
<thead>
<tr>
<th>ROE</th>
<th>ROA</th>
<th>OSS</th>
<th>Portfolio yield (real)</th>
<th>PAR (&gt;30 days)</th>
<th>Write-off ratio</th>
<th>Profit margin</th>
<th>Debt-to-equity ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1%</td>
<td>0.7%</td>
<td>115%</td>
<td>22.5%</td>
<td>2.7%</td>
<td>1.4%</td>
<td>6.9%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

86 (outreach and productivity variables self-explanatory)

87 Microbanking Bulletin 2007 Benchmarks-Profit Peer Group. Median values were used here (as opposed to mean) because we are focusing on relative values and not absolute magnitudes, and also to avoid very large or very small MFI outliers that report from distorting our benchmark values.
ii. Social Variables

<table>
<thead>
<tr>
<th>gross loan portfolio (borrowers)</th>
<th>number of active clients (borrowers)</th>
<th>average outstanding balance/GNI per capita</th>
<th>Borrowers per staff member</th>
<th>average salary/GNI per capita</th>
<th>% women borrowing</th>
<th>cost/borrower</th>
<th>average deposit balance/depositor</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,780,943</td>
<td>15,524</td>
<td>49.6%</td>
<td>93</td>
<td>4.5</td>
<td>55.8%</td>
<td>129 USD</td>
<td>296 USD</td>
</tr>
</tbody>
</table>

APPENDIX D: Summary of MFI concentration by geographical location:

Global Distribution of Tier 1 MFIs:

![Map of global distribution of Tier 1 MFIs](image)

[Source: Lehman Brothers 2008]
Global Institutional Investment in MFIs

<table>
<thead>
<tr>
<th>Region</th>
<th>Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>AIG, AXA, Barclays (Ghana and South Africa), BNP Paribas, Crédit Agricole (Madagascar and Burkina Faso), Société Générale, Standard Chartered</td>
</tr>
<tr>
<td>Arab States</td>
<td>Allianz (Egypt), AXA (Pakistan), BNP Paribas, Société Générale, Standard Chartered (Afghanistan and Pakistan)</td>
</tr>
<tr>
<td>Asia and the Pacific</td>
<td>Allianz (India and Indonesia), AIG, AXA (India), BNP Paribas, Crédit Agricole (Bangladesh), Standard Chartered</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>AXA (Kosovo), Crédit Agricole (Armenia), Société Générale</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>AIG, AXA, BNP Paribas, Commerzbank, BBVA, Santander</td>
</tr>
<tr>
<td>Global, no particular focus</td>
<td>Citigroup, Deutsche Bank, ING (India), Morgan Stanley, Rabobank, Crédit Suisse</td>
</tr>
</tbody>
</table>

[Source: ING “A Billion to Gain”2008]