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WILL THE BOTTOM OF THE PYRAMID HIT BOTTOM?

**THE EFFECTS OF THE GLOBAL CREDIT CRISIS ON THE
MICROFINANCE SECTOR**

microREPORT #150

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This publication was produced for review by the United States Agency for International Development. It was prepared by Barbara Magnoni and Jennifer Powers of EA Consultants.

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS AND ABBREVIATIONS

ASOFIN	Asociación de Entidades Financieras Especializadas en Micro Finanzas de Bolivia
ATM	Automated Teller Machine
AUM	Assets Under Management
BPS	Basis Points (1/100 percentage points)
CDO	Collateralized Debt Obligation
CGAP	Consultative Group to Assist the Poor
CIS	Commonwealth of Independent States
CLO	Collateralized Loan Obligation
DCA	Development Credit Authority
DFI	Development Finance Institutions
ELF	Emergency Liquidity Fund
FMO	Netherlands Development Finance Company
GDN	Global Development Network
GDP	Gross Domestic Product
IDAs	International Development Agencies
IDB	Interamerican Development Bank
IFC	International Finance Corporation
ILO	International Labor Organization
IMF	International Monetary Fund
IPO	International Public Offering
KfW	Kreditanstalt für Wiederaufbau
MF	Microfinance
MFIs	Microfinance Institutions
MIV	Microfinance Investment Vehicles
NBFI	Non Bank Financial Institution
NGO	Non Governmental Organizations
OECD	Organization for Economic Cooperation and Development
P2P	Person to Person Lending
SRI	Social Responsible Investors
USAID	Unites States Agency for International Development
YOY	Year - over - Year

I. EXECUTIVE SUMMARY

In recent months, the global financial system has begun to collapse. Asset bubbles in housing and consumer loans in the US and other, mostly developed, countries have popped. Loans, collateralized with overvalued properties, and issued with little regard for the borrower's capacity to pay, deteriorated; and eroded the value of investments of banks, corporations and individuals worldwide. Governments have been taking severe measures aimed at shoring up financial institutions, counter-balancing the recessionary effects of the crisis and restoring consumer confidence. In developing countries, credit tightening and declines in exports have already begun to spur unemployment, threatening recent economic advances. Microfinance has been a useful countercyclical development tool that can often offset the crushing impact of the economic downturn on already poor citizens. This paper seeks to understand and measure the effects of the crisis on the microfinance sector, and to make recommendations to ensure that the crisis does not cut off access to financial services to the poor when they need it most.

The past eight years have seen a dramatic increase in the sources of funding available to microfinance institutions (MFIs), including commercial bank loans and microfinance investment vehicles (MIVs) funded by private as well as donor funds. Since mid 2008, the credit crunch reduced the available commercial capital for MFIs. This will stunt the growth of MFI loan portfolios. Over 2009 and 2010, we estimate that the sector wide microfinance loan portfolio will grow by some \$28 billion less than anticipated before the crisis, as a result of a scarcity of private credit. Higher borrowing costs will further erode the margins of these MFIs. Those MFIs that take deposits will be better positioned to endure the crisis. Emergency liquidity funds from International Development Agencies (IDAs) will help, but will mostly be disbursed in hard currency loans, exacerbating foreign exchange risk exposure of some MFIs. It will be essential to support MFIs in strengthening their balance sheets with a better mix of equity vs. debt funding as well as in securing access to local currency funds including deposits and local bank loans.

The crisis will likely also affect the asset quality of MFIs. Due to the unprecedented integration of the world economy, few countries will be spared pain. Tightening credit, falling export revenues and declining remittances will lead to unemployment and currency weakness and could spur inflation in some countries. Countries also suffering from political instability may constrain policy makers from making difficult decisions. Our assessment is that many MFIs will see higher delinquencies as a result, in particular those that have benefitted from recent liquidity, posting very rapid growth rates yet loosening credit policies and expanding into consumer loans. The slowdown in portfolio growth will offer an opportunity for MFIs to place greater emphasis on consolidating their organizations. Over the longer term, MFIs will need to adjust to a less benign environment and face tough challenges of reducing costs, increasing efficiencies, improving customer service and diversifying funding in order to stay profitable and competitive. There will be an important role for stakeholders in the microfinance industry to support their capacity building needs, to secure the sustainability of those institutions poised for longevity, as well as to ensure that the sector comes out of the crisis more prepared to meet the demand for financial services for the poor over the long term.

II. INTRODUCTION

In recent months, the global financial system has begun to collapse. Asset bubbles in housing and consumer loans in the US and other, mostly developed, countries have popped. Loans, collateralized with overvalued properties, and issued with little regard for the borrower's capacity to pay, deteriorated; and eroded the value of investments of banks, corporations and individuals worldwide. The failure of Lehman Brothers, and the subsequent bailout of various financial institutions by the US Federal Reserve Bank, sparked fear in the minds of the public as to the future of the US economy, and exacerbated the already declining trend in consumer spending. Internationally, trends have been similar, particularly in those countries most integrated into the global financial system. As banks, corporations and individuals worldwide continue a process of deleveraging, investor demand for financial investments has dropped. Banks have all but stopped lending; investors have turned to the safety of cash as they ride out the storm. Developing countries, many which provided goods and services to OECD countries have begun to feel the effects of a decline in global demand for their products. This has spurred widespread unemployment, which looks likely to worsen over the course of 2009.

In this context, governments have been taking severe measures aimed at shoring up financial institutions, counter-balancing the recessionary effects of the crisis and restoring consumer confidence. The effects of these measures, many of which have yet to be implemented will be seen over time. In developing countries, microfinance has been a useful countercyclical development tool that can often offset the crushing impact of the economic downturn on already poor citizens. With many emerging markets countries already beginning to suffer from the global downturn, it is important to understand and measure the effects of the crisis on the microfinance sector, and to ensure that the crisis does not cut off access to financial services to the poor when they need it most.

International investors in microfinance have often suggested that investing in financial institutions that serve the poor is uncorrelated to investments in traditional corporate and sovereign assets in the same countries. By serving the informal economy, MFIs lend to businesses that are smaller, more agile and provide goods and services to a sector that is at the bottom of the pyramid. In some cases, microentrepreneurs may even benefit from economic downturns, for example if shoppers start buying groceries from local markets rather than higher cost supermarkets when economic times are tough. This financial crisis is different from prior crises in developing countries, however, as it is generated from North to South and in a much more integrated global setting. This time around, it is not certain that activities at the bottom of the pyramid will be as insulated from external shocks. Its effects have already spread to the microfinance sectors of many countries and are likely to continue to do so.

The purpose of this paper is to examine the main conduits of contagion of the crisis to the microfinance sector worldwide, and to assess the impact that the crisis will have on the sector. While the scope of this paper is extensive, it is not a definitive presentation. Instead, we lay out an overall framework for assessing the impact of the crisis on the sector. The framework can be applied to monitor the industry as the crisis develops, as well as to more in depth analyses of

regions, countries or microfinance institutions. We focus on the impact on the microfinance institution, rather than the impact on the client, to ensure that the paper informs those stakeholders that have been supporting these MFIs or that wish to support them going forward. Our assumption is that clients benefit in general from access to financial services provided by MFIs and that, without these services, any impact of the crisis on their businesses and their homes would be exacerbated. We understand that access to finance alone, however, will not be sufficient to cushion microentrepreneurs from the crisis' blow. Governments and IDAs will be challenged to respond to a wide range of needs as unemployment increases worldwide.

Our approach considers the two sides of an MFI's balance sheet to understand the impact of the crisis. We analyze the effects on both the liability side (access to finance, cost of funding, financial risk) and the asset side (portfolio growth, portfolio risk, portfolio quality) to determine to what extent MFIs may be impacted and to elaborate some recommended policy responses.

Figure 1: Framework for Analysis of the Impact of the Crisis

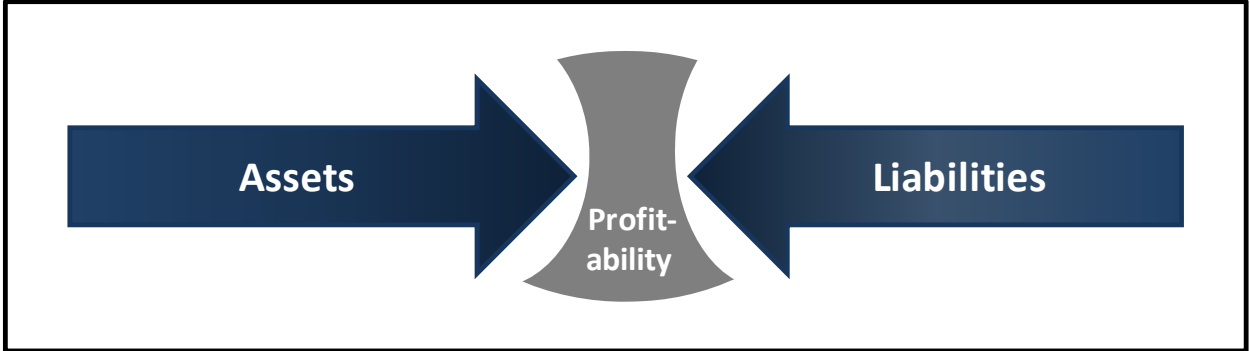


We conclude that the crisis will likely impact both sides of MFIs' balance sheets but to varying degrees depending on internal and external factors in each country as well as the individual strength of each institution. Countries that are relatively insulated from the global crisis, such as Ethiopia or Bangladesh may fare better than those in highly integrated economies such as South Africa or Bosnia & Herzegovina. Differences in domestic policy responses will influence the degree to which the crisis hits the local microfinance sector. In Mexico, for example, government programs are stepping up to ensure that liquidity is sufficient. In India, the authorities' response has led to greater provisioning and stricter risk management at banks, thus further reducing financing available for MFIs. Countries with significant policy constraints (i.e. South Africa, Nicaragua, Georgia, and Ecuador), will face important economic and political pressures that may lead to a severe deterioration in the performance of their microfinance sectors. A dramatic sector-wide crisis in one country could trigger a second round of crisis within the industry globally if it is severe enough to spark investor concern about the sector as a whole.

The immediate impact of the crisis has been on the liabilities of MFIs. We foresee this as a short and medium-term problem, as many loans to MFIs have yet to roll over and the outlook for renewals of these investments is still uncertain. Where financial sectors have been more integrated into the global financial markets, the squeeze has spread to the microfinance sector more. Ironically, these are often more "developed" countries where MFIs have been able to

access local bank loans, yet now find themselves in need of greater assistance from IDAs than some of their poorer, less integrated neighbors. Private external investment, both by individuals and institutions has declined as investors reassess their portfolios. This suggests that more MFIs will be competing for fewer funds, driving up the already rising cost of funds. These effects will ultimately squeeze MFI profitability to varying degrees, and will likely have some impact on access to finance for excluded sectors of developing country populations. On the asset side, there has been limited impact on microfinance portfolios to date, but the potential impact cannot be underestimated. While hard data is not yet available for most MFIs' portfolios for 2008, there is anecdotal evidence of a gradual deterioration in asset quality in some countries. Over the course of 2009-2010, portfolio quality may deteriorate further as clients are hard pressed to pay relatively more costly loans with dwindling incomes. We expect MFIs to grow less aggressively, and some not at all, both because of funding constraints and tighter lending standards, while higher provisioning, cost-of-funds and risk monitoring may increase the cost of making loans as well.

Figure 2: Effect of Crisis on MFIs



Despite these negative outcomes, we expect some positive side effects of the crisis as MFIs focus on improving efficiencies (through mergers and acquisitions and closer cost monitoring), diversifying their sources of funds (through deposits or creating new relationships), reducing funding costs (by collecting deposits) and monitoring credit quality (stricter risk management and controls). IDAs and investors alike can support MFIs as they tackle these difficult tasks. Existing domestic policy responses to the global crisis in many countries have focused on the banking sectors, injecting liquidity and tightening regulation. MFIs, including most of the already regulated institutions, are excluded from access to the tools that traditional banks use to access liquidity, such as open market operations, and will likely need some additional support from donor institutions (bilateral and multilaterals) to ease some of the pressure from the crisis. IDAs and investors committed to the sector can help plug the liquidity gap through temporary and adjustable facilities that can be structured to ensure that ongoing access to finance without crowding out more sustainable sources of funds. Avoiding moral hazard should be key to ensuring that the market is pricing risk appropriately. Over the longer term, MFIs will need to adjust to a less benign environment and face tough challenges to reduce costs, increase efficiencies, improve customer service and diversify funding in order to stay profitable and competitive. There will be an important role for stakeholders in the microfinance industry to support their capacity building needs, to secure the sustainability of those institutions poised for

longevity, as well as to ensure that the sector comes out of the crisis more prepared to meet the demand for financial services for the poor over the long term.

The remainder of this paper is divided in five sections. Section III describes the methodology used in this report. Sections IV and V discuss the impact of the crisis on the liabilities and asset sides of the of the microfinance sector. Sections VI discusses the overall implications of the crisis for the sector and Section VII outlines some policy recommendations for IDAs and other stakeholders to help MFIs weather the negative effects of the crisis and emerge stronger as a result.

III. METHODOLOGY

Through this study we sought to examine the potential impact of the credit crunch and financial crisis on the microfinance industry by honing in on what channels of contagion will impact MFIs' balance sheets on both the asset and liability sides. A team of two senior analysts and one junior researcher for EA Consultants conducted desk research, telephone and in person interviews, and an investor survey for the report between November 2008 and February 2009. Additionally, we attended various industry events examining the impact of the crisis on the microfinance industry in New York City and Washington DC.

We initiated the report by analyzing a Microfinance Sector Index and Sub-Indices to assess overall trends in industry growth, funding patterns and changes in the microfinance industry's capital structure composition. We used the MixMarket's annual benchmarks from 2003 to 2007 to analyze an index for the industry as a whole, as well as various sub-indices based on MFI characteristics such as maturity, size, legal structure and region. Adjustments to historic trends based on our Investor Survey and investor, practitioner and MFI interviews were used to project out future portfolio growth and to quantify the potential reduction in industry growth as a result of the crisis.

Our approach was broad, yet we were especially concerned with the effect of the crisis on those economies where microfinance institutions are active. We considered a sample of 42 countries (herein MF countries) that have the largest concentration of microfinance institutions (through NGOs, regulated and non-regulated NBFIs, cooperatives and banks)¹ and assess the potential impact of the crisis on the economies of these countries.

To understand the impact on the liability side of MFI balance sheets, our approach included:

1. An Investor Survey to assess the impact of the crisis on some of the main investors in the MFI sector. Through the survey we sought to understand the impact of the crisis on investors' ability to raise and place capital in 2008; on interest rates; fundraising and investment levels in 2009; and changes in investment strategy and investment criteria. Additionally, the survey asked for objective assessments by investors of the main effects of the crisis on the industry and on the type of technical assistance or support donors and other industry stakeholders could provide to mitigate some of these effects. 18 private investment fund managers

¹ MF Countries are defined as countries with large microfinance activities. Calculated for the purposes of this analysis by taking a country's total portfolio outstanding of microfinance institutions reporting to the Mix Market (<http://www.mixmarket.org/>) and adding those countries with a large presence of banks that lend to the poor.

and 4 development finance institutions (DFI) were asked to participate in the survey on an anonymous basis; 11 private investment fund managers, representing approximately 30% of the assets under management (AUM) in MIVs and 1 DFI completed the survey. The survey was conducted from December 1, 2008 to January 9, 2009.

2. We performed interviews with investors and industry specialists to deepen the initial findings of the survey. We conducted in-depth interviews with 17 microfinance investment fund managers (representing 55% of the AUM in MIVs), 5 DFIs and IDAs, 4 international networks, 2 microfinance rating agencies and 1 other industry practitioner.
3. We conducted interviews with senior management executives from 19 MFIs in Egypt, the Philippines, Cambodia, India, Peru, Ecuador, Mexico, Nicaragua, Bosnia & Herzegovina, Senegal, Mozambique and Nigeria, in order to evaluate the impact the crisis is already having on microfinance institutions². These institutions represented NGOs, regulated institutions and microfinance banks.

To understand the potential impact on the assets of MFIs, our approach was three fold:

1. We performed a desk review of macroeconomic data and reports to understand which economic factors will most affect MF country economics and are considered to be the main channels of economic contagion on their economies and their potential impact on MFI portfolios.
2. Our interviews with 19 MFIs (noted above) sought to understand the impact of the crisis on MFI portfolio quality, pressure on client repayment and growth projections.
3. We performed desk research on the Mix Market and on local supervisory and Central Bank web sites to understand growth trends in MFI portfolios as well as to assess portfolio quality.

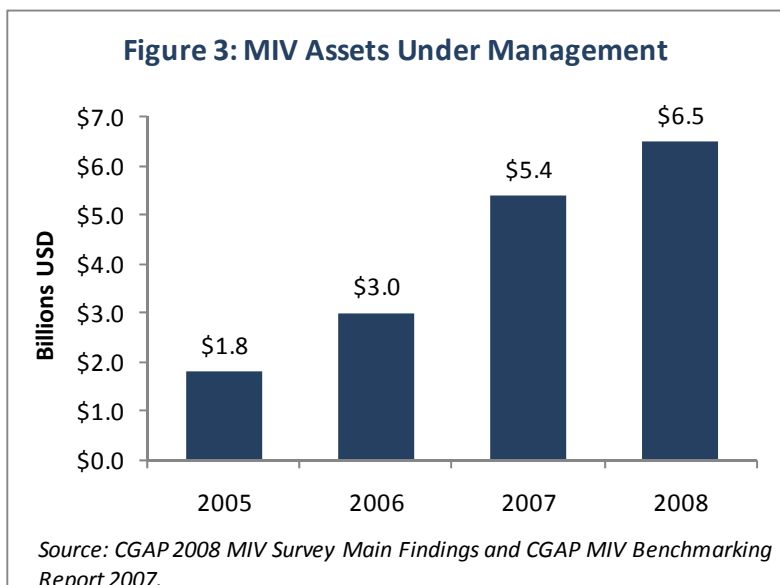
² Form our initial sample of 55 Microfinance Institutions, 19 agreed to be contacted for this report.

IV. LIABILITY SIDE: COPING WITH THE DOWNSIDE EFFECTS OF FINANCIAL OF INTEGRATION

OVERVIEW OF HISTORIC FUNDING TRENDS IN MICROFINANCE

The past eight years has seen a dramatic increase in the sources of funding available to MFIs, mirroring the significant increase in liquidity and investment vehicles available throughout the global financial sector leading up to the crisis. Many MFIs, which began as non-governmental organizations funded by donors, governments and private social investors, have been able to tap into these new sources of capital, including commercial and private sources of capital, facilitated through a growing number of specialized Microfinance Investment Vehicles (MIVs), which have allowed them to expand and grow beyond what would otherwise have been possible through their traditional sources of funding.

Globally the microfinance sector has grown from \$4 billion in gross loans at the end of 2001³, to an estimated \$36 billion dollars in loans at the end of 2007⁴. Although IDAs, DFIs and in some cases, local government agencies still comprise the majority of the funding available to MFIs, new commercial and private sector capital represents a growing share. As of December 2007, there were over 91 MIVs with assets under management (AUM) of \$5.4 billion as of December 2007, up from only \$1.8 billion in 2005,⁵ and we estimate that AUM in MIVs increased to a least \$6.5



³ Dieckmann, R. *Microfinance: An emerging investment opportunity*, Deutsche Bank Research, December 2007.

⁴ Based on our *Microfinance Sector Index derived from MixMarket 2003 to 2007 Benchmarks*.

⁵ CGAP 2008 MIV Survey Main Findings.

billion as of December 2008, despite the crisis (Figure 3).⁶ This growth can be largely attributed to increased interest in microfinance by institutional investors. The first investors in MIVs were largely DFIs, foundations and individual investors; however in the past 3 to 4 years MIVs built performance track records and created innovative vehicle structures that have meet the ratings and return requirements of socially responsible and commercially oriented institutional investors. DFIs now only comprise 18.8% of MIV funds, down from 36% in 2005, while institutional investors have increased their participation in MIVs from 14% to 41%.⁷

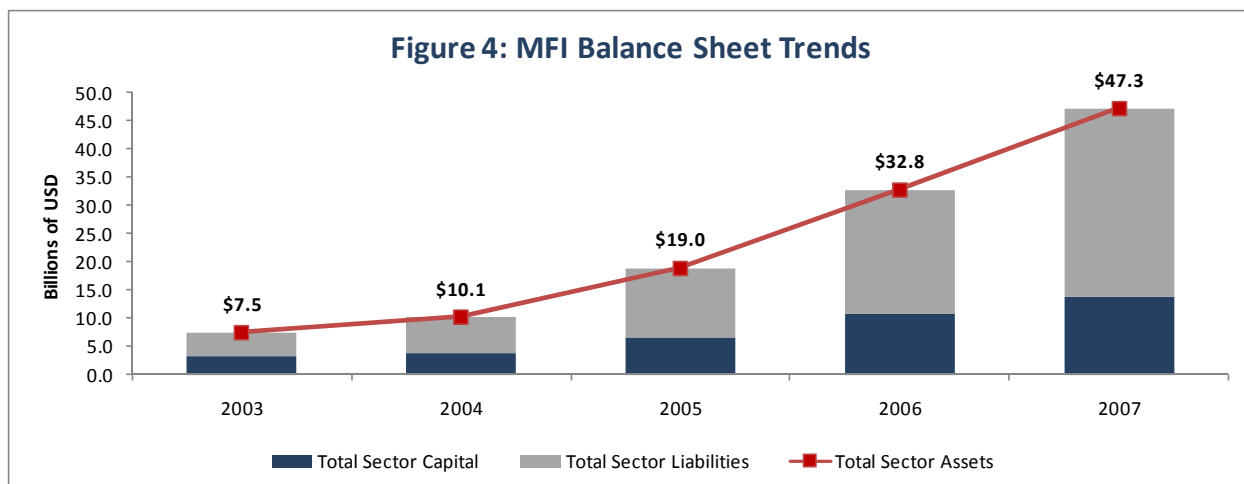
Many MFIs have also enjoyed greater access to local sources of capital (primarily from commercial banks) in the past three years. Full or partial guarantees of loans to MFIs, provided by international donors and investors, have helped MFIs establish relationships and gain credibility with local banks. Through the efforts of large international banks such as BBVA, their local affiliates have started lending to the sector. A few select MFIs have even accessed the public capital markets through commercial paper, bond issuances, securitizations and IPOs. This availability of new sources of capital has resulted in new capital structures and liability composition for many MFIs.

Over the past five years, MFIs have been funding their impressive portfolio growth primarily through debt, as opposed to through equity or retained earnings, driving a sharp relative increase in their liabilities. Leverage ratios for the large MFIs have increased from a median of 2.0x in 2003 to 5.1x in 2007, and reaching levels of 10 to 15 times in some markets (for example in India).⁸ Figure 4 below shows this sharp increase in liabilities to finance portfolio growth since 2003.

⁶ Estimated based on responses from EA Investor Survey, research of top microfinance investment managers including BlueOrchard, Oikocredit, responsAbility, Triple Jump, Triodos, Developing World Markets, Triodos, and MicroVest, and funds listed on the Luxembourg exchange.

⁷ CGAP 2008 MIV Survey Main Findings and CGAP MIV Benchmarking Report 2007.

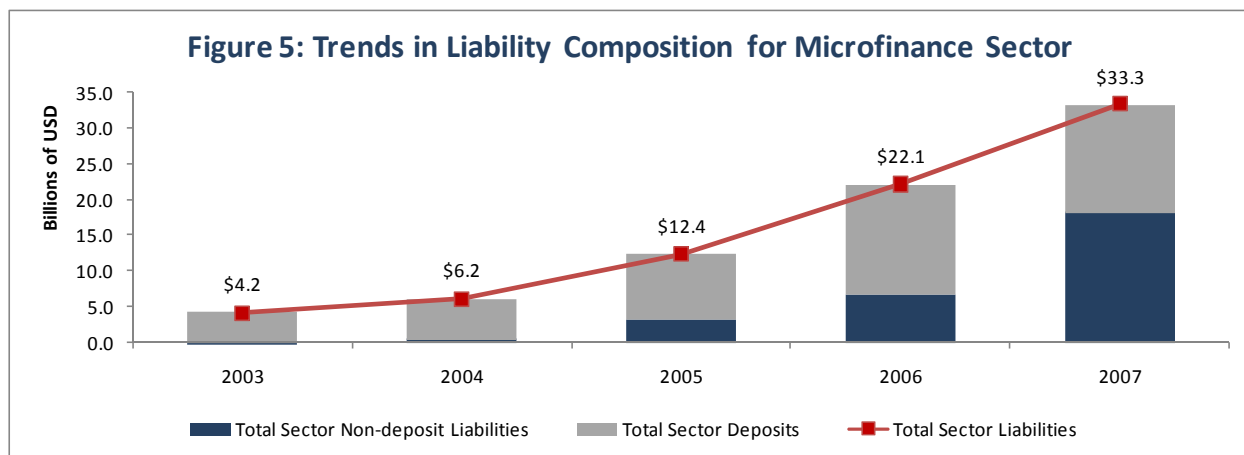
⁸ *Based on our Microfinance Sector Sub-Index derived from MixMarket 2003 to 2007 Benchmarks..*



Source: Based on our Microfinance Sector Index derived from MixMarket 2003 to 2007 Benchmarks.

The growing availability of debt funding that drove the sharp increase in liabilities during the period also significantly reduced the importance of deposits as a proportion of total liabilities. Figure 5 illustrates that in 2004, the breakdown of MFI liabilities was approximately 92% deposits and 8% debt, by 2007 the breakdown was only 45% deposits and 55% debt funding, despite an increase in the number of institutions authorized to mobilize savings since 2004. These changes in capital structures have left some MFIs very vulnerable to reversals in capital flows from developed countries and to possible changes in investor preferences towards microfinance. Already many MFIs have reported local banks and external creditors alike renegeing on committed credit facilities or increase rates overnight by 2 to 4%.

In general the trend towards more diversified, commercial sources of funding has been considered a positive development for MFIs and the industry as a whole. However, the recent credit and financial crisis set off warning bells to stakeholders in the microfinance industry, reminding us that with greater integration in the financial markets, comes greater risk and greater vulnerability to shocks. MFIs in countries that are more integrated into the global financial sectors are most vulnerable because of additional channels of contagion through their local banking sectors. MFIs in countries with weak microfinance sectors or high macroeconomic risks will likely find that even as liquidity is restored, commercial investors will approach their investments with greater scrutiny. Those sectors with a high level of reliance on external sources of funds face greater challenges than deposit taking institutions. Below we examine which microfinance countries may be most vulnerable to financial contagion and more likely to exhibit country-wide liquidity problems as well as the potential impact of the crisis on the liability side of microfinance balance sheets.



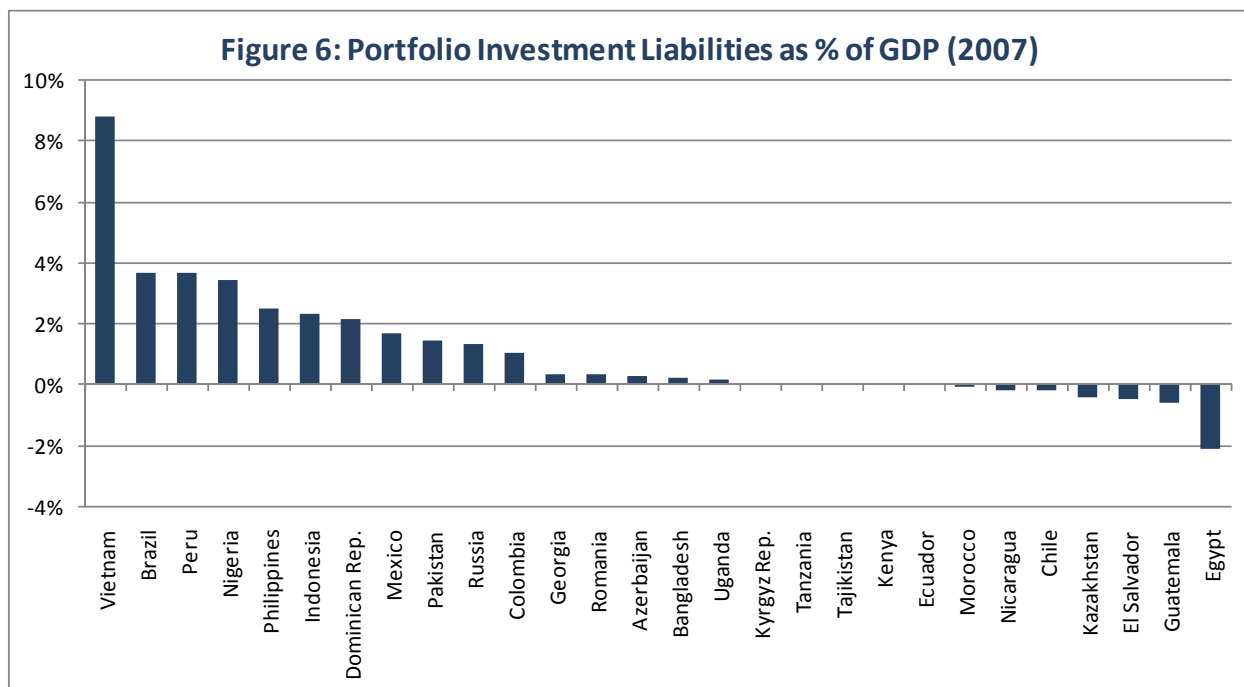
Source: Based on our Microfinance Sector Index derived from MixMarket 2003 to 2007 Benchmarks. .

CONTAGION IN DEVELOPING COUNTRIES FROM FINANCIAL CRISIS

“... the financial meltdown has translated into a sudden stop in capital flows to emerging and developing countries, which threatens to destabilise their growth, their financial systems and their government accounts... the US has become the only remaining super-borrower, able to issue thousands of billions of dollars in debt at record low rates while the dollar strengthens...At the same time, fairly well behaved countries such as Brazil, Colombia, Mexico, Peru, South Africa and Turkey have essentially lost access to external finance.”

Ricardo Hausmann, Financial Times, December, 12, 2008

With credit markets dried up, and demand for cash at a global high, those countries that have been most integrated into the international financial system have already felt the impact of the crisis, either through direct exposure to troublesome asset classes, reduced accessibility to international capital or pressure on local deposits. Those countries with integrated financial markets and that have financed large current account deficits through short and medium term capital inflows are especially vulnerable during the crisis. For microfinance institutions in these countries, the impact can be felt through a virtual freeze in local bank lending, and, where MFIs have been able to access the local capital markets (primarily through commercial paper and some bond issuances), a suspension of any planned transactions. We selected two illustrative and simple indicators to draw out those MF countries that are highly integrated in the global financial sector and that have seen an immediate withdrawal of short-term capital as investors flee to cash. The first indicator (Figure 6) is the level of portfolio liabilities as a percentage of GDP, an indicator of financial integration and the amount of “hot” investment capital at risk of being pulled out of a country. This has an immediate impact on banks and local investors, forcing a process of deleveraging and cutting off funds from microfinance institutions, among other borrowers. Many countries, including Vietnam, Peru, Brazil, Nigeria, the Philippines, Indonesia, and the Dominican Republic show impressive levels of foreign portfolio investments in their countries as a percentage of their GDP and the banking sectors in many of these countries have already been negatively impacted by contagion from the US and Europe.

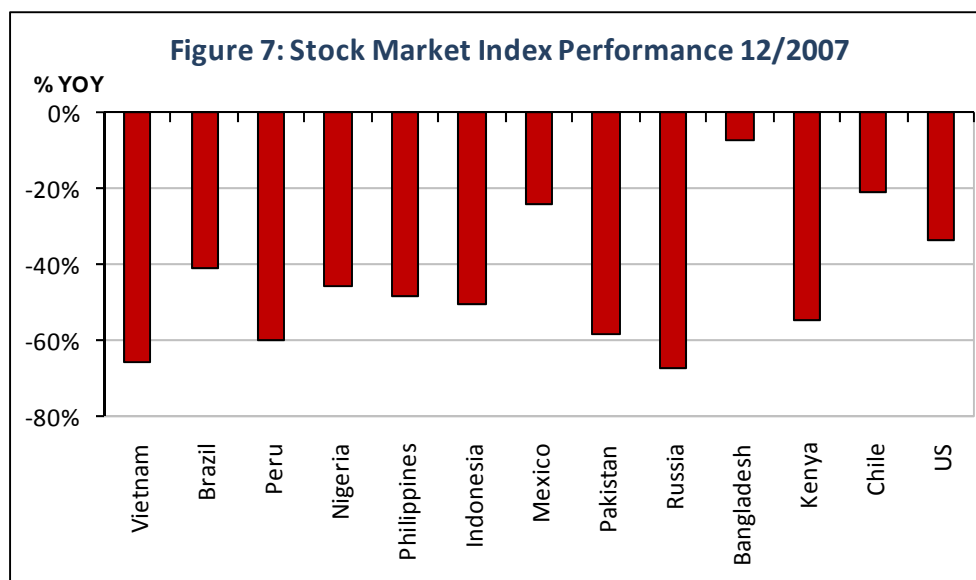


Source: *The World Bank*

We also examined the change in the equity index of select MF countries to verify that those countries with larger current account deficits and high levels of portfolio investment showed a greater degree of financial contagion.⁹ The countries that show the greatest level of financial contagion mirror those listed above with the addition of Pakistan and Kenya. As expected, the recent stock market performance of some of these more open countries shows the vulnerability to financial contagion of those MF countries. Figure 7 illustrates the performance of equity markets in a range of MF countries including Vietnam, Brazil, Peru, Nigeria and the Philippines that have relatively open financial markets. Equity markets fell between 40% and 65% in these countries, (vs. 37% in the United States and only 22% in Chile, a country with low levels of portfolio investment). Many of these countries as well as Russia, and to a lesser extent Indonesia and Pakistan, have local banks, pension funds, corporate and individual investors that are active in their equity markets. These local investors likely had a large impact on equity market performance as many were diversified globally, and suffered from large losses in assets from OECD economies, sparking a need to de-leverage and exit their own markets. Equity markets, as well as local debt and currency markets have been hit hard and fast by the effects of the crisis and the effect of deleveraging and flight to quality will likely have a ripple effect in the real economies of these countries as well as on the availability of bank and debt financing locally for MFIs. During our interviews with MFIs and networks in various countries, including

⁹ Smaller countries or those with small or illiquid indices were excluded from Figure 9.

Peru, Nigeria, Indonesia, the Philippines and Russia, MFIs reported difficulties in accessing funds from local banks and local capital markets.



Source: Bloomberg Information Services.

IMPACT OF THE FINANCIAL CRISIS ON FUNDING FOR THE MICROFINANCE SECTOR

Our assessment of the outlook for the liability side of MFI balance sheets is that it will be strained. Local debt funding has become scarce and while external private funds have not completely exited the market, they are more volatile, fickle and unpredictable. Institutions funded by deposits seem sturdier, but nonetheless, DFIs and IDAs, which were starting to wean funding from at least to some of the top tier MFIs, are reentering the market in force.

To assess the impact the global crisis will have on MFIs' liabilities, we consider the dependence of the microfinance sectors in various countries on local versus external debt funding as well as how different types of investors have reacted differently to the crisis. As discussed above, the main sources of local funding for MFIs are deposits, local bank credit facilities, local development banks or government supported wholesale lenders and, while limited, local capital markets. The universe of external investors providing capital for microfinance (either directly to MFIs or through MIVs) has expanded dramatically in recent years. We have classified these external investors as follows:

Individual Investors:

Traditionally the only individuals able to invest in microfinance have been high net worth individuals investing largely for social reasons, although increasingly retail investors have accessed this asset class via listed mutual funds such as the Triodos Fair Share Fund and

reponsAbility’s Global Microfinance Fund, via registered securities issuers such as Calvert Foundation’s Community Investment Notes, and via online websites such as Kiva, MicroPlace and MyC4.

Socially Responsible Institutional Investors:

These investors are generally evaluating the double or triple bottom line on their investments (financial, social and environmental return). Traditionally they have been willing to sacrifice a degree of financial return to accomplish social goals. This category has typically included foundation or university endowments, socially oriented pension funds often affiliated with religious institutions or state organizations and actively managed SRI funds.

Commercial Institutional Investors:

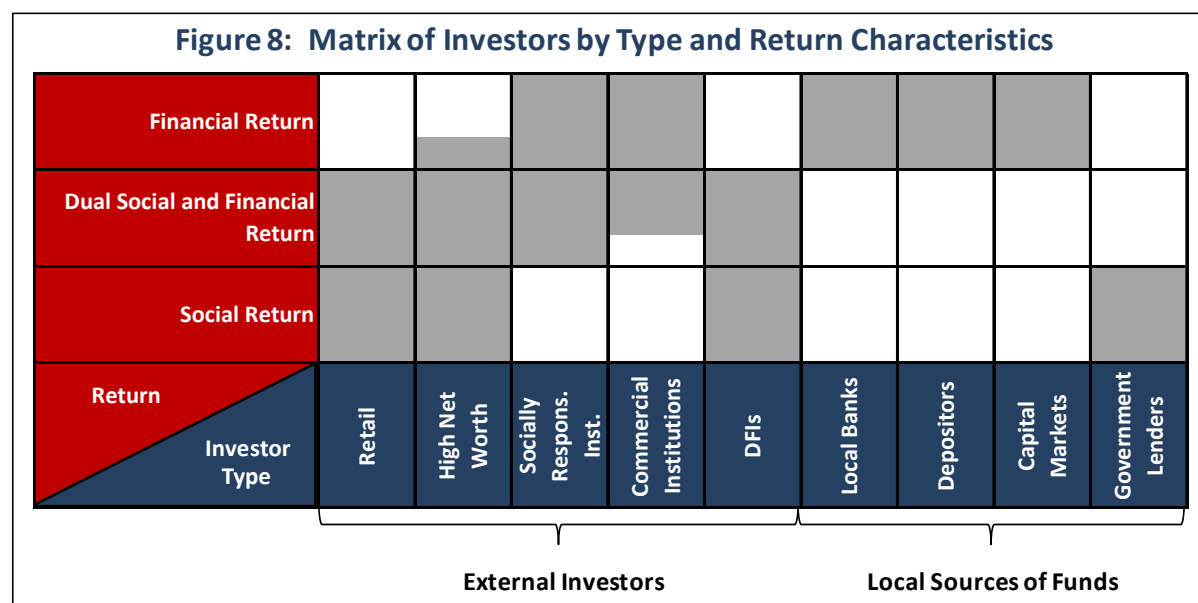
Despite great talk about the commercialization of funding for microfinance, there have been few examples to date of commercial investors that see microfinance as a purely commercial play, except perhaps investors in the private equity space. Nonetheless, there are an increasing number of MIVs and structured vehicles that are geared, at least in part, towards commercial investors. Most commercial investors, even large institutional investors, continue to have dual investment objectives when they invest in microfinance, even if they cannot, perhaps for fiduciary reasons, compromise their financial return objectives for social return. This category might include financial institutions, asset managers, private sector oriented pension funds, and investors in the top tranches of microfinance CDO/CLOs.

Development Finance Institutions:

This includes multilateral and bilateral organizations such as IFC, IDB, KfW, and FMO.

Donors:

This includes International Development Agencies such as USAID, which have supported the industry since its inception as well as NGOs (often network parents) and foundations.



One of the main drivers of the increase in external funding available to the microfinance sector has been the increase in private sector investors, including individuals, SRI institutions and commercial institutional investors. Private capital invested in MIVs increased from less than \$1 billion in 2005 to approximately \$3.8 billion in 2007¹⁰. The risk now is that investors, their portfolios hard hit by falling equity markets and investments in structured products that have lost their value, will be forced to sell or discontinue investing in even healthy assets. This would squeeze liquidity of MFIs, which may be unable to fund their portfolio growth or even maintain their existing portfolios. To assess this risk, our research involved a survey of and interviews with 17 microfinance investment managers (representing approximately 55% of MIVs assets as of December 2008), as well as a number of in depth interviews with the directors of investment at several DFIs.

I. PRIVATE EXTERNAL CAPITAL'S FLIGHT TO CASH DESPITE MF SECTOR'S STRONG PERFORMANCE RECORD

The credit crunch, which began with the US sub-prime crisis in mid 2007 and escalated in the second half of 2008 has reduced the expected external funding available to the industry in the medium-term. Throughout their relatively short lives, MFIs have shown to be good credit risk. Nevertheless, commercial capital is retreating due to technical and not fundamental factors as cash is drying up and risk aversion is increasing.

Institutional Investors Navigate Rough Waters

Between 2005 and 2007, institutional capital invested in MIVs increased dramatically from approximately US\$250 million to US\$2.2 billion out of the estimated total US\$5.4 billion under MIV management¹¹. However, 2008 presented tough challenges for institutional investors and there is no denying that these challenges have impacted their ability and interest in microfinance investments. In 2008, investment managers planning to raise capital for microfinance through structured vehicles such as CDOs were forced to abandon or indefinitely delay their plans as the mainstream (non-microfinance) CDO/CLO markets have all but closed. Conversations with fund managers revealed that there has also been a significant reduction in the availability of private capital for the sector, and their investment portfolios for 2009 were expected to grow only 10-15% in 2009 compared with 40% in 2008 and 80% in 2007.¹² In addition, many new investment funds that were expected to come to

"Before the credit crisis, triple A tranches [of CDOs] were trading at 150 basis points above LIBOR and now they are in the range of 500 basis points above LIBOR." - Asad Mahmood, Deutsche Bank Social Investment Funds

¹⁰ CGAP 2008 MIV Survey Main Findings and CGAP MIV Benchmarking Report 2007.

¹¹ CGAP 2008 MIV Survey Main Findings

¹² Based on the Investor Survey of 11 microfinance investment managers representing approximately 32% of total MIV assets as of December 2007.

market in 2008 were either delayed in light of current market conditions or unable to raise as much capital as expected.

The initial fear that purely commercial investors would discontinue investing in the MF sector as they race towards high quality safe assets (cash, government treasuries, etc) is in large part justified. The relatively small size and complexity of the MF industry compared with other markets where institutional investors invest make it difficult for a commercial investment manager without a personal affinity for the social implications of microfinance to spend too much time learning about and assessing microfinance products. While these investors may still be interested in the sector, the time they have available in a crisis to invest in these products is constrained, and generally their ability to buy anything but cash is limited. Their exit is not dire, however, as their participation in the market was still in an incipient stage.

Despite the retreat from the sector of many commercial investors, some MIVs have managed to raise capital since the crisis began in October 2008, largely from institutional investors that had been educated about microfinance prior to the crisis and had made previous investments. They continue to be attracted to the social and financial returns offered by microfinance, and for some, the argument has been that microfinance is generally uncorrelated with the rest of the market. MicroVest closed a US\$50 million equity fund in the last quarter of 2008 from institutional investors based in the United States looking to diversify their portfolios and Developing World Markets raised Euro117.8 million for its SNS Institutional Microfinance Fund II in November 2008 from institutional investors in the Netherlands. Discussions with fund managers actively raising capital over the last 6 months revealed a divide between US and European investors. US commercial and socially responsible investors, including foundations and university endowments, were more constrained, while some European investors (especially in the Netherlands and Scandinavian countries) are more able and willing to invest, if more cautiously than before.

*“What has happened over the course of the last 6-8 months is that, as the crisis has worsened, investors that do not have a pre-existing commitment to the microfinance or social space are not capable of devoting the time and the attention to an investment in that space. So what we have been left with is investors that have already made this commitment **and** that haven’t seen their situations **so** negatively impaired by the recent crisis...There are probably between 5-10 large private institutions that are still open for business and interested in making investments.”* Paul DiLeo, Grassroots Capital

Pension funds have not pulled out of the market to the degree other institutional investors have, in large part because of their longer investment horizon and requirements to be near-fully invested (rather than holding cash). Jim Kaddaras at Developing World Markets, highlights that the success of their SNS II Fund was driven by pension fund interest; “it provided an opportunity for pension funds with long term liabilities to match those liabilities with long-term assets.” Maria Teresa Zappia of BlueOrchard Finance SA corroborates the staying power of pension funds as the crisis unfolded because of their longer investment horizons. She notes, however that by February 2009 “not only pension funds are still actively investing in microfinance, but also some asset management companies have started seeking investment opportunities in microfinance given the stable and sound returns of some of the most established microfinance funds.”

Individual Investors Stay the Course

MIV fund managers report mixed results in terms of the staying power of individual (including retail) investors in the MF market. Our survey and interviews suggest that on aggregate, net inflows from these investors in the MF sector have not varied significantly. Some high-net worth individuals, whose assets have disintegrated, have *not* redeemed their investments, in part because many MIVs in which high net worth individuals invest do not permit investors to cash-out during the life of the fund. However, even among the more liquid listed funds, redemptions have been relatively minimal, suggesting that there is some staying power among individual investors. New money from individual investors is entering the sector, albeit at a slower rate. For example, while responsAbility saw a slowdown in inflows after the second quarter, they were still positive. Cecile Koller, Head of Research for responsAbility Social Investments, considers that this is “in spite of and because of” the crisis. The Fund targets long-term socially oriented investors, but has also become attractive to mainstream investors because of its consistent and positive returns.

Given the relative strength of funding from retail investors versus institutional and high-net worth investors during the current crisis, retail channels may provide an alternative source of capital for smaller MFIs during the next year to two years. Online platforms such as Kiva.org, Microplace.com and MyC4.com have been gaining traction over the last two years and helping to mobilize very small investments from a large quantity of individuals. Kiva, the first of the three to launch, has raised over \$60 million since November 2005, and as of December had not yet seen a dip in its funding pattern. Nevertheless, funding from these vehicles is very short term, and lacks the ability to replace 3-10 year funding offered by MIVs. Moreover, in the near term with current market conditions, these platforms will be unable to reach the scale needed to compensate for the slowdown in funding from other private investors.¹³

Cautious Outlook for Private External Capital

We consider that the slowdown in private external funding will not be only a short term phenomenon. There is certain to be less new institutional capital entering the sector than expected in the next medium term and individual investors are unlikely to fill this gap. While in the near term, we do not believe this represents a large component of MFI funding, additional and greater liquidity issues could arise for MFIs as larger closed-end MIVs start to mature in 2009 and 2010 and MFIs seek to refinance their loans. Approximately 20% of loans in our investor survey participants’ portfolios are maturing in 2009. Most are expected to be renewed upon maturity, but approximately 15% of loans are not. While this equates to only approximately 3% of the total debt portfolio of survey participants, several MIVs themselves will be maturing soon. The expectation for many MIV managers was that investors would roll-over their investments into new MIVs upon maturity. Their roll-over will partly depend on the speed and agility of the restoration of liquidity to the global financial system, as many investors, still

¹³ Powers, J., Magnoni, B., Knapp, S., *P2P Lending, is Financial Democracy just a click away?* Accelerated Microenterprise Advancement Project - USAID, September 2008.

strapped for cash, may withdraw their funds from the sector all together, worsening the liquidity gap and making it difficult for MFIs to refinance their loans.

While MFIs will feel the pinch in terms of access to funding, not all MIVs will suffer. A shift in investor preference within the MIV industry appears to be taking place toward MIVs and fund managers with more established track records. IFC and KfW have selected three of the most established fund managers to manage the Microfinance Liquidity Enhancement Facility (BlueOrchard Finance, responsAbility and Cyrano Management). Additionally, there has been greater resilience in MIVs with more diversified investor bases. The Triodos Fair Share Fund reports that inflows have continued to be strong throughout the crisis, and Q4 growth was in-line with management expectations prior to the crisis; growth for the year was 61%. Frank Steppel of Triodos Investment Management attributed their relative success to its solid track record and the strong performance of Triodos Bank itself, especially compared to other big banks. Meanwhile newer funds geared towards individuals and institutions, which did not already have a strong presence and established distribution channels, have not fared as well.

2. TURBULENCE ON LOCAL SHORES REDUCES MFIS ACCESS TO LOCAL CAPITAL

The need for external sources of private capital was initially driven primarily by lack of access to traditional domestic sources of capital for MFIs: local banks were unwilling to lend to the sector; MFIs were unregulated and not permitted to mobilize deposits; and local capital markets were largely non-existent. Nevertheless, while external investors are still an important source of funding for MFIs, in many key microfinance markets in middle market countries, MFIs have increasingly been able to crack the constraints to local bank and even capital markets funding.

The advantages of local bank lending are many. Loans are typically in local currency and represent banking relationships that can grow deeper over time. Alliances with commercial banks in some cases promise the possibility of offering MFI clients financial services that MFIs often cannot, including savings or ATMs. However, as the financial crisis has spread from the US and Western Europe, the banks of many of these more integrated markets were squeezed and this has affected MFIs ability to continue to access bank loans. The impact of the crisis on local bank lending poses a significant and immediate challenge for many MFIs, especially given the short-term nature of such funds. “A sharp slowdown [in lending] could be more difficult to avoid in those cases in which the domestic banking system relies on cross-border financing. Domestic banks in central and Eastern Europe, for example, have built up large negative net foreign positions vis-à-vis international lenders, where credit growth is financed by cross-border lending of foreign parent banks to local subsidiaries. As parent banks feel funding pressures, domestic banks begin to re-trench.”¹⁴

¹⁴ Challenges to the Global Economy, Remarks by John Lipsky, First Deputy Managing Director International Monetary Fund At the National Association of Business Economics, October 7, 2008

Those countries with more integrated financial markets and where MFIs rely on local banks for financing are most at risk, such as Bosnia & Herzegovina, Peru, Indonesia and India. In Bosnia, for example, local banks have started to re-trench as their parent banks (large European banks) have suffered big losses in the international financial markets. Loan approval times have also become much longer as credit approval has shifted from the local branch to headquarters. The 4 MFIs in Bosnia that we interviewed reported that banks had reduced existing credit facilities, increased the cost of these facilities by as much as 400 bps, and were warning MFIs they will not be able to rollover their loans.¹⁵ Ironically it is some of the largest and strongest MFIs that are actually having the most difficulty in raising sufficient local capital. These are the institutions most eligible to borrow from local commercial sources, yet are vulnerable given their large financing needs and because they have exceeded the now reduced exposure limits of local banks. Even in countries where banks are not yet experiencing liquidity issues, banks are tightening credit in anticipation of future liquidity problems and/or an economic contraction.

The impact of the crisis on local capital markets has been even more crushing. While only a small “elite” number of MFIs have access to these sources of funds, they promise to offer local currency funding, diversification and lower costs. MFIs that were planning to raise funds in local capital markets have been forced to postpone issuances of commercial paper and bonds and delayed IPOs; thus stalling and even reversing the progress made

Indian Banks Consolidate Funding with Top MFIs

Indian MFIs might be expected to fare better than other countries from a liquidity perspective given they are relatively isolated from foreign financial markets (the Reserve Bank of India’s restricts foreign borrowing by MFIs). However, lack of liquidity at home is starting to affect them. Indian banks have tightened credit conditions in response to their own liquidity constraints and risk aversion, cutting loan availability for MFIs, and increasing interest rates by 2-3%. The government’s “priority sector” lending requirements have prevented banks from completely pulling out of the sector, but banks have concentrated their lending on the top 10 to 20 MFIs, which tend to be relatively well capitalized. This has resulted in big challenges for smaller Indian MFIs, some of the fastest growing MFIs in the world. One investor interviewed for this report related the experience of an Indian MFI with a 50,000 person waiting list that has simply not been able to grow due to lack of liquidity.

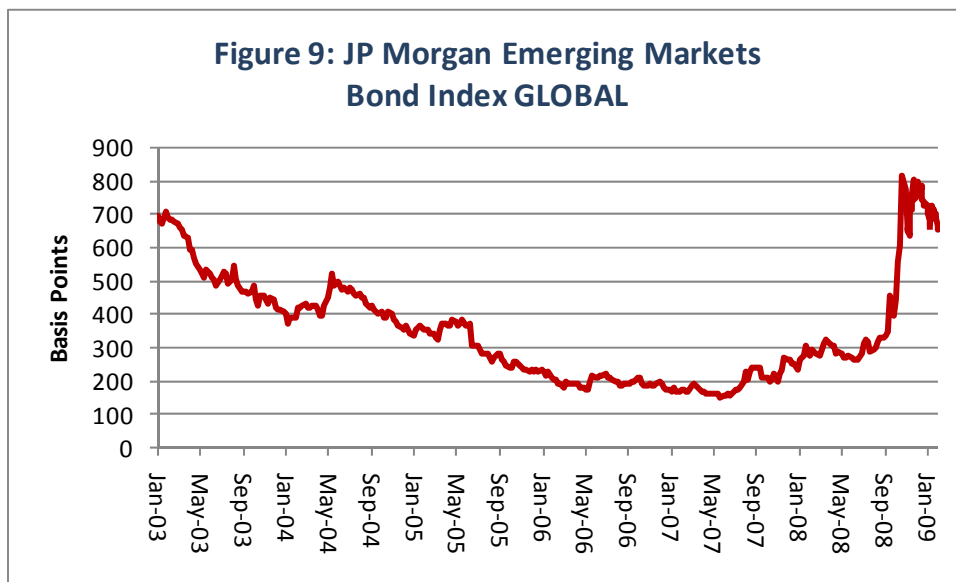
There may be a positive side to the credit crunch in India. Many Indian MFIs operate with financially unsound leverage ratios of 15 to 20x and are in need of more equity to recapitalize their institutions. India has been a top market for MF equity investors over the last two years. However, a plethora of funds (albeit most relatively small) and high growth projections have kept valuations unrealistically high. As local banks are more selective in their lending, MFIs may be forced to reexamine their perhaps unsustainable growth rates, lower their valuation expectations and focus on improving the long-term financial soundness of their institutions.

¹⁵ Most local banks in Bosnia provide only short-term loan facilities, up to 12 months, which are generally renewed each year.

towards reliable sources of local capital.

3. COST OF FUNDS BEGIN TO ALIGN WITH OTHER MARKETS

There has been an enormous repricing of emerging markets risk worldwide that is effecting the short term, but will also very likely affect the long term, structure of the liability side of MFI balance sheets. In May 2007, spreads on emerging markets debt instruments fell to historic lows. The reach for yield in recent years had been massive and profound, and today, the opposite “flight to quality” has been dramatic. In practice, there has been a “flight to cash”, where institutions, banks and consumers hold cash and credit has all but dried up. Developing country assets have not been immune, as is illustrated by the widening of emerging markets bond spreads in the last quarter of 2008 (See Figure 9).



Source: JP Morgan Emerging Markets Bond Index data. Courtesy of JP Morgan.

The relative scarcity of funds, combined with a re-pricing of asset risk worldwide, and the relatively low proportion of deposit financing in many institutions, will increase the cost of funds to MFIs, which will, in turn, erode their profitability. Institutions with large savings bases will be more insulated from this pressure; for example, in Bolivia, a small and strong number of regulated MFIs fund 82% of their portfolios with deposits and “are not panicking” according to Fernando Prado, the Director of the local MFI Network, ASOFIN. However, for the majority of MFIs, who cannot count on a large savings base, this repricing of risk has already had an impact on their funding costs. This impact has not been consistent across the board, given the socially responsible nature of some MF sector funding.

Many traditional MF investors seem reluctant to raise rates to levels commiserate with other asset classes (EMBI spreads were up as much as 500 bps since August, and Credit Suisse First Boston High Yield Index “junk bonds” was up 700 bps since August). According to Gil Crawford of MicroVest, “Rates should go up more. For example, junk bonds in the US are yielding considerably more than loans of MFIs just coming out of a conflict yield.” Interest rates for MFIs on loans in USD and Euros increased between 50 to 250 bps in 2008 according to our survey, and most investors expect them to rise another 100bps in 2009. Local currency loan pricing has been far more volatile as developing market currencies have plummeted, and a lack of appetite for risk amongst financial institutions has made the cost of hedging hard currency loans prohibitive in many countries.

In Colombia the currency depreciated by 15% from September to December 2008 and 27% since the beginning of June, and spreads on local currency loans for top MFIs rose from 200 bps to 500 bps. In Mexico, even rates on government wholesale funding have gone up between 200 to 600 bps and interest rates offered by MFIs on deposits have also increased, by as much as 400 bps.

From Investor and practitioner interviews.

As the crisis has spread, MFIs are increasingly accepting higher interest rates, wanting to shore up what liquidity they can for 2009, regardless of the price. This will put pressure on their financial margins and ultimately hurt their profitability and sustainability. Nonetheless, the margins on microfinance in most countries continue to be wide enough to support some increase in financing costs and will hopefully force MFIs to look for cost-savings elsewhere.

A greater risk is that, as the liquidity crunch worsens and local currency loans become scarcer, MFIs may be tempted to take on hard currency loans from emergency liquidity funds and bear the currency risk themselves in order to fund their operations. It also remains to be seen where rates will end up once liquidity returns to financial markets. The short term liquidity facilities sponsored by DFIs in response to the crisis seek to charge above market, “prohibitive” interest rates to MFIs to avoid their use as a long-term source of funds that would crowd out commercial capital. It will be important for these facilities to closely monitor market rates once microfinance as an asset class reprices. Interest rates will not likely come down to pre-crisis levels and we expect a greater variation in interest rates based on perceived country risk and institutional type once the market settles.

4. RESOURCE SCARCITY AND MICROFINANCE PORTFOLIO GROWTH

Based on our research, the investor survey and interviews with MFIs and practitioners, we estimate that as a result of the crisis, total loan portfolio growth for the microfinance sector is likely to be 50% or less than it would have been otherwise by the end of 2010. This implies growth from an estimated \$50 billion at the end of 2008 to only \$70 billion in MF loans compared to nearly \$95 billion had there not been a crisis (See Figure 10). This assumes that the microfinance industry would have grown its portfolio of MF loans by approximately 38% in

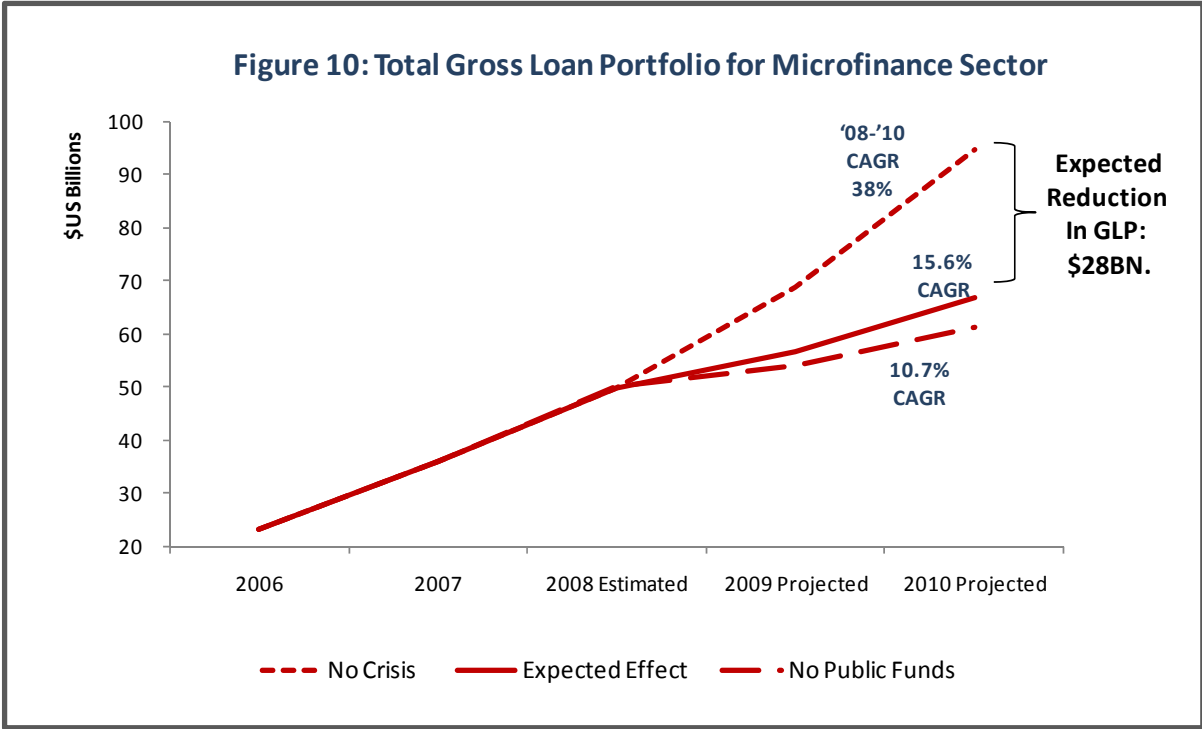
2009 and 2010. In order to achieve such growth without dramatically changing its capital structure, the MF industry would have needed to grow its non-deposit liabilities by 40% per year in 2009 and 2010 (in-line with reported growth by MIV fund managers for 2008¹⁶) and its deposit base by 35% per year (in-line with the 35% CAGR from 2003-2007), both of which would have been significant challenges given the absolute increase and existing capacity in the MF sector. Our “Expected Effect” scenario assumes that funds from MIVs grow only 13% and 15% respectively for 2009 and 2010¹⁷; that funds from local commercial banks decrease by 20% in 2009 and rebound slightly in 2010; and that deposits grow 20% annually. It further assumes that other types of non-deposit liabilities (DFIs, IDAs, government/public sector funds) grow by approximately 20% a year, or \$5 billion over the two years.¹⁸ This results in a 15.6% CAGR in MF loan portfolio between 2008 and 2010.

Figure 10 graphs these two scenarios below. It also shows a more pessimistic, “No Public Funds” scenario that considers no increase in DFIs, IDAs, and government/public sector funds in 2009 and 2010, potentially because of significant pressures elsewhere. Under this scenario, the sector-wide microfinance portfolio would only grow 10.7% (all other assumptions are the same as the Expected Effect scenario.) Although it is highly improbable that such funding will be flat, the scenario helps to show how much DFIs, IDAs and governments may need to invest in the sector over the coming years to achieve a desired level of growth.

¹⁶ Weighted average of expected AUM for 2008 of 11 Investor Survey participants, based on responses from late November 2008 to January 2009.

¹⁷ Based on a weighted average of MIV fund managers expectations for 2009 from the Investor Survey.

¹⁸ Breakdown of non-deposit liabilities for the industry assumed to be 30% from MIVs, 30% from local banks and 40% from DFIs, donors, governments and public funds.



Source: Historic data derived from MixMarket Benchmarks 2003-2007.

DFIs Crowd Back In

Although at the start of the crisis there was a fear DFIs and IDAs would reduce their funding to the sector, using perhaps smaller budgets on more immediate human needs such as health or clean water, thus far, this fear has not been realized. IDAs and DFIs have stepped in to support the industry and plug the short term liquidity needs of MFIs that have been turning to commercial sources of funding.

Our survey of 11 investment managers suggests that there will be more than a 70% decline in expected liquidity from private investors¹⁹, but also that a good portion of this liquidity will be supplemented through the efforts of DFIs and IDAs. These institutions have stepped forward to provide additional liquidity to the market, such as the joint effort by the IFC and KfW to support a US\$500 million Microfinance Liquidity Enhancement facility, and the IDB’s support of the Emergency Liquidity Fund’s (ELF) crisis support facility for Latin America. The DFIs have strived to design these facilities in a way so as not to crowd out private investment in the future and to avoid moral hazard. These facilities will be open to all MFIs according to the selection criteria of the third party fund managers chosen and provide short-term, high-interest loans to

¹⁹ Survey respondents reported a 38% growth rate in AUM in 2008 compared to a 10% average growth rate in AUM expected for 2010, based on a weighted average by portfolio size, prior to new influx of DFI capital announced for 2009.

MFIs that “have no access to liquidity at any cost”²⁰. Other funds from donor agencies earmarked for microfinance will likely be directed at the agencies’ existing portfolio of clients, just as most private sector fund managers are directing their limited liquidity to their existing portfolios.

Skin in the Game

Equity investment in microfinance has gotten more attention in recent years by DFIs and private funds alike. As of December 2008, there were 24 specialized microfinance equity funds with total assets under management of \$1.5 billion.²¹ However, excess liquidity in recent years kept debt funding costs comparatively low and valuations inflated. Several new equity funds which have tapped into private commercial capital sources have come to the market in 2007 and 2008 sponsored by leading investment managers such as BlueOrchard Investments, Grassroots Capital, Elevar Equity (manager of Unitus Equity Fund I and II) and MicroVest. These funds, which were able to raise capital before the crisis hit, continue to have investment capital for the sector. Encouragingly, in February 2009, TIAA-CREF invested US\$40 million in Developing World Markets’ new Microfinance Equity Fund, the third big investment it has made in the sector. However, traditional private equity shops, which were interested in the sector and closed several large transactions in 2007 and the first half of 2008, have pulled back from microfinance given the markets. With less debt funding available, higher cost-of-funds and regulators potentially tightening regulatory standards, MFIs may find themselves competing for equity financing to fill their funding gaps and to strengthen their capital structures.

“There is going to be much less equity than people had expected in the microfinance equity space. Mainstream PE shops are pulling back. . We knew of 10 to 12 firms that were extremely eager to make \$50-100 million+ large scale direct equity investments, that are now gone. That’s more equity capital than all the MIV’s together..” Chris Brookfield, Elevar Equity

Micro-Savings: Can the Poor Fill the Gap?

We noted above that the proportion of financing from deposits for MFIs in the MixMarket Benchmarks Index has declined substantially over the period between 2004 and 2007. This contributes to the vulnerability of the microfinance industry to external shocks and to the current global financial crisis. Deposit taking MFIs may be less affected by the current crisis than non-deposit taking debt-dependent institutions as “savings can provide a stability buffer against shocks on the refinancing side.”²² Deposit taking MFIs have not seen widespread withdrawals

²⁰ From interview with Mark Berryman, Global Financial Markets Microfinance Group, IFC.

²¹ O’Donohoe, Nicholas P., Frederic Rozeira de Mariz, Elizabeth Littlefield, Xavier Reille, and Christoph Kneiding. *Shedding Light on Microfinance Equity Valuations: Past and Present*. Occasional Paper 14. Washington, D.C.: CGAP and J.P. Morgan, February 2009.

²² From interview with Matthias Adler, Principal Financial Sector Economist, Kwf. This does not necessarily reflect the official views of Kwf.

to date, and some have even see a growth in deposits over the last three months, perhaps because of a mistrust in traditional banks during times of crisis and a “flight-to-quality”. There have been some exceptions. For example, a micro and SME bank in Montenegro was caught up in a broader run on bank deposits and eventually sold to another institution. Another MFI interviewed in Latin America reported an 85% drop in deposit growth from September to November and was redoubling efforts to attract deposits to prevent a future absolute drop in deposits. As evidenced in developing and developed countries alike, government supervision can be instrumental in protecting banks and MFIs from deposit problems during times of crisis. Savers must have confidence in their institutions and in their financial sectors. Already since the crisis has begun central banks have stepped up to increase the maximum federally insurable deposit amounts in countries susceptible to deposit runs, for example in Bosnia. Appropriate regulation and the availability of deposit insurance are important steps toward sustaining a depositor base and reducing systemic risks.

How MFI savings levels perform going forward may depend in part on the type of deposits they are collecting. MFIs lending and mobilizing deposits from a broad base of micro and small entrepreneurs are likely to see less effect than those MFIs taking deposits from a small number of larger (and more “middle class”) savers. The degree to which the real economy effects trickle down to microentrepreneurs will also be a big determinant in whether MFIs are able to maintain or even grow their deposit bases during the next 12 to 18 months. Those MFIs beginning the process of regulation to take deposits will not likely see an impact for some time. Taking savings requires costly investment in infrastructure and knowhow which can take about two years from start to finish. Deposit taking institutions have a much greater responsibility than other MFIs in terms of protecting the assets of the poor and must take on the challenge with extreme responsibility and prudence. This includes implementing rigorous treasury risk management policies and procedures, especially liquidity management. The risk of widespread deposit runs appears low, despite problems in isolated sectors and countries with limited microfinance, such as the Ukraine; however, it should remain on the radar of the MF sector.

The Test of Maturity of the MF Sector

Given the potential funding gap over two years, resulting from the expected slowdown in private sector capital flowing to the sector, both from domestic and external sources, MFIs will be forced to seek alternative sources of liquidity elsewhere or to reduce their portfolio growth significantly. We expect to see many MFIs voluntarily reduce their growth as they retrench ahead of tougher times; nevertheless, even if the industry strives only for 20% growth over the next two years, it will require \$10 billion in alternative funding.²³ Deposits, which have been much overlooked in recent years, are one potential source of new funding. However, for not yet regulated, non-deposit taking institutions this is a long-term strategy which will do little to fill their liquidity gap in the next 2-3 years. In the short term, DFIs, IDA’s, and local governments will be

²³ Difference between the No Public Funds scenario in Figure 10 which results in 10.7% portfolio growth and a 20% portfolio growth rate scenario.

called upon to fill this gap. While these funds should ease the pain of slowing private sector investment, they are unlikely to fully fill the gap between expected funding for 2009 and 2010 pre-crisis and today's reality. Those MFIs that already have the support of DFIs will be better positioned than other MFIs and should be able to access continuous funding to support some level of growth. Overall, MFIs will need to cut their growth to adjust to the scarcity of resources, but as we describe in section V below, pressure on the asset side of the balance sheets has also begun to concern MFIs and will also encourage slower, more prudent growth. Slower growth, whether driven by external funding pressures or internal asset quality pressures should drive institutions to consolidate somewhat and focus on improving their risk management systems and their efficiencies in the coming years. MFIs will face a true test of maturity in this environment. They will need to examine their capital structure and funding with greater emphasis on diversification and long-term efficiency rather than short term cost savings. Margins will be strained in the process, increasing the need to find an appropriate capital structure.

V. ASSET SIDE: REAL ECONOMY EFFECTS OF THE CRISIS ON THE MICROFINANCE SECTOR

CONTAGION IN A FLATTENING WORLD

Developing countries worldwide have lived through various domestic and international crises in recent history. However, this current crisis has characteristics that differ from past crises in terms of its depth and global impact. The direct effects of the deleveraging of governments, financial institutions, corporations and individuals around the world are the starkest and most relevant channels through which the crisis is affecting developing countries, and specifically, microfinance institutions at this time. These have already impacted the liability side of MFIs' balance sheets and will pose significant challenges to the sector to refinance and perhaps restructure the composition of its liabilities. The effect of the crisis on the asset side of MFIs' balance sheets is less predictable, but could be equally if not more detrimental for the sector in the medium to long term.

Over the coming months, and well into 2010, the channels of contagion that affect the real economies of developing countries will have an important impact on the asset side of MFI balance sheets, primarily through their negative effect on portfolio quality. Many emerging market economies, in particular the more mature economies in Asia, Latin America and Eastern Europe, have improved their terms of trade, increased their internal savings rates, and strengthened fiscal and monetary policies in response to past crises and are in a better position to weather the storm today than they have ever been. Nevertheless, the winds blowing from the North are strong and pose a new threat to many resource-constrained policy makers that threaten their economic advances. Less developed countries where microfinance has flourished have suffered as banks pull back on lending, exports slow and migrants begin to trickle home. Their governments face important challenges that may require reversing existing policies, such as tight monetary and fiscal policies that have kept many economies in check. Worldwide economic growth is expected to slow to 0.5% in 2009 from 3.4% in 2008 and 5.2% in 2007.²⁴ The microfinance sector will be tested to prove that MFIs are sheltered from a slowdown in the real economies of the countries in which they operate. Countries with weak governments or strained political environments may further exacerbate the effects of the crisis, as they are unable to take appropriate measures to counteract these effects.

Evidence from past crises has suggested that there is a low correlation between the performance of microfinance institutions' portfolios and the performance of a country's economy. In some cases, for example that of Bolivia in the early 2000s, economic and financial

²⁴ IMF, *World Economic Outlook Update, Global Economic Slump Challenges Policies*, January 28, 2009

crises were hard on banks, but MFIs emerged rather unscathed²⁵. The difference between the risks facing MF countries today and in past crises, such as the Latin American debt crisis in the mid-1980s, the Asian and Russian crises in the late 1990s, and Bolivia's financial crisis in the same period, is that today's risks, perhaps with the exception of political risk, are largely dependent upon the performance and recovery of the US and developed market economies. The depth of contagion today has a deeper outreach than in past crises, affecting financial markets, liquidity, trade flows, growth, employment, inflation, and remittance flows²⁶. As the economist Thomas Friedman points out, the world is "flatter" today than in the pre-2000 period. Trade levels are unprecedented and financial capital is transferred across borders with a greater ease than in the past. Many MF countries rely on the developed countries, and a functioning global financial system, to finance their corporations, finance their commodity and agricultural production, invest in their infrastructure, purchase their goods and services, and provide jobs for their migrants. Jobs created in the United States and Europe are outsourced to developing countries (for example, call centers in India), while others require migrants to cross their borders (to work on construction or agriculture). In the current crisis, many of these functions have virtually stopped, and it is unclear when they will restart.

Despite historical precedents suggesting that microfinance institutions perform better under stress than banks, if the crisis leads to prolonged declines in economic growth and deterioration of macroeconomic stability in any given country, there is a strong likelihood that clients' ability to pay will be affected this time around.²⁷ Additionally, microfinance sectors in many countries are deeper and more extensive than during previous crises; they have grown substantially, are more integrated into formal financial activity, and reach more families. To examine the potential impact that these symptoms of the crisis will have on MF clients' ability to pay, we examine the following interrelated factors that can deteriorate the real economies in emerging market countries and reduce clients' ability to pay back their loans:

- Credit tightening
- Commodity price volatility
- Migrant flows and remittances
- Current account pressures
- Political risks

The crisis has and will impact each MF country's economy differently. Thus, an analysis of the effect of the crisis on MF countries must take into consideration that impact, and corresponding

²⁵ Gonzalez, Adrian. *Resilience of Microfinance Institutions to National Macroeconomic Events: An Econometric Analysis of MFI Asset Quality*. MIX Discussion Paper No. 1. July 2007.

²⁶ Friedman, Thomas. *The World Is Flat; A Brief History of the Twenty-first Century*. Farrar, Straus & Giroux. April 2005.

²⁷ Gonzalez, Adrian. *Resilience of Microfinance Institutions to National Macroeconomic Events: An Econometric Analysis of MFI Asset Quality*. MIX Discussion Paper No. 1. July 2007.

policy responses, will vary by country. This paper provides an initial framework for this analysis, which can be explored in greater depth in regional or country-specific studies in the future.

MAIN MACROECONOMIC RISKS

Globalization and integration of financial markets has reached an unprecedented level, leading to similarly unprecedented worldwide contagion from what, in the past, could have been a domestic crisis in the United States. Few developing economies will come out of the crisis unscathed. Economies that have improved their terms of trade and were running either current account surpluses or small deficits in 2007 underwent sharp reversals in 2008 as exports plummeted due to falling global demand. Middle income countries that have been weaning from international development assistance found themselves vulnerable as the process of global deleveraging has squeezed their banks and corporate sectors more intensively. Below we consider a variety of macroeconomic and political effects of the crisis on MF countries and their potential effects on microfinance institutions' loan portfolios to determine the risk on the asset side of their balance sheets.

I. TIGHTENING CREDIT

After a period of credit expansion between 2003 and 2006, sovereign, corporate and individual investors who were once "reaching for yield" in many MF countries have retreated. The United States and other developed markets, which plan to raise significant sums in the bond markets over 2009 and 2010, will potentially crowd private sector borrowers from developing countries out of the markets for some time. Efforts in the US to introduce a swift and sizeable stimulus package by the incoming Obama administration offer hope for relief, but bank lending and capital markets in the US will likely remain fickle for some time. As we discuss in Section IV above, the immediate impact for MFIs has been on their liabilities. Over the medium term, however, we expect the tightening of domestic credit conditions in MF countries to impact their real economies as well. Job loss will be one important consequence as businesses are unable to obtain bank loans to fund their working capital needs or to invest in their businesses. Job losses in the US reached a 43 year record posting 2.6 million losses in 2008.²⁸ MF countries will likely see similar trends spurred by tightening credit conditions that will reduce both the supply of goods and services and their demand. The International Labour Organization (ILO) has estimated that the ranks of the unemployed could increase between 18 to 51 million worldwide between 2007 and 2009, depending on the policy response and length of the crisis.²⁹ The ranks of the working poor and underemployed are also likely to rise. According to the ILO, the Asia-Pacific region, which has made important gains in formal employment in recent years,

²⁸ Employment Situation Summary. United States Department of Labor, Bureau of Labor Statistics. January 2009

²⁹ Global Employment Trends January 2009. International Labour Organization (ILO).

may represent about 50% of this increase.³⁰ According to the Federation of Indian Export Organizations, Indian exporters expect to cut about 10 million jobs by March 2009, and 2009 will prove to be “the worst year in history”³¹.

Unemployment will likely drive more low income workers into the informal sector, increasing the supply of goods and services produced by this sector without necessarily increasing the demand for these goods and services. While the resilience and flexibility of microentrepreneurs is nothing short of heroic, the profitability of their businesses will likely be impacted. For example, in Nicaragua, where MFI asset quality declined substantially over 2008, the Micro, Small and Medium Enterprise Council (Conimipyme) announced that sales for microentrepreneurs fell 15% year-on-year in December 2008. Women’s businesses may suffer more, as new evidence suggests that women’s businesses may have lower returns than male-owned businesses, and thus may be more squeezed than men’s businesses if revenues fall or if credit becomes scarcer.³² MFI portfolios will be more vulnerable as loan payments may become too large for borrowers facing lower returns on their businesses.

A downturn in growth and employment may also distract some stakeholders from the sector and into higher priority “crisis” activities. Governments and donor organizations will be challenged to provide safety nets for a broad range of the poor’s needs. While microfinance has traditionally served as one such safety net, smoothing out cash flows for the poor and providing small businesses with opportunities to increase their revenues, it is not sufficient to meet the needs of the poor. Workers in the informal sector need health and pension services in addition to transportation, safe water and other municipal services that they are often excluded from due to the informal nature of their businesses and households. Previously they have often turned to the private sector for the provision of these services, financing this with remittance proceeds and small business revenues, but these sources of finance will likely be strained. The poor may turn to MFIs to help finance these services, but such lending poses a threat to portfolio quality for MFIs. Donors and governments will be challenged to prioritize their resources effectively to support these communities.

2. COMMODITY PRICE VOLATILITY

Over the course of 2007 and 2008, rising food prices began to have an increasingly important effect on microfinance institutions and their clients, cutting into borrowers’ available income to

³⁰ Ibid.

³¹ Jagota, Mukesh. Dow Jones Newswires. January 6, 2009.

³² De Mel, Suresh; McKenzie, David and Woodruff, Christopher. *Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns*. World Bank Policy Research Working Paper No. 4746. October 2008.

pay off loans. Poorer countries³³, where food contributes to a larger percentage of MFI clients' household spending, were most affected, with MFIs reporting repayment problems as well as potentially damaging effects on households as clients began to consume less food. The decline in commodity prices in the second half of 2008 should offer some reprieve, but only when and if prices come down in local markets. The overall effect of the fall in commodity prices will be negative, however, in that it will hurt export revenues of many MF countries.

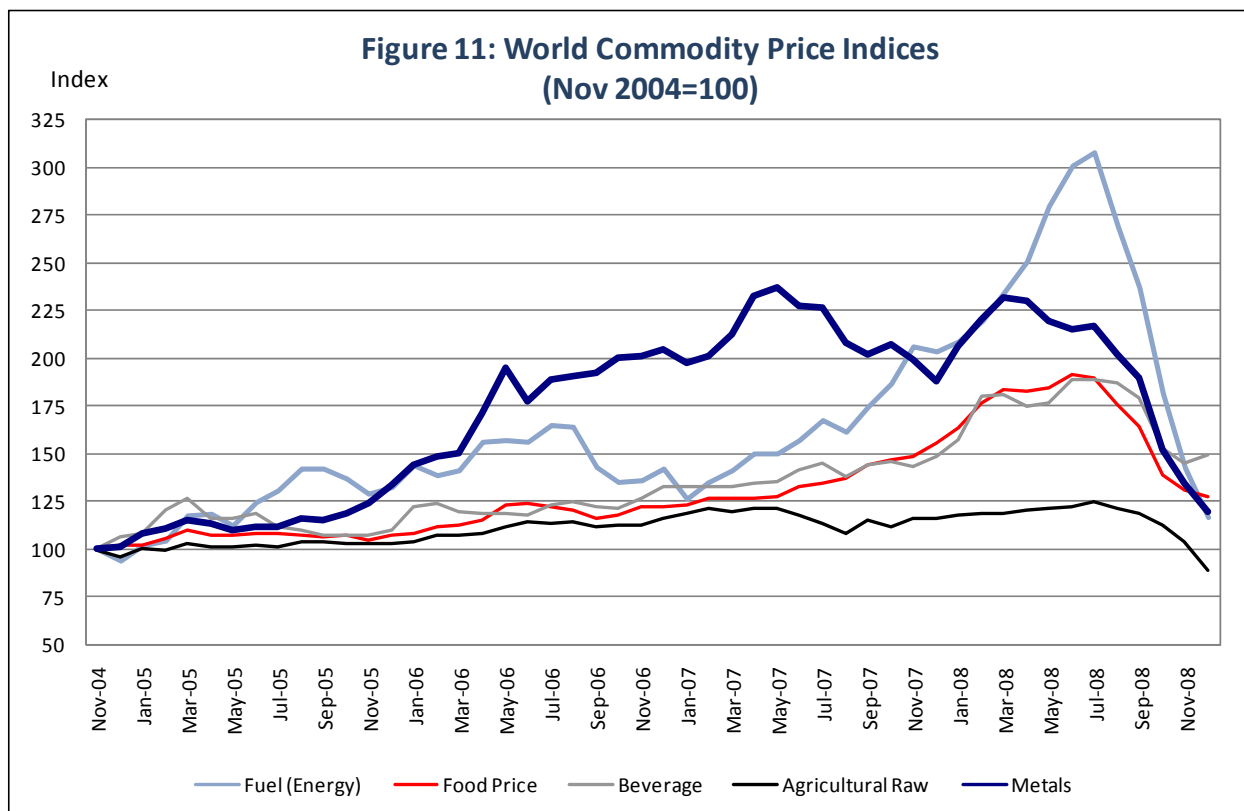
In 2008, studies suggested that some MFIs in countries such as Haiti, Nicaragua and Bangladesh were experiencing higher delinquencies as a direct result of food price increases.³⁴ Some MFIs responded by diversifying their portfolios to increase exposure to agricultural businesses and reduce exposure to urban businesses that are more vulnerable to rising costs of food and fuel, for example in Bosnia and some Central America countries. With the turnaround in commodity prices, MFI portfolios may need to be re-calibrated somewhat, as food growers feel the effect of a downturn in prices.

Since mid-2008, declining demand (and expected demand) from developed as well as large developing countries such as China and India, has driven commodity prices, including food prices, down 55% over a 6-month period to December 2008 from their peak in mid 2008 (Figure 11). Many commodity exporting MF countries will be affected, resulting in greater unemployment and fiscal pressures. In Latin America, policy makers will be challenged to deal with declining revenues from mineral exports (Chile, Peru) and agricultural exports (Argentina, Brazil, Colombia, Ecuador, Mexico) and fuel (Bolivia, Brazil, Ecuador, Mexico and Venezuela). In Africa, where countries' financial sectors have been relatively sheltered from the crisis because of their small size and limited integration in the global financial markets, commodity price declines will slow growth because of dependence on agricultural exports. Countries including Ethiopia, Malawi, Kenya, and the Ivory Coast have already seen a decline in export revenues. The limited diversification of these economies suggests that growth prospects will be closely tied to commodity exports in the coming years.

"We are seriously threatened and the effects are already being felt in some of our countries where export receipts are down, such as for cocoa, coffee, wood and peanuts". - Mr. Henri Philippe Dakoury Tabley, Governor of the Central Bank of West African States

³³ According to the World Bank, these included Malawi, Tanzania, Zambia, Niger, Ethiopia, Egypt, Morocco, Kenya, Madagascar, Senegal, Morocco, Haiti, Peru, Cambodia, Nepal, Vietnam, Bangladesh, Pakistan, Indonesia and the Philippines.

³⁴ Rahman, Ray . MF Analytics. A Study Analyzing The Effects of Food and Fuel Inflation on Microfinance Institutions and Borrowers. USAID Microreport. January, 2009.



Source: www.indexmundi.com (With data from the CIA World Factbook)

While declining food prices could reduce inflation in MF countries, there is often a lag before world market prices reach local markets. They don't reach the local markets at all if economic policy is not favorable. While many MF countries' policy makers tightened monetary policy to keep inflation in check in 2006 and 2007, at the end of 2008, many central bankers reversed this trend, loosening monetary policy to counteract recessionary effects of the crisis. This has limited the usefulness of monetary policy as a tool to control inflation. In Bangladesh, for example, consumer inflation reached 11.2% year-on-year in November 2008, which was a 17-year high, despite declines in world food prices. For the poorest borrowers, where food and basic goods represent most of their consumption, the burden of interest payment will be harder to bear and will likely lead to greater delinquencies.³⁵ A study by the Consultative Group to Assist the Poor (CGAP) in August 2008 highlights that 25 of 45 surveyed institutions have reported portfolio at risk increasing as a result of high food prices.³⁶ For borrowers with greater disposable incomes, the erosion of the value of their debt payments may provide more relief,

³⁵ Helalay, Tanir. Coping with Price Spikes: The Impact of Food & Fuel Inflation on MFIs. MF Analytics. February 11, 2009

³⁶ Siu, Peter. The Impact of Food & Fuel Inflation on MFIs. The Consultative Group to Assist the Poor (CGAP). The World Bank. August, 2008.

but will in turn, reduce MFI profitability on loans somewhat, especially for longer term loans that lock-in interest rates for some time.

3. MIGRANT FLOWS AND REMITTANCES

Many developing countries have seen an explosive increase in migrant flows in recent years, driven primarily by a growing demand in the OECD and parts of the Middle East for low wage labor. With economic growth falling, and reducing labor demand in sectors where migrants are typically employed such as construction and agriculture, migrant flows have slowed and in some countries appear to have begun to reverse. The primary impact of this trend is on remittances. For example, in the Philippines, the Central Bank estimates that growth in remittances will slow to as low as six percent in 2009, down from an estimated of 13.5% in 2008- the lowest rate of growth since the 1970s. In Ecuador, where the economy is dollarized and thus relies on inflows of capital, workers' remittances dropped 22% YOY in the fourth quarter of 2008, according to the central bank. Table 1 below highlights the dependence of the 42 main MF countries on remittances, and presents estimated growth in remittance flows for 2008.

Declining remittance flows will strain currencies where economies rely on these foreign currency inflows and cut into disposable income among low and middle class families who rely on money transfers from family abroad to make ends meet. However, MFI clients with businesses are not likely to be the main recipients of remittances³⁷, so a fall in remittances in most countries should not directly impact the majority of MFI clients. The ground level impact on disposable income will likely be the more significant channel of contagion for MFIs of a fall in remittances. It will impact the economies in which micro entrepreneurs operate, potentially reducing demand for their products. This could further impact microentrepreneurs' margins and strain MFI borrowers. Another potential effect of lower remittance flows is that it may lead to broader demand for loans amongst the poor as large portion of remittances is spent on consumption, mainly food. However MFIs seeking to capture this new demand must be careful as there are potential adverse effects on credit quality in these non-productive loans.

³⁷ A survey in Nicaragua financed by the Global Development Network (GDN), in conjunction with USAID, suggests that only 8% of urban microentrepreneurs receive remittances from abroad vs. 17% of the overall population. In fact, they are net senders rather than recipients of remittances. Nearly 18% of participants transferred an average of US\$160 per month to friends or family in Nicaragua. From *Hand Out or Hand Up: Microfinance, Remittances and Entrepreneurship in Nicaragua* by Barbara Magnoni, Ben Matranga and Rebecca Thornton, EA Consultants November 2007.

Table 1: Remittance flows as % GDP

Top MFI Countries	Remittances as a share of GDP (%) 2007	Expected % Change in 2008	Top MFI Countries	Remittances as a share of GDP (%) 2007	Expected % Change in 2008
Albania	10.13%	0.00%	Kyrgyz Republic	19.01%	0.00%
Azerbaijan	4.41%	9.53%	Mexico	2.77%	-4.40%
Bangladesh	9.55%	35.51%	Mongolia	4.98%	3.09%
Bolivia	6.63%	0.00%	Montenegro	10.88%	3.87%
Bosnia & Herzegovina	16.64%	3.19%	Morocco	9.04%	0.00%
Brazil	0.31%	2.68%	Nicaragua	12.11%	4.25%
Cambodia	4.24%	0.00%	Nigeria	6.66%	8.23%
Chile	0.00%	0.00%	Pakistan	4.20%	17.90%
Colombia	2.96%	0.00%	Paraguay	3.23%	0.00%
Dominican Republic	9.32%	4.72%	Peru	1.95%	3.25%
Ecuador	6.90%	3.43%	Philippines	11.62%	14.60%
Egypt	6.01%	23.77%	Romania	5.62%	5.47%
El Salvador	18.36%	4.58%	Russian Federation	0.32%	9.75%
Ethiopia	2.01%	0.00%	Senegal	8.53%	8.08%
Georgia	6.79%	0.00%	South Africa	0.30%	1.96%
Guatemala	10.60%	5.11%	Tajikistan	45.54%	3.50%
Haiti	20.00%	6.38%	Tanzania	0.09%	4.70%
Honduras	24.48%	7.44%	Uganda	7.23%	3.11%
India	2.37%	11.11%	United Kingdom	0.30%	0.00%
Indonesia	1.46%	5.27%	United States	0.02%	0.00%
Kazakhstan	0.24%	12.11%	Vietnam	7.90%	0.00%
Kenya	5.45%	5.37%			

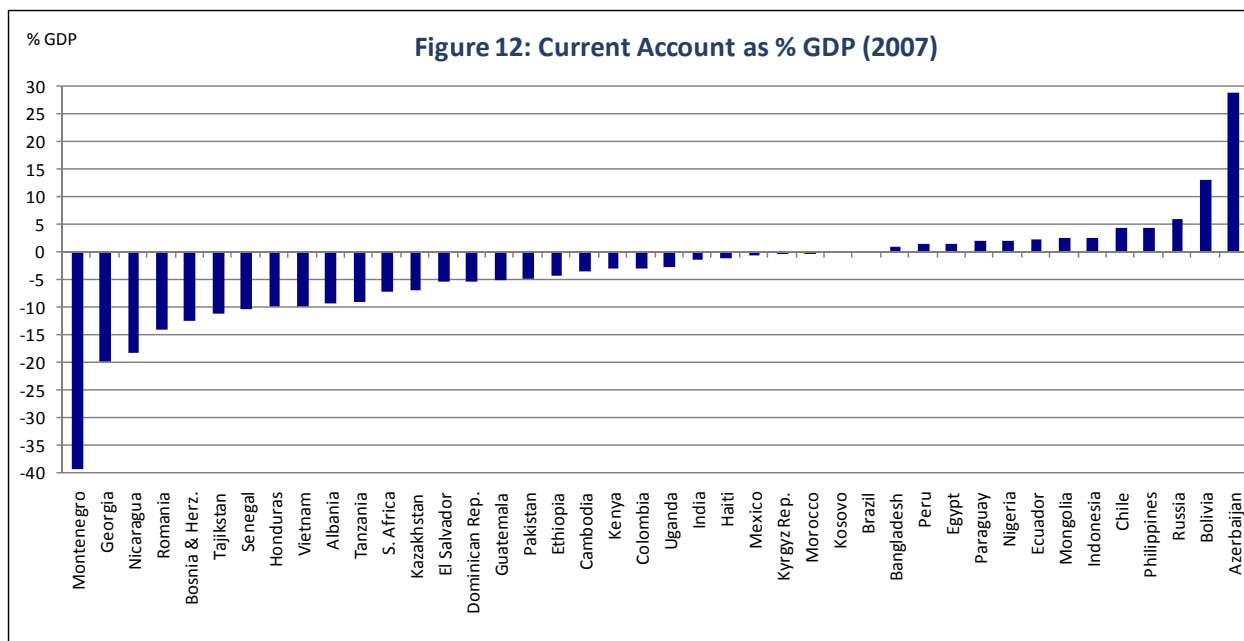
Source: World Bank, *Briefing 8: Outlook for Remittance Flows 2008-2010*.

4. CURRENT ACCOUNT PRESSURES

Previous financial crises in developing countries over the last two decades helped to impose financial prudence and change the structure of their balance of payments, allowing them to accumulate unprecedented levels of international reserves. Figure 12 examines the current accounts (as a percentage of GDP) in MF countries in 2007. In some cases, countries (such as Chile, Indonesia, Peru, and the Philippines) are running small current account surpluses and providing net financing to developed economies. Africa in general has an overall surplus, reflecting its slower but consistent integration into global financial markets (even though many Central African economies have deficits).³⁸ Meanwhile, the Commonwealth of Independent States (CIS) in Eastern Europe and the Caucasus has seen a doubling of their average current account deficit from under four percent of GDP in 2003 to over eight percent in 2007.³⁹

³⁸ Shelburne, R. *Current Account Deficits in European Emerging Markets*. United Nations Economic Commission for Europe (UNECE) No. 2. June 2008.

³⁹ Ibid. Using un-weighted average figure.



Source: International Monetary Fund, World Economic Outlook Database, October 2008

The majority of our sample was already running large current account deficits in 2007, and many of those with surpluses are due to high-priced oil and gas exports. A significant drop in world commodity prices in the second half of 2008 (as seen above in Figure 11), suggests that deficits widened in 2008, corroborating IMF and World Bank estimates for the year⁴⁰. Declines in remittances and slowing imports due to slower growth should help stem further widening in 2009. However policymakers will be tested to defend their currency regimes or to cushion the volatility of floating currencies. Many countries already used up significant reserves in the last quarter of 2008 alone to stabilize their currencies. The Central Bank of Honduras used 16.6% of its reserves to sustain its exchange rate between June and November 2008⁴¹. In Russia, reserves fell 25% at the end of November from their peak in August 2008⁴². In Nigeria, where a sharp fall in oil prices has reversed the current account into a deficit, the Central Bank imposed exchange controls in February 2009 to stave off currency pressures after a 20% drop in the currency's value.

These weakness and possible devaluations place MFIs at significant risk. Approximately 38% of MFI portfolios are financed by debt, much of which is denominated in foreign currency.⁴³ An

⁴⁰ 2008 data is not available for all MFcountries and thus excluded from this study.

⁴¹ Banco Central de Honduras and "Reservas Internacionales Netas Descienden \$199 Millones". La Tribuna, Honduras. November 18, 2008.

⁴² Levitov, M. "Russia`s International Reserves Fell \$3.6 Billion". November 28, 2008. Bloomberg News.

⁴³ Based on our Microfinance Sector Index derived from MixMarket 2003 to 2007 Benchmarks.

analysis of 6 MFIs in 2005 highlights that “only one institution [was] currently hedging its foreign exchange risk in its entirety and few [had] in place appropriate risk management practices to monitor and manage their foreign exchange risk.”⁴⁴ Strengthening developing market currencies from 2003-2007 kept these risks at bay, allowing in some cases for foreign exchange gains by MFIs. Under the current scenario of weakening developing country currencies, foreign exchange losses are expected. Where foreign exchange hedging has been available, MFIs will have some protection. Where hedging or local currency borrowing is not available, some MFIs have linked their loans to inflation or currency indices. In the short term, this may reduce foreign exchange risk, however, devaluation can drive credit risk for these institutions up significantly since the burden of repayment of indexed loans falls on the microentrepreneur, who is already facing more difficult economic conditions.

5. POLITICAL RISKS

A number of countries facing difficult economic conditions, including currency pressure, unemployment, declining growth and inflation, will be challenged to respond to the crisis. Those also in complex political situations will be more constrained in terms of the flexibility of their policy responses. With respect to economic policy, countries recently in conflict such as Georgia will be limited in the resources and political capital available to take on the crisis head on. A volatile political environment in Pakistan, may also keep policy makers from responding sufficiently to economic pressures from abroad. In Ecuador, care must be taken to ensure the stability of the dollarized system, which may include politically unpopular measures such as fiscal constraint. In countries with large current account deficits that are also operating under difficult political conditions policy makers will be hard pressed to allow for currency weakness and risk fueling inflationary pressures.

In countries with high levels of street crime and insecurity, including South Africa, Russia, Guatemala, and Mexico, the economic crisis may have a direct impact on MFI clients and MFI operations. In countries with high levels of indebtedness among MFI borrowers, populist government backlash against the MF sector is a risk. In Nicaragua, for example, the government called for debtor “No payment” groups to protest high interest rates at MFIs in 2008 but has since taken a more inclusive approach. Countries where economic hardships are likely to have a larger impact may face new political risks over time that may constrain them further over a longer term. Today political risk seems relatively benign but these must be monitored as the effects of the crisis continue.

ASSET-SIDE IMPACT ON MFIS

⁴⁴ Powers, J. *Shifting Technical Assistance Needs for Commercial MFIs: A Focus on Risk Management Tools*. Banyan Global Learning Services. Contributors: Karla Brom, Barbara Magnoni. October 6 2005.

“...the policy challenge is how to engineer a soft landing, while continuing to lay the groundwork for sustainable convergence to western European living standards”. - IMF, *World Economic Outlook Update*⁴⁵

To date, the effect of a slowdown in economic growth from the crisis has had limited impact on problems with the repayment of microfinance loans, but it is too early to predict the depth of the impact of what may be the worst economic crisis that many countries will have seen in decades. We have suggested that a combination of factors including high unemployment, higher food prices, slower growth, currency pressures and political tension will impact MF countries to an unprecedented degree. While MFIs and their clients are well positioned to weather the storm, there is enough anecdotal evidence suggesting that the correlation between deteriorating economic conditions and portfolio quality may be greater than previously believed. Families may have less disposable income resulting from the loss of formal employment of a family member, a decline in remittance receipts, sticky inflation, and an overall decline in demand for their products and services. The recessionary effects of the crisis will no doubt lead to higher delinquencies in MF portfolios and increased provisioning, increasing an already high cost of capital for MFIs and further squeezing margins. The effects will vary however. Those countries with strong, well managed microfinance sectors will be able to implement risk management tools and processes to hedge some of these risks. Countries where the microfinance business has concentrated on making loans for productive businesses rather than for the purchase of non-productive assets will fare better. We consider that those countries where the microfinance sectors are at significant risk of asset deterioration include those that have experienced very fast growth in portfolio size, in some cases by offering new products including consumer loans in the period of 2005-2007. These countries include Bosnia, Morocco, Nicaragua, Honduras, Mexico, South Africa and the Philippines. Nicaragua has documented perhaps the most dramatic deterioration in portfolio quality to date. Three regulated financial institutions that lend solely to MSME clients saw a significant deterioration in portfolio at risk as reported to the bank superintendence over one year as illustrated in Table 2 below.

Table 2: Nicaragua: Portfolio at Risk of Regulated MSME Lenders

	November 2008	November 2007
Banex (formerly Findesa)	7.6%	2.7%
FAMA	4.5%	1.1%
Banco ProCrédito	4.0%	1.2%

Source: *Superintendencia de Bancos y de Otras Instituciones Financieras (SIBOIF), Nicaragua 2008*

⁴⁵ IMF, *World Economic Outlook Update, Global Economic Slump Challenges Policies*, January 28, 2009.

The availability of relatively cheap capital and high liquidity in the five years prior to the crisis appears to have led to rapid portfolio growth rates that exceeded some MFIs' capacity to grow and while maintaining prudent lending policies and procedures. In countries including Nicaragua, Mexico, Bosnia, and Morocco, there is some evidence that this has directly impacted the portfolio quality of MFIs, which combined with the effects of the real economy, may exacerbate the worsening trends. Unfortunately, there is limited public availability of data on MFI asset quality since September 2008 as most MFIs do not report such data regularly, and supervisory agencies and international platforms such as the MixMarket⁴⁶ publish data with significant lags. Of the 19 MFIs interviewed for this report, 18 were concerned that portfolio quality would deteriorate as a result of the crisis. MFI managers and various investors interviewed for this report suggested that high growth targets and easily available capital led some MFIs to relax credit policies and procedures in favor of fast growth. Those MFIs that ramped up consumer lending in addition to business loans are at risk of greater deterioration of asset quality.

Despite limited publically available information, there is some initial anecdotal evidence pointing to existing pressures on portfolio quality such as that of Fonkoze and BRAC mentioned above. In Mexico, anecdotal reports suggest a doubling of delinquencies between the end of 2008 from 2007. Additionally, because of Mexico's recent consumer finance boom, MFIs report that repayment problems are largely due to client over-indebtedness with credit cards and other consumer loans. Bosnia's MF sector has begun to make use of the local credit bureau to curtail the practice of lending to clients who use the funds to repay a loan to another institution elevating PAR levels as a result.

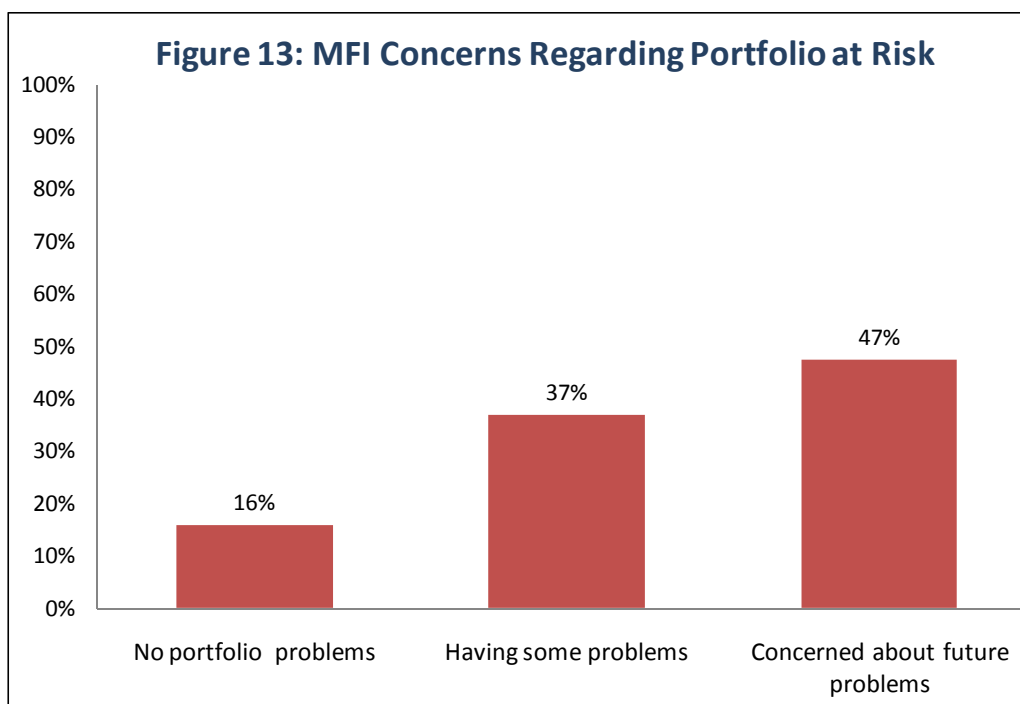
Meanwhile, foreign exchange risks and inflation will impact MFIs' profitability, growth prospects and risk profiles. There is consensus that even if liquidity returns to the financial system relatively quickly, global economic growth is set to slow significantly in 2009. Although this slowdown will be led by countries in the North, MFIs operating in countries in the South will likely be affected, in most cases through both the asset and liability side. Already the 19 MFIs interviewed for this paper explained they have cut growth projections for 2009 and 2010, some of them dramatically. While a slowdown in growth may be a prudent and necessary strategy for MFIs, it can also be a forced reality that will have a negative impact on its client base. The MF sector has drawn attention to the impressive repayment rates of poor borrowers. Unlike many other lending businesses, MFI businesses are generally built around the assumption of very high repayment rates. Economic pressures on clients that lead to worsening portfolios will affect MFI profitability and may challenge the long term sustainability of those MFIs operating in difficult environments.

⁴⁶ See: <http://www.mixmarket.org/>

VI. IMPLICATIONS OF A CRISIS ON MICROFINANCE

The pressure on both the asset and liability side of MFI balance sheets will undoubtedly reduce the profitability of many institutions over the coming 2-3 years and will likely change the shape of the microfinance industry. There will be winners and losers, which over time may help the market mature, but it will be important to ensure that in this process, the end losers are not the poor and their ability to access financial services.

On the asset side, the credit crunch and real economy pressures are likely to lead to elevated PAR and default rates in MFI portfolios, which will, in turn, lead to a tightening of credit standards, higher provisioning, and reduction in growth targets. On the liability side, reduced availability of funding sources, both from international and local sources, will force MFIs to seek alternative funding sources and also reduce growth targets. Of the 19 MFIs interviewed for this research 15 reported lowering their anticipated growth rates by 30% to as much as 80%. Investors and networks also confirmed that the bulk of their investees and affiliates are cutting growth projections by approximately 50%. If growth slows because of liquidity constraints alone, the resulting pressure in poor communities, which already lack adequate sources of financing, could be detrimental. But an inevitable slowdown in economic growth in MF countries and an increase in the number of clients who are unable or potentially unable to pay loans will also contribute to slower industry growth. Of the 19 MFIs interviewed in this research, 37% reported they are already seeing some degree of portfolio deterioration as a result of the crisis and a further 47% expressed concern about portfolio quality for 2009 as economic growth in their countries slows or halts (Figure 13).



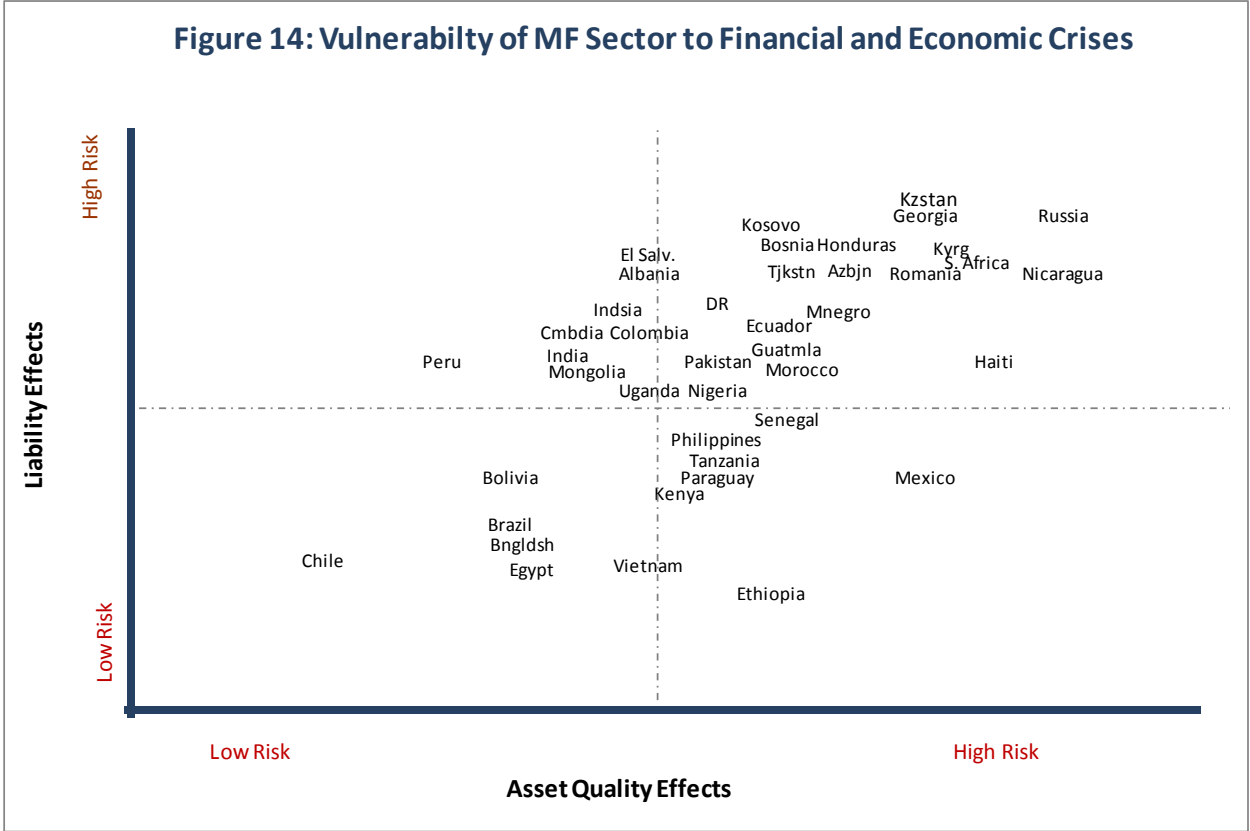
The sector is not heading towards an apocalypse. The poor have proven that they are good credit prospects and repay their loans. Microenterprises can be flexible businesses and are able to adapt to market crisis flexibly. MFIs know how to lend to these clients and have done so despite impressive constraints over many years. The outlook described above will strain the industry however. It will also likely lead to some positive changes that have been needed for some time but that appeared less urgent in a benign environment. Given the rapid portfolio growth rates of the last six years, a slowdown in growth may push institutions to consolidate past growth and use this time to strengthen their institutions, seek out greater efficiencies in their business models, and innovate further in their credit delivery and especially back office processes.

We have already observed some institutions turning inward and re-focusing on ensuring a rigorous credit analysis process and solid risk management and systems. In already competitive environments, MFIs will be challenged to retain clients as competition for the best clients grows in a more defensive market environment. This will likely lead to efforts to improve customer service and should drive the development of more client centered products and services. On the funding side, as liquidity becomes tighter, MFIs will seek to expand both their foreign and domestic sources of funds. They are beginning to negotiate with existing MIVs and DFIs; tap into funds from retail P2P sites and seek out relationships with new lenders. Those institutions that take deposits are bolstering their strategy to attract savings. In Mexico, FinComún has ramped up its efforts to secure and build its deposit base, especially its fixed term savings products, and in Nigeria, LAPO is also turning to its deposit base as a major source of portfolio funding for example. MFIs that do not take deposits are beginning to revisit the issue, nevertheless the costs of transforming into a deposit-taking institution are substantial and, for smaller MFIs, often prohibitive. In these instances, we may see MFIs seeking strategic partners and consolidating their operations to achieve a scale that justifies the investment to transform.

Those institutions that are able to come out of the crisis stronger will differentiate themselves within the industry and position themselves for significant growth in a more positive economic environment in the future. They will also be better positioned to attract capital to finance this growth. It is unlikely that *all* MFIs will make it, however, and we expect to see greater consolidation in the industry, including mergers and acquisitions (primarily the latter) and full blown failures in some of the higher risk countries and environments. Investors will need to be more astute in their due diligence processes, in diversifying their portfolios, and in seeking ways to ensure that MFIs' currency exposure is hedged when borrowing from abroad. There have been some initial signs of investors differentiating between MIVs and fund managers. Some of this differentiation has reflected the different investor profiles of different funds rather than preferences based on fund characteristics. Yet there is initial evidence of an increasing preference by investors for MIVs with stronger past fund performance, risk profile and perceived stability. Many new fund managers have struggled to get their MIVs off the ground. As the business of investing in microfinance gets tougher, following a boom in the growth of these funds over the past 3-4 years, we expect to see some consolidation of the MIV industry and greater concentration of assets with the top investment managers.

The microfinance industry, comprised of stakeholders such as donor agencies, investors, policy makers and MFIs themselves, will need to think hard about how to use limited resources to strengthen the sector and cushion the effects of the crisis. As this paper outlines, the impact will vary significantly in *degree* depending on the macroeconomic and political environments in which MFIs operate, the integration of their industry into the global financial sector, and the extent to which their financing is tied to international financial markets.

Using our assessment of the risk to the asset side of MFI balance sheets (real economy trends) and the liability side (access to and cost of funding), Figure 14 below illustrates our analysis of the vulnerability of countries to asset and liability risk, highlighting those higher risk countries in the top right quadrant. These countries, including Georgia, Nicaragua, Russia and South Africa, face difficult economic constraints that are exacerbated by complex political situations that may constrain policy makers from taking appropriate action to shore up financial systems and promote economic growth. High exposure to foreign exchange risk or maintaining currency regimes is another common denominator amongst high risk countries. Further details on how asset side and liability risk was determined can be found in the Appendix.



In countries where MIVs had large exposure, such as Nicaragua, investors will be wary of lending more as the risk profile worsens. Countries such as Bosnia, Mexico and Morocco are already showing some negative effects on portfolio quality as a result of existing over-indebtedness of clients and run up in consumer lending in recent years; they will face further challenges on the asset side as economic growth slows. In Bosnia, the banking sector's

retrenchment has increased liability risk significantly. In some countries, including Mexico, Brazil, Pakistan and Peru, government programs to ensure available liquidity for MSMEs may shelter these institutions from some of the effects of the credit crunch and ensure that relatively low cost funds remain available. MFIs in African countries that are large commodity exporters, including Ethiopia and Senegal may see an important deterioration in assets as they face a new round of pressure on growth and employment. In Haiti, where food prices have already stressed microfinance portfolios, results can only worsen as migrants in the construction sector in the US return or reduce their remittances.

Those countries in the lower left quadrant are more sheltered. For example, although the crisis will have an impact on the MF sector in Brazil, Bolivia, and Chile, three countries that are large commodities exporters, the solidity of the MFI sector and of the regulatory environment should help mitigate credit risks. No country is immune to casualties, but where there is less systemic risk, it is easier to contain the effects of the crisis. Bolivia, for example, which restructured its microfinance sector following a deep crisis in the late 1990s, is poised to survive in light of the high level of deposit funding in the sector, combined with solid risk management practices and regulatory supervision that should avoid a sudden deterioration in asset quality.

VII. “A CRISIS IS A TERRIBLE THING TO WASTE”⁴⁷: INTERVENTIONS FOR DONORS AND INTERESTED PARTIES

While in the long-term the microfinance industry may emerge from the crisis stronger overall, the changes required to drive this process will not be easy. There is an important role that donors and other stakeholders can play to ensure that the casualties of this crisis are limited and that the end users of microfinance services are not excluded once again from access to finance. We have divided the support into three main areas: liquidity and financing; technical assistance; and advocacy and regulation. Below we describe some specific interventions that fall under these three categories.

LIQUIDITY AND FINANCING

Equity Financing:

Equity investment in microfinance has gotten more attention in recent years by DFIs and private funds alike in hopes of taking longer term stakes and greater participation in MFIs. Whereas in the past, low interest rates on debt made equity unattractive to some MFIs, today, higher rates and scarcer capital has led some MFIs to re-think their willingness to bring in new owners. With less debt funding available, higher cost-of-funds and regulators potentially tightening regulatory standards, MFIs may find themselves turning more to equity financing to fill their funding gaps and to strengthen their capital structures. Additionally, valuations of some MFIs have come down, yet despite this opportunity, the availability of equity funding remains low and new fund growth has declined since the onset of the crisis. This suggests that there will be an opportunity and a need for DFIs and others to fill this gap and provide equity financing to strong MFIs.

Expansion of Guarantee Mechanisms:

Bank lending to MFIs has been the most dramatically affected by the crisis to date, resulting in higher interest rates and reduced credit lines in some countries, and an overall freeze in lending in others. Developing country banks are notoriously conservative, and the crisis has only exacerbated their reluctance to lend to MFIs. Loan guarantee programs for MFIs, including the Grameen Foundation’s Growth Guarantees and USAID’s Development Credit Authority (DCA) guarantees, have shown that loan guarantees from highly rated third parties can jump start banks’ interest in a new sector. They have often been successful in introducing MFIs to local banks, helping them establish a credit history and track record and eventually weaning the banks of guarantees. In the current environment, in countries where local banks have liquidity but are reluctant to lend, guarantees may be able to help unfreeze local credit markets for MFIs. These structures will need to be more flexible, however. For example, in the past the Grameen

⁴⁷ The title of this section can be attributed to Stanford Economist Paul Romer.

Foundation estimated that their repeat transactions generally require a lower guarantee (of about 46% of the original). Since the crisis began, however, banks in South East Asia and Latin America have been asking for higher guarantees in repeat transactions; in the case of Indonesia, banks are asking for 100% guarantees. Investors, DFIs and IDAs with the potential for structuring guarantees may need to reduce their expectations for leveraged guarantees in the short term or seek co-guarantee mechanisms that allow them to risk-share while providing the MFI with higher guarantees as a response to the crisis.

Liquidity Facility:

One of the early responses to the crisis by the microfinance community has been the development of facilities aimed at filling the short term liquidity gap, caused primarily by the tightening of credit in local bank markets and the reduced liquidity of MIVs. While these facilities will be important to avoid a liquidity crisis in some MFIs, they must balance the need to close a liquidity gap with the risk of becoming a permanent, rather than temporary, source of funds.

Although these liquidity facilities are being structured to offer short tenor loans with relatively high interest rates, if interest rates in domestic bank markets remain high and credit remains tight for an extended period of time, emergency liquidity funds risk becoming a substitute for more permanent local funds. It will be important that these facilities 1) avoid pressure to disburse all funds right away and closely monitor trends on a country and MFI level to avoid crowding out private capital; 2) monitor interest rates offered by alternative sources (banks, MIVs, etc.) closely to ensure that liquidity facilities consistently offer higher cost of funds than more permanent sources; 3) target otherwise healthy, solvent institutions with solid lending methodologies and efficient operating structures. The crisis will likely place new pressures and risks on these institutions, making due diligence critical and highlighting the benefits of accompanying the facilities with technical assistance.

TECHNICAL ASSISTANCE

MFI Capacity Building:

The rapid growth and evolution of the microfinance industry has warranted a constant and innovative approach to technical assistance to keep pace with the industry's growth and professionalization. As the crisis squeezes MFI margins, further efforts to innovate and strengthen MFIs will be needed. Our assessment is that because of the size and outreach that the MFI sector has achieved, the technical assistance *needs* of the sector will be greater than during any prior stage of the development of the industry. IDAs alone will not be able to meet these needs. In some countries, such as Pakistan and Mexico, government agencies may play a role. In countries where MFIs have reached scale or had commercial success, MFIs themselves will need to invest some of their own resources in training and capacity building. We highlight the following priority areas for capacity building:

- ✓ **Risk Management:** Our analysis suggests that the *primary* focus of technical assistance in the short term should be focused on strengthening loan portfolio quality, through improved credit analysis, delinquency management and risk management. Additionally,

MFIs seeking to diversify their funding sources will need support in financial risk management. Many may seek to transform into regulated deposit taking institutions to tap into available local capital and will need to manage their liquidity with new rigor.

- ✓ **Operational and back office processes:** Tightening margins will also require investments in improving efficiency, such as streamlining and automating back office procedures and promoting electronic banking solutions where feasible.
- ✓ **Mergers, acquisitions and alliances:** Those MFIs too small to invest resources into automating processes may need to consider new alliances, mergers and perhaps even the purchase or sale of their loan portfolios. The unpleasant alternative is cannibalization of clients between MFIs. Outside resources and advice will be needed to help MFIs absorb and integrate their acquisitions.
- ✓ **Product development:** With strong MFIs, especially those in competitive markets, product development and innovation and improved customer service also needs to be strengthened, as MFIs will begin to value the importance of retaining good clients, which is generally less costly than acquiring new clients.
- ✓ **Governance and strategic planning:** MFI Boards and managers, particularly in new markets where fast growth was the modus operandi need to re-visit their strategies and consider whether their business models, objectives and revenue goals are viable under new conditions. Difficult strategic choices are ahead and it is important that incentives are aligned internally. Efforts to work with Boards and Management to develop creative solutions that may include exit strategies or mergers can avoid more hostile outcomes that can lead to headline risk and damage the reputation of the industry. Equity investors as well as IDAs and DFIs can play an important role in supporting these efforts.

National and Regional Efforts:

Technical assistance to individual MFIs can consume significant time and resources, both of which are scarce in the current environment. Efforts to support country-wide or regional initiatives to deal with MFI constraints can be both cost effective and sustainable over the long term. For example, the support of credit bureaus and the expansion of the information captured and reported by these agencies can have an important impact on the profitability of MFIs, both in terms of reducing delinquencies and in streamlining the risk analysis process through efforts such as credit scoring. Training and capacity building efforts through local and regional networks can also be effective in leveraging the strength of numbers.

Client-Level Support:

Our assessment of the asset side pressures of the crisis on the MF industry concludes that there will be increased pressure on microfinance portfolio quality and returns. The underlying problem, however, is at the client level. Higher prices and lower demand, combined with potential exchange rate pressure, will compress microentrepreneurs' margins and make it difficult to support their families. MFIs cannot take on the burden of solving the problems of the microentrepreneur alone. Instead, creative and innovative efforts to build partnerships with governmental and non-governmental, public and private institutions will need to be explored to

ensure that limited resources help clients navigate the rough waters ahead. The objective of this support should be two fold.

- ✓ **Access to safety nets:** MFI linkages with public and private agencies can support the availability of safety nets to microentrepreneurs and informal sector workers. This might include providing linkages through MFIs to access social services including cash transfer programs, health and training initiatives. Without this access, MF borrowers may find it hard to choose loan payments over their families' health and nutrition. Where free services are not available, MFI efforts to provide linkages to low cost options or offer insurance or other risk mitigation products could be valuable
- ✓ **Profitability:** Throughout our interviews, clients deemed most vulnerable to the crisis were urban microentrepreneurs will small businesses. Generally, these businesses work in high margin, high volume, and high turnover sectors such as food and clothing sales which require small and frequent loans. In a downturn, slowing demand can lead to a large number of businesses competing for a reduced demand for their products thus reducing their profitability. Limited effort has been made to support innovation for microentrepreneurs, particularly in commerce. Some efforts in production and agricultural sectors have made important strides in linking small businesses to value chains and improving their production process. Similar support should be sought in this much harder "commerce" sector. Cooperative efforts, intervention and financing of commerce value chains and in some cases, retraining can help to generate long-term rewards that will go beyond today's crisis management needs.

ADVOCACY AND REGULATION

Advocacy in countries with complex political environments:

One of the greatest risks facing MFIs today is pressure from the governments and regulators in their countries, and not from the financial crisis per se. The potential for political backlash for microfinance is high, in particular in countries where political tensions are elevated or where MFIs charge high interest rates. Industry stakeholders have made important efforts to advocate with MFIs on behalf of clients (ensuring fair and transparent interest rates for example) while also advocating within countries for the interests of MFIs and their clients. These efforts will be even more important over the next two years as many clients will be strained to payback their loans as economic growth falters. Local networks and institutions can be effective advocates and should be supported in these efforts.

MFI Transparency and Information Sharing:

Now more than ever, information is an asset that MFIs cannot overlook. Throughout our interviews with investors and MFIs alike, we concluded that many senior MFI managers are not fully aware of the implications of global events on their institution. Many of these MFIs have yet to be dramatically affected by the crisis, either because their countries or they themselves are insulated from the turbulent financial markets. However, as the economic recession deepens, unemployment increases, and global demand continues to slow, these MFIs are likely to feel its impact.

Dissemination of research, data and information highlighting the potential threats to their institutions as well as potential solutions and risk mitigation techniques are invaluable in the current crisis. International networks such as Women's World Banking and ACCION have been working with their MFI affiliates since the financial crisis began, updating them on events in international markets and how it may affect them; working with them on liquidity management; and advising them on contingency planning and credit risk management strategies.

The vast majority of MFIs, however, do not belong to such international networks and are not benefiting (directly) from these exchanges of information. Stakeholders can help to incorporate more MFIs into the global discourse on the crisis and to encourage information dissemination through country or regional networks that have a broader membership base, including Tier I, II, III and IV MFIs. They can also support regional initiatives to create and distribute country or region specific information and publish financial indicators on a regular basis. In the short-term, these efforts would improve financial transparency and help MFIs to better plan for and cope with the potential impacts of the crisis. In the long-term this should increase the attractiveness of participating in local networks as well as attract capital to regions with greater transparency and stronger performance.

Investor Transparency and Information Sharing:

Because of the nascence of the industry, the diversity of MIVs, and the typical investors in MIVs (institutional, high-net-worth individuals and DFIs), they have operated largely in an information vacuum. There have been limited efforts to consolidate and standardize reporting information that specifies investment strategies and virtually no consolidation of performance of portfolios or returns (with the exception of listed funds). While this is not uncommon for investment funds that are not open to retail investors, the recent crisis has brought to light some of the risks of poor transparency (such as in the Bernard Madoff investment scheme). This lack of supervision and transparency places too much systemic risk in the hands of unregulated fund managers.

We expect greater emphasis on transparency and information in the formal financial sector, which will likely encompass microfinance investment vehicles. Self-regulation is always a first step, and one that has only timidly begun in the microfinance investment sector. IDAs, DFIs stakeholders and the industry as a whole will benefit from ensuring that investors and potential investors (including those managing public funds) are provided with sufficient information to allow them to benchmark fund performance and investment criteria of an MIV prior to investing. Another area that can serve the industry as a whole and be developed ahead of possible regulatory pressures would be the creation of a regularly updated public performance database that lists MIVs and independently evaluates investment fund managers' due diligence processes and performance.

APPENDIX: COUNTRY RISK SCORES

The two following tables support the Country Risk Matrix found on page 42. They attempt to quantify the level of relative risk the financial crisis poses for the MF sectors in our 42 MF countries. Each table identifies 5 key risk factors which affect either the liability side of an MFI's balance sheet or the asset side of an MFI's balance sheet. We acknowledge that these risk factors are not comprehensive, nor are they exclusive; for example, FX Vulnerability can affect both the asset and the liability side of MFIs' balance sheets. For each risk factor we have assigned a score of 1 to 5. A score of 1 indicates a low level of risk to the MF sector attributable to that risk factor in a particular country. A score of 5 indicates the highest level of risk posed by the risk factor in that country. The Total Liability Score and the Total Asset Score were determined by taking the simple average of the five risk factors affecting that side of the balance sheet. A further description of each risk factor follows:

LIABILITY SIDE RISK FACTORS

Financial Market Contagion: Reflects the risk to a country's domestic financial system from the global financial crisis. Countries with highly integrated financial systems are likely to receive higher scores than those with less integrated systems. We also take into consideration the ability of the domestic financial system to cope with contagion thanks to the financial soundness of its institutions or the responsiveness and maturity of its supervisory environment.

Decline in Bank Lending to MFIs: Reflects the degree to which MFI access to local bank loans and/or capital markets has been restricted as a result of the crisis. We also take into consideration the degree to which MFIs relied on local bank loans pre-crisis.

Dependence on External Funds: Reflects the degree to which the crisis has affected external funding to MF in a country. A lower score reflects that MFIs have not yet seen a reduction in external funding or that external funding represents a very small portion of their overall funding.

Access to Savings: Reflects the degree to which *microcredit* organizations in a country are also able to mobilize *microsavings* as an alternative source of funding their portfolios. Higher scores reflect limited or no access to savings by MFIs or that there is a risk of a run-on-deposits.

Access to Public Funds: Reflects the availability of government programs and lenders to bridge the potential liquidity gap caused by the financial crisis. We take into consideration the existing degree to which the MF sector has access to public funds as well as the ability of the government to increase and/or maintain its support or initiate support of the sector.

ASSET SIDE RISK FACTORS

Existing Weakness in MF Sector: Takes into consideration factors such as competition and client overindebtedness; historic rapid growth rates which may have led to looser credit standards; and a prevalence of consumer lending and/or a weak credit culture; as well as network, regulatory and support structures in the local industry.

FX Vulnerability: Reflects the potential pressure on the country's currency because of falling commodity prices, worsening terms of trade, balance of payments vulnerabilities, lower remittances, and donor currency flows, as well as the extent to which the MF sector is exposed to FX risk through foreign borrowings.

Inflation Risk: Reflects the risk that the country will experience an increase in inflation, which can negatively affected MFI margins as well as microentrepreneur businesses.

GDP/Employment Risk: Reflects the degree to which the domestic economic growth and employment will be affected by the global economic slowdown through the variety of channels including credit tightening, declining domestic and foreign demand and falling remittance falls and the risk this poses to demand for microentrepreneurs' products. This takes into consideration the structure of the domestic economy, how linked it is to the US and Western European economies; its dependence on trade; and its dependence on remittances.

Policy Response: Reflects the ability of the government to intervene to support the financial sector and to counteract the negative effects of the global economic slowdown on the real economy.

LIABILITY SIDE						
Country	Financial Market Contagion	Decline in Bank Lending to MFIs	Dependence on External Funds	Access to Savings	Access to Public Funds	TOTAL LIABILITY SCORE
Albania	5	4	3	4	4	4
Azbn	4	3	5	4	4	4
Bangladesh	2	2	1	2	3	2
Bolivia	3	3	2	2	3	2.6
Bosnia	5	5	4	4	3	4.2
Brazil	4	2	1	3	1	2.2
Cambodia	2	3	5	3	5	3.6
Chile	3	2	1	2	2	2
Colombia	4	4	4	3	3	3.6
Dominican Rep.	5	4	3	2	5	3.8
Ecuador	3	4	4	3	4	3.6
Egypt	1	2	2	3	2	2
El Salvador	5	4	4	3	4	4
Ethiopia	1	2	2	2	3	2
Georgia	4	3	5	5	5	4.4
Guatemala	3	3	3	4	4	3.4
Haiti	2	3	4	3	5	3.4
Honduras	4	4	5	3	5	4.2
India	5	5	2	4	2	3.6
Indonesia	5	5	3	2	3	3.6
Kazakhstan	5	5	5	4	4	4.6
Kenya	3	2	3	2	3	2.6
Kosovo	4	5	4	4	4	4.2
Kyrgyzstan	4	4	4	4	5	4.2
Mexico	4	3	2	3	1	2.6
Mongolia	3	4	4	2	4	3.4
Montenegro	4	5	3	4	4	4
Morocco	3	4	3	4	4	3.6
Nicaragua	3	4	5	4	4	4
Nigeria	4	3	3	2	4	3.2
Pakistan	4	4	3	3	3	3.4
Paraguay	3	2	3	2	3	2.6
Peru	4	4	4	3	2	3.4
Philippines	4	3	3	2	2	2.8
Romania	4	5	4	4	3	4
Russia	5	5	4	4	4	4.4
S. Africa	5	4	3	4	3	3.8
Senegal	2	3	3	2	5	3
Tajikstan	4	3	5	4	4	4
Tanzania	2	2	3	3	4	2.8
Uganda	3	4	3	2	4	3.2
Vietnam	3	3	1	1	2	2

ASSET SIDE						
Country	Existing Weakness in MF Sector	FX Vulnerability	Inflation Risk	GDP/employment Risk	Policy Response	TOTAL ASSET SCORE
Albania	3	4	3	4	3	3.4
Azbn	3	4	5	5	3	4
Bangladesh	2	2	4	3	4	3
Bolivia	2	2	3	4	4	3
Bosnia	4	4	4	4	3	3.8
Brazil	3	3	3	4	2	3
Cambodia	2	3	3	3	3	2.8
Chile	2	2	3	3	2	2.4
Colombia	3	4	3	4	3	3.4
Dominican Rep.	3	4	4	4	3	3.6
Ecuador	3	3	3	5	5	3.8
Egypt	4	2	3	3	3	3
El Salvador	3	2	2	5	5	3.4
Ethiopia	3	3	4	4	4	3.6
Georgia	3	5	4	4	5	4.2
Guatemala	4	4	4	4	3	3.8
Haiti	3	4	5	5	5	4.4
Honduras	3	5	4	4	4	4
India	2	3	3	4	4	3.2
Indonesia	3	3	3	4	3	3.2
Kazakhstan	5	4	4	4	4	4.2
Kenya	3	3	4	4	4	3.6
Kosovo	3	3	4	5	4	3.8
Kyrgyzstan	4	4	5	4	4	4.2
Mexico	5	4	4	5	3	4.2
Mongolia	3	3	3	4	3	3.2
Montenegro	3	4	4	4	4	3.8
Morocco	5	3	4	4	3	3.8
Nicaragua	4	4	5	5	5	4.6
Nigeria	3	4	3	4	4	3.6
Pakistan	3	3	5	4	3	3.6
Paraguay	4	3	4	4	3	3.6
Peru	2	3	3	4	2	2.8
Philippines	4	3	4	4	3	3.6
Romania	3	5	5	4	4	4.2
Russia	5	4	5	5	4	4.6
S. Africa	5	4	4	4	4	4.2
Senegal	4	3	4	4	4	3.8
Tajikstan	4	3	4	4	4	3.8
Tanzania	3	4	4	4	3	3.6
Uganda	3	3	4	4	3	3.4
Vietnam	3	4	4	4	2	3.4

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