TRENDS IN MICROFINANCE CAPITAL STRUCTURE

The microfinance industry is changing shape as you read this. In Latin America, there is a clear movement toward professionalization as the sector evolves rapidly from one of predominantly non-governmental organizations (NGOs) into a sub-sector of the financial services industry. Each year, more microfinance institutions are joining the ranks of the regulated; most are growing strongly, and many are profitable - some more profitable than world-class financial institutions. Inspired by this growth, two small investment funds dedicated to microfinance have been launched.

But all of this is just the beginning, and MicroRate has seen as many routes to success and to profitability as there are institutions themselves. We will explore some of these routes to success in the following pages.

What is new in this story? Competition. Over the past two years, we have seen competition - first spotted in Bolivia - emerge as an important force in microfinance. In fact, we are finding that where there is competition, it shapes microfinance like nothing else has ever done. Some may be surprised to learn that Adam Smith got it right after all: in the wake of competition we see lower lending rates, new products and a general scramble by MFIs to become more efficient. In the most competitive markets like Bolivia, margins that once were generous have become razor-thin. Clearly, competition will shape the future direction of microfinance.

This paper looks at the impact of competition on microfinance from the point of view of changing capital and asset structure of Latin American MFIs. We also examine whether MFIs dare to charge enough, and take a look at efficiency gains in the sector. What we see in the final analysis is that, while there may be no single formula, marked trends are emerging that will define the future of Latin American microfinance.

Who we are and what we do

MicroRate rates microfinance institutions, and it does so by “kicking the tires.” Since 1997, we have walked through the doors, met the staff, interviewed the clients, and analyzed the financial statements of MFIs throughout the region. To date, we have conducted 117 evaluations in 67 microfinance institutions. In 2001 alone, MicroRate evaluated 25 MFIs in Latin America and, in an initial foray, nine in Africa. MicroRate’s figures allow direct comparisons, because they use a common chart of accounts and are adjusted for the impact of different accounting practices.

In 2000, our publication “*Putting the Finance into Microfinance*” reported on the “MicroRate 16”, a sample of MFIs tracked by MicroRate which we used to highlight developments in the sector. Now, two years later, the sample has grown along with MicroRate itself. This year’s “MicroRate 29”, represent MFIs in eight Latin American countries (Table 1). Why 29 MFIs? These are the institutions we

The biography of the speaker is in the last page have tracked over time, some for a full five years beginning in 1997[1]. They include some of the most impressive MFIs in Latin America. As such, they serve as a bellwether of what is to come in microfinance.

The usual caveats apply: The sample size is small. It is also not representative, in that we track some of the best-performing MFIs in the industry. For example, the non-regulated MFIs are predominantly composed of many of the most successful Women's World Banking (WWB) affiliates. Their performance is exemplary, but alas, hardly typical of the average non-regulated MFI.

SOURCES OF FUNDS: THE LIABILITIES SIDE OF THE BALANCE SHEET

Most microfinance institutions started out as non-governmental organizations (NGOs) with a social mission. Not surprisingly in 1997, when MicroRate was incorporated, most MFIs we tracked were NGOs. Since then, a growing number have formalized. They are now subject to banking regulation and some – but by no means all - accept deposits. Today, most (20) of the MicroRate 29 are regulated. As more MFIs become regulated, we have seen a shift towards capital structures more typical of financial institutions. Specifically, there has been a tendency towards increased leverage. Already two years ago, MicroRate observed that leverage tends to increase rapidly once MFIs formalize. That trend continues unabated.

The power of leverage

Typically, microfinance NGOs find it difficult to borrow more than the equivalent of their equity. Obviously, this constrains their ability to grow. As MFIs become regulated, commercial funding sources are far more willing to lend to them. In 2001, the twenty regulated MFIs among the MicroRate 29 had on average borrowed 4.5 times their equity, compared to 1.3 times for the 9 NGOs. Not surprisingly, higher leverage correlates with larger portfolio size. The portfolio of regulated MFIs in the sample was over three times that of their unregulated peers -- $US 22.4 million versus $6.6 million. For example, Compartamos in Mexico had almost no debt until it formalized in 2001; its debt-equity ratio then jumped to 1.6, while its portfolio more than doubled from $10 million to $25 million. Regulated MFIs borrowed on average 4.5 times their equity, compared to 1.3 times for NGOs.

In some instances, leverage and portfolio size also correlate with profitability, as seen last year among the Peruvian MFIs. Yet leverage is no guarantee of profitability. The impact of the competitive environment tends to outweigh the benefits of leverage in achieving profitability. For example, highly leveraged Bolivian MFIs, operating in a fiercely competitive urban microfinance market, were less profitable than barely leveraged Compartamos, which operates mainly in rural areas virtually free of competition.

[1] Confianza, Crear Arequipa, Crear Tacna, and Enlace did not exist in 1997. For this reason and other statistical factors, nine MFIs did not have the full five years of data available.

Growing use of deposits to finance lending

In addition to leverage, a second important advantage of regulated MFIs in many countries is the ability to accept deposits. But – reader beware – "deposits" don't always fit the quaint image of microentrepreneurs maintaining tiny savings accounts. More often, deposits held by MFIs come from large institutional investors.

Thirteen of the MicroRate 29 take deposits. Among those, deposits have risen steadily from 54% of portfolio in 1997, to 77% ($276 million) in 2001. Deposits constitute an excellent and cheap source of funds, but mobilizing deposits also costs money. We estimate that accepting and managing deposits adds approximately 2-3% to an MFI's operating expenses. At the same time, we found that the average cost of capital for deposit-taking MFIs was nearly 3% lower than MFIs unable to capture deposits: 10.3% versus 13.1%, respectively in 2001. This 3% spread would likely have been even greater if funding liabilities were sourced solely from the private sector. That is because many, but not all, of the MFIs that do not take deposits still have some amount of subsidized liabilities at below-market rates from donors.

Shift away from subsidy funding

The third trend we are pleased to report is a clear shift away from subsidized funding and toward commercial funding. By the end of 2001, ten of the MicroRate 29 had no subsidized funds at all; an additional nine had an immaterial amount (less than 5%) of funding liabilities from subsidized sources. No surprise to find that the four most profitable MFIs in our sample had zero concessionary funding; another five of the highly profitable MFIs had immaterial levels of concessional funding. A coincidence? We think not. We have seen again and again, that the most market-driven MFIs are also the most profitable.

Subsidies have a role in helping new MFIs get off the ground. But they then very quickly turn into a handicap, because they reduce the need to cut costs and become efficient. As MicroRate evaluates MFIs, we often see cases where subsidies are holding back the development of the institutions they are supposed to help. The blame in these cases lies entirely with donors. Nobody can expect an MFI to turn down a gift – even though some have learnt to say "no" to over-eager aid agencies. The list of donor agencies which cause harm – often with the best of intentions – is long. But because of their size, the microfinance programs of the European Community and of Spain stand out in this regard. Microfinance would benefit greatly, if donors in general and these two in particular, took a hard look at the way in which they support MFIs.

Continued use of long-term funding

MFIs continue to borrow long. Ever since MicroRate began tracking MFIs in 1997, the majority of funding liabilities were long-term in nature. Many MFIs borrow at commercial rates, but the funds are sourced from government-sponsored second-tier[2] development funds, such as COFIDE in Peru, IFI in Colombia, and NAFIBO in

[2] Second-tier funds are wholesale mechanisms that channel funds to retail microfinance institutions.

Bolivia. Indeed, the long-term nature of the MFIs' funding is due in large part to the fact that these second-tier sources, usually are funded in turn by international development institutions (e.g. IDB, CAF). As MFIs outgrow these semi-official funding sources, we would expect to see the term of their liabilities to become shorter.

Use of dollar-based borrowing

Foreign exchange risk remains one of the great unsolved problems of microfinance. The problem has not received the attention it deserves because two of Latin America's most active microfinance markets – Bolivia and Ecuador – are dollarized. But because MFIs everywhere tend to borrow heavily abroad, it is interesting to observe how they try to cope with this risk.

> **Colombian WWBs' Approach to Currency Risk**
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> Microfinance sources of funds are often denominated in U.S dollars. As microfinance institutions (MFIs) typically make loans in local currency, the MFI exposes itself to foreign exchange risk – the risk that devaluation makes repayment impossible. To avoid this type of risk, the Colombian WWB affiliates, as well as other MFIs in the region, use a system that is simple and effective. The dollar-denominated loan is deposited in a bank, in U.S. dollars, while the bank in turn issues a loan to the MFI in local currency. In some countries, one bank can both receive the dollar deposit and make the local currency loan, while in others, such as Colombia, a foreign bank affiliate is

Colombian MFIs for instance lend entirely in local currency. They have prudently shied away from foreign currency denominated borrowings. To the extent they borrow abroad at all, the Colombian WWBs have found an effective means of covering currency risk (see Box)

In Nicaragua, foreign currency obligations of MFIs tended to take the form of highly subsidized loans from donors. These loans carried an implicit protection against FX risk, since donors would probably have assumed the loss caused by a severe devaluation. In the last couple of years however, Nicaraguan MFIs have begun to borrow on commercial terms (for example, Finde's percentage of subsidized funding liabilities has declined from 59% in 1998 to 14% in 2001) and they now use an index system which passes foreign exchange risk on to the client through the lending rate. This system, which is operated by the Central Bank and used by the entire financial sector works as long as devaluations remain small. It would not have worked in extreme circumstances like those prevailing in Mexico in 1995 or in Argentina today.

In too many cases, however, MFIs still are unaware of the risk posed by foreign exchange exposure. This risk will grow as MFIs grow and as they turn to foreign funding to sustain their growth. Market-savvy development institutions like the International Finance Corporation would do far more for microfinance by turning their creativity to the problem of foreign exchange risk than by continuing their comparatively ineffectual practice of funding MFIs.

Other market funding sources: bonds

At least four Latin American MFIs have issued bonds. Banco Sol led the way with $ 5 million issue in 1996. Since then, Colombia's FinAmérica introduced a $5 M convertible obligatory bond, and in 2002, Compartamos sponsored a $10 million bond issue. Mibanco in Peru also was about to issue bonds as this was being written.

USES OF FUNDS: THE ASSET SIDE OF THE BALANCE SHEET

A number of trends characterize the assets of MFIs. First, and most easily recognized is the extraordinarily fast growth of microfinance portfolios. But within that growth, there are significant shifts in average loan sizes between regulated and un-regulated institutions. If Bolivia is a sign of future trends in microfinance, then we will also have to be prepared for a rapid shift up-market as competition among MFIs heats up. Finally, portfolio quality has deteriorated; it is still far higher than in commercial banks, but the days where 98 or 99% of loans were paid on time are past.

Microfinance remains a growth business.

The MicroRate 29 continued to grow rapidly, despite recessionary economies in many Latin American countries. Last year, the average MicroRate 29 portfolio grew 21%. Over the past five years, from 1997 to 2001, that growth rate had been between 25% - 35% per annum. There were of course vast differences among the MFIs. For instance, the six Peruvian *municipal savings banks (CMAC)* we track logged average annual portfolio growth of 27% per annum between 1997 and 2001. In contrast, the three Bolivian MFIs average annual growth rate declined dramatically from 53% in 1997 to 9% in 2001 due to intensifying competition.

Some microfinance institutions have grown and transformed into commercial banks, and now have achieved sufficient size to appear in national rankings. Bolivia's Banco Sol, formerly a non-governmental organization, became a commercial bank in 1992. Until September 2001, it had the largest number of clients of any Bolivian commercial bank, and has remained a close second since then, consistently serving approximately one quarter of Bolivia's commercial banking clients.[3] As of January 2002, it ranked 9th out of 14 among Bolivian commercial banks as measured by portfolio size[4]. Compartamos in Mexico, which became a formal financial institution only in early 2001, went on to double its portfolio size and to become the largest Latin American MFI in terms of number of borrowers.

Do more growth opportunities exist? We say yes. There awaits an extraordinary opportunity for financial institutions able to efficiently manage high-volume, low-

[3] Boletín Informativo, 1999 – 2002 issues. "Sistema Bancario: Estratificación de Cartera y Contingente por Monto y Número de Prestatarios." Superintendencia de Bancos y Entidades Financieras de Bolivia.

[4] Boletín Informativo, Año 14, No. 162, enero 2002, page 106, "Sistema Financiero, Ranking de Cartera." Superintendencia de Bancos y Entidades Financieras de Bolivia.

transaction-size lending. The microfinance industry is still very young, with vast untapped markets in some of the world's most populous countries. For example, microfinance hasn't yet made a dent in countries such as China (population 1.3 billion), India (1.0 billion), or Nigeria (126.6 million). Even in Latin America microfinance has barely scratched the surface in Brazil (174.5 million), or Mexico (101.9 million).

On the other hand, the saturation of the Bolivian market sends a signal of caution. Statistics show, that vast numbers of Bolivian's remain without access to financial services. It is possible that microfinance in its present form is only suitable for a relatively small percentage of the working poor and that new products are needed to reach deeper into that part of the population.

Asset Composition: shifting terrain

We have observed a shift in MFI asset composition over the past five years. . In Bolivia, , growth is driven by rising average loan sizes (*market creep)*. Among the Colombian and Dominican WWB affiliates, larger numbers of clients with smaller loans drive growth (*market deepening)*. Bifurcation in these two markets continues.

Asset quality: portfolio risk

More important than loan size is loan quality. The reason is obvious: MFIs are financial intermediaries. If their clients don't repay, all other performance measures become irrelevant. We measure portfolio quality by looking at the combined impact of three indicators: *Portfolio at Risk over 30 days* (PAR 30*), write-offs*, and the *refinanced loan portfolio*. To give a truer picture of the quality of the portfolio, and not allow MFIs to "hide" risky assets MicroRate also adjusts PAR to include all refinanced loans. .

Microfinance portfolio quality is often superior to that of commercial banks. In Bolivia, for example, the three MicroRate 29 MFIs' portfolio at risk was lower, i.e. better, than commercial banks in each of the past four years.

Portfolio at risk among the MicroRate 29, ranged from 1% - 24% in 2001. The top ten MFIs as measured by PAR are all under 5%; the top four each have PAR of less than 2%. Despite these top performers, the MicroRate 29's average unadjusted PAR has been deteriorating over the past five years, rising from 5.2% in 1997, to 7.6% in 2001. The Bolivian MFIs' eroding portfolio quality, which accompanied rising loan size is especially dramatic, deteriorating from an average of 1.2% PAR in 1997, to 11.8% in 2001. In contrast, the five WWB affiliates in Colombia have maintained an outstanding PAR, averaging 2.4% in 1997, even improving slightly to 2.1% in 2001. The difference in the Bolivian and Colombian markets can be attributed to competition. In Colombia, where there is little competition, the Colombian WWB affiliates have grown by reaching more and more clients. In the competitive Bolivian market, PAR has eroded significantly.

Write-offs are the second component of portfolio quality to be examined. MicroRate 29 write-offs have followed trends similar to the group's PAR.

Specifically, average write-offs for the group as a whole rose from 2.6% in 1997, to 4.6% in 2001. Bolivia's write-offs grew; Colombian WWB's dropped slightly over the same time period.

The combination of high PAR and high write-offs is an obvious indicator of a poor quality portfolio. Less obvious, but also a danger sign, is the combination of high write-offs and low portfolio at risk. This can sometimes be a means of hiding portfolio quality deterioration. An MFI can choose to write off bad loans more aggressively than the amount mandated by the regulatory authorities. In doing so, it will decrease its portfolio at risk significantly.

What are the trends in portfolio composition and quality? In Bolivia, rising average loan size and declining portfolio quality. Some of the MFIs also have a growing number of heavily overdue refinanced loans, indicating the possibility of default. Average loan size and portfolio at risk have risen in Bolivia for three reasons. First, MFIs are serving fewer micro borrowers. Second, MFIs, like any business, must serve their current clients' needs as their businesses grow and require larger loans. Third, Bolivian MFIs have sought out new larger loan customers in response to competition-driven market saturation and client attrition. It is therefore not surprising that in Bolivia, the most mature microfinance market in Latin America, we see movement up-market.

A risky place to be: the top of microfinance, and bottom of small business lending

The movement up-market is a risky strategy, and can sometimes be the worst of both worlds. This market niche is the top of the microfinance market where borrowers are often more vulnerable because they carry assets that limit their flexibility. The highly successful microentrepreneur who now operates a store and carries merchandise inventory is far more susceptible to an economic downturn than the market merchant who buys her wares to sell one day at a time. Small business borrowers are highly sensitive to changes in interest rates – how much they pay in interest will affect the viability of their business. Additionally, in a competitive credit market microfinance borrowers know that they have many borrowing options,. As such, they may not feel as compelled to repay loans. Customer loyalty suffers.

In response to competitive pressures, Bolivian MFIs are charging lower interest rates and in doing so have eaten away at their margins. Competitive pressures have been particularly difficult for Banco Sol, which has had higher costs than Caja los Andes and FIE.

THE MICROFINANCE INCOME STATEMENT: EARNING MORE, SPENDING LESS

Portfolio yield: Do you dare to charge enough?

Portfolio yield is the main nexus between the income statement and the balance sheet, measuring how much interest and fee income can be yielded from an MFI's portfolio. There are two key success factors to high portfolio yield: the ability and willingness to charge enough. *Ability* is limited if the regulatory authority puts a cap on the interest rate. That was the case in Colombia until the government changed interest rate regulations in 2001. The Ministry substantially raised *de facto* interest rate ceilings by allowing MFIs to charge a one-time 7.5% fee. (Colombian MFIs are still limited in the actual interest rate they can charge. Also, a one-time fee creates an incentive to lend as short-term as possible). In Nicaragua, legislation in 2001 went in a different direction, imposing a new interest rate ceiling as a function of monthly banking rates. The Nicaraguan approach to interest rate ceilings has the considerable advantage of leaving everybody happy: Politicians can claim that they have done something for the poor, while MFIs find it easy to circumvent the ceilings by charging added fees and commissions. Microenterpreneurs themselves pay the same effective rates as before, but at least they don't lose access to credit, as they would have had the government succeeded in capping rates.

The second and single greatest factor influencing an MFI's *willingness* to charge enough is its competitive environment. Average portfolio yield for the three Bolivian MFIs in the sample experienced dropped from 31.4% in 1997, to a 26.7% by 2001. In fact, the three Bolivian MFIs in the MicroRate 29 had the lowest portfolio yield among the MicroRate 29 last year, while having among the largest portfolios in the group. In the Bolivian competitive environment, MFIs wouldn't dare charge the going rates in Peru, Colombia, the Dominican Republic, and Nicaragua. The Mexican MFI Compartamos does not appear on the chart, as it is an outlier. Its portfolio yield has consistently been the highest among the MicroRate 29 but unlike the others, Compartamos makes very small loans in outlying rural areas. Its operating expenses are necessarily much higher.

Operating efficiency: how well do you manage your expenses?

Are formalized MFIs more efficient? Generally yes. Yet there are surprising exceptions. In 2001, among regulated MicroRate 29 MFIs, the average operating efficiency ratio (operating expenses/average gross portfolio) was 19.8%, versus 21.6 % for unregulated institutions. Being regulated can provide an efficiency advantage. FIE, still unregulated in 1997, had high operating expenses of 20.7% in that year. In 1998 when it transformed, operating expenses dropped significantly to 15.7%. By 2001, FIE had beat out the 28 other MFIs of the MicroRate 29, with an operating expense ratio of only 11.6%. Yet, three of the five most efficient of the MicroRate 29 are unregulated -- Fondesa, WWB Popayán, and WWB Cali, which all had efficiency ratios below 14%. Impressively, the two Colombian WWBs also had average loan sizes under $US 500. In business, it is generally assumed that the larger the institution, the more efficient it is. In microfinance, efficiency is more affected by average loan size than total portfolio size. All else being equal, the larger the average loan size, the greater the efficiency. Since the average loan size of the 19 regulated MFIs in the sample is $US 858, nearly twice that of the $US 491 unregulated average, it is not surprising, that formalized institutions appear to be more efficient. Arguably however, MFIs like the WWBs, which manage to combine low average loan size with high efficiency are doing a better job.

There are a number of different techniques for keeping operating expenses low. For example, the Nicaraguan MFI Fundación Nieborowski made a strategic decision to locate outside of major cities such as Managua and León. This has enabled it to keep rent and salary expenses low. Similarly, Fondesa in the Dominican Republic chose to locate its headquarters in Santiago, much less costly than Santo Domingo, the capital.

WHERE IT ALL LEADS: PROFITABILITY

Microfinance is highly profitable

Microfinance is a highly profitable business. In fact, we compared the MicroRate 29 to a world-class financial institution, Citigroup. Obviously, Citigroup operates in a completely different sector of the financial services market. We choose to compare it to the MicroRate 29 precisely because of its world-class status. Indeed, Citigroup was named "World's Best Bank" by *Euromoney* magazine, and "Best Regional Bank in Latin America" by *Latin Finance* magazine last year. Drum roll please: twelve of the MicroRate 29 exceeded Citigroup's profitability in 2001. Was 2001 just an aberration? Not at all. Our analysis shows that eight MFIs in our sample beat Citigroup's return on equity (ROE) in 2000. During 1997, 1998, and 1999, five to six MFIs in our sample group exceeded Citigroup's ROE each year, even after excluding all subsidies.

Twenty-three of the MicroRate 29 were profitable in 2001. The average MicroRate 29 ROE was 11.1%. The six Peruvian *cajas municipales* in the MicroRate 29 enjoyed an average ROE of 28.5% in that same year, while the five Colombian WWB affiliates achieved an average ROE of 20.3%. Importantly, microfinance institutions are also more profitable than commercial banks in Bolivia, Peru, and Colombia.

Microfinance is a highly profitable business.

Return on Equity (ROE) is an important indicator of the health of an MFI. None of the privately owned MFIs pay dividends. (The Peruvian *cajas municipales* are the exception -- they are required to pay a share of their profits to the municipalities that own them.) Rather, MFIs using retained earnings capitalize the equity base, to fund future growth. Compartamos in Mexico is an outstanding example of this "growth through profit" strategy.

There is no one path to microfinance profitability. In fact, what we see every day among MFIs reveals the complexity of successful operations in this sector. Profitability is dependent on a number of factors. Some are *external*, and therefore largely beyond an MFI's control. For instance, the regulatory environment may limit profitability by imposing interest rate ceilings. A few MFIs, such as the Colombian WWB affiliates, are actively working to influence that environment. Cost of funds, whether sourced locally or in the international market, is largely externally determined. Also beyond an MFI's control is the local cost of living which affects labor, and other costs. An MFI can intentionally locate in a lower cost area – such as Fundación Nieborowski or Fondesa did -- to jumpstart its operating efficiency advantage. Still looking externally, MFIs are subject to local market demand and competition for their lending services. Yet here MFIs also play a role: the Bolivian microfinance market would not be so competitive today had the local MFIs not been so successful in their microlending businesses. Among *internal* factors the quality of management and board of directors, and an MFI's scale of lending and average loan size, play key roles in its productivity, portfolio quality, cost of funds, revenues and expenses.

PARTING WORDS

Competition is the big news in Latin American microfinance. It is the natural outgrowth of a vibrant and successful microfinance market, such as urban Bolivia. In such a market, competition has a greater impact on portfolio growth, quality, and yield, and therefore profitability, than any other factor. The corollary: in noncompetitive microfinance markets, more traditional profitability predictors such as high leverage, low cost of funds, excellent operating efficiency, or high portfolio yield, will drive an MFI's bottom line. As they grow, more and more MFIs are joining the ranks of regulated institutions, affecting how and where they sources their funds and structure their balance sheets.

MicroRate's role in this changing environment is one of providing objective, third-party analysis of the counter-party risk presented by specific institutions. During the past five years, MicroRate has adapted the accepted techniques of financial institutions credit risk analysis to the microfinance industry. Initially, the effort was primarily descriptive. Now, after having evaluated more than 100 individual companies throughout Latin America, we have greater basis for normative statements and relative assessment default risk. As more companies become regulated and supervised, this transparency will become a necessary condition for participation in the industry.

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He is a financial economist and founding partner of MicroRate, with graduate degrees in economics and business and 15 years experience in the region. He now manages MicroRate Latin America.

Recent work has included institutional and financial analysis of more than 75 leading Latin American microfinance institutions, authorship and co-authorship of many of the studies in the MicroRate database, and business development - including opening MicroRate's regional offices in Lima, Peru where he now lives. Mr. Farrington is a US national