TECHNICAL NOTE 2
EQUITY & LEVERAGE IN INDIAN MFIS

Micro-Credit Ratings International Limited, Gurgaon, India *September 2005*

The purpose of this technical note is to provide a practical understanding of the need for equity to improve the resource position of MFIs and its impact on prudential operations. The focus of the note is on simple presentation and analysis of information to draw appropriate conclusions. The note emphasises the importance of equity and the need for an Equity Fund to promote the growth of microfinance services in India.

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M-CRIL is an international rural finance consultancy providing specialised services like credit rating of MFIs, monitoring, evaluation and sectoral research services for the microfinance industry. ***M-CRIL is the world leader in terms of numbers of MFI ratings and assessments undertaken*** *and has worked in 14 countries.*

Equity and the importance of financial leverage

Leverage is the use of fixed rate financial instruments (usually debt) to raise additional capital to magnify the potential return on equity. Leverage is used when the ability of a business to generate return on investments is higher than the cost of debt used to finance those investments. While financial leverage can magnify return on investments, it can also harm an enterprise if the return is lower than the cost of borrowings. The extent of this effect depends on the proportion of the investment in the enterprise that is financed with debt; a higher level of debt implies higher leverage and, consequently, higher magnification of return (or loss) on equity.

In manufacturing and service organisations (other than financial enterprises – banks or non-bank finance companies) leverage is measured as the debt-equity ratio; the higher the debt-equity ratio, the higher the leverage.

In financial enterprises, leverage is measured as the Risk-weighted Capital Adequacy Ratio (CAR). This is defined as

$$\text{CAR}^{1} = \frac{\text{Total capital}}{\text{Total risk weighted assets}}$$

A lower CAR indicates a higher degree of leverage since equity (or owners' capital) contributes a lower proportion of funds deployed in the investments of the institution in assets that earn an income but carry risk at the same time. In certain situations, if revenue earned from assets is less than interest charges on debt, there will be a potential default. The risk of default increases with an increase in leverage.

In India, commercial, cooperative and local area banks are required by the Reserve Bank of India to maintain a minimum capital adequacy ratio of 9%, while the minimum capital adequacy for non-bank finance companies (NBFCs) is 12% if they do not accept public deposits and 15% if they accept public deposits.

[1] Central banks of countries specify what is to be included in the total capital of financial enterprises and what is to be included in capital assets as well as their level of risk (risk weight). Typically in the case of MFIs, capital includes share capital (paid in equity) where applicable, donor grants (donor equity), accumulated profits (or losses) and a proportion (25-50%) of long term sub-ordinated debt. Risk weights for assets typically include 100% risk on loan portfolio, around 50% on bank deposits and net fixed assets, and zero risk on cash holdings.

Financial leverage of Indian MFIs

The primary purpose of microfinance institutions (MFIs) is to provide financial services to ever-larger numbers of low income families. Thus, these MFIs have used financial leverage mainly to increase their outreach though a secondary motivation is to improve their financial performance – to grow in order to reduce unit operating costs and improve sustainability. **Table 1** presents an analysis of the capital adequacy of 110 of the leading Indian MFIs. This is obtained from information collected during the nearly 250 ratings conducted in India by M-CRIL until June 2005; for MFIs rated more than once, only the most recently available information is included.

As the table shows, the average Capital Adequacy Ratio (CAR) of Indian MFIs is 18.4% while the median of 17.3% indicates that 50% of the MFIs have a CAR below this level. As many as 49 of the MFIs (45% of the total) have a CAR that is less than 12% the minimum specified for non-bank finance companies (NBFCs) by the Reserve Bank of India.

Table 1
Capital adequacy of Indian MFIs

Portfolio size in Rupees	Number of MFIs	Capital Adequacy Ratio (CAR)			
		Average	Median	MFIs with CAR	
				<12%	<20%
0-50 lakh	41	49.8%	51.6%	12	13
50 lakh-1crore	20	18.7%	8.7%	11	12
1-5 crores	32	20.6%	10.0%	18	24
5-10 crores	9	25.9%	22.9%	4	4
>10 crores	8	13.8%	11.5%	4	7
Total	**110**	**18.4%**	**17.3%**	**49**	**60**

Examining the distribution of CAR for Indian MFIs more closely, it is only in the smallest size class of less than Rs50 lakh[2] portfolio that average capital adequacy is reasonable – usually on account of the predominance of donor grants in the balance sheet – though even here equity is being rapidly eroded by operating losses and a significant number (nearly 30%) already have less than 12% adequacy. Those with portfolio size between Rs50 lakh and Rs5 crores have very low capital adequacy with only a few MFIs in this range (16 out of 52, 31%) having a really comfortable adequacy in excess of 20%.

Interestingly, only 4 of the 8 largest MFIs – portfolio size above Rs10 crores – have CAR in excess of 12%. Bearing in mind the general perception of MFI risk being higher than that of NBFCs, if a more stringent criterion of 20% CAR is applied, only one of the 8 largest MFIs qualifies as being reasonably leveraged. It is apparent that, for these MFIs, the promoters' risk is very limited compared to that undertaken by lenders to them and this reduces the stake of the management to levels that could be considered imprudent.

MFIs' sources of funds

It is apparent that a substantial proportion of Indian MFIs have become over-leveraged. The information in **Tables 2 & 3**, enables an assessment of whether this is on account of operational losses incurred by MFIs or because, in their enthusiasm to achieve outreach, these institutions have accumulated debt in excess of prudential norms.

[2] Indian numerical system – lakh=100,000; crore=10 million. US$=Indian Rs44.

Table 2 shows that a major part of the capital of Indian MFIs – particularly that of small and medium MFIs – is financed by donated equity. Paid-in equity (or share capital from investors) is still a relatively small proportion of the total amounting to less than 25% of the capital for medium and small MFIs (with portfolio size less than Rs5 crores). Donor grants, by comparison, constitute 100-300% of the net worth of such MFIs, having been substantially depleted by operational losses. The 17 MFIs in M-CRIL's sample in the two larger categories have a more comfortable composition of net worth with the largest category (above Rs10 crores) actually recording positive aggregate accruals of operating surplus. Nevertheless, 3 of the 8 leading MFIs report substantial accumulated losses, while two of these have negligible paid-in equity since the institutions are yet to transform to finance companies. ***Overall, just 23 of the 110 MFIs rated have generated sufficient profits to contribute to their capital from internal accruals.***

Table 2
Composition of net worth of Indian MFIs

% of net worth

Portfolio size in Rupees	Paid-in Equity (share capital)	Donated Equity (donor grants)	Accumulated profits/losses	
			% of net worth	# of MFIs with accum. profits
0-50 lakh	10.4%	286.9%	-197.3%	2
50 lakh-1 crore	21.9%	223.9%	-145.7%	3
1-5 crores	23.5%	158.9%	-82.4%	8
5-10 crores	67.1%	38.8%	-5.8%	5
>10 crores	52.0%	35.5%	12.5%	5
Sample avge	**48.7%**	**77.5%**	**-26.1%**	**23**

Examining the liability structure of these MFIs more closely, the information in **Table 3** shows the low level of paid-in equity in the smaller MFIs – mainly because these are registered as not-for-profit institutions. The larger MFIs have far higher levels of paid-in equity as more of these have transformed to finance companies. However, as the level of net grants (total donor equity less accumulated losses) declines with MFI size, the extent of financial liabilities (deposits + debt) rises. Thus, the largest Indian MFIs have nearly 90% of funds as financial liabilities implying debt-equity ratios of the order of 9:1 and a very high level of risk for lenders. Indeed, with the increasing popularity of the "partnership model" in Indian microfinance, increasing proportions of the portfolios managed by large MFIs are becoming "off balance sheet" items, increasing the actual debt-equity ratios to astronomical levels (though the MFI still must find some funds to provide an 8-12% "first loss guarantee").

Table 3
Sources of Funds of Indian MFIs

% of total funds

Portfolio size in Rupees	Paid-in Equity	Deposits	Debt	Net donor equity*
0-50 lakh	3.8%	16.0%	47.1%	33.0%
50 lakh-1 crore	3.4%	13.4%	70.9%	12.2%
1-5 crores	4.3%	19.1%	62.8%	13.9%
5-10 crores	16.0%	23.7%	52.4%	7.8%
>10 crores	6.5%	23.9%	63.6%	6.0%
Sample avge	**8.0%**	**22.5%**	**61.0%**	**8.5%**

* after deduction of accumulated losses

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Dynamic analysis

Examining the issue in a more dynamic context, **Table 4** presents the trend in the capital adequacy ratio for 15 of India's leading MFIs that have been rated regularly over the past few years.[3] Their outreach increased from just 82,600 borrowers in 2002 to over 365,000 in 2004 (and adding the outreach of the 3 excluded MFIs referred to in the footnore would take this number to around 627,000). The capital adequacy of these 15 MFIs taken together has fallen from 12.4% around 2002 to less than 9% in 2004. Extrapolating this trend over the next year and using a conservative estimate for growth results in outreach to 585,000 borrowers by these 15 MFIs but average capital adequacy falls below even 8% if the present trend in the growth of equity through paid up capital and donations is maintained.

Table 4

Trend in the leverage of 15 leading Indian MFIs

Ratings undertaken during…	2002-03	2003-04	2004-05	Estimated 2005-06
Outreach	82,591	187,663	365,633	585,000
growth		127%	95%	60%
Equity, crore Rs	3.8	8.1	12.7	17.7
growth		109%	57%	40%
Risk weighted assets, Rs crores	31.1	74.4	141.7	226.8
growth		139%	90%	60%
Capital adequacy ratio	12.4%	10.8%	8.9%	7.8%

Clearly this is not adequate and there is a shortfall of some Rs9.5 crores of equity for these 15 MFIs alone if a reasonable capital adequacy level of 12% is to be attained.[4] Yet, the internal resource generation capacity of these MFIs is presently limited as most of them record negative earnings.

Comparing these numbers with the 911,000 borrowers served by 73 MFIs rated at least once by M-CRIL between 2002 and 2004, it is apparent that this shortfall is of the order of Rs20 crores for 12% capital adequacy (and around Rs50 crores for 20% adequacy) and outreach to an estimated 1.1 million clients. Though the commercial banks are presently lending to MFIs somewhat beyond prudent levels, a substantial increase in these numbers to the 200-250 serious MFIs in the country and outreach to the level of 5 million clients and beyond, would require substantial injections of capital – debt and equity – of the order of Rs2,000 crores for a conservatively estimated average loan size of Rs6,000 per borrower.[5] This would entail an equity injection of the order of Rs250 crores in order to maintain capital adequacy at 12%. Yet, this would enable MFIs to cover less than 10% of the demand since the number of poor families in India is estimated to be in excess of 60 million. Though the bank-SHG linkage programme presently covers perhaps 15% of the demand, even a growth of this coverage to over 50% over 5 years would still leave a huge demand-supply gap in the market for micro-credit.

Factors influencing leverage

The discussion above provides a flavour of the effect of various factors on the financial leverage of MFIs. The factors that influence equity flows and leveraging are the

[3] Three leading MFIs – SNF, BASIX and SHARE Microfin – have been excluded from this analysis as they have substantial access to equity.

[4] In order to reach 20% capital adequacy, additional equity of the order of Rs27.5 crores would be required.

[5] Disbursement=Rs3,000 crores but loan outstanding would be of the order of Rs2,000 crores for a one year term.

- Profile of the promoters – increasingly MFIs are being promoted by people with management experience in commercial banking or non-banking finance sectors. Their capacity to attract equity capital is naturally higher and consequently the capital adequacy of the MFI they promote is higher. MFIs promoted by NGOs have a greater capacity to generate donor grants though experience shows that this capacity is highly variable.
- Size and growth rate of an MFI – usually a smaller MFI has a higher capital adequacy as, in the initial years, MFIs are able to obtain grants for operating expenses and fixed assets. As the size of the MFI increases, the relative importance of grants usually decreases as the MFI starts covering an increasing proportion of its expenses from its revenue. Similarly, an MFI growing very fast usually has higher operating expenses compared to an MFI of similar size not growing so fast. This results in lower additions to net worth as internal accruals are lower for the fast growing MFI.
- Robustness of the business model, one that enables a reasonable margin to be generated as the size of the MFI increases will obviously be in a position to attract commercial capital more easily than one which does not have a clear strategy for attaining sustainability.
- Legal form of the MFI – The potential equity inflow is higher for institutions more acceptable to the formal economy. Thus, an MFI registered as an NGO has mainly grants and internal accruals as sources of capital. Such MFIs cannot get equity capital, as the law does not permit it but, as they grow, debt has become an option in India since commercial bank interest in wholesale lending for microfinance has grown. For MFIs registered as cooperatives and "not for profit" companies, equity investment is allowed but their ability to attract commercial capital is constrained by the limitation or prohibition of dividends on that capital. The exit options for shareholders in such institutions are also limited. MFIs incorporated as companies and registered as local area banks or as NBFCs find it easier to attract commercial equity. However, not many NGO-MFIs have been able to raise the capital necessary to transform into NBFCs. Of the 110 MFIs in this sample, only 8 are registered as such.

The need for equity

A legitimate response to the problem of excessive leverage in any financial sector could be to leave it to the market to determine the level of equity flows through the commercial decisions of investing institutions such as commercial banks or social investment funds. In India, in recent months the recently formed Bellwether Fund, Lok Capital, ICICI Grameen Capital and Unitus are Funds that have become active in microfinance. However, the amount of capital available to them does not exceed US$25 million (or Rs110 crores), barely sufficient to leverage about Rs900 crores of debt if a 12% capital adequacy is to be maintained (and only Rs500 crores for 20% adequacy). Further, the lack of a market for MFI equity acts as a limiting factor to the availability of further capital for investment in MFI equity. It is such imperatives that have resulted in the development of innovative instruments for investment in microfinance including

1. Securitisation (selling of identified portions of the portfolio) by MFIs to banks
2. Holding of MFI equity by clients of these institutions. However, this cannot be said to be a commercial and sustainable mechanism as most clients do not understand the concept of equity; they participate essentially because equity holding becomes a presumed precondition for obtaining a loan from the MFI.
3. Offering of subordinated debt to fill temporary gaps in MFI equity. Thus, SIDBI has a seven-year "Transformation Loan" at 1% interest that enables the MFI to transform from an NGO to an NBFC. When the transformation is complete, SIDBI has the option to convert the loan into equity.

4 The "partnership model" where the commercial bank contracts the MFI to offer micro-credit services on its behalf – the MFI being the manager of the bank's portfolio rather than a borrower from the bank.

5 The possibility of active wholesalers like SIDBI and ICICI Bank also taking preference shares in transforming MFIs.

Despite the significant growth of Indian microfinance resulting from these activities, there is another perspective. The total demand for microfinance loans in India is variously estimated at Rs50,000 crores to Rs80,000 crores per annum to some 60 million poor families and even higher if other low income families without access to financial institutions are included**.** Yet, the most optimistic estimates of the supply of microfinance are of the order of Rs5,000 crores provided to some 7-8 million families – including roughly Rs1,000 crores disbursed by MFIs and the estimated Rs3,000 crores financed by banks under the SHG-Bank linkage programme during 2004-05. This huge gap presents an opportunity for many more MFIs to grow and reach larger numbers of low income families and achieve the level of outreach that will enable them to operate sustainably.

At the same time, it is well known that the commercial banks are flush with liquidity and in need of investment opportunities – particularly in the priority sectors. But, as discussed earlier, lending to MFIs has now reached levels where it represents an increasingly high level of risk for the lender on account of increasing leverage. Other major constraints to the flow of funds for microfinance are

- Strict capital requirements for and regulatory restrictions on the operations of NBFCs, the only commercially appropriate form of institution presently open to MFIs as a practical option
- The inability of most MFIs to operate on a commercially sustainable basis due to the lack of capacity to manage large operations
- The concentration of capable microfinance NBFCs in relatively small pockets of Andhra Pradesh and Tamil Nadu leading to high competition in a few parts while leaving large areas in the north-east, north, east and west of the country under-served in terms of microfinance service provision.

It is apparent, therefore, that there is substantial potential for an Equity Fund to promote the activities of MFIs in India. Given the relatively low overall financial returns to MFIs at present, this Fund may need, initially, to be run with developmental rather than commercial objectives. A Fund established with public money could, therefore, develop the market for MFI equity and provide the lead to demonstrate its benefits and returns, enabling more-commercial investment to be made in the long run. Essentially, the role of such a Fund would be

a Equity and quasi-equity (or sub-ordinated debt) investments in leading MFIs that have potential for further expansion but are now reaching the glass ceiling imposed by high financial leverage and are, therefore, being forced to expand through means that are not financially prudent in the long run.

b Transformation of MFIs – including the microfinance operations of multi-service NGOs – into NBFCs through judicious equity participation in institutions with potential to expand substantially.

c Facilitation of (and investment in) professional training initiatives that help to expand and increase the cadre of management professionals available to MFIs.

d Seeding of new initiatives by (provision of venture capital to) professionals with an understanding of development finance in the poorer regions of the country under-served by microfinance.

Such an initiative would greatly stimulate the orderly growth of microfinance in the country and reduce or eliminate the tendency to engage in creative (but not necessarily prudential) financing of MFIs.

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