Microbanks: Ownership, performance and social tradeoffs - a global analysis

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MICROBANKS:

OWNERSHIP, PERFORMANCE AND SOCIAL TRADEOFFS - A GLOBAL ANALYSIS

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KEY WORDS

Microfinance, outreach tradeoffs, transformation, commercialization, ownership, corporate governance

ABSTRACT

Suppliers of microfinance are typically Non Governmental Organizations (NGOs), cooperatives or specialized microfinance institutions incorporated as Shareholder Firms (SHFs). Leaving out the cooperatives we study whether NGOs and SHFs differ in bringing along social benefit to their clients. Specifically, is there a trade-off between different dimensions of social benefits, and can these tradeoffs predict ownership type? To frame the comparison of NGOs and SHFs we make use of Schreiner's (2002) framework for discussion of the social benefits of microfinance. A self constructed dataset with unusually high-quality rating information from 132 NGOs and 68 SHFs in 53 countries is used to carry out the statistical tests. Our findings indicate that SHFs and NGOs are more similar than different. Our hypothesis that NGOs are more socially oriented than SHFs is rejected. SHFs' benefit in scale and scope seems not related to ownership, but to legal constraints impeding NGOs to mobilize savings. Our second conclusion is that we cannot find a trade-off among outreach variables. Specifically, the return on assets is higher in NGOs. We conclude that ownership doesn't influence the performance of microfinance organizations. Our conclusion is in line with findings in the general banking industry.

INTRODUCTION

Microfinance is the supply of banking services to micro-enterprises and poor families. Access to services apparently brings along important social benefits for the clients (Littlefield et al., 2003, Claessens and Feijen, 2006). Suppliers of microfinance are typically Non Governmental Organizations (NGOs), cooperatives or specialized microfinance institutions incorporated as Shareholder Firms (SHFs). In this article we leave out the cooperatives, and study whether NGOs and SHFs differ in bringing along social benefit to their clients. Specifically, is there a trade-off between different dimensions of social benefits, and can these tradeoffs predict ownership type?

The term 'social benefit' is a vague notion. To better define it and to frame the comparison of NGOs and SHFs we make use of Schreiner's (2002) framework for discussion of the social benefits of microfinance. Schreiner proposes six aspects of outreach, or social benefits, for clients; cost, depth, breadth, length, scope and worth, where *Cost* is defined as the sum of price costs and transaction costs, *Depth* is defined as clients' poverty level or other society preferences like for instance the percentage of women reached, *Breadth* is defined as the number of clients served, *Length* is defined as the time frame of the supply of services and *Scope* is defined as number of types of financial contracts supplied. *Worth* is subjective and according to Schreiner the most difficult to define and measure. Thus, it is left out in our discussion. The underlying assumption in Schreiner (2002) is that more socially oriented Micro Finance Organizations (MFOs), assumed to be the NGOs, can compensate narrow breadth, short length and limited scope with greater depth, while less socially oriented MFOs, assumed to be the SHFs, can compensate shallow depth with wide breadth, long length and ample scope.

We test for the predicted difference between the SHF and the NGO in three ways. First, averages of empirical specifications of the five dimensions of social benefits are compared and tested for significant difference. Then, the specified dimensions are used to predict the organizational type of either NGO or SHF in multivariate logit regressions. Last, we perform robustness tests of the results, using adjusted values instead of the original variables.

A self constructed dataset with unusually high-quality information from 132 NGOs and 68 SHFs in 53 countries is used to carry out the statistical tests. The organizations are united by their willingness to open their accounts to careful scrutiny by third party rating agencies and to make public their reports. The organizations thus represent the more professionally oriented strata of Microfinance Organizations (MFOs). Besides high information reliability, the database also provides a unique opportunity to study longitudinal changes in variables, an opportunity explored in this article.

Our findings indicate that SHFs and NGOs are more similar than different. Our hypothesis that NGOs are not more socially oriented than SHFs is rejected. SHFs' benefit in scale and scope seem not related to ownership type, but to legal constraints impeding NGOs to mobilize savings. Our second conclusion is that we cannot find a trade-off among outreach variables. Specifically, the return on assets is higher in NGOs. We conclude that ownership type doesn't influence the performance of microfinance organizations. Our conclusion is in line with findings in the general banking industry.

The rest of this paper is organized as follows: Section two introduces the transformation debate in the microfinance industry. Section three outlines the theory and hypothesises

followed by information about the dataset. Section five provides our findings and discussions. Section six concludes.

THE TRANSFORMATION DEBATE

A review of several policy documents and relevant reports reveals that most of them outline the strengths of SHFs and the weaknesses of NGOs (Berenbach and Churchill, 1997, C-GAP, 2003, Chavez and Gonzalez-Vega, 1994, Christen and Rosenberg, 2000, Greuning et al., 1998, Hardy et al., 2002, Jansson et al., 2004, Staschen, 1999). The implicit message is that a SHF will bring along more social benefits than a NGO. This has resulted in a call in the industry for NGOs to transform into SHFs (Fernando, 2004, Ledgerwood and White, 2006).

The call for transformation is motivated by the possibility to become regulated institutions with a legal right to mobilize local savings and thereby increase both scale and scope of operations. Increased ownership control and better access to equity capital are other arguments used (White and Campion, 2002, Fernando, 2004, Hishigsuren, 2006, Ledgerwood and White, 2006). Yet, so far the call for transformation has stirred up more discussions than actions. Of the many thousands NGOs only about 43 have transformed into SHFs (Hishigsuren, 2006). This paper aims to bring much needed empirical evidence to the debate. How different are actually SHFs and NGOs?

A rival hypothesis may be that SHFs and NGOs do not differ on the social benefits they bring along, simply because they need to develop about the same business model in the service of customers and in competition with other players in the microfinance market. This is also related to the so-called "mission drift" (Woller, 2002, Christen, 2001), which maybe boils down to access to capital, the accumulation of knowledge and the crystallization of workable

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business models. In fact, different ownership forms are common in ordinary banking and insurance industries as well (Mayers and Smith, 1983, Hansmann, 1996). In mature bank-markets where different ownership types coexist, researchers find little evidence to suggest that ownership type influences operational efficiency (Altunbas et al., 2001, Crespi et al., 2004, ESBG, 2004). In a recent paper, Mayers and Smith (2005) did find higher incentive problems between owners and managers are more pronounced in mutuals. They propose this has an offsetting benefit, in that the bank-customer incentive conflict problems are alleviated. May be the success for the microfinance organization is as much dependent upon its relations to staff, depositors, borrowers and donors as it is to its owners?

THEORY AND HYPOTHESIS

According to Hansmann (1996) the difference between a SHF and a NGO lies in who controls the organization and who receives the profit from it. In a SHF the shareholders control the organization, decide on how to distribute the profits and are free to sell their privileges. A NGO might have several stakeholders influencing the organization. Yet, no particular group or person can claim ownership of it or receive residual earnings from it.

Most equity holders in SHFs are NGOs, donors or social oriented investors (Ivatury and Abrams, 2005, Ivatury and Reille, 2004, Goodman, 2005). Yet, some stakeholders such as banking authorities, more debt holders, depositors and some profit minded investors are normally unique for SHFs. Also the fact that shareholders are free to sell their shares and that several of today's equity holders have a limited time horizon to their investments should indicate that managers of SHFs experience a different type of ownership control than NGOs.

Schreiner (2002) assumes that more socially oriented MFOs trade off narrow breadth, short length and limited scope with greater depth, while less socially oriented MFOs trade off shallow depth with wide breadth, long length and ample scope. Assuming NGOs to be more socially oriented than SHFs we derive our main hypothesis:

Main hypothesis
NGOs are more social oriented than SHFs. That is; NGOs have greater depth, shorter length, narrower breadth and more limited scope than SHFs.

In what follows we identify variables able to explain each of the five selected dimensions of outreach; costs, depth, length, breadth and scope. We recognize that no single variable or simple combination of variables is able to fully explain the completeness of any of the dimensions. When available in Schreiner's article we make us of variables mentioned by him. Alongside the identification of the variables we work out specific hypothesis on differences between NGOs and SHFs. When not otherwise stated ratio definitions are taken from Microrate and IADB (2002).

1) Cost to clients
Cost to clients is the sum of price costs and transaction costs. Transaction costs like travelling, instalment frequency etc. are left out. We concentrate on price costs to the clients becoming revenue for the MFO. The revenue ratio including most, but not necessarily all, price costs to clients is the income yield. In a MFO the income yield is a function of debt costs, operational costs, loan loss costs and equity costs.

a) Debt costs

Ignoring inflation debt costs are mainly a function of credit risk (institutional and contextual) and legal constraints related to the intermediation of deposits. We estimate that the debt/equity ratio is generally higher in SHFs than in NGOs. The main explanatory factor is that as opposed to NGOs most SHFs are regulated and can legally intermediate publics' deposits. In addition, also credit risk, whether perceived or real, plays a role as most lenders, all else equal, allow higher loans to SHFs than to NGOs.

Hypothesis 1 a)
Debt costs are higher in NGOs than in SHFs.

We use the cost of funds ratio as a measure together with the debt/equity ratio. However, since some firms have negative ratios due to negative equity, we also include the debt/assets measure.

b) Operational costs

Operational costs depend among others factors on market (e.g. population density and competition), operational scale, staff costs, methodology (e.g. group versus individual lending), credit size, loan defaults, product scope, technology and management whereof the later can significantly influence most of the others. Christen (1999) suggests the main 'efficiency drivers' are average wage paid to staff, average balance per loan and the number of clients per staff member (Christen, 1999). Implicit in most ownership literature is that owners with pecuniary incentives are more able to induce efficient operations.

Hypothesis 1 b)
Operational costs are higher in NGOs than in SHFs.

We employ the operating expense ratio as a measure

c) Loan losses

Loan losses depend among other factors on market (e.g. competition and segment served), methodology, technology and management whereof the later can significantly influence most of the others. Less ownership control indicates that NGOs lack some incentives to follow up defaulters. At the same time NGOs, due to their social mission, are more inclined to accept clients' excuses. Yet, for profit motivated organizations, there might be a trade-off between increased loan losses and reduced operational costs. Nevertheless the following hypothesis should hold:

Hypothesis 1 c)

Loan losses are higher in NGOs than in SHFs.

In accounting reports loan losses can be found as write offs and portfolio at risk and it is the combination of the two which ultimately tells us something of the loan losses.

d) Equity costs

Equity costs are influenced by managers' interest in securing their own future and reputation, but also depend on the owners' pecuniary incentives. All else constant, equity costs should be higher in SHFs than in NGOs.

Hypothesis 1 d)

Equity cost measured as return on equity (ROE) is higher in SHFs than in NGOs.

2) Depth of outreach

Depth is defined as clients' poverty level or other society preferences like for instance the percentage of women reached. Reaching poorer clients is relatively more costly since the cost of operating a small loan is often quite similar to that of operating bigger loans. More socially oriented organizations should be more willing to reach poorer and more discriminated clients.

Hypothesis 2 a)

NGOs reach poorer clients than SHFs

A much used proxy for measuring poverty level among clients is average loan size per client.

Hypothesis 2 b)

NGOs reach relatively more women than SHFs.

c) Breadth of outreach

Breadth of outreach is the number of clients served. Clients can be both savings clients and credit clients. Since NGOs in most cases cannot mobilize deposits due to legal constraint, their number of savings clients should in most cases be zero. Excluded from the opportunity to fund loans with savings together with the proposed difficulty in accessing debts indicate that also the number of credit clients should be lower in NGOs than in the SHFs.

Hypothesis 3

SHFs reach out to more clients than NGOs.

We measure this by the total number of clients and the total number of credit clients.

d) Length of outreach

Length of outreach is the time frame of the supply of microfinance. Length is difficult to measure, but profit is a proxy because it signals the ability to sustain the business over time. Since SHFs should have the benefit of lower costs, higher scale, broader scope and increased ownership control they should be able to sustain longer than NGOs.

Hypothesis 4

SHFs are more profitable than NGOs.

Due to considerable variation in debt/equity ratios profit in the microfinance industry is best measured as the return on assets (ROA).

e) Scope of outreach

Scope of outreach is the number of types of financial contracts supplied. Scope depends on market opportunities (demand, competition etc.), available resources, management and legal constraints whereof the later is a major market distorter. Since the mobilization of deposits is generally reserved for regulated entities NGOs should, due to their difficulties in becoming regulated, generally be supplying fewer financial contracts than their peers. When it comes to the number of credit products being supplied the NGOs are also disadvantaged due to the lack of scale and resources.

Hypothesis 5 a)

SHFs offer voluntary savings while NGOs generally don't.

We simply use the sum of total savings in the two ownership types.

Hypothesis 5 b)

The number of credit products offered is higher in SHFs than in NGOs.

In summary, the Schreiner (2002) model implies a trade-off between the depth, that is, the outreach to poor clients in particular, and other dimensions of outreach, such as scale. The hypothesis is that the NGO trades off higher depth with lower breadth, length, scope and higher costs to the clients compared to the SHF. We investigate this by simply comparing averages of specifications of the five outreach dimensions in table 1 for the subgroups of SHF and NGO.

Furthermore, if the SHF and NGO differ in dimensions of outreach, we should be able to predict organizational type from these outreach dimensions. In particular, depth should be an important prediction variable. We study this in a simple logit model where the dummy variable "ownership type" is the binary dependent variable containing the SHF and the NGO types.

Definitions of variables used in the analysis are given in table 1

Table 1: Variable definitions	
Variable	Definitions (when available from (Microrate and IADB, 2002)
Cost A Debt cost	*Cost of Funds Ratio* The cost of funds at the end of a given period, that is COF = (Interests and fee expense on funding liabilities)/(Average funding liabilities) *Debt/equity ratio* The ratio of debt to equity at the end of a given period

	Debt/Assets The ratio of debt to total assets
B Operational cost	*Operating expense ratio*: The ratio of the operating expenses to the average loan portfolio, thus OEP = (Operating expenses)/(Average total loan portfolio)
C Loan losses	*Write-Off ratio* The ratio of loans that has been written off and accepted as a loss, that is WOR = (value of loans written-off)/(average loan portfolio) *Portfolio at Risk (PaR 30)* The percentage of the total loan portfolio with more than 30 days in arrears
D Equity costs	*Return on Equity* (ROE)
Depth	*Average loan amount* The average outstanding loan amount per loan client at the end of a given year, thus, ALA = (Gross outstanding portfolio)/(Number of active credit clients) *Conscious gender bias?* Does the MFI report having a conscious gender bias? 1 being *yes* *Women percentage* The percentage of the clients being female or percentage of the portfolio held by women
Breadth	*Total number of clients* The total number of clients that are *active* with the MFI *Number of credit clients* The number of credit clients at the end of the period
Length	*Return on Assets* The return on assets (ROA) at the end of a given period.
Scope	*Total voluntary savings* The clients' total voluntary savings with the MFI as appeared in the balance sheet at the end of a given period and includes demand and fixed deposits *Loan products* The number of *loan* products offered by the MFI

DATASET

The dataset consisting of 132 NGOs and 68 SHFs in 53 countries has been constructed using rating reports made public at the www.ratingfund.org. The dataset focuses on risk assessment reports made by five rating agencies: MicroRate, Microfinanza, Planet Rating, Crisil and M-Cril. The methodologies applied by the rating agencies have been compared and no major differences in how they assess MFOs have been found. All the five agencies are approved

official rating agencies by the Rating Fund of the Consultative Group to Assist the Poor (C-GAP) (www.ratingfund.org).

Transparency in microfinance has been emphasized as increasingly important. No commonly accepted international standards for microfinance existed until some years back, when the rating agency MicroRate invited the Inter-American Development Bank (IADB), the Consultative Group to Assist the Poor (CGAP), the United States Agency for International Development (USAID) and two of the other rating agencies M-Cril and Planet Rating to agree on a set of commonly used indicators. This resulted in a document published by IADB and Microrate called Performance Indicators for Microfinance Institutions. When comparing the ratio-definitions applied by the agencies it's observed that all five rating agencies adopt the common standards.

Different organizations sometimes tend to have different ways of presenting their financial figures. Hence, the rating agencies present some adjusted variables to allow a better comparison with other organizations. The main adjustments are normally adjustments considering interest on delinquent loans, elimination of subsidies, standard calculation of provisions, adjustments for inflation, and adjustments for write-offs on loans. In our statistical tests we make use of unadjusted variables before we include adjusted variables in robustness checks.

The rating reports making up the database are from year 2000 to year 2006 with the vast majority being from the last three years. In the cases where several rating reports are available from the same organization the most recent report (as of different dates during 2006) has been selected.

The rating reports contain financial information for up to four years. The actual year the rating took place is reported year 0, while the previous years are reported year – 1, year -2 and year -3.

When needed all numbers in the dataset have been annualized and dollarized using official exchange rates at the given time.

Of the 68 SHFs in the database 13 are banks and 55 are non-bank financial institutions (NBFIs). The difference between banks and NBFIs normally becomes apparent in the capital requirements and permitted scope of operations. Both banks and NBFIs are usually, but not always, regulated by local banking authorities.

The rating agencies differ in their emphasis and abundance of available information. Thus, different N on different variables and in different years is reported.

RESULTS AND DISCUSSIONS

Tradeoffs in outreach?

With the specifications suggested in table 1, tables 2 and 3 show the averages on the five dimensions, while an ANOVA F test gives the significance level of the difference between the two group means. In each year, the extreme values for the debt/equity ratio have been filtered out, that is, cases with values above 20 and below zero are removed. The SHF is defined to be the banks and the non-bank financial institutions. Note that the dataset only contains data

from year 0 on Conscious gender bias, the Women percentage and Loan products. Thus, these are only reported in year 0.

Tables 2 and 3

We comment on all years together. The depth variables are the Average loan amount, the Conscious gender bias, and the Women percentage. Thus, if the depth is higher in NGOs, we would expect to find lower Average loan amount and higher values on the gender variables. We do find a significant difference in the conscious gender bias variable, but when it comes to average loan amount and Women percentage, the expressed bias does not show up in actual practice. Note that N differs considerably between these two variables. The fraction of loans given to women is perhaps surprisingly high in SHFs, about two thirds. Thus, the depth hypothesis is not supported.

Do we find the tradeoffs with other dimensions? We find significant differences in Debt cost. The debt/equity ratio is significantly higher in the SHF than in the NGO in all years. Likewise, the scope is lower in NGOs. We find significant differences in Voluntary savings and Loan products. The differences are as predicted in Schreiner (2002). For the breadth dimension we find significant differences for all clients, but for credit clients only for the years -2 and -3. Probably, we need to consider the debt cost, breadth and scope together. Since NGOs are normally not regulated, they cannot accept deposits. This institutional aspect may explain the significant differences on the variables. With lower deposits, the NGOs will have a smaller capital base to fund lending. Then we will expect both the debt/equity ratio and the voluntary savings to be lower in NGOs.

On the other hand, we find some interesting similarities. For instance, the Operating expense ratio is not significantly different in any year, and the ratio is in fact lower in SHFs only for the two recent years. Thus, we cannot say that SHFs are run in a more cost-effective manner than NGOs. A second similarity concerns the equity costs, specified as ROE. This shows no significant difference in any year, and is lower in year -3 in the SHF. Furthermore, the length dimension, specified as ROA, is consistently higher in the NGO than in the SHF. But again, the differences are too small to be significant. However, the hypothesis was the reverse of what we find. Thus, the NGO does not sacrifice business opportunities in order to supply credit to poor clients. Perhaps, as a supplier with fewer products to offer, it earns specialization advantages. Perhaps also, the question should be turned around: Why does the NGO perform as well as the SHF on traditional financial measures?

Do these differences together confirm the Schreiner (2002) trade-off hypothesis? They do not. The significant differences seem to better conform to the way the SHF and the NGO are regulated, specifically, that since most NGOs are not regulated by banking authorities, they cannot offer services to depositors. Then, if our hypothesis derived from Schreiner's framework were correct we would expect to see significant differences especially for depth. Yet, we find such a difference only for the intention of serving women, but this did not transform into a higher female share of loans or smaller loans from the NGO. Otherwise, the similarities between the two ownership groups indicate that both have found a sustainable business model for the microfinance market. Based on our simple comparison of averages of the outreach dimensions we reject our main hypothesis: NGOs are not more social oriented than SHFs.

Predicting ownership type

In this section, we test our hypothesis by considering dimensions simultaneously in logit regressions. While the comparisons of means are a partial analysis, the effects may show up more explicitly when all dimensions are considered together.

In table 5 we report results from logit regressions when the banks and NBFI together constitute the SHF. The SHF and the NGO constitute the binary dependent variable ownership type. Since SHF is coded 0 and the NGO 1, a positive sign indicates a higher probability for detecting the NGO, a negative sign will pick out the SHF. Thus, from our hypothesis derived from Schreiner's framework, we would expect the depth to show a positive relationship to ownership type, while the other dimensions should show negative signs. Specifically, the ROA should be negative.

For the regressions, we have included only those variables that are continuous. These correspond to the variables for which we have observations for each year. Furthermore, for each dimension we have restricted the inclusion of variables to only one, except for the cost dimension, where from table 1 we have several sub-groups. In these regressions, no control variables are included. Later, we perform robustness test in order to check the results. Table 4 now gives estimates for ownership type when debt cost is gauged as the debt level.

Table 4

The omnibus $\chi^2(8)$ test is a Wald test for the null hypothesis that all coefficients in the equation are zero. We can reject this hypothesis in all specifications. The Nagelkerke R^2 measure shows how much is explained. This overall measure gives values that are usually

much smaller than those in linear regression models. Therefore, the statistic shows satisfactory results. Also, the percentage of cases correctly classified indicates that the overall regression performs well.

Table 4 shows that our measure of depth, average loan amount, is not significant in any regressions. Overall, few significant results are obtained, indicating that it is difficult to pick out the type of ownership from the Schneider (2002) dimensions. The negative debt level (year -3) and the positive operating portfolio expense ratio (years 0 to -2) have the correct signs according to our hypothesis. So do the results for PaR30. But the ROA (length dimension) is positive and significant in year -1, which is contrary to the hypothesis. Thus, although costs and risk are higher in the NGO, this type of organization has developed a business model that has a ROA on par or better than the SHF. This indicates that the NGO should be sustainable in the long term, contrary to our hypothesis derived from Schneider's framework.

Are our results upset when other specifications are used? We run robustness tests when the debt/equity ratio is used instead of the debt level, see table 5, and tests when ROE and ROA are removed in table 6. In the table 5 regressions, the extreme values of the debt/equity ratio are filtered out, that is, cases with negative values and ratios higher than 20 are removed.

Table 5

The results from table 5 parallel those in table 4 to a large extent, although we obtain fewer significant coefficients. Operating portfolio expense ratio, which turned out to be important in table 4, is very close to significance in years -1 and -2. Again, the depth variable average loan

amount is nowhere significant, and while the cost dimension variables debt/equity ratio and operating portfolio expense ratio are as predicted, the length variable ROA is positive and does not support the hypothesis. Furthermore, it is interesting to note that the coefficient values are at about the same size level in both tables. This indicates that our results are rather robust.

We also performed tests of the relation with ROE and ROA alternatively removed in year 0. The reason is that these variables may be highly correlated. However, the tests in table 6 show that coefficients are little perturbed, indicating that our results are robust.

Table 6

Last, we have performed several tests that are not reported. Instead of ROE and ROA, we used the adjusted values. Instead of the average loan amount, we adjusted the figure by GDP per capita. Instead of the debt level we used the cost of funds. None of these tests upset the results already found in tables 4 and 5. The reason for not using adjusted variables in the first place is the loss of observations. This is important, since the number of observations is already low, statistically speaking. The same is the case for control variables. But with the satisfactory robustness results, we think that these shortcomings are of minor importance.

Taken together, the Schneider (2002) dimensions are not successful in differentiating between ownership types. Our main hypothesis is rejected. NGOs are not more socially oriented than SHFs.

CONCLUSION

We have studied whether ownership type influence the social benefits of microfinance. Our overall conclusion is that it does not. We have tested the hypothesis that greater depth in the NGO is traded off against higher operating, debt and equity costs, together with lower length, that is, a shorter life span. We could not support the hypothesis in partial tests of equality of means in sub-groups of NGOs and SHFs, or in multivariate logit regressions, where the dependent variable is the ownership type containing the NGO and the SHF. In the partial analysis, the differentiating variables are associated with the access to deposits, which many NGOs are denied, and in the logit regressions, the depth variable is nowhere significant, and significant variables are contradictory relative to the hypothesis. The overall conclusion is that our hypothesis is rejected. NGOs are not more socially oriented than SHFs.

Instead, we believe that the NGOs have found a business model that is viable and that gives the NGO sustainability. The reason for our optimism is that the ROA is on par, or better, than alternative ownership types, such as banks and non-bank financial institutions. Our results are in line with conclusions in a recent World Bank paper by Cull, Demirguc-Kunt and Murdoch (2006).

In mature banking markets ownership does not influence performance (Altunbas et al., 2001, Crespi et al., 2004). Our findings demonstrate that neither in the microfinance industry it does. So why does policy makers and consultants impose costly transformation processes on NGOs when they are already similar to SHFs? Would it not be better to adapt legal frameworks to allow the best performing NGOs to mobilize savings and thereby also compete with SHFs in scope and scale?

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Table 2: The average and standard deviation of aspects of the five dimensions of outreach in shareholder owned firms (SHF) and non-governmental organizations (NGO), years 0 and -1

	SHF			NGO			F-test
Year 0	Mean	Std	N	Mean	Std	N	Sign
Debt/Equity ratio	3,646	3,978	64	2,137	2,725	115	0,003
Debt level	0,512	0,319	67	0,587	0,283	131	0,096
Operating portfolio expense ratio	0,267	0,220	67	0,295	0,184	130	0,341
Cost of Funds Ratio	0,082	0,059	57	0,081	0,087	120	0,951
Write-Off ratio	0,013	0,017	47	0,020	0,043	98	0,318
PaR 30	0,057	0,072	68	0,052	0,073	130	0,643
ROE	0,119	0,235	50	0,070	0,389	109	0,407
Average loan amount	701,230	657,560	67	562,292	699,577	130	0,179
Conscious gender bias?	0,296	0,461	54	0,452	0,500	115	0,054
Women percentage	0,677	0,300	19	0,758	0,237	55	0,235
Clients	40900	98703	60	17352	24891	131	0,011
Credit clients	25666	52383	66	16839	24775	131	0,110
ROA	0,026	0,088	65	0,040	0,094	129	0,313
Voluntary savings	5058490	17479664	65	26892	150334	123	0,002
Loan products	5,138	4,391	65	3,492	2,234	128	0,001
	SHF			NGO			F-test
Year -1	Mean	Std	N	Mean	Std	N	Sign
Debt/Equity ratio	3,294	3,150	54	1,673	1,700	107	0,000
Debt level	0,526	0,308	56	0,549	0,298	121	0,648
Operating portfolio expense ratio	0,285	0,234	54	0,320	0,206	114	0,326
Cost of Funds Ratio	0,080	0,061	47	0,082	0,111	100	0,936
Write-Off ratio	0,025	0,039	47	0,024	0,035	104	0,875
PaR 30	0,064	0,080	53	0,061	0,086	112	0,827
ROE	0,045	0,261	50	0,004	0,495	109	0,583
Average loan amount	680,869	627,311	53	626,179	886,786	112	0,687
Clients	27449	72211	46	12350	16945	118	0,034
Credit clients	20450	49582	52	12200	16908	118	0,109
ROA	0,003	0,121	52	0,032	0,115	114	0,141
Voluntary savings	2969318	8435670	55	12893	84654	115	0,000

Table 3: The average and standard deviation of aspects of the five dimensions of outreach in shareholder owned firms (SHF) and non-governmental organizations (NGO), years -2 and -3

	SHF			NGO			F-test
Year -2	Mean	Std	N	Mean	Std	N	Sign
DE	2,985	2,938	52	1,583	1,894	104	0,000
Debt level	0,485	0,339	54	0,516	0,316	113	0,556
Operating portfolio expense ratio	0,305	0,280	51	0,334	0,238	104	0,495
Cost of Funds Ratio	0,076	0,052	46	0,075	0,091	92	0,954
Write-Off ratio	0,021	0,036	49	0,028	0,047	103	0,410
PaR 30	0,064	0,089	52	0,071	0,097	109	0,633
ROE	0,022	0,288	50	-0,086	1,282	107	0,556
Average loan amount	709,543	633,130	39	822,469	1446,844	73	0,644
Clients	26575	70398	46	9744	13955	116	0,015
Credit clients	17605	41548	51	9662	13854	116	0,067
ROA	0,000	0,106	53	0,012	0,157	111	0,604
Voluntary savings	2052636	5150219	53	7568	53001	110	0,000
	SHF			NGO			F-test
Year -3	Mean	Std	N	Mean	Std	N	Sign
DE	3,031	3,164	37	1,616	2,284	72	0,009
Debt level	0,517	0,367	40	0,465	0,302	77	0,418
Operating portfolio expense ratio	0,495	0,658	33	0,410	0,350	64	0,406
Cost of Funds Ratio	0,092	0,077	32	0,078	0,066	52	0,371
Write-Off ratio	0,015	0,021	31	0,024	0,041	73	0,263
PaR 30	0,070	0,085	38	0,075	0,102	74	0,777
ROE	-0,101	0,688	38	0,074	0,580	72	0,160
Average loan amount	680,869	627,311	53	626,179	886,786	112	0,687
Clients	21495	55388	32	7073	10542	80	0,027
Credit clients	15148	34393	37	7192	10513	78	0,063
ROA	-0,016	0,180	40	-0,002	0,165	75	0,689
Voluntary savings	1666170	3607646	42	6679	44028	94	0,000

Table 4: Logit calculations of organizational predictions. Years 0 to -3 when the binary variable ownership type contain banks and non-bank financial institutions (SHF), coded as 0, and NGO, coded as 1

	Year			
	0	-1	-2	-3
Debt level	-0.612	-0.949	-1.482	-2.128*
Operating portfolio expense ratio	3.769**	2.407*	1.868*	2.615
PaR 30	6.793	7.935*	5.217	7.745*
ROE	-0.344	-0.455	-0.232	0.964
Average loan amount	0.000	0.000	0.000	0.000
Credit clients	0.000*	0.000	0.000	0.000
ROA	3.753	6.695*	2.912	0.954
Total voluntary savings	0.000**	0.000**	0.000	0.000
Constant	-0.260	0.246	0.996	1.201
Observations	148	144	136	91
Classified correctly (%)	79.1	79.2	79.4	79.1
Omnibus Chi-sq (8) test	0.000	0.000	0.000	0.000
Nagelkerke R Square	0.399	0.377	0.369	0.449

Table 5: Logit calculations of ownership type. Years 0 to -3 when the binary dependent variable ownership type contains banks and non-bank financial institutions (SHF), coded as 0, and NGO, coded as 1. Debt/equity ratio is used instead of debt level

	0	-1	-2	-3
DE	-0.097	-0.168*	-0.056	-0.021
Operating portfolio expense ratio	3.576**	2.225	1.899	1.093
PaR	6.642	7.815*	4.215	10.725
ROE	-0.368	-1.149	-0.265	1.244
Average loan amount	0.000	0.000	0.000	0.000
Credit clients	0.000*	0.000	0.000	0.000
ROA	3.319	7.978**	2.748	0.092
Total voluntary savings	0.000**	0.000*	0.000	0.000
Constant	-0.323	0.159	0.416	0.036
Observations	145	142	134	82
Classified correctly	79.3	80.0	69.4	78.0
Omnibus Chi-sq (8) test	0.000	0.000	0.000	0.000
Nagelkerke R Square	0.402	0.393	0.351	0.430

Table 6: Robustness logit calculations of organizational predictions, varying ROE and ROA Year 0.

Dependent Bank-Nf-NGO	All variables	ROE removed	ROA removed
Debt level	-0.612	0.311	-0.854
Operating portfolio expense ratio	3.769**	2.264*	3.753**
Portfolio at Risk (PaR 30),	6.793	8.193*	6.303
ROE	-0.344		0.097
Average outstanding loan amount	0.000	0.000	0.000
Credit clients	0.000*	0.000	0.000*
ROA	3.753	5.161**	
Total voluntary savings	0.000**	0.000**	0.000**
Constant	-0.260	-0.495	0.062
Observations	148	179	149
Classified correctly	79.1	74.8	78.5
Omnibus Chi-sq (8) test	0.000	0.000	0.000
Nagelkerke R Square	0.399	0.354	0.405