# GOOD FORM? ORGANIZATIONAL FORM, SOCIAL AND FINANCIAL PERFORMANCE IN MICROFINANCE

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#### ABSTRACT

This paper examines relationships between organizational form and both social and financial performance. The effects on performance are examined for two prominent features of organizational form—sector membership & hybridity—through the mechanisms of institutional auspice, organizational incentives, and access to resources. Hypotheses are tested on a sample of over 2,000 organizations' unbalanced longitudinal reports spanning 18 years. Organizations are drawn from microfinance, an industry where both social and financial performance figure prominently. Findings suggest while ownership has its expected effects for conventional forms, hybrid organizational forms exhibit surprising differences. For-profit hybrid forms increase both types of performance, while nonprofit hybrid forms "split the difference" by achieving greater financial performance at the apparent sacrifice of social performance. Results are especially pertinent to industries which prioritize both social and financial outcomes and for social entrepreneurs' selection of organizational form. Moreover, this study has implications for business generally as it is increasingly called upon to prioritize social performance alongside financial performance.

#### **INTRODUCTION**

Generation of both economic and social value is increasingly salient to twenty-first century organizations. Yet, organizational forms have traditionally focused on generating one or the other types of value. What do we know about organizational form and generating these types of value through performance? Does for-profit organization fundamentally hinder social performance? Conversely, do nonprofit organizational forms suffer in financial performance? For-profit social enterprises have increasingly entered industries traditionally served exclusively by nonprofit organizations (Salamon, 1993). Further, institutional environments have evolved in accommodating both commercialized nonprofit and socially-oriented for-profit organizations. Social performance increasingly accompanies pursuit of economic goals (Donaldson, 2003), and pursuit of social outcomes is increasingly dependent on financial viability (Hwang & Powell, 2009). Yet, organizational theory is only beginning (e.g., Battilana & Dorado, 2010) to address what type of organizational form can best enable *both* financial and social performance.

Microfinance offers a particularly salient research context for questions about economic and social performance, not least because of the fierce debate within the industry itself. The basic concept behind microfinance is the granting of small "micro" loans to the poor who are traditionally excluded from consideration by financial institutions. Often the objective is to assist the micro-borrowers in furthering small entrepreneurial ventures and to extricate themselves from money-lenders. Some trumpet microfinance as a prime solution to poverty worldwide (consider microfinance institution Grameen bank's 2006 Nobel Peace Prize). But others accuse microfinance—and especially for-profit microfinance—of merely replicating the business model of money-lending with all its attendant social ills. Many assert that microfinance

## Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission has lost its way; that in trying to combine two institutional logics, the financial logic gobbled up and corrupted the social logic (Kent & Dacin, 2013).

To translate the debate within microfinance into the general theoretical research questions for this study: How does organizational form affect social and financial performance? Does profit-seeking compromise social performance? Does lack of profit-seeking preclude stellar financial performance? Which organizational form is better positioned to achieve both types of results?

#### **ORGANIZATIONAL PERFORMANCE**

As summarized by Sutton & Hargadon (1996: 689), organizational performance<sup>1</sup> is a "multidimensional construct, because social systems produce many consequences and have multiple participants with inconsistent preferences." Thus, when something is dubbed "performance," it has implicitly answered questions of "at what" and "for whom."

#### **Financial Performance**

Many conceptual versions of financial performance exist, though the definitions or conceptualizations of financial performance are rarely discussed explicitly in empirical research (Miller, Washburn, & Glick, 2013). Rather, it is often merely implied in researchers' choice of operationalization for financial performance. Considering literature with financial performance<sup>2</sup> as dependent variables, answers to Sutton & Hargadon's (1996) first question "at what?" appear quite varied. For example, the "at what" is variously profits (e.g., McGahan & Porter, 1997), profit margins (e.g., Porter, 1985), stock market returns (e.g., Kale, Dyer, & Singh, 2002),

<sup>&</sup>lt;sup>1</sup> Sutton & Hargadon often use the term "effectiveness." But because the terms are used interchangeably throughout the literature (Shenhav, Alon, & Shrum, 1994), we have selected performance as the primary term to refer to for this article (see also Miller, Washburn, & Glick, 2013).

<sup>&</sup>lt;sup>2</sup> Sometimes the term is simply "performance."

## Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission growth (e.g., Chen, Williams, & Agarwal, 2012), market share or leadership (Ferrier, Smith, & Grimm, 1999), and new product innovations (e.g., Katila & Chen, 2008).

Frequently, financial performance is equated with return on assets, as visible in a list of over 50 studies' operationalizations for corporate financial performance in Orlitzky, Schmidt, & Rynes' (2003) meta-analysis. Many of the other versions of (financial) performance are likely to closely correlate with, or even cause return on assets.

While the "at what" varies widely on the surface, ultimately the answer may be "at things which sustain the organization's economic growth and success." For many organizations, this economic growth has actual claimants with property rights—i.e., owners or shareholders. But organizations without shareholders can still measure and achieve financial performance (Hwang & Powell, 2009). Thus "for whom" is often shareholders or owners, but it may be for the organization itself.

#### **Social Performance**

As contrasted with financial performance, the "for whom" in social performance<sup>3</sup> is everybody else besides the organization itself (consider the literature on non-shareholder "stakeholders"—e.g., Freeman, 1984 [2010]). The "for whom" in social performance has variously included the organizational consequences relevant to employees (e.g., Hansen & Wernerfelt, 1989), customers (e.g., Davidson & Worrell, 1992), community or environment (e.g., Montgomery & Ramus, 2007), and recipients of philanthropic outreach (e.g., Lev, Petrovits, & Radhakrishnan, 2010). The "at what" is even more varied, and would probably

<sup>&</sup>lt;sup>3</sup> While some authors make no distinction between corporate social performance (CSP) and corporate social responsibility (CSR), I follow the convention discussed in Whetten, Rands, & Godfrey (2002) which defines CSP as "actual behavior regarding social issues" and CSR as "societal expectations" regarding such behavior (pg. 374). Some of the articles I cite to describe CSP (e.g., Mackey et al., 2007) are not making this distinction, and thus point their discussion to CSR.

# Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission include any "voluntary firm actions designed to improve social or environmental conditions" (Mackey, Mackey, & Barney, 2007: 818). Positive levels of social performance may indicate either avoiding *bads* such as pollution, or engaging in *goods* such as philanthropic giving

#### (Campbell, 2007).

Much research has been conducted to link corporate social performance with corporate financial performance—a recent search tallied 170 empirical studies investigating this relationship (Rivoli & Waddock, 2011). Studies claim causal associations in either or both directions—and sometimes that there is no causal link at all (Margolis & Walsh, 2003; Orlitzky et al., 2003). Yet while inconclusive, there is scant empirical evidence to suggest an inherent trade-off between social and financial performance, that one necessarily comes at the expense of the other (Margolis & Walsh, 2003).

#### **Performance and Outcomes**

To varying degrees, *performance* can be removed from desired *outcomes*. Financial performance is generally more likely to be proximal to desired outcomes. When the desired outcome is "wealth generation for shareholders," Return on Assets (ROA) as a measure of financial performance is in most cases going to be proximal to the desired outcome. Few firms would have high financial performance, especially when measured in this conventional way, and not also have high levels of accomplishment on the outcome of shareholder wealth-maximization.

Conversely, social performance is more likely to be detached from desired outcomes for three main reasons. First, the relationship between firm actions and social outcomes is more ambiguous, and can be ideologically controversial. Does microlending really help alleviate poverty? Does cutting back on carbon emissions really matter? Does it matter more or less than

## Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission proper mercury disposal? Further, some social outcomes will depend upon recipients' agency rather than merely firms' actions. For example, a shoe manufacturer engages in "social performance" by refusing to hire underage workers—and now those underage workers are left without any employment options.

Second, social outcomes are inherently social and involve a non-firm centric view of value, as the "for whom" is non-owners. By caring about outcomes affecting people outside firm boundaries (excepting employees), social performance will tend to be less concerned about the firm's relative share of the net effect than the net effect itself. Grabbing social performance from other links in the social value chain (e.g., cutting back toxic emissions so that city levels are safe so that another factory can't cut theirs back to get city levels to that level) is meaningless from a societal value perspective.

Despite the potential disconnect between social performance and social outcomes, firmcentric, ambiguously connected performance is likely to improve when it is measured. The dark side is that performance measures can easily become so important to organizational members that they assume "magical" status worthy of regard for their own sake (March, 1994). Consequently, undesirable trade-offs may be made where actual desired outcomes are negatively affected in order to boost measured performance.

The ambiguity and challenges in measuring social performance may explain some of the reticence to do so. Many organizations primarily measure financial performance, even those with explicitly non-financial goals (Callahan, 1964; Salamon, 1993). Financial performance as a goal is relatively straightforward in its answers for the questions of "at what" and "for whom", so that organizations can spend their energy debating "how." Social performance, on the other hand is likely to be much more ambiguous and controversial in its "at what" and "for whom", long

## Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission before getting to questions of "how." The relevant caveat for interpreting results labeled "social performance" is that they may not be connected with intended or desirable outcomes.

#### ORGANIZATIONAL FORM AND EFFECTS ON PERFORMANCE

#### **Organizational Form: Owners or Donors**

The fundamental difference between for-profit organizations and nonprofit organizations is the "non-distribution constraint" (NDC) which forbids investor reimbursement through capital withdrawals or distribution of profits through dividends (Hansmann, 1980). Thus, those who invest in for-profits retain economic property rights while those who "invest" in nonprofits do not. In short, for-profits have owners and nonprofits have donors.

Owners have an incentive to arrange governance such that managers optimize on economic efficiency, because after all expenses have been paid, the leftover profits are property of the owners. Owners may then withdraw the profits from the organization or reinvest with the aim of reaping higher levels of future profits. Further, owners may withdraw more than just profits—property rights for their initial capital investments are retained such that they may liquidate portions of the company or trade their ownership stake with others. Although owners likely do not have exclusively economic objectives for their investment (Mackey et al., 2007), incentives for organizations with owners (i.e., for-profit organizations) may be more likely to emphasize economic goal achievement. Thus, I expect organizations with owners to perform better financially on average than organizations supported by donors. Or more formally:

*Hypothesis 1 (H1):* For-profit organizations will have higher financial performance, on average, than nonprofit organizations in the same industry.

Donors, on the other hand, have an incentive to give money to organizations with

# Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission governance mechanisms that ensure social goals will be satisfied even in the absence of direct oversight—hence the non-distribution constraint in the first place (Hansmann, 1980; Weisbrod, 1988). Donors may retain some influence due to organizations' reliance upon resources available through future donations (Pfeffer & Salancik, 1978). But the non-distribution constraint precludes donors from having any direct economic claim on organizations' profits or

capital. Thus, I expect that organizations with donors will perform better socially<sup>4</sup>.

# *Hypothesis 2 (H2): Nonprofit organizations will achieve higher social performance, on average, than for-profit organizations in the same industry.*

Comparisons between nonprofit and for-profit organizations will be more relevant in industries which accommodate both types of organizations. From the for-profit perspective, these will tend to be relatively "social" industries—e.g., education, healthcare, or culture. From the nonprofit perspective, these will tend to be relatively "commercial" situations where the nonprofits charge for the receipt of their goods and services—e.g., healthcare, microfinance—rather than exclusive reliance on third-party donations for support. I expect that hypotheses 1a and 1b will hold even for firms which are both explicitly engaged in a social industry. Of course, nonprofit organizations would be especially rare in industries lacking an obvious social component (Steinberg, 2006). By virtue of membership in a social industry, for-profits will likely be evaluated in part by their ability to perform socially—if not for the sake of social outcomes, for the sake of enhancing economic outcomes<sup>5</sup>. Yet, in relative terms, I still expect that nonprofits will perform better socially and for-profits will perform better financially.

<sup>&</sup>lt;sup>4</sup> And I do not expect any systematic variation on social performance measures which are more or less relevant to social misery alleviation, per the previous discussion.

<sup>&</sup>lt;sup>5</sup> In a social industry, tolerance for low social performance will likely not only directly impact customer satisfaction and sales levels, but also community or government tolerance of for-profit actors in an explicitly social sphere.

#### Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission Organizational Form and Performance-type Lock-in

In recent years, nonprofits have become increasingly "professionalized" (Hwang & Powell, 2009), and for-profits have become increasingly aware of social outcomes (Donaldson, 2003). Thus, distinctions between owners and donors in their relative preferences for social and financial performance may be increasingly non-distinct.

However, organizational forms may preclude pursuit of owners' and donors' evolving performance preferences (Meyer & Rowan, 1977). Nonprofit organization forms and their attendant institutional environments may hamper organizations' ability to also maximize financial performance. Likewise, for-profits may be hindered from strong prioritization and pursuit of social performance. Battilana & Dorado (2010) observed strong, distinct preferences for economic and social objectives when organizational members were imported from both nonprofit and for-profit contexts into a single organization intending to achieve both social and financial performance. In fact, Battilana & Dorado's case study research concluded that the tensions between sectoral institutional logics were best foregone by hiring fresh employees uninfluenced by either sphere. While hiring from both spheres allowed capitalizing on the relevant experience from each set of employees, the costs of trying to reconcile the distinct institutional logics were too great.

Internal conflict of competing institutional logics is not the only obstacle to dual-pursuit. Different resource pools will be accessible depending upon organizational form. Broader-level institutional structures may hamper pursuit of both goals when external stakeholders (Freeman, 1984 [2010]) regulators, customers, communities, and investors (in this case, owners or donors) do not expect or support dual-pursuit of social and economic objectives.

De novo "social hybrid" organizational forms may provide an answer to the lock-in to a

#### Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers

Working paper – 09.12.2013 draft – please do not cite or distribute without permission single type of performance suffered by "conventional" forms. Social hybrids are forms which explicitly incorporate both social and financial objectives into the organization. In this study, I define conventional forms (e.g., operationalized in this study as "Banks" and "NGOs") as organizational forms originally created to excel by optimizing on either social *or* financial performance. Thus, conventional forms' institutional structures, resource pools, and incentives were fashioned for one type of performance or the other. I predict that newer, "social hybrid" forms created specifically to optimize both social and financial performance will be more likely to achieve both types of performance than conventional-form organizations.

*Hypothesis 3 (H3):* Social hybrid-form organizations will perform better at both social and financial performance than conventional-form organizations.

#### **Microfinance Industry as Context**

Microfinance, or finance targeted at the poor with the goal of poverty alleviation, began in the mid-1970s. The first microfinance institutions<sup>6</sup> (MFIs) were founded independently at around the same time in Latin America and, more famously by Muhammad Yunus who won the 2006 Nobel Peace Prize, in Bangladesh. MFIs initially relied on donations to continue operations, acting as pseudo-charities which sought to empower the poor with "microloans" of very small sums. Although in some sense MFIs were always "commercial" because they charged fees for their services (per Hansmann's 1980 framework), in the 1980s and 1990s, the microfinance industry logic became more purely commercial, as the nonprofit microfinance organizations were increasingly expected to seek revenues sufficient enough to survive and grow, rather than relying upon subsidies and donations. In the mid to late 1990s and 2000s for-

<sup>&</sup>lt;sup>6</sup> Of course "institution" is an industry term in microfinance for what management typically denotes "organization."

#### Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission profit organizations made major inroads into microfinance (for a general history of microfinance,

see Sengupta & Aubuchon, 2008). At times, the split between for-profit and nonprofit MFIs sparks fierce debate over their relative merits, as described by a major scholarly contributor, Jonathan Morduch (2000) in his aptly titled article, "The Microfinance Schism."

#### **Social Performance in the Microfinance Industry**

Social performance within microfinance and the connection to intended social outcomes is unclear. The industry of microfinance as a whole has an explicitly normative objective: poverty alleviation by means of empowering the poor with access to financial services, especially small "microcredit" loans. Empirical evidence establishing whether or not microfinance really leads to poverty alleviation is still nascent. While there appear to be environments and types of personal situations where microfinance does *not* work (e.g., Buckley, 1997; Diagne & Zeller, 2001), overall the results are encouraging for microcredit's average efficacy (Armendariz de Aghion & Morduch, 2005).

The main question within the microfinance industry and literature is not so much *whether* microfinance helps alleviate poverty, but rather *how* to best accomplish the ultimate goal of poverty alleviation through microfinance. The two main perspectives about how to best achieve the industry-wide goal of poverty alleviation are often termed the "institutionist" and "welfarist" approaches (Woller, Dunford, & Woodworth, 1999). The institutionist approach claims that long-term financial viability leads to greater organizational vitality and encourages other organizations to enter the fray. This, the logic goes, leads to stronger organizations within a stronger industry, and thus to higher volumes of impact. Higher scale of impact is usually conceptualized as larger numbers of people affected, and is typically measured as number of borrowers reached. Institutionists tend to be more sympathetic to for-profit MFIs.

# Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission Those within the welfarist camp are more prone to claim the importance of reaching the *very* poor and disadvantaged in society. Welfarists are apt to characterize their approach as "deeper" impact per individual served, presuming that access to financial services make a greater impact for more relatively disadvantaged clientele (Woller & Woodworth, 2001). Welfarists

tend to be more sympathetic to nonprofit MFIs.

While both the institutionist and welfarist perspectives maintain the same ultimate goal of poverty reduction, each approach it very differently. Financial sustainability, for an institutionist, represents a key intermediate objective (Schreiner, 2000) to achieving long-lasting impact (Schreiner, 2002), while welfarists are more likely to see the objective of financial sustainability as a harmful distraction. While for-profit and nonprofit MFIs do not strictly adhere respectively to institutionist and welfarist perspectives, I still expect to see distinct financial and social outcomes for both types of organizational forms.

#### **Other Organizational Forms within Microfinance**

In addition to distinctions between for-profit and nonprofit organizational forms, there are a handful of other major categories of organizational forms in the microfinance industry. Even the term "institution" in MFI employed by the microfinance industry to describe organizations connotes the variety of organizational structures "huddled under the microfinance umbrella" (Cull, Demirgüç-Kunt, & Morduch, 2009:174)—conceivably, microfinance organizations could have been shorthanded as MFB(anks), MFF(irms), MFO(rganizations), or MFC(orporations). However, the field is dominated by four (Haq, Skully, & Pathan, 2010) or five (Cull et al., 2009; MIX, 2013b) major types of "institutions." In descending order of the proportion of for-profit organizations within each type, they are: Banks, Rural Banks, Non-Bank Financial Institutions (NBFIs), Credit Unions or Cooperatives, and Non-governmental Organizations (NGOs). These

## Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission organizational forms are specific legal categories, and tend to be subject to specific and distinct licensing procedures and regulations (when they are regulated at all).

Banks are generally regulated like banks, and may even be mainstream commercial banking firms which "reached down" into the microcredit sector. They often have large asset bases, large amounts of personnel, a developed physical and administrative infrastructure, and are subject to stringent banking regulations including capital and reserve requirements. Rural banks often adhere to similar regulations as banks. However, since they serve and are located in rural communities, rural banks are less likely to have significant physical infrastructure, large amounts of personnel, or assets. Rural banks typically serve agricultural customers. NBFIs are often specifically set up to serve in microfinance. They are typically licensed distinctly from banks. Credit unions or credit cooperatives form a distinct category of member-owned MFIs (though other forms may be member-owned, such as the Grameen *Bank*). NGOs are typically subject to no regulation or licensing requirements within the local countries that they serve, but often do have some sort of international charter, and may partner with local licensed banks to engage in microfinance activities. Table 1 shows the definitions, percent subject to regulation, and the sample breakdown between nonprofit and for-profit for each type of organizational form. Later in this article, Table 2 depicts summary statistics by organizational form—the 5 types described as well as for nonprofit and for-profit organizational types.

## INSERT TABLE 1 ABOUT HERE

To some extent, all organizational forms within the research context of microfinance may be deemed social hybrids—because they all explicitly pursue both social and economic objectives. However, for the purposes of H3, I considered relative levels of social hybridity.

Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission NGOs and Banks were much closer to conventional forms, which adopted some structures from each other in order to pursue dual objectives. Thus, NBFIs were considered "social hybrid" forms in this study.

#### **METHODS**

I test these hypotheses on a set of 2,368 Microfinance organizations (referred to in the microfinance industry as Microfinance Institutions or "MFIs"), using 13,353 annual reports dating from 1995 through 2012, downloaded from the Microfinance Information eXchange ("MIX") database<sup>7</sup>. As dependent variables, I employ several different operationalizations of financial performance (return on assets, net profit margin, operational sustainability) and social *performance* (loan repayment rates, proportion of women borrowers, and average loan size). The chief independent variables of interest are *ownership status* (nonprofit / for-profit) and organizational form (dummies for Bank [conventional], NGO [conventional], and NBFI<sup>8</sup> [tailored]). Control variables included *firm age (years)*, *region*, and *firm size (assets)*.

#### Sample and Data

Data was obtained from MFI annual reports dating from 1995 through 2012. I obtained the data from Microfinance Information eXchange (MIX) Market, an organization which collects self-reported data on MFIs (MIX & CGAP, 1995-2012). MIX cleans the self-reported data by normalizing currencies to the US dollar, adjusting for inflation, eliminating the effects of subsidies (including in-kind subsidies), and "apply[ing] standardized policies for loan loss provisioning" to make sure risky loans are properly discounted on the balance sheet (MIX,

<sup>&</sup>lt;sup>7</sup> http://mixmarket.org, maintained by the Consultative Group to Assist the Poor (CGAP), a World Bank

affiliate. <sup>8</sup> NBFI stands for "Non-Bank Financial Institution", often a custom-made organizational form specifically organized to offer microfinance (as opposed to Banks or NGOs which can be used for many different purposes).

## Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission 2013b). MIX also independently verifies the majority of self-reported—especially financial data received.

From the original data set of 13,380 annual reports, I dropped 6 observations which were quarterly, not annual, reports. For 6 MFIs which had changed the ending month of their fiscal year—and thus had duplicate reports for one year—I dropped the duplicate reports and all subsequent reports for those firms, eliminating 21 observations in total. After these adjustments, I have 13,353 annual reports from 2,412 MFIs. A comparison with Gonzalez' (2008) estimate of total MFIs worldwide suggests that MIX includes about 50% of all MFIs and 70% of microborrowers. Using other authors' estimates of total MFIs (Hartarska, Parmeter, & Nadolnyak, 2011), I estimate that MIX data covers around 25% of all MFIs.

Not all annual reports or firms reported on all variables, so the *n* varies across analyses. 243 MFIs did not report their profit status, for a combined total of 645 annual reports. These observations are excluded from all models where the dichotomous for-profit variable is used. Consequently, most analyses have a baseline *n* of 12,708 annual reports for 2,169 firms, before omitting observations without complete data for all variables in the model. Most of the variables that I use are reported by more than 90% of the sample, and all variables are included in at least 75% of the observations. This constitutes a significantly larger sample than prior analyses on MFIs (e.g., compare to the "relatively large" [p. 172] data-set of 346 MFIs used by Cull et al., 2009). MIX is constantly adding new MFIs and those MFIs' collection of annual reports to the database.

#### **Dependent Variables**

A series of dependent variables were employed to test the effect of MFIs' for-profit status on financial and social outcomes. To test the hypotheses associated with financial outcomes, I

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Working paper – 09.12.2013 draft – please do not cite or distribute without permission used *return on assets* (*ROA*), *net profit margin, operational sustainability*, and a *sustainability* indicator variable. *Return on assets* (*ROA*) is measured as net profits divided by assets. *Net profit margin* is calculated as revenue less expenses, divided by revenue. *Operational sustainability* is revenues divided by expenses, and logged to reduce the effect of high skewness. The indicator variable for *sustainability* is specified as whether the firm is operationally sustainable or not (unlogged *operational sustainability* > 1).

To test the hypotheses associated with social performance, I use several different operationalizations frequently used in the microfinance industry and research literature (Reed, 2011; Schreiner, 2002). *Number of borrowers* is simply the total number of active borrowers for an MFI. *Proportion of Women Borrowers* is the relative share of female borrowers. *Average loan size to GNI (logged)* is the mean average size of loans disbursed, scaled by gross national income per person (GNI per person is approximately equal to GDP per person); that value is then logged to adjust for skewness.

#### **Independent Variables and NBFI Sub-Sampling**

My primary variable of interest was the indicator variable *for-profit*, which took a value of 1 if the MFI operated as a for-profit institution, and zero if the institution indicated non-profit status. All MFIs with missing profit status information were dropped from the initial data, as explained earlier.

**Institutional type and NBFI sub-sampling.** The differences between for-profits and non-profits are extremely collinear with organizational type. As shown in Table 1, banks are almost entirely for-profit, while NGOs are almost entirely nonprofit. This is expected: microfinance banks are often standard banks which have "reached down" to include microborrowers. NGOs are often formed with an explicitly social agenda, perhaps poverty alleviation,

## Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission with membership in the traditional not-for-profit sector, and may have "reached across" to include microfinance in its activities.

Because of the high degree of multicollinearity between institutional type and profit status, both variables cannot be included in the same model and yield reliable results. The only institutional type within which there is meaningful variation in profit status and enough firms to perform meaningful analysis is Non-Bank Financial Institutions (NBFIs). Thus I run most tests on both the full sample as well as the sub-sample of NBFIs, in order to really get at the differences in profit orientation, holding other characteristics of organizational form constant.

#### **Control Variables**

For all analyses, I controlled for firm size as *assets*, in millions. I included dummy variables for relative age of the firm, based on categorical distinctions in the variable "age" employed by MIX: *new* for firms 0 to 4 years old, *young* for firms 5 to 8 years old, and *mature* for firms over 8 years old. I also included dummy variables for region based on the categorical field "region" coded by MIX: *Africa, East Asia & the Pacific, Eastern Europe & Central Asia, Latin America & Carribean, Middle East & North Africa, and South Asia.* As of December 2012, no MFIs had reported from North America. The distribution of MFIs over the sample and subsample are reported in Table 2.

## INSERT TABLE 2 ABOUT HERE

#### Analysis

I conducted a series of between-effects regressions I ran a series of between-effects OLS regressions and population-averaged logit models. Although the data is longitudinal, the primary

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Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission independent variable does not change over time, thus fixed-effects regression models are inappropriate to the research questions. Between-effects OLS regressions are clustered at the level of the unit of observation, and averaged across time. In both population-averaged logit models and between-effects OLS models, mean values for each firm are averaged over time. This allows comparison between nonprofit and for-profit MFIs, while smoothing over fluctuations across time. For between-effects models—and because *organizational form* is the variable of interest—"between R-squared" is most conceptually relevant of the different types of R-squared because it measures the amount of variance explained between MFIs.

#### **RESULTS: FINANCIAL OUTCOMES**

#### **Return on Assets and Net Profit Margin**

Table 3 presents between-effects regression results comparing the profitability of forprofit and nonprofit MFIs. In the full ROA models with controls, for-profit MFIs overall and for-profit NBFIs each have a few percentage points higher average return on assets (about 3% and 4% respectively). The controls for mature firms and those located in the Eastern Europe / Central Asia and Latin America / Caribbean regions also appear to have higher average return on assets. Net profit margins tell a different story. For both the full sample and NBFIs only, the coefficients are negative and entirely non-significant. These results show mixed support for H1.

#### INSERT TABLE 3 ABOUT HERE

#### **Financial Self-Sufficiency**

Two analyses (see Table 4a and Table 4b) were conducted to examine the differences in financial sustainability by MFI profit orientation. As shown in Table 4a, for-profit MFIs in the

# Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission overall sample on average have higher levels of financial self-sufficiency, as measured by "operational sustainability," or revenues divided by expenses. In the NBFI sample, the coefficient is of similar magnitude and direction, but the standard error is just shy of significance at the 0.05 level (the t-statistic is 1.93). The control variable results show that mature firms have higher operational sustainability on average, and that every region except South Asia has higher

average levels of operational sustainability than Africa.

## INSERT TABLE 4A ABOUT HERE

Table 4a illustrates the average level of operational sustainability. However, average levels of operational sustainability belie the stepped distribution of whether an MFI is self-sufficient (i.e., could continue operations for the foreseeable future without subsidies, donations, or further infusions of capital). Table 4b presents the logistic regression results for a dichotomous version of operational sustainability (whether a firm covers all its expenses or not). As shown in the table, odds ratio coefficients for for-profits are highly significant and positive. According to these analyses, for- profit status increases an MFI's chances of being operationally sustainable by a factor of 2.23 for the full sample, and by 2.12 for the sub-sample of NBFIs. Rural banks are well-ahead of the other types of organizational types in terms of operational sustainability. Likelihood ratio tests confirm that for-profit status increases the explanatory power of the models. Overall, these results support H1.

## INSERT TABLE 4B ABOUT HERE

#### **RESULTS: SOCIAL OUTCOMES**

On average, for-profit MFIs reach more borrowers per firm. Within NBFIs, the average relative increase is about 29,000; for the larger sample, for-profits reach an average of about 22,000 more. Banks clearly dominate in relative volume. As expected, South Asian firms and larger firms (in assets) on average have more borrowers. However, the effect size of assets is very different for for-profit firms overall, which add only 55 active borrowers per \$1mm in assets, while NBFIs add about 1100 active borrowers per \$1mm. These results are in contrast to H2.

## INSERT TABLE 5 ABOUT HERE

#### Serving the Relatively Disadvantaged

Table 6 displays the regression results for two more social performance dependent variables: the proportion of women borrowers and for average loan size (scaled by GNI and logged). While H2 is supported in the overall sample of MFIs, this appears to be driven by the strong tendency for NGOs to target disadvantaged clients much more strongly—for example, the coefficients suggest NGOs on average have 25% more women clients than Banks. In the NBFI sub-sample H2 is not supported. There are no statistically significant differences between for-profit and nonprofit MFIs in their proportion of women borrowers or in their average loan sizes.

#### INSERT TABLE 6 ABOUT HERE

#### Form Hybridity

As noted earlier, NBFIs are considered social hybrids relative to conventional form

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Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission NGOs and Banks. By comparing relative levels of social and financial performance, combined results from Tables 3-6 provide support for H3. Nonprofit NBFIs achieved higher levels of average financial performance than NGOs. Similarly, for-profit NBFIs achieved higher levels of average social performance than Banks. The difference between the results for nonprofit NBFIs and for-profit NBFIs is important. Nonprofit NBFIs seemed to "split the difference" by lowering social performance relative to NGOs, while increasing financial performance. On the other hand, for-profit NBFIs seemed to improve on both social and financial performance relative to their counterpart conventional form (Banks).

#### **Robustness Checks**

Several robustness checks were run on the above analyses. To check for model specification bias, the between effects models were also tested in random effects models to add firm-specific controls. None of the results substantively changed. For variables which I dichotomized, I tested alternate cut-offs including and excluding zero; the results were identical. For the logged variables of *operational sustainability* and *average loan balance (scaled)*, I tested non-logged values. Because of non-corrected skewness, the power of outliers was sufficient to increase the standard errors and lower significance levels, some below the 0.05 threshold. However, all coefficients were fairly similar. Finally, because there was some variance between nonprofit and for-profit status within rural banks, I ran the analyses in a rural bank subsample. Many of the findings were different than for the NBFI subsample. This underscores the general finding that holding other aspects of organizational form constant, for-profit forms and nonprofit forms display different characteristics than they do when all MFI types are taken together.

#### **DISCUSSION & CONCLUSION**

Logistic and OLS regression results supported H1: For-profit organizations

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Working paper – 09.12.2013 draft – please do not cite or distribute without permission achieve higher financial performance than nonprofit organizations. H3 was also supported. Organizations with tailor-form organizations were more likely to achieve social *and* financial performance than conventional-form organizations. However, H2 (which predicted that nonprofits will have higher social performance than for-profits) was only supported when comparing conventional for-profit organizations with conventional nonprofit organizations. Hybrid for-profit organizations did not have statistically significant lower social performance than hybrid nonprofits.

Several case studies have claimed that despite the trend towards profit-seeking within microfinance, MFIs have by and large avoided mission drift in the quest to greater financial sustainability (Bergsma, 2011; Gonzalez-Vega, Schreiner, Meyer, Rodriguez-Meza, & Navajas, 1997). The results of my analyses lend support to these claims for at least comparisons within the NBFI category of MFIs. Perhaps microcredit's relative lack of "type 1" characteristics which allow for-profits to skimp on quality to pocket the surplus (Steinberg, 2006; Weisbrod & Schlesinger, 1986); fiat money, which is on some level the product sold here, is invariant in quality. In any case, this study suggests that for-profit NBFIs may actually be what they claim to be: microfinance providers which have succeeded financially, and then harnessed those means to achieve social success without succumbing to mission drift.

Organizations increasingly aim to accomplish both social and financial objectives. By paying attention to the institutions, resources, and incentives associated with organizational form, social entrepreneurs can increase their chances of achieving both types of performance. Customized organizational forms may be better suited to the task than conventional forms with a legacy of institutional trappings. When dual-performance matters, for-profit forms may perform better financially than nonprofit forms without any loss of social performance.

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#### Good Form? Organizational form, social and financial performance in microfinance Zachariah J. Rodgers Working paper – 09.12.2013 draft – please do not cite or distribute without permission APPENDIX: TABLES & FIGURES

#### **Table 1: Organizational Forms in Microfinance**

	Sample size by profit type and category			category	% MFIs	Category Definitions		
	F	or-profit	N	onprofit	regulation	Category Definitions		
	firms	firm years	firms	firm years				
Bank	180	1121	3	30	98%	A licensed financial intermediary regulated by a state banking supervisory agency. It may provide any of a number of financial services, including: deposit taking, lending, payment services, and money transfers.		
Rural Bank	129	665	16	68	95%	Banking institution that targets clients who live and work in non-urban areas and who are generally involved in agricultural-related activities.		
NBFI	516	2948	103	811	75%	An institution that provides similar services to those of a Bank, but is licensed under a separate category. The separate license may be due to lower capital requirements, to limitations on financial service offerings, or to supervision under a different state agency. In some countries this corresponds to a special category created for microfinance institutions.		
Credit Unions	18	58	400	1920	72%	A non profit, member-based financial intermediary. It may offer a range of financial services, including lending and deposit taking, for the benefit of its members. While not regulated by a state banking supervisory agency, it may come under the supervision of regional or national cooperative council.		
NGO	3	20	718	4601	29%	An organization registered as a non profit for tax purposes or some other legal charter. Its financial services are usually more restricted, usually not including deposit taking. These institutions are typically not regulated by a banking supervisory agency.		
Other	13	35	16	68	64%	N/A		
Totals:	859	4847	1256	7498				

Definitions are from (MIX, 2013a); proportions of MFIs subject to regulation include both for-profits and nonprofits, firms with missing data excluded.

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	For-profits	Nonprofits	Bank	Rural Bank	FP NBFI	NP NBFI	NBFI total	Credit Union NGO		Other	Total
Dependent variables:											
ROA	1.03%	-0.35%	1.27%	3.03%	0.58%	0.80%	0.50%	0.95%	-1.67%	-3.70%	-0.10%
Profit Margin	-11%	-0.21%	-46%	0.16%	0%	0%	-0.13%	-0.12%	0%	-2%	-4%
OSS	1.17	1.16	1.12	1.24	1.17	1.16	1.17	1.22	1.15	1.29	1.17
OSS Binary	75%	68%	75%	94%	71%	70%	70%	72%	65%	59%	70%
ROE	13%	-9%	14%	17%	11%	21%	13%	25%	30%	-79%	21%
D/E Ratio	7.67	8.74	10.11	6.49	6.58	5.51	6.44	5.26	11.10	4.10	8.25
# Active borrowers	74,097	46,314	190,590	13,538	63,933	19,934	53,219	11,075	52,635	10,094	55,390
% women borrowers	60%	68%	54%	55%	62%	57%	61%	52%	76%	63%	65%
Controls:											
Assets (in \$mm)	\$70.1	\$19.0	\$240.5	\$21.5	\$26.9	\$32.4	\$27.7	\$18.2	\$11.3	\$8.2	\$38.5
Firm Age:											
New (0 to 4 years)	28%	14%	29%	7%	31%	22%	29%	18%	12%	32%	20%
Young (5 to 8 years)	23%	21%	18%	8%	28%	26%	28%	24%	19%	27%	22%
Mature (over 8 years)	49%	65%	52%	85%	41%	52%	43%	58%	69%	41%	59%
Region:											
Africa	23%	21%	29%	17%	22%	12%	20%	38%	16%	13%	22%
East Asia & the Pacific	15%	9%	6%	72%	7%	0%	5%	5%	12%	20%	13%
Eastern Europe & Central Asia	u 23%	17%	27%	0%	26%	50%	31%	29%	6%	17%	19%
Latin America & Caribbean	24%	29%	26%	0%	30%	20%	27%	21%	33%	10%	26%
Middle East & North Africa	1%	7%	1%	0%	1%	9%	2%	0%	9%	20%	4%
South Asia	14%	17%	10%	11%	15%	9%	14%	7%	24%	19%	17%

## Table 2: Variable Means by Organizational Form

ROA = Return on Assets; OSS = Operational Sustainability; ROE = Return on Equity; D/E = Debt to Equity.

Firm age and region percentages are relative shares within each category.

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Dependent variable:		Mode	el 1 - ROA			Model 2	- Net Margi	n
Sample:	All MFIs		NB	FIs only	Al	All MFIs		FIs only
Independent variables:								
For-Profit	0.02*	0.03*	0.00	0.04**	-20.61	-13.88	-0.71*	-0.16
	(0.01)	(0.01)	(0.01)	(0.01)	(12.89)	(13.98)	(0.32)	(0.34)
Organizational Forms:								
Bank	0.06	0.07			-106.46	-113.88		
	(0.04)	(0.04)			(57.16)	(59.07)		
Rural Bank	0.10*	0.08			1.80	-6.46		
	(0.04)	(0.04)			(57.28)	(60.25)		
NBFI	0.07	0.07			1.46	-0.27		
	(0.04)	(0.04)			(53.74)	(55.19)		
Credit Unions	0.07	0.07			1.43	-7.19		
	(0.04)	(0.04)			(54.24)	(55.99)		
NGO	0.02	0.01			1.13	-6.07		
	(0.04)	(0.04)			(53.54)	(54.90)		
Controls:								
Firm size (assets in \$mm)		-0.00		0.00		0.00		0.00
		(0.00)		(0.00)		(0.00)		(0.00)
Young firms (age 5 to 8 years)		-0.00		0.01		56.38*		0.33
		(0.02)		(0.02)		(27.36)		(0.46)
Mature firms (age over 8 years)	)	0.06*		0.05***		41.82*		0.48
		(0.01)		(0.02)		(19.40)		(0.35)
East Asia & the Pacific		0.04*		0.05		21.81		0.59
		(0.01)		(0.03)		(24.48)		(0.67)
Eastern Europe & Central Asia		0.10*		0.12***		27.36		0.55
		(0.01)		(0.02)		(19.54)		(0.34)
Latin America & Caribbean		0.03*		0.04*		18.21		0.51
		(0.01)		(0.02)		(19.23)		(0.36)
Middle East & North Africa		0.09*		0.08		17.34		6.69***
		(0.02)		(0.04)		(37.61)		(1.02)
South Asia		0.03*		0.02		5.42		0.27
		(0.01)		(0.02)		(21.07)		(0.41)
<i>n</i> (firm years)	9313	9230	2842	2,834	11,027	10,906	3,311	3,297
<i>n</i> (firms)	1920	1875	554	549	2,014	1,957	584	576
within R <sup>2</sup>	0.0000	0.0010	0.0000	0.0118	0.0000	0.0000	0.0000	0.0026
between R <sup>2</sup>	0.0042	0.0615	0.0001	0.1318	0.0013	0.0058	0.0084	0.0838
total R^2	0.0020	0.0389	0.0000	0.0783	0.0002	0.0010	0.0012	0.0108

## Working paper – 09.12.2013 draft – please do not cite or distribute without permission **Table 3: Results of Between-Effects Regression Models of Firm Financial Performance**

Standard errors are in parentheses; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001. Two-tailed tests.

Omitted categories for age and region are New Firms (age 0 to 4 years) and Africa; omitted category for organizational forms is "Other." Due to high multicollinearity between profit status and organizational classification, these analyses are run separately. The reported control coefficients are for the dichotomous for-profit / non-profit IV models.

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Working paper – 09.12.2013 draft – please do not cite or distribute without permission **Table 4a: Results of Between-Effects Regression Models of Operational Sustainability** 

Dependent variable:	<b>Operational Sustainability (logged)</b>					
Sample:	All	MFIs	NBFIs only			
Independent variables:						
For-Profit	0.02*	0.08***	-0.01	0.10		
	(0.01)	(0.02)	(0.05)	(0.05)		
Organizational Forms:	0.11	0.10				
Bank	0.11	0.10				
	(0.10)	(0.10)				
Rural Bank	0.32**	0.23*				
	(0.10)	(0.10)				
NBFI	0.16	0.14				
	(0.09)	(0.09)				
Credit Unions	0.18	0.15				
	(0.10)	(0.09)				
NGO	0.08	0.04				
	(0.09)	(0.09)				
Controls:						
Firm size (assets in \$mm)		0.00		0.00		
		(0.00)		(0.00)		
Young firms (age 5 to 8 years)		0.06		0.19**		
		(0.04)		(0.07)		
Mature firms (age over 8 years)		0.28***		0.26***		
		(0.03)		(0.05)		
East Asia & the Pacific		0.19***		0.29**		
		(0.04)		(0.10)		
Eastern Europe & Central Asia		0.32***		0.42***		
		(0.03)		(0.05)		
Latin America & Caribbean		0.13***		0.20***		
		(0.03)		(0.06)		
Middle East & North Africa		0.32***		0.09		
		(0.06)		(0.16)		
South Asia		0.05		0.08		
		(0.03)		(0.06)		
<i>n</i> (firm years)	11,100	10,978	3,330	3,315		
<i>n</i> (firms)	2,025	1,965	588	579		
within R <sup>2</sup>	0.0000	0.0127	0.0000	0.0585		
between R^2	0.0023	0.1032	0.0000	0.1478		
total R^2	0.0011	0.0679	0.0003	0.1075		

Standard errors are in parentheses; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001. Two-tailed tests. Omitted categories for age and region are New Firms (age 0 to 4 years) and Africa; omitted category

for organizational forms is "Other."

Due to high multicollinearity between profit status and organizational classification, these analyses are run separately. The reported control coefficients are for the dichotomous for-profit / non-profit IV models.

		Α	ll MFIs			NBFI only	
	Constant-only	Controls	Full - FP	Full - Forms	Constant-only	Controls	Full - FP
Independent variable:							
For-Profit			2.23***				2.12**
			(0.27)				(0.56)
Organizational Forms:							
Bank				2.53			
				(1.32)			
Rural Bank				22.86***			
				(13.06)			
NBFI				2.28			
				(1.11)			
Credit Unions				2.63			
				(1.30)			
NGO				1.02			
				(0.49)			
Controls:							
Firm size (assets in \$mm)		1.00***	1.00**	1.00**		1.01***	1.01***
		(0.00)	(0.00)	(0.00)		(0.00)	(0.00)
Young firms (age 5 to 8 years)		3.14***	3.31***	3.15***		3.16***	3.25***
		(0.30)	(0.32)	(0.30)		(0.46)	(0.48)
Mature firms (age over 8 years)	)	5.84***	6.48***	5.77***		7.76***	8.23***
		(0.61)	(0.69)	(0.60)		(1.41)	(1.51)
East Asia and Pacific		8.65***	7.70***	5.51***		5.48**	5.02**
		(2.00)	(1.76)	(1.30)		(2.86)	(2.61)
Eastern Europe & Central Asia		6.88***	6.74***	6.81***		7.52***	8.99***
		(1.24)	(1.19)	(1.19)		(2.07)	(2.55)
Latin America & Caribbean		3.33***	3.40***	4.46***		3.75***	3.70***
		(0.57)	(0.57)	(0.75)		(1.07)	(1.06)
Middle East & North Africa		2.75**	3.61***	4.63***		1.11	1.86
		(0.87)	(1.14)	(1.46)		(0.77)	(1.33)
South Asia		1.87***	1.94***	2.67***		2.27*	2.32**
		(0.34)	(0.35)	(0.48)		(0.73)	(0.75)
Constant	3.85***	0.38***	0.26***	0.17***	3.38***	0.33***	0.16***
	(0.25)	(0.05)	(0.04)	(0.08)	(0.36)	(0.07)	(0.05)
<i>n</i> (firm years)	11,021	11,021	11,021	11,239	3,328	3,328	3,328
<i>n</i> (firms)	1,967	1,967	1,967	2,056	579	579	579
Log likelihood	-5559	-5298	-5277	-5371	-1751	-1607	-1603
Likelihood ratio		521.2***	563.3***	***		289.0***	297.2***
(df vs. M0)	0	8	9	13	0	8	9
Likelihood ratio		521.2***	42.1***	***		289.0***	8.2**
(df vs. M[-1])	0	8	1	1	0	8	1

#### Table 4b: Results of Population-Averaged Logistic Regression Models of Operational Sustainability (Log Odds)

Standard errors are in parentheses; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001. Two-tailed tests.

Omitted categories for age and region are New Firms (age 0 to 4 years) and Africa; omitted category for organizational forms is "Other."

Since the Full-Forms preliminary models are not depicted in the table, actual likelihood ratio test results are not shown; however they are both highly significant.

		FIc	NBFIs only			
Samp	ie. All M	F15	INBELS	soniy		
In dap and ant warish las.						
For-Profit	20 308 37	<u> 275 18*</u>	24 046 31	20 008 31*		
101-11011	(1057023)	(1088487)	(13 719 25)	(12.042.48)		
Organizational Forms:	(10,370.23)	(10,001.07)	(13,71).23)	(12,012.10)		
Bank	138,515.94**	* 123,611.24**				
	(41,653.16)	(42,896.35)				
Rural Bank	2,276.23	-20,192.54				
	(42,541.55)	(44,385.32)				
NBFI	27,652.41	46,047.92				
	(39,054.04)	(40,265.86)				
Credit Unions	836.49	17,353.10				
	(39,495.43)	(40,872.19)				
NGO	24,493.41	12,613.19				
	(38,880.44)	(40,025.68)				
Controls:						
Firm size (assets in \$mm)		54.96***		1,141.17***		
		(8.62)		(78.67)		
Young firms (age 5 to 8 year	s)	15,212.85		34,952.72*		
		(21,202.33)		(16,532.32)		
Mature firms (age over 8 yea	ars)	33,169.54*		6,905.00		
		(14,754.32)		(12,339.66)		
East Asia & the Pacific		13,342.63		-5,914.88		
		(19,030.61)		(23,502.62)		
Eastern Europe & Central A	sia	-7,397.85		-14,339.87		
		(15,124.04)		(12,198.47)		
Latin America & Caribbean		3,893.26		-30,822.92*		
		(14,889.75)		(12,809.87)		
Middle East & North Africa		14,648.81		5,265.75		
		(29,333.64)		(36,369.49)		
South Asia		86,599.72***	:	94,424.64***		
		(16,345.40)		(14,662.55)		
n (firm years)	11,442	10,987	3,503	3,369		
n (firms)	2,094	1,979	614	581		
within R <sup>2</sup>	0.0000	0.1067	0.0000	0.4069		
between R <sup>2</sup>	0.0018	0.0464	0.0050	0.3669		
total R^2	0.0014	0.0810	0.0047	0.4247		

# Table 5: Results of Between-Effects Regression Models of Number of Active Borrowers

 $Standard\ errors\ are\ in\ parentheses;\ *\ p<0.05;\ **\ p<0.01;\ ***\ p<0.001.\ T\ wo-tailed\ tests.$ 

Omitted categories for age and region are New Firms (age 0 to 4 years) and Africa; omitted category for organizational forms is "Other."

Due to high multicollinearity between profit status and organizational classification, these analyses are run separately. The reported control coefficients are for the dichotomous for-profit / non-profit models.

Dependent variable	: <b>P</b> 1	Proportion of Women borrowers				Average Loan size to GNI (logged)				
Sample	: All MFIs		NB	FIs only	Al	l MFIs	NBFIs only			
Independent variables:										
For-Profit	-0.10***	-0.09***	0.05	0.00	0.37***	0.35***	-0.36*	-0.05		
	(0.01)	(0.01)	(0.03)	(0.03)	(0.06)	(0.06)	(0.16)	(0.14)		
Organizational Forms:										
Bank	-0.17***	-0.14**			0.46	0.34				
	(0.05)	(0.05)			(0.24)	(0.24)				
Rural Bank	-0.19***	-0.23***			0.19	0.19				
	(0.05)	(0.05)			(0.24)	(0.24)				
NBFI	-0.05	-0.03			0.02	-0.12				
	(0.04)	(0.04)			(0.22)	(0.22)				
Credit Unions	-0.12**	-0.06			0.36	0.02				
	(0.04)	(0.04)			(0.23)	(0.22)				
NGO	0.12**	0.11*			-0.80***	-0.74***				
	(0.04)	(0.04)			(0.22)	(0.22)				
Controls:										
Firm size (assets in \$mm)		-0.00		-0.00*		0.00**		0.00***		
		(0.00)		(0.00)		(0.00)		(0.00)		
Young firms (age 5 to 8 years)		0.01		-0.05		0.13		0.00		
		(0.02)		(0.03)		(0.11)		(0.19)		
Mature firms (age over 8 years)	)	-0.06***		-0.06*		0.57***		0.45**		
		(0.02)		(0.03)		(0.08)		(0.14)		
East Asia & the Pacific		0.06**		0.09		-0.89***		-0.04		
		(0.02)		(0.05)		(0.10)		(0.27)		
Eastern Europe & Central Asia		-0.10***		-0.10***		0.37***		0.37**		
-		(0.02)		(0.03)		(0.08)		(0.14)		
Latin America & Caribbean		0.03		0.09**		-0.98***		-1.49***		
		(0.02)		(0.03)		(0.08)		(0.15)		
Middle East & North Africa		-0.05		0.14		-0.61***		-0.78		
		(0.03)		(0.08)		(0.15)		(0.42)		
South Asia		0.26***		0.27***		-1.10***		-1.36***		
		(0.02)		(0.03)		(0.09)		(0.17)		
<i>n</i> (firm years)	9,520	9,243	2,993	2,905	11,330	10,904	3,475	3,347		
<i>n</i> (firms)	2,007	1,879	602	564	2,089	1,977	613	580		
within R <sup>2</sup>	0.0000	0.0015	0.0000	0.0005	0.0000	0.0000	0.0000	0.0038		
between R^2	0.0315	0.2042	0.0058	0.2355	0.0186	0.1975	0.0088	0.3085		
total R^2	0.0160	0 1727	0.0075	0 1987	0.0201	0 1845	0.0096	0.2195		

# Table 6: Results of Between-Effects Regression Models of Proportion of Women Borrowers and ScaledAverage Loan Size

Standard errors are in parentheses; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001. Two-tailed tests.

Omitted categories for age and region are New Firms (age 0 to 4 years) and Africa; omitted category for organizational forms is "Other."

Due to high multicollinearity between profit status and organizational classification, these analyses are run separately. The reported control coefficients are for the dichotomous for-profit / non-profit models.