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What is a fair profit for social enterprise? Insights from microfinance

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Insights from microfinance[1]

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Abstract

Although microfinance organizations have typically been considered as inherently ethical, recent events have challenged the legitimacy of the sector. High interest rates and the exorbitant profitability of some market leaders have raised the question of what can be considered a fair, or ethical, level of profit for social enterprise. In this article, we construct a fair profit framework for social enterprise based on four dimensions: the level of profitability, the extent to which the organization adheres to its social mission, the pricing and the surplus distribution. We then apply this framework using an empirical sample of 496 microfinance institutions. Results indicate that satisfying all four dimensions is a difficult, although not impossible, task. Based on our framework, 13 MFIs emerge as true double-bottom-line organizations and tend to be relatively young, large MFIs from South Asia. Using our framework, we argue that excessive profits can be better understood relative to pricing, the outreach of the MFI and the organizational commitment to clients in the form of reduced interest rates.

Keywords: Microfinance, Development Ethics, Exploitation, Institutional Logic

JEL Codes: F35, G21, G28, L31, M14

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1. Introduction

Social enterprises aim to incorporate a social mission through commercial activities. Microfinance institutions are one of the most well known examples of social enterprises. While the microfinance sector was frequently considered as intrinsically responsible or ethical, a few recent events have questioned the legitimacy of the sector (Bateman, 2010; Cull et al., 2016). One such event concerns the flagship microfinance institution (MFI) Banco Compartamos, the largest MFI in Latin America, which has charged annualized interest rates above 70% for a number of years with return on equity consistently higher than 30%. In April 2007, Banco Compartamos completed an initial public offering on the Mexican stock exchange. Existing shareholders swapped 30% of Compartamos capital and gained more than $450 million (Cull et al., 2009; Rosenberg, 2007), which ignited a global debate culminating with Nobel Peace Laureate Muhammad Yunus' accusation of "money laundering" against Compartamos managers.

Since the IPO, Compartamos has reported profits of more than $100 million every year. Yunus argues that "poverty should be eradicated, not seen as a money-making opportunity. There are serious practical problems with treating microcredit as an ordinary profit-maximizing business" (Yunus, 2011, A23). This case is striking but not unique. Indeed, although most microfinance institutions don't generate huge profits, there is a growing trend of commercialization highlighted by the listing of MFIs on public stock exchanges (Brière and Szafarz, 2015). This commercialization has led to accusations of unethical practices by MFIs, resulting in the exploitation of some of their customers (Hudon and Sandberg, 2013).

This raises a fundamental question on the level of profits that can be considered fair, non-exploitative or acceptable for social enterprises. Can social enterprise simultaneously make substantial profits and serve the poor? Social enterprises, such as MFIs, are an example of hybrid organizations that combine multiple institutional logics, i.e. development or social logics and the market logic of profits (Battilana and Dorado, 2010). These various logics co-exist and sometimes conflict, forcing managers to make difficult decisions. The pricing of microcredits is a key management decision for MFIs. Setting interest rates has financial implications since it is a key source of revenue but also carries ethical dimensions since microcredit clients are poor. Pache and Santos (2013) argue that

the banking logic would require profit-maximizing interest rates while the development logic would suggest low interest rates for poverty alleviation. MFIs often try to compromise by setting interest rates at an intermediate level (Pache and Santos, 2013). Balancing the two goals is obviously challenging.

Microfinance is a very heterogeneous field with a wide range of institutional structures. Some institutions are rooted in social and cultural practices and see financial items solely as a constraint they have to cope with in order to achieve their goal of community development. Others are purely "market driven", covering a market niche that was neglected by the traditional banking sector. Market driven actors consider that even if they make huge profit, their social impact derives automatically from serving customers that were previously excluded from formal banking practices. In between these two extremes, most MFIs present themselves as "double bottom line institutions" (Armendariz and Morduch, 2010), part of what the academic literature is increasingly identifying as social enterprises or hybrid organizations.

At the core of modern microfinance, this "double bottom line" issue encapsulates why microfinance has received so much attention over the last thirty years: MFIs attempt to provide quality financial services (mainly credit and savings, and to a lesser extent transfers and microinsurance) to excluded people, thereby improving their well-being while simultaneously establishing organizations that could eventually be profitable. Nevertheless, recent debates and the extreme profitability of certain market leaders in countries such as Mexico or Cambodia have raised some ethical debates on the profitability of MFIs. In his article "Banks Making Big Profits From Tiny Loans", MacFarquhar (2010) highlights that it is not clear how much interest and profit is acceptable. Is there a fair profit for a social enterprise, and if yes, how could we conceptualize it? These debates echo broader discussions about what constitutes exploitative practices (Arneson, 2007; Zwolinski, 2007). In this case, when does profitability or pricing become exploitative?

There is a growing literature on ethical debates in microfinance. A first stream of the literature addresses the ethical aspects of management decisions such as interest rate fairness (Sandberg, 2012) or potentially discriminatory and harmful practices (Hulme and Arun, 2011; Agier and Szafarz, 2013; Labie et al., 2015; Cozarenco and Szafarz, Forthcoming). A second stream tackles the ethical implications of the entry or interactions

with more commercially-minded actors (Chiu, 2014) such as investment funds and the State (Olsen, 2017). A third stream analyzes or suggests tools to limit ethical lapses such as codes of ethics (Chakrabarty and Bass, 2014; Kleynjans and Hudon, 2016), social and environmental performance reporting (Casselman et al., 2015; Allet, 2014; Forcella and Hudon, 2016; Gutierrez-Nieto et al., 2016) and new approaches to better integrate microfinance into community empowerment (Tavanti, 2013).

However, the literature is relatively silent on the key ethical debates related to business models and profitability, as well as social enterprise more generally. In this paper, we address the ethical debate of profitability in microfinance institutions. We therefore focus on MFIs that have been able to break-even and generate profit and discuss the level of this profit. Indeed, therein lies another key question: to which extent can we say that profitable MFIs are still true to their original double bottom line objective? Or, to phrase it differently, how can we assess if an institution has drifted into dedicating much more attention to its generation of profits rather than on the social outcomes of its actions?

To analyze microfinance profits, we build an ethical framework based on four dimensions. The first and most obvious dimension is the direct level of profitability of the MFI. We assume that MFIs with the most severe ethical problems are those charging high prices compared to their operating structure (Hudon and Sandberg, 2013). The second dimension is adherence to the core social mission of the MFI, the poverty outreach of the organization. MFI missions are primarily related to poverty alleviation or reduction (Morduch, 1999). MFIs focusing on less poor clients have frequently been accused of drifting from their original mission, a phenomenon called mission drift (Armendariz and Szafarz, 2011). The third dimension is the price that borrowers have to pay for microcredit, the absolute value of the interest rate. The interest rate paid by microborrowers is a central issue since it is a key management decision for MFIs. The fourth dimension is the distribution of the surplus generated by the MFI, the extent to which they favor their clients when they generate some additional margins. The distribution or reinvestment of the surplus is a core element for social enterprises, and is even formalized in the definition of social enterprise by the Department of Trade and Industry in the UK (DTI, 2002). Based on the categorization of MFIs across these four dimensions, we suggest which management practices are ethically condemnable.

This paper contributes both theoretically and empirically to the literature. First, based on the literature, it provides an ethical framework to address the fairness of profits in the case of social enterprises. This ethical framework goes beyond simple concepts or metrics to suggest a more comprehensive approach to the question of exorbitant profits. Second, it provides empirical evidence on this debate through the application of the ethical framework to the microfinance industry. Whereas most of the literature on ethical issues in microfinance or social enterprise is theoretical, we apply the four dimensions to a large dataset provided by the Microfinance Information Exchange (MixMarket), which includes information on 2,479 MFIs.

Using a balanced panel of 496 MFIs for the years 2009-2010, our empirical results indicate that satisfying all four criteria is a difficult, although not impossible task with fewer than 3% of MFIs emerging as best-in-class, or true double bottom line, organizations. These MFIs tend to be relatively young, South Asian MFIs that have achieved substantial economies of scale. Conversely, 14.5% of the sample emerges as exploitative MFIs, or organizations that only satisfy the sustainability dimension of our framework. Between these two extremes are MFIs that make trade-offs between the poverty level of their clientele, the interest rates and the amount of surplus they make available to clients over time.

In the next session, we review the literature on fair pricing and profits in microfinance. Section 3 presents the criteria we suggest to discuss the fairness of profits in microfinance. Section 4 illustrates the fair profit framework empirically. Section 5 concludes.

2. Profits and pricing in social enterprises: The case of microfinance

Profit maximization is the standard strategy for most financial institutions in market economies. Miles (1993) argues that profit maximization strategies are not only a financial optimum but could also help firms deliver social value. Focusing on their own strengths to offer unique products and services, a firm will deliver something useful on top of financial benefits for shareholders. The scientific literature in business ethics, however, has challenged the necessity of profit maximization. Kolstad (2007, p. 144) argues that "corporations should in certain cases deviate from profit maximization, from maximizing returns to owners, to pursue ends that are more important from a social point of view." In

some cases, societal interests may take precedence over profit maximization and its efficiency enhancing effects.

Graafland (2002) addresses the relationship between profits and the social and environmental performance, what he calls "principles", through an economic framework that differentiates four perspectives on the relationship between profits and principles: the win-win perspective that assumes a positive relationship between the two dimensions, the license-to-operate perspective where companies need a minimum value of principles, the acceptable profit perspective where companies aim to maximize principles but profitability must reach an acceptable level and finally the integrated perspective where companies attach an intrinsic value to both profits and principles and select an optimal balance.

Hybrid organizations, or social enterprises, aim at both social and financial objectives and are therefore closer to Graafland's first and third perspectives of win-win and license-to-operate. Historically, most MFIs probably operated within the license-to-operate perspective and tried to alleviate poverty under financial constraints. Most of these MFIs started as non-profit organizations with a strong social mission and considered profitability merely as a necessary condition to become sustainable. The mission remained central and wealth creation, or profit, is only an instrument to fulfill the social mission (Dees, 1998). Except some extreme cases, profits were not debated and thus widely as long as the profits were re-invested in the activity and mission of the social enterprise (Barboza and Trejos, 2009). Appropriate levels of profitability were, in fact, hardly debated in the social enterprise and microfinance literature. This may be due to the fact that the vast majority of social enterprises charge low prices or because the centrality of their social mission provided them a moral legitimacy.

The entry of new financial actors and trends of commercialization have led to the emergence of actors that consider profitability as inherently related to outreach, or principles in Graafland's terms. For instance, Rhyne (1998) argues that the profit motives of commercial microfinance would make the sector more efficient, more willing to seek out new products or markets and eventually increase their outreach. Some critics, however, have feared that higher profits and commercialization would lead to lower outreach (Mersland and Strøm, 2010), highlighting that many decisions entail a trade-off in the business model of MFIs between financial and social performance (Copestake, 2007).

The business model of microfinance institutions has a lot of similarities with traditional financial institutions. For instance, staff expenses typically account for the largest part of their expenses. Nevertheless, similar to other types of social enterprises, they differ from traditional companies by their social mission and the amount of subsidies they receive from various mission-oriented actors such as international donors, local governments, socially-responsible investors or philanthropists. These subsidies have allowed many MFIs to be more socially efficient (D'Espallier et al., 2013). Most MFIs started their operations thanks to subsidies and kept receiving them afterwards. The Grameen Bank, founded by Mr. Yunus, is a famous example since Morduch (1999b) shows that Grameen could not cover its operating costs with its revenues if implicit subsidies through soft loans were included in their financial reports.

The role of subsidies is thus also crucial to analyze microfinance profits, since the presence of large amounts of subsidy makes the analysis of profitability more complex. As argued by Morduch (1999b, p. 236), "it is not clear what 'profit' really means when a large fraction of inputs are subsidized." Disbursement of millions of dollars in subsidies has created some fear of over-subsidization. After decades of subsidy, a large number of MFIs are still not financially sustainable and could therefore not cover the cost of their operations without continued subsidies and external support. This has led to a sectoral push to commercialize microfinance activities (Kent and Dacin, 2013). This trend is not restricted to microfinance; various sorts of social enterprises have experienced some form of a "commercial turn" or "marketization" (Child, 2010). Yunus has warned that commercialization would lead to profit maximization and eventually high interest rates.

According to D'Espallier et al., (2013), subsidies frequently allow MFIs to achieve better social performance, either in terms of poverty or gender outreach according to local conditions. In the absence of subsidies, MFIs modify their business model. For instance, unsubsidized African and Asian MFIs tend to charge higher interest rates than their subsidized counterparts (D'Espallier et al., 2013).

Interest rates are the cost of credit borne by microfinance borrowers; the level of interest rates is therefore scrutinized by many external stakeholders, including regulators and local governments. Contrary to other organizations in social finance that differentiate their price according to social criteria, MFIs typically charge similar rates for all borrowers (Cornée and Szafarz, 2013). Moreover, interest rates differ according the type of MFI.

Microcredit interest rates are higher for NPOs than for microfinance banks, partly because they offer smaller loans that are more costly (Cull et al., 2009). It is also well known that when the loans are not appropriately used or when the clients are too poor (Mosley and Hulme, 1996), they encounter severe socio-economic problems. For instance, Montgomery (1996), and more recently Shicks (2014), argues that microcredit can push poor borrowers into over-indebtedness, or into businesses that can hardly ensure their subsistence. These practices and other elements have led to major crises in microfinance (Guérin et al., 2015).

Many MFIs are not profitable and some will probably never post positive financial results. Nevertheless, in an increasing number of countries, the trend has been changing back, where microfinance is sometimes criticized for its "excessive profits", lack of social impact and its stringent operating practices (Banerjee and Duflo, 2011). The objective of profit generation was integral to the success of microfinance based on the following rationale: people excluded from formal financial intermediation are extremely numerous and, therefore, if MFIs want to be able to attend this unmet demand, they should aim for rapid growth. Achieving long-run growth can only be done through a self-sustaining business model and therefore justifies the idea of being profitable in order to generate the necessary surplus to sustain the growth process. Waterfield has suggested possible benchmarks focusing on return on equity (ROE) of MFIs. For him, an ROE below 5% can be considered "insufficient for long term sustainability", between 6% and 15% would match the double bottom line objective, 16% to 25% would be considered as "the grey area", and anything above 25% could clearly be considered as "excessive" (Waterfield, 2012). Reacting to this approach, Rozas has suggested different indicators to measure "acceptable profits" by focusing on return on assets (ROA) and interest rates, resulting in a "responsible profit matrix" where interest rates above 25% could be considered problematic once ROA is higher than 6% (Rozas, 2012).

In the next section, we review four criteria that allow us, we hope, to achieve a better understanding of what could be considered fair, or conversely exploitative, profits in microfinance.

3. Fair profits in microfinance: A categorization

Following some consequentialist reasoning, we argue that fairness of profits should be based on some key characteristics and policies of MFIs. In order to address fairness, we

classify MFIs based on the following four criteria that are central to the identity of social enterprises: the level of profitability, the poverty outreach, the pricing and the surplus distribution of MFIs.

The first element is related to the profitability of the MFI, the ratio between MFIs revenues and (operating) expenses. The intuition behind this element is that we can hardly accuse organizations that are not profitable or that cannot cover their costs to book unfair profits, an ethical criticism frequently levied towards some MFIs. To analyze this dimension, we calculate the ratio between their financial revenue and the sum of their operating expenses, financial expenses and loan-loss provisions. In microfinance, this is commonly known as the operational self-sufficiency (OSS) ratio (Cull et al., 2007). An OSS greater than 100% means that an MFI is able to cover all its costs of doing business while a ratio less than 100% indicates that the MFI is making losses and may therefore be reliant upon subsidies for continued operations. In the context of our profit fairness framework, the first step creates an OSS threshold to identify potentially profitable MFIs, i.e. those MFIs with an OSS greater than 100%. Below, we briefly describe why looking at OSS is necessary but insufficient as a stand-alone indicator to assess MFI profitability.

The profitability indicator is insufficient because of its inability to account for large operational inefficiencies of MFIs. For instance, initially, the very profitable Compartamos has been criticized for their high interest rates that would allow the MFI to cover its relatively high operating expenses (Armendariz and Morduch, 2010). This policy looks particularly unfair because poor borrowers pay high prices related to managerial inefficiency. In competitive markets, inefficient organizations will be forced to increase efficiency or decrease price if they want to remain. Nevertheless, many microfinance markets are not fully competitive and most MFIs still have a lot of freedom to exploit the inelastic demand of clients (Karlan and Zinman, 2008). Thus, discriminating between the cases where high interest rates are charged due to market conditions from those where high interest rates hide more contestable motivations should be a priority. However, there are many legitimate reasons why interest rates are often high in microfinance.

The main reason is that operational procedures for standard microfinance are expensive. To date, successful microfinance institutions tend to be based on a good decentralization of loan screening and client follow-up through credit officers spending a lot of time in the field. This is a fundamental feature of the industry and has allowed MFIs

to develop the necessary knowledge that traditional financing and banking institutions lacked. However, as one can imagine, this is also quite expensive as a lot of time is dedicated to knowing, interacting and following customers that are ultimately taking reasonably small loans. This leads to the second fundamental cause of why microcredit is expensive. In microfinance, loans are small by definition while often requiring the same fixed costs as larger loans (in terms of salary, office maintenance, etc.). As a result, if the microfinance institution wants to cover its costs, it has no other solution than to charge higher rates on smaller loans. Last but not least, in many cases, microfinance institutions have little or no access to prime rates for their own funding. Therefore, obtaining resources tends to cost them more than what could be possible in theory.

The second dimension is related to the social mission of the organization, the extent to which it reaches poor clients. The standard proxy for the poverty level of an MFI's clientele, or depth of outreach, is the average loan size (Cull et al., 2007). For international comparisons, average loan size is taken as a ratio over per capita GNI (Olivares-Polanco, 2005). A ratio of average loan size to per capita GNI under 20% is often used to identify the poverty profile of microfinance clientele (Morduch, 1999). Therefore, our second step in the fair profits framework uses this threshold to distinguish between MFIs serving poor clients and relatively better off clients. Loan size is discussed in more detail below.

MFIs offering large loans will be more likely to exclude very poor clients and thus to drift from their original social mission. The over-indebtedness of MFI clientele often concerns the most vulnerable or poorest borrowers, and thus MFIs offering very small loans. Working with very poor clients should therefore imply a higher sense of responsibility. This leads to an apparent paradox for people outside the microfinance community: poorer customers pay more for their loans. However, due to the cost structure that we have detailed previously this is perfectly understandable. In relative terms, it costs more for MFIs to service poorer customers. As long as the debate is along those lines, even if most people may not like it, there is a rationale for saying that poorer customers should pay higher interest rates. However, this rationale does not hold once profit margins are above the break-even point. Indeed, in this case, for many MFIs (i.e. those claiming to be double bottom line), it would then make perfect sense to argue that smaller margins should be taken on poorer customers. In fact, for institutions that have a diversified portfolio in terms of customers, it could be argued that no margin should be taken on the poorer (poorest) customers or even that a cross-subsidization in terms of "margin generation"

could be considered between poor, poorer and poorest customers (Armendariz and Szafarz, 2011). In some cases, by doing so, it could even allow some sort of "affirmative action", where the "best" conditions are provided to the "worst-off" customers.

Of course, these are sensitive issues and leave space for open discussion. Finding the optimum is not a simple task and would imply that MFIs would need to manage different levels of interest rates for different customers simultaneously, pushing MFIs away from the current practice of applying a high level of standardization, including in their pricing. It may not be easy, but charging as little as possible above the break-even rate for poorer customers does not seem like a bad idea for an industry intent on fighting against poverty.

The third dimension is the price that borrowers have to pay for microcredit, the absolute value of the interest rates. Contrary to the most expensive MFIs such as Banco Compartamos, MFIs charging low interest rates are not subject to much criticism (Cull et al., 2009). The full cost for borrowers includes not only interest rates, but also upfront fees, mandatory savings and other commissions. Unfortunately, it is very difficult to get all of these figures. Portfolio yield is therefore frequently used as a proxy for interest rates (Cull et al., 2009).

We assume that MFIs with the highest ethical problems are those charging high prices compared to their operating structure (Hudon and Sandberg, 2013). As a result, our third step in the fair profits framework uses the portfolio yield of MFIs in real terms to differentiate between MFIs that charge high and low interest rates. Lacking an objective level of acceptable portfolio yield, we arrive at this measure empirically by splitting the sample into a high interest rate group, i.e. MFIs with a portfolio yield greater than the sample median, and a low interest rate group, i.e. MFIs with a portfolio yield less than the sample median. Interest rates in microfinance are discussed more deeply below.

Since the inception of the microfinance industry, a central question has been "what is an acceptable level for microcredit interest rates?" This question has been widely discussed in the literature and within the industry itself.

For some, the key benchmark should be interest rates charged by informal lenders, as these are usually the incumbent lenders for microfinance clients. There is of course some logic in this argument but at least two objections can also be made. First, informal market rates are also heavily segmented and not everyone has access to the same type of money at

the same conditions. So, using some sort of "average informal market rate" as a point of comparison may be quite misleading. Second, it should be understood that microfinance institutions do benefit from funding sources, economies of scales, standardization processes and often subsidies that justify the expectation that MFIs should be able to deliver microcredit at a lower total cost (for the borrower) than what informal markets can do, including borrowers' transaction costs. This means that if the comparison with informal markets may be of some use, it should be clear that it is to identify the "absolute threshold" that no MFI should surpass in whatever conditions it faces.

However, this approach is in no way sufficient. Indeed, in order for microcredit to play its role, it should be important that, in absolute terms, interest rates are as low as feasible. How low is this? For income generating activities, the answer is quite simple: it should at least be low enough to make the typical activities in which micro-entrepreneurs are involved profitable. Indeed, if an MFIs' clients find themselves taking debt at a cost which is higher that the return of their own business, this means that they are actually getting poorer by working and taking these loans. Some people will say that this should never exist as theory would predict in such a case that the client would neither take the loan nor get involved in the activity; but theory and practice sometimes differ and in the microfinance world, some micro-entrepreneurs are not only working poor but getting poorer by working. The question is even more difficult when considering the other uses of loans.

Indeed, as it is now largely known, a substantial part of the "productive" loans taken by microcredit customers are either for social purposes (schooling fees, health costs, etc.) or consumption. The industry is largely divided on how to deal with this issue. Some say that acknowledging it is just a question of intellectual honesty, and what matters is the ability of the client to repay out of his various sources of incomes. Others are more reluctant, saying that once the "consumption credit" will be recognized as such, there is a higher chance that customers will be pushed into over-indebtedness. Without entering this debate, let's just pinpoint the fact that when loans are not used for productive purposes, establishing what would be "a fair price" becomes even harder. But again, if we want to focus on what makes sense for the customers, the cheaper the better. Indeed, if it is for a productive activity, the smaller the interest rate, the better the margin she will make on her own business. And if it is for a non-productive activity, it will reduce the amount of outside resources that need to be reallocated to service the credit taken for supporting it. In both cases, with no surprise, a lower interest rate results in more disposable income for the

client and whatever the use of this extra available income, it is hard to imagine one that would generate less utility than the satisfaction of paying interest rates.

The fourth dimension is the distribution of the surplus generated by the MFI. The distribution of surplus often defines the social enterprise sector in a number of economies. For instance, the UK department of Trade and Industry defines social enterprise as "a business with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or in the community, rather than being driven by the need to maximize profit for shareholders and owners" (DTI, 2002: 14). This dimension accounts for the distribution policy of the MFI, i.e. the extent to which they favor their clients when they generate some additional margins. The distribution of the surplus is a central element in the governance of MFIs (Labie and Mersland, 2011). Hudon and Ashta (2013) argue that fairness in microfinance relies on the distribution of the surplus generated by the financial transaction. This echoes theoretical considerations on exploitation based on the distribution and the disproportional benefits taken by the manager (Snyder, 2010). While the other indicators are static, this fourth indicator is a dynamic one since we consider the evolution of the distribution.

To assess whether MFIs distribute any efficiency gains to clients, the fourth dimension in our fair profits framework uses the "global productivity surplus" (GPS) methodology developed by the Centre d'Etude des Revenus et des Coûts (CERC, 1969) and we adopt its specification as previously applied in microfinance by Périlleux et al. (2012) and Hudon and Périlleux (2014). The microfinance GPS can be represented by the equation:

$$GPS_t = [\Delta OL_t \times i_{t-1} - \Delta OL_t \times pr_{t-1}] - [\Delta DE_t \times i''_{t-1} + \Delta D_t \times i'_{t-1} + \Delta N_t \times w_{t-1}] = S_t^1 + S_t^2 + S_t^3 \quad (1)$$

where GPS_t corresponds to the net output by an MFI, or the difference between an MFI's output (O) and inputs (I) (Périlleux et al., 2012). The output for an MFI is represented by taking the variation in the MFI's outstanding loan portfolio ΔOL_t at the previous year's interest rate charged to clients (i_t-1). The previous year's interest rate is calculated by dividing the financial revenue by the outstanding loan portfolio. An adjustment is made for loan-losses, which reduce the output of an MFI. We account for this by subtracting $\Delta OL_t \times pr_{t-1}$, where pr_{t-1} is the provisioning rate of the MFI for bad debts.

The inputs for an MFI include fund providers, workforce providers and other providers (Périlleux et al., 2012). In microfinance, there are two primary fund providers: savers and

lending institutions. Inputs by savers can be summarized by the variation in deposits ΔDE_t at the previous year's deposit rate (i''_{t-1}). Similarly, inputs by lending institutions can be represented as the change in debt (ΔD) taken at the previous year's external funding rate (i'_{t-1}). Workforce inputs are denoted by the change in the number of employees (ΔN_t) multiplied by the previous year's average salary (w_{t-1}). Because it is impossible to make a differentiation between price and quantity variations, other input providers are not included in the calculation of the GPS (Périlleux et al., 2012).

Surplus by the various MFI stakeholders are represented by: S^1 (borrower surplus), S^2 (supplier surplus), and S^3 (MFI surplus, inclusive of shareholders) (Périlleux et al., 2012). Since we are focused on profit fairness as it relates to clients, we focus only on S^1 in this article. The surplus to borrowers can be estimated by the change in interest rate multiplied by the loan portfolio and less any surplus gained or lost by loan losses, such that:

$$S_t^1 = -[\Delta i_t \times OL_t - \Delta pr_t \times OL_t] \quad (2)$$

The presence of a negative sign indicates that a decrease in interest rate ($\Delta i < 0$) results in borrower surplus. This also means that an increase of the provision rate generates gains for borrowers, since they will potentially reimburse less to the MFI (Périlleux et al., 2012).

Surplus transfers are a very important issue, particularly considering how the microfinance industry has evolved over the last ten years. Indeed, while many MFIs still rely on subsidies, some have been able to generate profits as double bottom line organizations. In order to progressively adapt their balance sheet to the growth process, it makes perfect sense that some profits should be generated, notably in order to solidify the equity base over time. So, in principle, profits should not be excluded, as they are part of sound management practices. However, as in other industries, the question is how much profit and what for? As argued in previous points of this paper, when profits are large, they deserve to be questioned per se. Of course, how they are reallocated may be even more crucial. In a way, this is not so different from the traditional debate in business literature where shareholder and stakeholder approaches are opposed.

For "shareholder activists", the idea is that any activity includes a risk and that those that are putting their money at risk should get whatever surplus is made available once all duties and commitments have been paid (see Friedman, 1970). This is supposed to compensate them for the unhappy ending stories and to create the necessary motivation for taking future risks. On the contrary, for "stakeholder believers", organizational success is

due to the coordination of many actors and the only way to replicate the magic that has generated success in the first place is to make sure that whatever surplus is generated (again once all duties and commitments having been paid) is spread between the different stakeholders, including at least shareholders, employees, suppliers (of little relevance in microfinance) and customers (see Freeman, 1984).

A first version of this debate may seem "double bottom line friendly". Indeed, many people may consider profits "more acceptable" where they are used for "social purposes in favor of communities where they have been generated" (Barboza and Trejos, 2009), although this matter is still largely open to discussion. In a way, this debate echoes the discussion of the "monopolistic exploitation made by Microsoft" of its customers (also captive – as often in microfinance) in order to generate a fortune that is later "reallocated to social purposes through the Bill and Melinda Gates Foundation." Is this acceptable or not?

Of course, there are many cases where the debate is far more difficult. Is it acceptable that MFI shareholders sometimes make more money in investing in microfinance than they would in other industries that do not pretend to be "double bottom line"? Is it acceptable that some general managers of MFIs make as much (or maybe more) money working in this industry than they would working for other ones that do not pretend to be "double bottom line"? Is it acceptable that when portfolio yield covers more than the cost structure, the debate in many MFIs is set between two options: distributing higher dividend or making investment for future growth, without considering simultaneously the possibility to lower the interest rates charged to the customers (except when competition is working properly, which is unfortunately much less frequent than what usual textbooks tend to advocate).

These examples may be seen as trivial – and to some extent they are – but they come from real-life examples and they show that in the double bottom line perspective, one is more often dominating than the other, getting microfinance closer and closer to profit-maximizing shareholders paradigm when the industry was built on a stakeholders perspective with one key social objective: "improving the situation of the customers". Taking these four dimensions into account, we come up to Figure 1.

On the one hand, the most problematic cases from an ethical standpoint are the MFIs with only one star, called "Group H", which are profitable MFIs that charge high interest rates, do not serve poor clientele and do not transfer any surplus to their clients. On the other hand, the best case (four

stars), "Group A", are profitable MFIs but charge low rates to poor clientele and even transfer some of their surplus to their clients when available.

Figure 1: Fair Profits Framework

Profitability	*Clientele*	*Pricing*	*Global Surplus*		*No Global Surplus*	
			Consumer Surplus	No Consumer Surplus	Consumer Surplus	No Consumer Surplus
Unprofitable MFIs (OSS<100)	Less poor clients	High IR	---	---	---	---
	Poor clients	Low IR	---	---	---	---
Profitable MFIs (OSS>100)	Poor clients	Low IR	**** Group A	*** Group B	Group I	Group J
		High IR	*** Group C	** Group E	Group K	Group L
	Less poor clients	Low IR	*** Group D	** Group F	Group M	Group N
		High IR	** Group G	* Group H	Group O	Group P

Note: More (*) refer to the adherence with the original model of double bottom line institutions. Black stars refer to more acceptable situations while red stars refer to cases that are less in line with what is expected from double bottom line or hybrid organisations.

4. Fair profits in microfinance: Empirical application

Dataset description:

We use a dataset provided by the Microfinance Information Exchange (MixMarket). The MixMarket is the largest industry data source providing information on the financial performance of microfinance institutions (Cull et al., 2016). The full dataset includes information on 2,479 MFIs from 121 countries from 1995-2010. In the present sample, we use a balanced panel data structure focusing on the two most recent years in the dataset, 2009-2010. Hence, our dataset has 992 observations from 496 MFIs. The sample has a diverse range of MFI profiles: 39% are NGOs, 14% are cooperatives, 6% are banks, and 37% are non-banking financial institution (NBFIs). The remaining 4% have another legal status, such as state bank or regional rural bank. Geographically, 11% are located in Africa, 9% in East Asia and Pacific, 20% in Eastern Europe and Central Asia, 38% in Latin America, 5% in North Africa and the Middle East and 17% in South Asia. Table 1 provides descriptive statistics of the main variable used in this study.

Table 1: Descriptive Statistics for 496 MFIs in the Panel

Variable	Definition	n	Mean	Median	St. dev.	Min.	Max.
OSS	operational self-sufficiency	992	1.03	1.03	0.39	0.12	7.44
ALS	average loan size scaled by per capita GNI	992	0.48	0.25	0.73	0.02	11.57
Portfolio_yield	portfolio yield in real terms	992	0.27	0.23	0.17	-0.10	1.25
GLP	gross loan portfolio in thousands USD	992	36,393	7,422	101,471	19	1,300,655
Donated_equity	donated equity in thousands USD	991	999	0	5,736	0	18,043
Financial_revenue	financial revenue in thousands USD	992	9,771	2,233	30,224	7	495,883
Loan_loss	loan loss expense in thousands USD	992	998	129	4,458	-468	95,003
Deposits	deposits in thousands USD	992	15,084	0	75,205	0	1,179,727
Interest_on_deposits	interest expense on deposits in thousands USD	992	546	0	2,494	0	34,904
Debt	debt in thousands USD	992	18,535	3,754	52,044	0	501,196
Financial_expense_on_debt	financial expense on debt in thousands USD	992	1,575	291	4,795	0	63,963
No_employees	number of employees	992	437	124	1,030	2	11,753
Personnel_expense	personnel expense in thousands USD	992	2,866	812	7,941	0	130,483
ROA	return on assets	992	-0.016	0.004	0.097	-0.861	0.239
ROE	return on equity	992	-0.164	0.022	1.046	-16.033	14.560
Percent_female	percentage of female clients	992	0.64	0.64	0.26	0.00	1.00
Age	number of years in operation	992	14.3	13.0	8.4	1.0	61.0
Forprofit	dummy 1 if MFI is an forprofit	992	0.38	0.00	0.49	0.00	1.00
Regulated	dummy 1 if MFI is regulated	992	0.53	1.00	0.50	0.00	1.00
Africa_dummy	dummy 1 if MFI operates in Africa region	992	0.11	0.00	0.31	0.00	1.00
EAP_dummy	dummy 1 if MFI operates in East Asia and Pacific region	992	0.09	0.00	0.29	0.00	1.00
ECA_dummy	dummy 1 if MFI operates in Eastern Europe and Central Asia region	992	0.20	0.00	0.40	0.00	1.00
LAC_dummy	dummy 1 if MFI operates in Latin America and Caribbean region	992	0.38	0.00	0.48	0.00	1.00
MENA_dummy	dummy 1 if MFI operates in Middle East and N. Africa region	992	0.05	0.00	0.23	0.00	1.00
Asia_dummy	dummy 1 if MFI operates in South Asia region	992	0.17	0.00	0.38	0.00	1.00
Bank_dummy	dummy 1 if MFI operates as a bank	992	0.06	0.00	0.31	0.00	1.00
Coop_dummy	dummy 1 if MFI operates as a cooperative or credit union	992	0.14	0.00	0.29	0.00	1.00
NBFI_dummy	dummy 1 if MFI operates as an NBFI	992	0.37	0.00	0.40	0.00	1.00
NGO_dummy	dummy 1 if MFI operates as an NGO	992	0.39	0.00	0.48	0.00	1.00
Other_dummy	dummy 1 if MFI operates under 'Other' as legal status	992	0.01	0.00	0.23	0.00	1.00
Ruralbank_dummy	dummy 1 if MFI operates as a rural bank	992	0.03	0.00	0.38	0.00	1.00

Note: each MFI has two observations, one for 2009 and one for 2010 so n=992.

An important limitation of the MixMarket dataset is that data are voluntarily self-reported by MFIs which could lead to some self-selection bias (D'Espallier et al., 2017). Although the dataset may not be fully representative of all microfinance institutions, scholars have typically noted that the MixMarket is skewed toward institutions that emphasize financial objectives and profitability (Cull et al., 2009).

To check the representativeness of our sample, we compare some basic statistics of our sample to the 890 MFIs in the 17th MicroBanking Bulletin (MBB; MIX Market, 2008) and obtain similar results. The average OSS ratio is 115% in the MBB (2008) and 103% in our sample. The average number of borrowers is 11,041 in the MBB (2008) and 13,767 in our sample. The average nominal yield is 30% in the MBB (2008) and 29.6% in our sample. Finally, the average staff productivity is 112 in the MBB (2008) and 112 in our sample.

Empirical application:

The empirical analysis is split into two subsections. In the first part, we highlight sector pricing and profitability trends more broadly; then, we apply the fair profit framework.

Microfinance pricing and profitability

The profitability of microfinance institutions can be directly interpreted using traditional financial metrics. Tables 2 and 3 report the profitability of MFIs using two common profitability indicators in the banking industry: return on equity and return on assets.

Table 2: Return on equity (percent), 2009-2010.

Sample	Mean	25th Percentile	Median	75th Percentile	N
Full sample	-16.4	-9.5	2.1	13.1	992
Bank	-6.2	-18.7	-0.8	18.9	62
Credit union/ Cooperative	-4.8	-10.8	1.0	6.2	138
NBFI – For-profit	-10.2	-9.5	2.8	16.3	278
NBFI – Non-profit	-14.8	-13.2	-0.7	15.2	86
NGO	-28.8	-8.2	3.0	12.5	388
Rural bank - other	2.3	-8.7	8.1	24.2	40
For-profit	-7.9	-9.5	2.9	17.5	374
Non-profit	-21.5	-10.2	1.9	10.8	618

Note: For-profit MFIs include for-profit banks, for-profit NBFIs and regional banks and for-profit cooperatives. Nonprofit MFIs include NGOs, nonprofit NBFIs and nonprofit cooperatives.

Due to the strongly negative performance of some MFIs, the mean return on equity for the sample is much lower than the median (mean = -16.4 percent, median = 2.1 percent).

This phenomenon is common across the range of institutional profiles and is particularly acute for non-profit MFIs compared to their for-profit counterparts; non-profits report a difference of 23.4 percent between the median and the mean while for-profit MFIs report a difference of just 10.8 percent. Only banks and non-profit NBFIs report a negative return on equity at the median. Banks report the widest variation between the 25th and 75th percentiles, and also report the second highest return on equity at the 75th percentile at 18.9 percent. To account for differences in balance sheet structure, we report return on assets in Table 3.

Table 3: Return on assets (percent), 2009-2010.

Sample	Mean	25th Percentile	Median	75th Percentile	N
Full sample	-1.6	-3.4	0.4	2.8	992
Bank	-1.3	-4.1	0.0	2.3	62
Credit union/ Cooperative	-1.5	-2.0	0.2	1.2	138
NBFI – For-profit	-1.7	-3.2	0.4	3.0	278
NBFI – Non-profit	-1.6	-3.9	-0.3	3.4	86
NGO	-1.9	-4.5	0.8	3.6	388
Rural bank - other	0.5	-1.3	1.4	3.4	40
For-profit	-1.3	-3.1	0.5	2.8	374
Non-profit	-1.8	-3.4	0.3	2.7	618

Note: For-profit MFIs include for-profit banks, for-profit NBFIs and regional banks and for-profit cooperatives. Nonprofit MFIs include NGOs, nonprofit NBFIs and nonprofit cooperatives.

The mean return on assets for the full sample is -1.6 percent with a median value of 0.4 percent. The only institutional profile with a positive mean value is rural banks (mean = 0.5 percent). Conversely, the median values for all institutional profiles, with the exception of non-profit NBFIs, are slightly positive. Overall, the trends between institutional profiles appear to be quite uniform: positive return on assets at the median with a negative skew at the tail of the distribution that causes the mean average to become negative. In addition, the difference between non-profit and for-profit MFIs seems to be quite small at all points in the distribution with the exception of the mean, indicating that non-profit MFIs in the left tail of the distribution are more likely to report strongly negative figures.

While ROE and ROA are helpful to identify profitable MFIs, these indicators don't provide any detail about their operating environment, such as pricing decisions, operational efficiency or the type of clientele served by the MFI. With respect to pricing in microfinance, real portfolio yields are shown for each institutional model in Table 4.

Table 4: Real portfolio yield (percent), 2009-2010.

Sample	Mean	25th Percentile	Median	75th Percentile	N
Full sample	26.8	15.5	23.0	33.7	992
Bank	22.7	14.1	17.8	25.7	62
Credit union/ Cooperative	16.1	10.9	14.3	18.9	138
NBFI – For-profit	32.1	16.5	28.3	40.0	278
NBFI – Non-profit	28.6	22.8	28.2	33.7	86
NGO	28.1	17.4	24.6	36.3	388
Rural bank - other	17.1	9.0	18.0	24.2	40
For-profit	29.1	16.0	23.4	37.1	374
Non-profit	25.4	15.3	22.8	32.8	618

Note: For-profit MFIs include for-profit banks, for-profit NBFIs and regional banks and for-profit cooperatives. Nonprofit MFIs include NGOs, nonprofit NBFIs and nonprofit cooperatives.

For the full sample, the mean real portfolio yield is 26.8 percent and the median is 23 percent. NGOs tend to charge their clients higher interest rates than banks (the mean is 28.1 percent versus 22.7 percent), although for-profit NBFIs charge the highest rates of any legal status (mean = 32.1 percent). Credit unions and cooperatives offer the lowest rates on average (mean = 16.1 percent) and also report the smallest difference between the 25th and 75th percentiles, just 8 percent. More generally, for-profit MFIs charge more than non-profit MFIs (29.1 percent versus 25.4 percent). However, the median values for both non-profit and for-profit MFIs are roughly equivalent (~23 percent), suggesting that pricing is similar for most non-profit and for-profit MFIs but that the for-profit MFI distribution skews towards higher interest rates. Higher interest rates are often thought to be required to service smaller loans. We present the average loan size by institutional profile in Table 5.

Table 5: Average loan size by GNI per capita, 2009-2010.

Sample	Mean	25th Percentile	Median	75th Percentile	N
Full sample	0.48	0.11	0.25	0.56	992
Bank	1.01	0.19	0.46	1.55	62
COOP	0.75	0.33	0.53	0.90	138
NBFI – For-profit	0.45	0.09	0.21	0.63	278
NBFI – Non-profit	0.40	0.19	0.31	0.50	86
NGO	0.36	0.09	0.15	0.30	388
Rural bank - other	0.35	0.23	0.29	0.47	40
For-profit	0.53	0.12	0.27	0.66	374
Non-profit	0.45	0.11	0.24	0.52	618

Note: For-profit MFIs include for-profit banks, for-profit NBFIs and regional banks and for-profit cooperatives. Nonprofit MFIs include NGOs, nonprofit NBFIs and nonprofit cooperatives.

The average loan size for the full sample is 48 percent of GNI per capita while the median is much lower, only 25 percent of GNI per capita. NGOs and rural banks report the smallest loan sizes on average (means of 36 and 35 percent of GNI per capita respectively). The median values present a slightly different story. NGOs still offer the smallest loan sizes (15 percent of GNI per capita) but for-profit NBFIs also tend to serve small loans (median = 21 percent of GNI per capita). While credit unions and cooperatives charge the lowest interest rates, Table 5 also shows that they offer the largest loan sizes, with a median value of 53 percent of GNI per capita. Meanwhile, microfinance banks report the widest range in average loan size, more than 1.4 times GNI per capita between the 25th and 75th percentiles. For-profit and non-profit MFIs have similar average loan sizes (53 percent versus 45 percent of GNI per capita at the mean) and report an even smaller difference at the median (27 percent versus 24 percent).

In the next section, we apply our fair profits framework to the sample. We argue that profits can be better understood relative to pricing, the outreach of the MFI and the organizational commitment to clients in the form of reduced interest rates. Combining these indicators produces a matrix of emergent groups that can be classified from best-in-class to exploitative.

Application of the fair profit framework

In this section, we apply the fair profits framework to the dataset. First, we identify operational sustainable MFIs. Second, we distinguish between MFIs serving poor clients and MFIs serving less poor clients. Third, we identify MFIs charging relatively high interest rates. Fourth, we calculate the global surplus (S_t) of each MFI and test whether any surplus is transferred to clients. After applying the fair profits framework, we compare the framework indicators and institutional characteristics across the emergent categories.

The first step in our fair profits framework identifies MFIs that are operationally self-sufficient. After applying this condition, we find that 297 MFIs (or 60%) of the 496 MFIs in our sample were operationally self-sustainable in 2010. We drop the remaining 199 unsustainable MFIs from our analysis.

The second step distinguishes MFIs serving poor clients and from those serving less poor clients. As described earlier, MFIs with an average loan size as a percentage of GNI per capita under 20% are considered to be serving poor clients. Using this threshold, our

sample indicates that 126 (or 42.4%) of the 297 sustainable MFIs serve poor clients while the remaining 171 MFIs serve relatively less poor clients on average.

The third step differentiates between MFIs charging high and low interest rates, using the portfolio yield (in real terms) as a proxy. Of the 126 MFIs serving poor clients, 37 MFIs also were able to charge low interest rates, with an average portfolio yield of 15.1%, while the remaining 89 MFIs serving poor clients had an average portfolio yield of 44%. Of the 171 MFIs serving relatively better off clients, 85 MFIs charged low interest rates, with an average portfolio yield of 14.2% while the remaining 86 MFIs serving better off clients charged higher rates, reporting an average portfolio yield of 30.6%.

The final step identifies whether an MFI generated any surplus during the time period under study and then determines if any of the surplus was transferred to clients in the form of reduced interest rates. Of the 297 operationally sustainable MFIs, 249 (or 83.8%) were able to generate a global surplus. Of the 249 MFIs with a positive global surplus, 103 (or 41.4%) transferred some of the surplus to clients. Combining these four criteria, Figure 2 reports the number of MFIs for each category within our fair profits classification.

Figure 2: Application of the Fair Profits Framework

Profitability	*Clientele*	*Pricing*	*Global Surplus*		*No Global Surplus*	
			Consumer Surplus	No Consumer Surplus	Consumer Surplus	No Consumer Surplus
Unprofitable MFIs (OSS<100)	Less poor clients	High IR	---	---	---	---
	Poor clients	Low IR	---	---	---	---
Profitable MFIs (OSS<100)	Poor clients	Low IR	**** Group A (13 MFIs)	*** Group B (12 MFIs)	Group I (10 MFIs)	Group J (11 MFIs)
		High IR	*** Group C (32 MFIs)	** Group E (46 MFIs)	Group K (3 MFIs)	Group L (1 MFI)
	Less poor clients	Low IR	*** Group D (28 MFIs)	** Group F (45 MFIs)	Group M (9 MFIs)	Group N (11 MFIs)
		High IR	** Group G (30 MFIs)	* Group H (43 MFIs)	Group O (2 MFIs)	Group P (1 MFI)

A first, although perhaps unsurprising, observation illustrates that being a sustainable MFI that serves poor clients with low interest rates while also transferring efficiency gains to consumers is not an easy task. “Best-in-class” MFIs (i.e. Group A) number only 13 institutions, or 4.3% of the 297 sustainable MFIs and a mere 2.6% of the total 496 MFIs in

our sample. MFIs that satisfy three of the four dimensions (Groups B, C and D) are classified as "Acceptable" and account for 72 of the 297 sustainable MFIs (or 24.2%). 102 MFIs, or 40.7% of sustainable MFIs, fulfill two of the four dimensions (Groups E, F and G) and are classified as "At-risk". Finally, "Exploitative" MFIs (i.e. Group H) satisfy the sustainability criteria but tend to serve better off clients at higher interest rates, and while exploitative MFIs generate a surplus from efficiency gains, they do not transfer any of this surplus to clients. Exploitative MFIs make up 14.5% of the sustainable MFI sample.

The MFI classification allows us to compare groups across each framework indicator and then to examine some institutional characteristics and address potential framework oversights. Table 6 highlights the fair profit framework indicators across the MFI groups that were able to generate a global surplus during the observation period, 2009-2010, which account for 83.8% of the 297 operationally sustainable MFIs in our sample.

Table 6: Fair profit indicators for positive global surplus MFI groups

Sample		OSS		ALS/GNIpc		Portfolio yield		Global surplus		Consumer surplus	
	N	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.
Best-in-class											
Group A	13	120	*14*	0.10	*0.02*	14.3	*4.2*	3.0	*7.3*	3.1	*4.5*
Acceptable											
Group B	12	111	*8*	0.11	*0.03*	13.5	*7.1*	1.3	*1.8*	-0.4	*0.6*
Group C	32	123	*22*	0.10	*0.05*	44.5	*22.1*	2.2	*4.5*	1.3	*2.3*
Group D	28	119	*14*	0.87	*0.74*	13.5	*6.0*	1.1	*2.1*	2.4	*8.8*
At-risk											
Group E	46	134	*94*	0.09	*0.05*	44.6	*17.6*	3.4	*13.5*	-0.9	*1.3*
Group F	45	112	*7*	0.96	*1.09*	14.4	*4.3*	1.8	*3.3*	-1.6	*4.0*
Group G	30	127	*33*	0.64	*0.55*	30.1	*7.4*	1.1	*1.6*	1.2	*2.6*
Exploitative											
Group H	43	136	*88*	0.59	*0.45*	31.0	*9.0*	2.1	*4.2*	-1.1	*2.5*
Kruskal-Wallis Test		16.466**		182.944***		187.127***		7.362		182.189***	

Note: Global surplus and consumer surplus are reported in $ millions. Portfolio yield and OSS are reported in percent. Average loan size is expressed as a ratio over GNI per capita. **p< .05. ***p < .01.

Operational self-sufficiency ranges from a low of 111% (Group B) to a high of 136% (Group H). Best-in-class or acceptable MFI groups (i.e. Groups A, B, C and D) tend to report lower OSS scores with lower standard deviations than the at-risk or exploitative MFI groups (Groups E, F, G and H). A notable exception is Group F, which reports the second lowest OSS (OSS = 112%) and the lowest standard deviation (St. dev. = 7%).

Average loan size is consistent for MFIs serving poor clients (Groups A, B, C and E), ranging from 9% of GNI per capita to 11% of GNI per capita, markedly lower than the average loan size of MFI groups that serve relatively better off clients (Groups D, F, G and

H). MFI groups that serve better off clients report average loan sizes between 59% and 96% of GNI per capita.

Low interest rate MFI groups (Groups A, B, D and F) report real portfolio yields of 13-14% with standard deviations ranging between 4-7%. By comparison, the high interest rate groups serving relatively better off clients, i.e. Groups G and H, report average yields of 30-31% while the high interest rate groups serving poor clients, i.e. Groups C and E, report portfolio yields of approximately 45%, reinforcing the idea that smaller loan sizes require higher interest rates.

Global surpluses range from a minimum of $1.1 million for Group G to a maximum of $3.4 million for Group E. Regarding consumer surplus, best-in-class MFIs transferred $3.1 million on average to clients in the form of reduced interest rates, roughly the full value of their entire global surplus. Other acceptable profit groups also managed to transfer some of the global surplus to clients with the exception of Group B, which actually extracted value ($424 thousand on average) from clients during the observation period in the form of increased interest rates. However, MFIs in Group B serve poor clients at an already low interest rate (mean portfolio yield = 13.5%), and consequently, may only be able to reduce interest rates or boost profitability by becoming more operationally efficient.

The fair profit framework draws a sharp contrast between best-in-class MFIs and exploitative MFIs. Exploitative MFIs offer loans roughly six times the size of best-in-class MFIs at double the interest rate (with average loans sizes of 0.1 of GNI per capita versus 0.6 of GNI per capita and portfolio yields of 14 percent versus 31 percent). In addition, whereas best-in-class MFIs distribute the full value of their surplus to clients in the form of reduced interest rates, exploitative MFIs report a negative consumer surplus despite obtaining a substantial, positive global surplus. Differences between these features are highlighted by the higher OSS of exploitative MFIs (mean = 136%), which is 16% higher than best-in-class MFIs (mean = 120%) and the highest of any emergent group within the fair profit framework.

In Table 7, we revisit the traditional financial profitability indicators, comparing the ROE and ROA across the fair profit framework groups. Return on equity varies substantially by MFI group. Best-in-class MFIs report the lowest median ROE (7.5%) as well as the smallest range between the 25^{th} and 75^{th} percentiles, only 6.8%. Exploitative MFIs report a slightly higher median ROE of 10.8% with a 14% difference between the

25th and 75th percentiles, or roughly double that of best-in-class MFIs. Generally, low interest rate MFI groups (Groups A, B, D and F) tend to report lower ROE figures. Group C, which serves poor clients with high interest rates, reports the highest median ROE (16.5%) and the widest range between the 25th and 75th percentiles (22.4%).

Table 7: Return on equity and return on assets (percent) by MFI group

Sample		Return on Equity				Return on Assets			
	N	Mean	25th Percentile	Median	75th Percentile	Mean	25th Percentile	Median	75th Percentile
Best-in-class									
Group A	13	11.8	2.8	7.5	9.7	2.4	0.9	2.1	4.4
Acceptable									
Group B	12	16.2	2.7	8.2	19.0	1.7	0.9	1.4	2.5
Group C	32	15.6	3.9	16.5	26.3	6.2	1.6	4.7	8.5
Group D	28	14.0	4.7	12.7	22.1	2.4	0.8	2.2	3.4
At-risk									
Group E	46	15.7	6.9	13.2	22.7	5.3	2.5	4.4	7.5
Group F	45	10.8	2.7	8.7	13.8	1.5	0.7	1.4	2.2
Group G	30	18.3	7.2	14.7	21.6	4.6	2.1	2.8	5.5
Exploitative									
Group H	43	13.6	5.5	10.8	19.5	3.7	1.5	2.7	5.1
Kruskal-Wallis Test				9.496				46.654***	

Note: **$p < .05$. ***$p < .01$.

The results for return on assets by MFI group paint a similar picture. Best-in-class MFIs have a mean ROA of 2.4% and a relatively small range between the 25th and 75th percentiles of 3.5%. The exploitative MFI group has a slightly higher mean ROA of 3.7% and a similar range between the 25th and 75th percentiles of 3.6%. Low interest rate MFI groups (Groups A, B, D and F) also report the lowest ROA figures . Finally, Group C again reports the highest mean (ROA = 6.2%) and the widest range between the 25th and 75th percentiles (6.9%).

The framework indicates that, on average, best-in-class MFIs provide lower returns than exploitative MFIs. However, there is considerable variation for both ROE and ROA across the MFI categories, reinforcing the idea that traditional profitability indicators alone are unable to capture the full story and need to be complemented by additional metrics.

To construct a more comprehensive view, we consider how institutional characteristics vary across the MFI groups, which are presented in Tables 8 and 9. Table 8 presents the number of MFIs in each group by legal status and geographical region. Table 9 provides an overview of organizational indicators, including MFI age, number of borrowers, gross portfolio size and subsidy levels.

Table 8: Legal and geographical characteristics for positive global surplus MFI groups

Sample	Best-in-class	Acceptable			At-risk			Exploitative	*Indicator*
	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H	***Totals***
Panel A: Legal Status									
Bank	0	0	1	4	3	6	2	2	***18***
Credit union/Coop	0	0	1	8	0	15	2	3	***29***
NBFI – For-profit	8	4	6	4	16	6	11	16	***71***
NBFI – Non-profit	0	0	3	0	6	1	6	6	***22***
NGO	5	8	20	7	21	15	7	14	***97***
Rural bank - other	0	0	1	5	0	2	2	2	***12***
Panel B: Geographical Region									
Africa	0	0	1	2	1	3	4	6	***17***
East Asia and Pacific	1	0	3	1	10	4	5	7	***31***
Eastern Europe and Central Asia	0	0	3	3	5	6	12	12	***41***
Latin America and the Caribbean	0	6	18	11	25	23	8	18	***109***
Middle East and North Africa	1	1	5	0	5	1	1	0	***14***
South Asia	11	5	2	11	0	8	0	0	***37***
N	***13***	***12***	***32***	***28***	***46***	***45***	***30***	***43***	***249***

Note: Panel A reports the number of MFIs within each group by legal status. Panel B reports the number of MFIs by geographical region.

All best-in-class MFIs are either registered as for-profit NBFIs or NGOs and primarily operate in South Asia (11 of 13 MFIs). Banks tend to be concentrated in groups that we consider at-risk or exploitative (13 of 18 banks, or 72 percent). Approximately 79 percent of credit unions and cooperatives (23 of 29 MFIs) belong to Groups D and F, which serve relatively better off customers at low interest rates. NGOs are present in every MFI group and compose a large portion of Group C, (20 of 32 MFIs), which serves poor clientele at high interest rates but are transferring surplus gains to clients. Regarding geography, nearly 68 percent of Latin American and Caribbean MFIs and 82 percent of African MFIs operate within MFI groups classified as at-risk or exploitative. Conversely, South Asian MFIs are primarily in best-of-class or acceptable profitability groups (29 of 37 MFIs; 78 percent).

Table 9: Organizational characteristics for positive global surplus MFI groups

Sample		MFI age		No. of borrowers		Gross loan portfolio		Donated equity		Employee surplus	
	N	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.
Best-in-class											
Group A	13	8.8	*5.2*	455,754	*760,952*	83.1	*154.4*	0.6	*1.8*	1.1	*1.6*
Acceptable											
Group B	12	17.3	*10.7*	150,656	*359,345*	33.4	*61.8*	0.3	*0.5*	0.5	*0.9*
Group C	32	14.1	*6.4*	76,886	*126,318*	42.6	*94.2*	0.7	*1.7*	0.7	*1.5*
Group D	28	19.2	*10.5*	62,313	*117,028*	74.4	*178.4*	0.5	*1.1*	0.6	*0.9*
At-risk											
Group E	46	13.2	*6.6*	90,620	*263,654*	33.0	*114.3*	0.7	*2.6*	0.2	*0.5*
Group F	45	18.1	*9.7*	46,366	*62,009*	68.6	*106.3*	0.9	*3.9*	0.4	*0.7*
Group G	30	13.1	*6.4*	25,539	*40,142*	41.3	*87.7*	1.2	*4.8*	0.2	*0.4*
Exploitative											
Group H	43	13.8	*6.7*	40,669	*75,668*	63.4	*205.0*	0.6	*1.3*	0.2	*0.7*
Kruskal-Wallis Test		24.804***		27.414***		11.18		2.379		21.436***	

Note: MFI age is reported in years. Gross loan portfolio, donated equity and employee surplus are reported in $ millions. **p< .05. ***p < .01.

Best-in-class MFIs tend to be considerably younger than other MFI groups, with an average age of just 8.8 years. Despite their relative youth, best-in-class MFIs report a larger gross loan portfolio with more clients on average (GLP = $83.1 million; No. of borrowers = 455,754). Economies of scale also play a role in our fair profit framework: MFIs with larger loan portfolios and that serve more customers are clustered in the best-in-class and acceptable profit groups.

Another interpretation could be that the best-in-class MFIs rely more on subsidies than exploitative MFIs and are thus able to offer better conditions to clients and perform better in our framework. To account for this, we also report the amount of subsidy an MFI receives. Similarly to Hudon and Traca (2011), we use donated equity as proxy for subsidy, although no significant differences between the groups were detected.

Finally, we also check the extent that MFIs favor other stakeholders. Since a reasonable case could be made that part of an MFI's social mission is to increase the welfare of its staff, we calculate the surplus distribution to employees. A first observation is that all MFI groups transfer some surplus to employees. However, best-in-class and acceptable MFIs tend to transfer more of their surplus gains to staff than at-risk or exploitative MFIs. This confirms the idea that fair MFIs favor other stakeholders (e.g. staff) when generating efficiency gains.

5. Conclusion

In this paper, we address the fairness of profits in social enterprises. Estimating "fair profits" is far from easy. However, based on the four criteria we highlight, there are some clear-cut differences in the case of microfinance. We can identify two "key exemplary cases": on the one hand, a fair MFI (in terms of profits) has its cost structure under control (to avoid inefficiencies) and charges interest rates that allow it to cover costs while making a relatively low margin. This margin is not fully absorbed by shareholders but benefits other stakeholders with a special attention towards lowering the price of microcredits for the poorest customers. On the other hand, an unfair MFI can either be inefficient or efficient but it charges high interest rates in order to cover up its inefficiencies or to generate huge margins. Most profits are absorbed by shareholders and no specific consideration is made to lower costs for poorer customers. Of course, few institutions will perfectly match those "cliché profiles" and many cases fall in-between these two extremes.

Our empirical results suggest that satisfying all four dimensions of the fair profit framework is a difficult, although not impossible task. Fewer than 3% of in-sample MFIs are classified as best-in-class organizations. These organizations tend to be relatively young, South Asian MFIs that have achieved substantial economies of scale and also favor stakeholders such as employees when generating a global surplus. Coupled with the relative youth of the best-in-class MFIs, this could stress the importance of "smart subsidies", or subsidies that help MFIs build infrastructure and develop institutional capacity during the initial growth phase (Armendáriz and Morduch, 2010). These targeted subsidies often include provisions for technical assistance, staff training, or the implementation of information management systems

No defining features jump out in characterizing MFIs at the other end of the spectrum and the majority of MFIs fall in-between these two extremes, appearing to make trade-offs between the poverty level of their clientele, the interest rates and the amount of surplus they make available to clients over time. One interpretation could be that MFIs must make decisions on whether to target poorer clientele, to charge lower interest rates or to transfer any global surplus to consumers in the form of reduced interest rates over time. These choices could possibly be linked to the legal status of an MFI, as we observe some clustering by institutional profile; for instance, the high percentage of credit unions and cooperatives in groups that serve richer clients at lower interest rates. Another possibility could be linked to the geographic region as we observe that a large majority of MFIs in Latin America, Africa, East Asia and Eastern Europe tend to be more prevalent in the at-risk or exploitative MFI categories.

Finally, the fact that we don't observe strong clustering by traditional profitability measures, ROA and ROE, could lend credence to the usefulness of our framework. Although we observe that exploitative MFIs offer higher returns than best-in-class MFIs, there is substantial heterogeneity of ROA and ROE across the other groups, suggesting at least in part that traditional financial metrics need to be complemented by additional measures. By just observing ROA and ROE, we would not be able to uncover the social or operational inefficiencies of MFIs operating in uncompetitive markets. Our framework thus offers a first step to further nuance the interpretation of profitability for social enterprises.

Of course, our fair profit framework is subject to some limitations. Empirically, the framework lacks an objective pricing measure for microfinance institutions. We partially address this issue when constructing the framework by discussing other options such as a comparison to informal market rates. However, this is not practically feasible given that our database covers multiple continents and contexts where informal credit conditions vary a great deal. Second, our empirical strategy only uses a two-year time period. In practice, transfers of client surplus may take longer to materialize into reduced interest rates. Future studies could look at a longer time horizon to understand how MFIs, or social enterprise more generally, transfer operational efficiencies to clients in the face of increasing competition. Finally, our empirical strategy is unable to incorporate soft subsidies into our analysis. Although we report the direct subsidies to MFIs, concessionary finance in the form of below-market rate loans, credit guarantees or preferential equity is unobservable from our dataset.

Despite these limitations, we believe that using this four-dimensional approach could help in structuring the debates that boards, investors and donors should have about what constitutes an acceptable level of profits in microfinance, should the industry wish to preserve what created in the first place, the will to contribute to the common good.

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