

Profitability and Interest Rates: Does the Commercialization of Microfinance Institutions Lead to Higher Interest Rates?

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Abstract:

The paper examines the relationship between the profitability of microfinance institutions and the interest that these institutions charge their clients. The analysis identifies a correlation coefficient of -0.154 between nominal annualized percentage rate and return on equity. This indicates that institutions with higher profitability tend to offer lower interest rates on microloans. A typology and application of life-cycle theory show that this is not a linear relationship, but a sequenced development. The research concludes that if the interest rate of micro loans is accepted as a proxy for the impact of microfinance, then commercialization is not the problem of microfinance, but it is part of the solution.

Keywords: microfinance; commercialization; interest rates; profitability; life-cycle

1. Introduction

“In the 1970s, when I began working here on what would eventually be called ‘microcredit’, one of my goals was to eliminate the presence of loan sharks who grew rich by preying on the poor. [...] At that time, I never imagined that one day microcredit would give rise to its own breed of loan sharks.”² Prof. Dr. Muhammad Yunus has become a public critic of commercial approaches to microfinance: “Commercialization has been a terrible wrong turn for microfinance, (...)”³ As the major driver of this negative development he sees the transformation of NGOs into commercial companies.⁴

Various authors have raised similar criticism towards microfinance, for example Milford Bateman in “Why Doesn’t Microfinance Work?”⁵, Dichter and Harper, and various other contributors in “What’s Wrong With Microfinance?”⁶, Gerhard Klas in “Die Mikrofinanz Industrie”⁷, or Hugh Sinclair in “Confessions of a Microfinance Heretic.”⁸ These critics of commercial microfinance are largely united in the conclusion that a commercial approach to microfinance has negative implications for microfinance clients.

These negative implications primarily derive from the interest charged on micro loans. For example, Bateman claims that “(...) vast rewards were effectively made possible by quietly charging 195% interest rates on the microloans (...)”⁹ and Sinclair observes that “(...) profit

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² Yunus, M. (2011): Sacrificing Microcredit for Megaprofit. *The New York Times (New York Edition)*. (15 January 2011), p. 23A.

³ Ibid.

⁴ Ibid.

⁵ Bateman, M. (2010). *Why Doesn’t Microfinance Work? The Destructive Rise of Local Neoliberalism*. London: Zed Books.

⁶ Dichter, T. & Harper, M. (Eds.). (2007): *What’s wrong with Microfinance?* Warwickshire: Practica Action Publishing.

⁷ Klas, Gerhard (2011): *Die Mikrofinanz Industrie. Die große Illusion oder das Geschäft mit der Armut*. Berlin: Assoziation A.

⁸ Sinclair, H. (2012): *How Microlending Lost Its Way and Betrayed the Poor*. San Francisco: Berrett-Koehler.

⁹ Bateman, M. & Chang, H. (2012). Microfinance and the Illusion of Development: From Hubris to Nemesis in Thirty Years. *World Economic Review, Vol. 1*, p. 15.

has become the driving force behind the sector”¹⁰ with microfinance institutions (MFIs) “(...) trying to increase revenue by charging the highest interest rates possible.”¹¹

The logical underlying assumption is that MFIs charge higher interest rates to increase their profitability, i.e. that profitability of MFIs is a function of interest rates charged.

This paper assesses the research question: Are microfinance institutions with higher interest rates more profitable than microfinance institutions with lower interest rates?

The research hypothesis is that the profitability of MFIs positively and significantly correlates with high interest rates of the micro loans offered by MFIs.

To test this hypothesis and to interpret the results in this paper, the triangle of microfinance is introduced as a conceptual framework. This is followed by an overview of relevant research on microfinance, especially in regard to the relationship between profitability and interest rates. The third part of the paper describes the research methodology and the creation of a suitable dataset, which is followed by the statistical data analysis in the fourth part. To interpret the results of the statistical analysis a typology of the MFIs is introduced in the fifth part of the paper. Furthermore, the statistical data is linked with life-cycle theory and a sequenced model for commercialization is discussed. The sixth and last part of the paper summarizes the results, draws conclusions and gives an outlook for further research needs.

2. Theoretical framework and literature review

Within the theories of economic development ‘new institutional economics’ suggests a perspective that seeks to understand political and commercial institutions in the context of their political, commercial, legal, sociological and geographical context.¹² Within this school of thought, the ‘triangle of microfinance’ has been introduced by Manfred Zeller and Richard L. Meyer to describe the context of MFIs. The framework summarizes “(...) shifts in paradigms, strategies, and development practices in the field of microfinance during the 1990s, leading to the recognition of the three overarching policy objectives: financial sustainability, outreach to the poor, and welfare impact.”¹³ This triangle of microfinance policy goals is embedded in frame conditions, such as legal environment or infrastructure, and driven by institutional innovations.¹⁴

Impact as a policy goal is emphasized by all those stakeholders of the microfinance industry that have a specific development mission. NGOs such as WorldVision¹⁵, Opportunity International¹⁶, or The Hunger Project¹⁷ are committed to creating impact, as well as Government institutions such as USAID¹⁸ and DFID¹⁹, or social investors. Various means of

¹⁰ Zasky, J. (Interviewer) & Sinclair, H. (Interviewee). (n.d.): The Myths of Microfinance. Examining the Dark Side of a Feel-good Industry. *Failure Magazine (Online Edition)*. (n.d.). Retrieved 27 August, 2013, from <http://failuremag.com/feature/article/the-myths-of-microfinance/P1/>

¹¹ Ibid.

¹² Klein, P. (2000): *New Institutional Economics*. In Bouckaert, B. & De Geest, G. (Eds.): *Encyclopedia of Law and Economics* (pp. 456 – 489). Cheltenham: University of Ghent, p. 456.

¹³ Zeller, M. & Meyer, R. (Eds.). (2003): *The Triangle of Microfinance. Financial Sustainability, Outreach, and Impact*. Baltimore: The Johns Hopkins University Press, p. 3.

¹⁴ Ibid.

¹⁵ WorldVision: <http://www.worldvisionmicro.org/>, accessed on 15.08.2013.

¹⁶ Opportunity International: <http://www.opportunity.org/>, accessed on 15.08.2013

¹⁷ The Hunger Project: http://www.thp.org/what_we_do/key_initiatives/microfinance/overview, accessed on 15.08.2013.

¹⁸ US Agency for International Development: <http://blog.usaid.gov/tag/microfinance/>, accessed on 15.08.2013

¹⁹ Department for International Development: <https://www.gov.uk/government/topics/financial-services>, accessed on 15.08.2013.

measuring impact are possible: Randomized controlled trials (RCTs), quasi- and non experimental studies, such as financial diaries, the assessment of macro data or of terms of products and services.²⁰ The majority of literature and research on microfinance is found in the area of impact assessment.²¹

Outreach as a policy goal is generally emphasized as a cross cutting concept by microfinance stakeholders. It is differentiated by breadth and depth of outreach.²² Breadth of outreach refers to the simple number of people served or accounts opened. Depth of outreach refers to the characteristics of clients served, for example their level of poverty, age, gender or health status.²³ Research and literature on the breadth of outreach, such as by Gibbons and Meehan²⁴

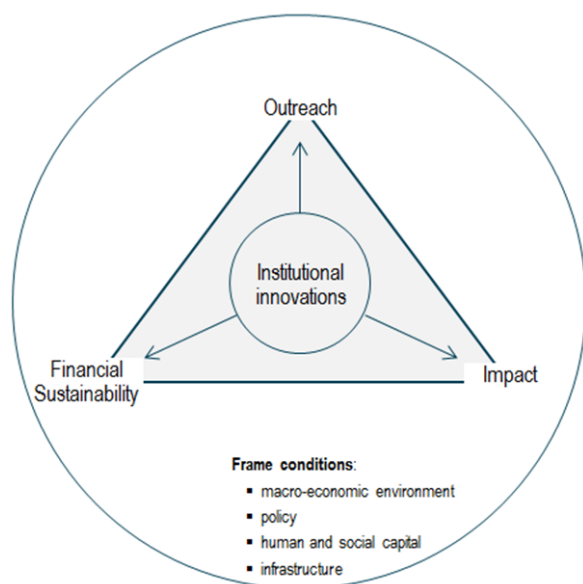


Figure 1: The Triangle of Microfinance

Source: Zeller & Meyer: *The Triangle of Microfinance*. P. 6.; own illustration.

or Gallardo²⁵ focus on whether high client numbers are rather a prerequisite *for* or an outcome *of* strong financial performance. Work on the depth of outreach, such as by Paxton and Cuevas²⁶ or by Cull et al.²⁷, puts an emphasis on the mission drift discussion, i.e. whether MFIs abandon low income clients or other target groups in their endeavor to generate higher profits.

Financial performance as a policy goal emerged in the 1980s when it was recognized that funding by donors or governments is limited and therefore MFIs needed to become financially sustainable, i.e. at least cover their cost.²⁸ Early publications on the financial performance of MFIs in the 1990s and early 2000s highlighted individual case studies, such as Grameen Bank²⁹ and Equity Bank³⁰. This was followed by a large body of industry studies and evidence on how to create enabling

²⁰ Odell, K. (2010): *Measuring the Impact of Microfinance*. Washington D.C.: Grameen Foundation.

²¹ Bauchet, J., Marshall, C., Starita, L., Thomas, J. & Yalouris, A. (2011). *Latest Findings from Randomized Evaluations of Microfinance*. Washington D.C.: Access to Finance Forum.

²² Rosenberg, R. (2009): *Measuring Results of Microfinance Institutions. Minimum Indicators That Donors and Investors Should Track. A Technical Guide*. Washington D.C.: Consultative Group to Assist the Poor.

²³ Ibid.

²⁴ Gibbons, D. & Meehan, J. (1999): Working Towards Institutional Financial Self-Sufficiency while Maintaining a Commitment to Serving the Poorest Families. *Journal of Microfinance Vol. 1* (1), pp. 131-192.

²⁵ Gallardo, J. (2001): *A Framework for Regulating Microfinance Institutions: The Experience in Ghana and the Philippines*. Washington D.C.: The World Bank.

²⁶ Paxton, J. & Cuevas, C. (2002): *Outreach and Sustainability of Member-Based Rural Financial Intermediaries*. In Zeller, M. & Meyer, R. (Eds.). (2002): *The Triangle of Microfinance* (pp. 146-148). Baltimore: The Johns Hopkins Press.

²⁷ Cull, R., Demirgüç-Kunt, A. & Morduch, J. (2009): Microfinance Meets the Market. *Journal of Economic Perspectives, Vol. 23* (1), p. 189.

²⁸ Crediticia, C. (1996): *Microcredit Interest Rates* (Occasional Paper No. 1). Washington D.C.: Consultative Group to Assist the Poor.

²⁹ USAID (1995): *Grameen Bank's Sixteen Decisions* (Microenterprise Development Brief Number 33). Washington D.C.: Author.

³⁰ Cook, T. (2004): *Equity Building Society: A Domestic Financial Institution Scales Up Microfinance*. Washington D.C.: Consultative Group to Assist the Poor.

and well regulated environments for MFIs, such as by Christen et al.³¹ Especially the transformation of NGOs into regulated for-profit institutions is covered by academic research, often with a focus on technicalities of transformation.³²

Few researchers have linked the financial performance of MFIs to other policy goals. When they do, financial performance was dominantly linked to the policy goal of outreach and the possible mission drift of institutions. Examples are Seibel and Parhusip³³ who assess the outreach to poor and non-poor clients by a private institution in Indonesia, or C. Frank who looks at a possible shift of target group preference from female to male clients with increasing relevance of financial performance³⁴.

The body of evidence on the relationship between the policy goals of financial performance and impact is comparably small. In terms of descriptive work the MixMarket data base has been a regular basis for publications, for example by Kneiding and Rosenberg³⁵ on interest rates, or by Ehrbeck, Leijon and Gaul³⁶ on the profitability of MFIs. In terms of analytical work on the relationship between financial performance and impact the available research focuses on interest rates, not on other methodologies of impact assessment, such as randomized controlled trials (RCTs). Crediticia presents the interest rate of MFIs as a function of administrative expenses, loan losses, cost of funds, profitability of the loan portfolio and other activities. She concludes that because of limited donor resources, high profitability is needed to enable MFIs to cater to larger segments of the population.³⁷

In a very recent publication by Rosenberg et al.³⁸ the interest rates on microcredit and their determinants are further described and analyzed, all based on the MixMarket database³⁹. In the descriptive part the authors identify “(...) a global median interest yield of about 27 percent”⁴⁰, with significant regional variations and outliers. Interest rates have dropped steadily until 2007, but not thereafter. Regulated and large institutions are found to have lower interest rates, by average about 10 percent lower than unregulated institutions. Profits of MFIs have steadily declined since 2004, again with significant variations by institution and region: “About 5 percent produced profits higher than 40 percent.”⁴¹ However, of those MFIs reporting to the data base from Sub Saharan Africa almost half are actually losing money, and about a quarter of those reporting from South Asia are losing money. Finally the authors calculate that if MFIs would totally abstain from profits and instead lower interest rates to a no profit – no loss level, interest rates would be lowered by 9.7 percent as percentage of the

³¹ Christen, R., Lyman, T. & Rosenberg, R. (2003): *Microfinance Consensus Guidelines. Guiding Principles on Regulation and Supervision of Microfinance*. Washington D.C.: Consultative Group to Assist the Poor.

³² Ledgerwood, J. & White, V. (2006): *Transforming Microfinance Institutions: Providing Full Financial Services to the Poor*. Washington D.C.: The World Bank.

³³ Seibel, H. & Parhusip, U. (1998): Rural Bank Shinta Daya: Attaining Outreach with Sustainability – A Case Study of a Private Microfinance Institution in Indonesia. *IDS Bulletin*, Vol. 29 (4), pp. 81-90.

³⁴ Frank, C. (2008): *Stemming the Tide of Mission Drift: Microfinance Transformations and the Double Bottom Line*. New York: Women’s World Banking.

³⁵ Kneiding, C. & Rosenberg, R. (2008): *Variations in Microcredit Interest Rates*. Washington, D.C.: Consultative Group to Assist the Poor.

³⁶ Ehrbeck, T., Leijon, M. & Gaul, S. (2011): *Myths and Reality: The Cost and Profitability of Microfinance*. (Microbanking Bulletin). Washington D.C.: Consultative Group to Assist the Poor.

³⁷ Crediticia (1996)

³⁸ Rosenberg, R., Gaul, S., Ford, W. & Tomilova, O. (2013): *Microcredit Interest Rates and Their Determinants 2004 – 2011*. Washington D.C.: Access to Finance Forum.

³⁹ www.mixmarket.org

⁴⁰ Rosenberg et al. (2013), p. 5.

⁴¹ Ibid., p. 18.

interest charged in 2011.⁴² Applied to a global median interest rate of 27 percent this would mean a lowering to about 24.4 percent global median interest.⁴³

3. Research Methodology

The research hypothesis is that interest rates on microloans and the profitability of MFIs correlate positively and significantly. A scientific and empirical approach requires the definition of suitable indicators and the statistical analysis of a suitable dataset.

First, suitable indicators for profitability and interest rates need to be defined.

In the microfinance industry several profitability indicators are used⁴⁴, most prominently the degree of financial self-sufficiency (FSS)⁴⁵, the subsidy dependence index (SDI)⁴⁶ and the return on equity (RoE)⁴⁷.

The return on equity (RoE) is the standard profitability indicator in commercial banking and most relevant for commercial investors and institutions.⁴⁸ Considering that this analysis is reviewing the rationale of commercial microfinance, the use of the RoE as an indicator for institutional profitability is the most logical choice.

The interest rate on a loan is commonly defined as the cost of using money over a period of time.⁴⁹ This implies that the nominal interest rate alone, as it is usually published by MFIs, is not sufficient as an indicator for the true cost of using money. Instead, various other cost factors must be considered:

Calculation methodology⁵⁰: MFIs calculate their interest either according to the flat interest or the declining balance methodology.⁵¹

Fees: Most MFIs charge a variety of fees as part of their provision of loans.⁵²

Security deposits: Compulsory savings or the requirement to deposit a portion of the loan with an MFI lowers the net capital that is provided to a loan client.⁵³

Collection practices: Quoting monthly interest but collecting on a weekly or biweekly basis and counting four weeks as one “month” leads to one extra month interest charged per annum.⁵⁴

⁴² Ibid.

⁴³ Own calculation.

⁴⁴ Rosenberg (2009), p. 8.

⁴⁵ Rosenberg definition of FSS: Business revenue (excluding grants and extraordinary items) over total expenses plus subsidies plus inflation adjustment.

⁴⁶ Rosenberg definition of SDI: Measurement for how much an MFI would have to increase its lending interest rate to cover all of its costs including adjustments

⁴⁷ Rosenberg definition of RoE: After-tax profits over starting (or period average) equity

⁴⁸ Krause & Arora (2010), p. 39.

⁴⁹ Malkiel, B. (n.d.): Interest Rates. *The Concise Encyclopedia of Economics (Online Edition)*. Retrieved 13 August, 2013, from <http://www.econlib.org/library/Enc/InterestRates.html>.

⁵⁰ Microfinance Transparency (2011a): *Flat vs Declining Balance Interest Rates. What is the Difference?* Lancaster: Author.

⁵¹ Any given nominal interest rate that is calculated as flat interest translates into roughly twice the true cost when compared to declining balance methodology. In the case of flat interest calculation the nominal value of the loan at the first day is taken as a basis for the interest calculation across the entire repayment period. In the case of declining balance methodology only the outstanding balance at each repayment is taken as a basis for the interest calculation.

⁵² Crediticia (1996), p. 5.

⁵³ Ibid.

To create transparency between lending products, regulators in developed financial markets have established standardized calculation methods. This is the obligation for financial institutions to disclose either the Annual Percentage Rate (APR)⁵⁵ or the Effective Interest Rate (EIR)⁵⁶. To test the hypothesis of this research, a large set of APR or EIR data for microloan products would be ideal.⁵⁷

However, in the microfinance industry the disclosure of these standardized interest rates is rare. Over recent years the NGO Microfinance Transparency has begun to collect, calculate and publish this information from MFIs around the world. As of August 2013 the APR and EIR of 394 MFIs were published by the NGO.⁵⁸

The primary database of the global microfinance industry is the Microfinance Information Exchange (MixMarket)⁵⁹. It provides financial statements and various indicators for over 2,000 MFIs and over several years, but no detailed data on the interest being charged by MFIs.

However, merging interest data from MF Transparency and profitability data from MixMarket creates a dataset that allows the desired analysis. This dataset provides the basis for the statistical analysis of this research (appendix 1). The statistical analysis will test the hypothesis of a significant and positive correlation between the return on equity and the annualized percentage rates using the software IBM SPSS Statistics (SPSS).

4. Statistical Analysis

394 institutions have reported data to MF Transparency. This data is provided in the form of portfolio values, number of clients and a nominal APR range⁶⁰ for each loan portfolio, i.e. the various lending products. In a first step average nominal APRs are calculated for each institution.⁶¹ In a second step the APR data is modified with the respective inflation data of the IMF to also provide a real APR value.⁶²

For 193 of the 394 institutions that have reported their interest rate data to MF Transparency, the MixMarket database provides information on profitability. For these 193 institutions the return on equity and real portfolio yield is looked up and added to the data set. The new data set consists of the following data fields:

Country
Institution
Return on Equity (RoE)
Real Portfolio yield (PY)

⁵⁴ Ibid.

⁵⁵ Microfinance Transparency (2011b): *Formulas and Approaches Used to Calculate True Pricing*. Lancaster: Author, p. 1.

⁵⁶ Ibid.

⁵⁷ An alternative to working with APR/EIR data, researchers may use the 'portfolio yield' as a proxy for interest. This is the ratio of financial income in relation to the loan portfolio. While this approach has some weaknesses, such as the mix up with non-microfinance loan portfolios and loan default, it is popular due to the easy calculation based on financial statement data and availability through the MixMarket database.

⁵⁸ MicroFinance Transparency: <http://www.mftransparency.org/microfinance-pricing/>, accessed on 15.08.2013

⁵⁹ Microfinance Information Exchange: <http://www.mixmarket.org/>, accessed on 15.08.2013

⁶⁰ For each loan product an APR range is provided because fees are usually fixed. For smaller loans these fixed fees translate into a higher APR than for larger loans.

⁶¹ The average APR per institution is calculated as a simple weighted average of all product portfolios per institution. For each portfolio the respective median APR is used.

⁶² For each institution a date of data collection is provided. For the respective year the inflation data of the international monetary fund is applied: <http://www.imf.org/external/data.htm>, accessed on 10.08.2013.

Year of APR data
 Nominal APR (APRnom)
 Inflation
 Real APR (APRreal)
 Clients

The calculation of correlations using SPSS provides the following results:

Correlations

		RoE	APRreal	Clients	APRnom	PY
RoE	Pearson Correlation ⁶³	1	-.127	.000	-.154*	-.117
	Sig. (2-tailed) ⁶⁴		.078	.997	.032	.105
	N ⁶⁵	193	193	193	193	193
APRreal	Pearson Correlation	-.127	1	-.135	.976**	.672**
	Sig. (2-tailed)	.078		.061	.000	.000
	N	193	193	193	193	193
Clients	Pearson Correlation	.000	-.135	1	-.110	-.148*
	Sig. (2-tailed)	.997	.061		.129	.039
	N	193	193	193	193	193
APRnom	Pearson Correlation	-.154*	.976**	-.110	1	.646**
	Sig. (2-tailed)	.032	.000	.129		.000
	N	193	193	193	193	193
PY	Pearson Correlation	-.117	.672**	-.148*	.646**	1
	Sig. (2-tailed)	.105	.000	.039	.000	
	N	193	193	193	193	193

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

⁶³ The Pearson Correlation is a statistical measure for the linear correlation between two variables, given in a value between -1 and 1.

⁶⁴ Sig. (2-tailed) = level of significance considering extreme negative and positive directions

⁶⁵ N = sample size

The analysis of the data set shows a significant (96,8%) and negative (-0,154) correlation for the return on equity and the nominal APR. This means that financial institutions with higher profits tend to charge lower rates for their microloans.

The return on equity also correlates negatively with real APR and portfolio yield, although at lower levels of significance. The analysis did not identify a correlation between the return on equity and the number of clients of an institution.

The analysis of the relevance of the number of clients of institutions shows a trend towards lower interest rates of institutions with higher client numbers. This does not translate into a measurable effect of high client numbers on the return on equity.

5. Discussion

The hypothesis of this research is that the return on equity and the nominal APR significantly and positively correlate. The statistical analysis proves the hypothesis of this research wrong.

However, the identification of a significant negative correlation between profitability and charged interest does not reveal if there is a linear trend of MFIs to lower their interest with increasing profitability, or if instead certain types of MFIs with own interest-profitability profiles exist.

A basic typology of MFIs according to the two analyzed dimensions, profitability and charged interest, brings further insights. This is done by plotting all MFIs on a two dimensional coordinate system that is segmented into typologies.

Along the x-axis profitability (Return on Equity) is charted. In line with the suggested threshold of MicroFinance Transparency, the following thresholds are used⁶⁶:

‘Sustainable’	=	RoE	5 %
‘Unsustainable’	=	RoE	< 5 %

Along the y-axis the interest rate (APR_{real}) is charted with the following thresholds⁶⁷:

‘Low interest’	=	APR _{real}	15 %
‘Medium interest’	=	APR _{real}	> 15 % and 25 %
‘High interest’	=	APR _{real}	> 25% and 100 %
‘Very high interest’	=	APR _{real}	> 100 %

Plotting of the MFIs on the coordinate system visualizes a center of gravity in the area of medium to high interest institutions that have just reached or are about to reach financial sustainability. From this center of gravity two further areas of density can be identified: A group of MFIs along the borderline of financial sustainability with higher interest rates, as well as a group of MFIs within the medium to high interest borderline with higher returns on equity. These groups of MFIs are embedded into a smaller number of outliers across the entire diagram.

⁶⁶ Waterfield, C. (2012): *Growth, Profitability, and Compensation – How Much is Too Much?* Presentation for the SPTF Panel 2012 in Jordan, p. 10.

⁶⁷ Yunus proposes a rate for the evaluation of microcredit interest rates based on interest rate premium, i.e. the difference between the interest rate charged and the cost of fund at the market rate paid by the MFI. The suggested interest rate thresholds in this research are based on Yunus’ concept and the assumption that the spread between inflation and MFI refinancing expense is five percent, i.e. that the APR_{real} lays five percent above the interest premium that Yunus uses as a base line.

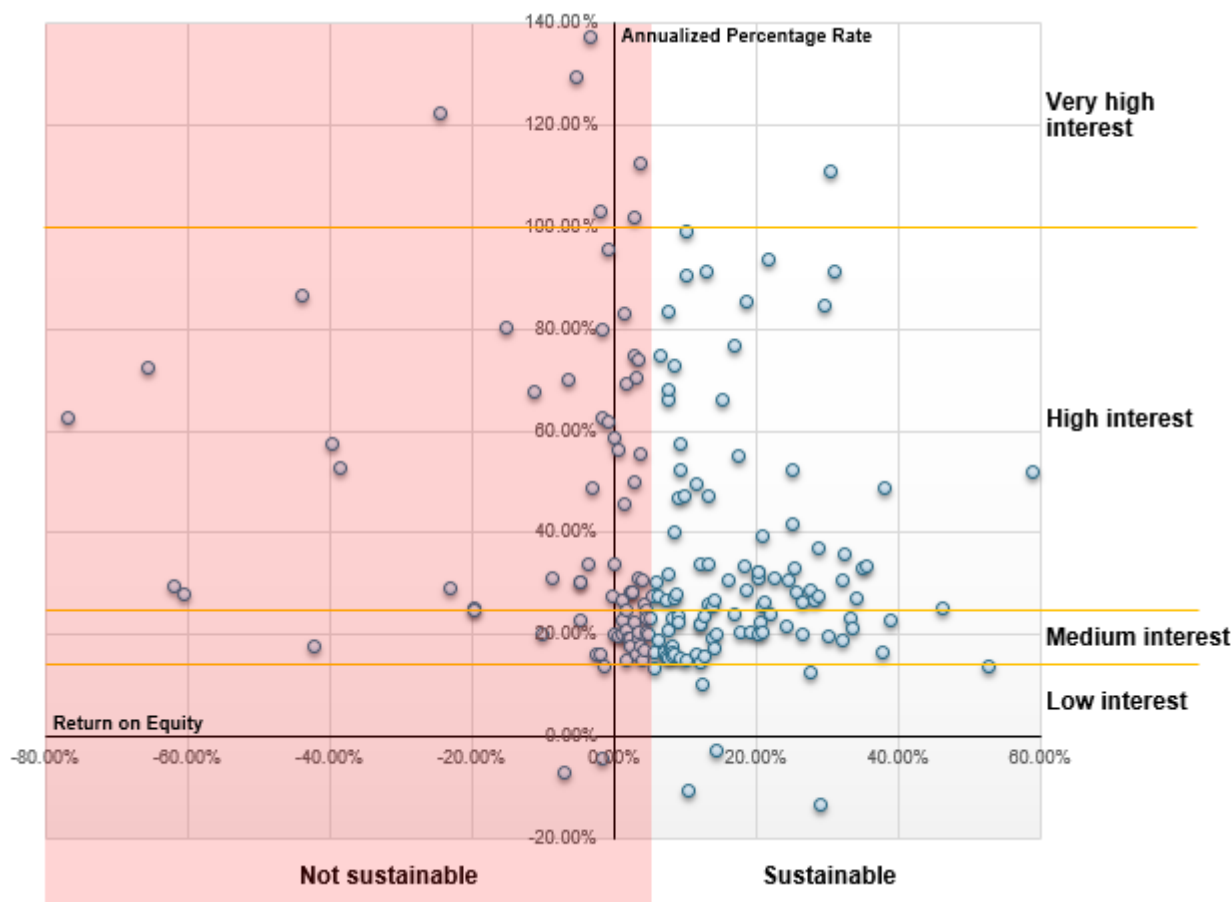


Figure 2: Real Annualized Percentage Rate and Return on Equity

Source: Own illustration.

Commercialization is a process. Therefore, it describes the transition of an institutional state into a different one over time. This implies that understanding commercialization requires the inclusion of time or sequences into the analysis. The quantitative analysis and plotting of MFIs on a coordinate-diagram does not regard this time component.

In 2004, Sousa-Shields and Frankiewicz⁶⁸ suggested the application of life-cycle theory to better understand the capital needs of microfinance institutions. They segment the life-cycle of MFIs into youth, growth and maturity. During the youth phase MFIs are usually credit-led and vision driven institutions with informal processes and struggling to achieve financial self-sufficiency. During the growth stage processes are formalized and efficiency is increased, savings and payment services are offered and profitability is achieved in most cases. During the maturity stage institutions are profitable and seek to further increase their efficiency, often in an environment of strong competition.⁶⁹

⁶⁸ De Sousa-Shields, M. & Frankiewicz, C. (2004): *Financing Microfinance Institutions: The Context for Transitions to Private Capital* (Microreport #8). Washington D.C.: United States Agency for International Development, pp. 1-2.

⁶⁹ Ibid., pp. 57-58.

This life-cycle theory may also serve as framework for understanding the commercialization of microfinance institutions and the impact of this process on profitability and charged interest. For this purpose the different life cycle stages need to be mapped with the patterns of MFIs on the coordinate system.

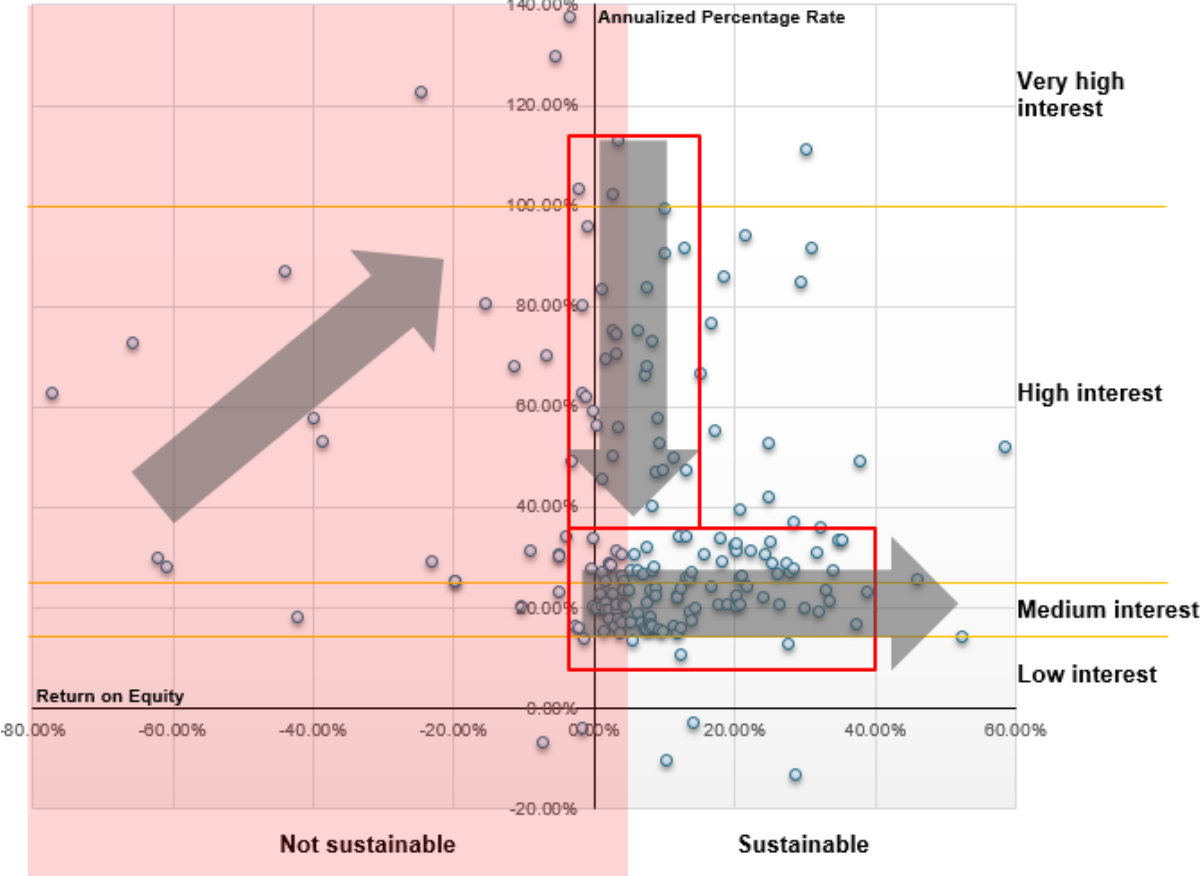


Figure 3: Stages of Commercialization by Real Annualized Percentage Rate and Return on Equity

Source: Own illustration.

During the youth stage financially unsustainable MFIs strive for sustainability due to external and internal pressure. External pressure refers to the lack of willingness by equity and debt providers to invest into unsustainable institutions, as well as the limited financial resources of donors or governmental providers for subsidies. Internal pressure refers to the desire of staff and management towards job security and professional development that are attached to growth and better financial performance. Reaching financial sustainability at the short term is achieved through significant increases of the APR. While this increases the financial performance of MFIs, it also decreases their competitiveness in the market. Critics of the commercialization of MFIs primarily refer to examples from this stage of development.

During the growth stage MFIs that are about to reach or have just reached financial sustainability seek to decrease their APR while maintaining financial sustainability. This may be driven by external factors such as market competition and regulatory environment, as well as by internal factors such as the desire to increase development impact, especially in the case of development mission driven institutions. Offering lower interest rates during this stage is based on three main drivers: Firstly, on the access to low cost refinancing through the

mobilization of savings, based on the likely transformation into a deposit taking institution. Secondly, on increased efficiency due to use of technology, growing qualification of staff and management, as well as professionalization of processes. Thirdly, on lower loan write offs due to better client appraisal and selection. Positive examples for the commercialization of MFIs are likely to be selected from institutions in this stage.

In the maturity stage institutions have reached a degree of maturity where gains from further increases of efficiency can either be used for the further lowering of interest rates or to generate profits. The distribution of MFIs on the coordinate system indicates that the majority of MFIs prefers to generate profits at this stage of maturity. These profits may either be used to grow equity and support further increase in outreach, or may be paid to shareholders as dividends. Understanding the relationship between interest rates and profitability going forward for institutions in this stage would require a better understanding of the market environment and institutional setup. In regard to the market environment, this refers to the local industry competitiveness, regulation, transparency, and the respective risk and revenue profile of investors. In regard to internal setup, this refers to the role of ownership structure, mission and long term strategy.

This framework serves as a hypothesis for further research. It suggests commercialization as a clearly segmented process. It shows that this process is not linear. It encourages researchers that intend to conduct further statistical analysis to separate MFIs according to their development stages to better reflect the non-linear relationships between interest rates and profitability. Furthermore, the framework may provide additional context to better understand the development stage of MFIs presented in cases studies.

All statistical results need to be seen under the backdrop of research weaknesses. These weaknesses refer to constraints in data quality, availability and definitions. A dataset of 193 MFIs represents only a small share of the existing microfinance institutions. MFIs from only 15 countries are represented. Self-reporting as a collection practice may lead to a bias towards more successful MFIs, i.e. MFIs with higher profitability and lower interest charged. Furthermore, the dataset may have quality issues, especially with respect to possible time mismatches between the point of time that the APR is reported and the time period that is covered by the respective financial statements. Data was collected between 2009 and 2012, so that possible global changes during that time may further distort data quality. It must also be considered that definitions for some of the judgmental terms used in the discussion of results exist cannot be considered as widely used or defined. This refers to the RoE threshold for 'sustainable' and 'not sustainable' MFIs, as well as the interest rates thresholds for 'low', 'medium', 'high', and 'very high' interest.

From a critical point of view the suggested framework has several weaknesses. Firstly, it is largely based on a dataset that has quantitative and qualitative weaknesses, as described earlier. Secondly, the dataset is interpreted based on the literature. This literature indicates relationships between stages of institutional maturity on the one hand, and profitability and interest rates on the other hand, but does not explicitly establish that link. Thirdly, the analysis assumes a sequence and chronology of institutional development. It could be possible for institutions to develop into an opposing direction. Fourthly, the framework does not provide a sufficient explanation for outliers.

6. Summary, conclusion and outlook

To better understand the impact of commercialization in microfinance, this paper looked at the relationship between profitability of microfinance institutions (MFIs) and the interest that these MFIs charge their clients. The hypothesis that return on equity and annualized

percentage rate correlate positively and significantly was developed and tested, using simple correlation analysis.

The research took a perspective of new institutional economics, which seeks to understand institutions, in this case MFIs, in the context of their external environment and internal processes. The triangle of microfinance served as a conceptual framework. It reflects impact, outreach and financial sustainability as microfinance policy goals.

An overview of literature was structured in line with the triangle of microfinance and revealed a domination of the literature by studies on the impact of microfinance. In terms of research on microfinance outreach a focus on characteristics of microfinance clients and the mission drift discussion, i.e. the abandoning of specifically needy client groups was identified. The identified body of research evidence on the financial performance of MFIs was small and almost exclusively based on the MixMarket dataset. The same applied to work on microfinance interest rates, where the little available work was based on the same database and largely used the portfolio yield as an interest proxy, not the actual annualized percentage rate.

To overcome this research gap the available and precise interest rate data from Microfinance Transparency was merged with data from the MixMarket database. This generated a dataset that combines precise interest rate data with profitability data for 193 institutions (appendix 1).

The statistical analysis revealed a negative correlation between the return on equity and the real annualized percentage rate of $-0,127$, and a correlation coefficient of $-0,154$ for the nominal interest rate. This contradicted the research hypothesis. It was interpreted that MFIs with higher profitability tend to charge lower interest rates to their clients. However, the statistical analysis could not reveal if this negative correlation reflected a linear and steady trend of decreasing interest rates with growing profits, or if various types of MFIs with individual profit - interest rate profiles exist.

For the further interpretation of the statistical analysis, the 193 datasets were plotted on a coordinate system and a typology was defined. The analysis of the plotted MFIs identified a center of gravity in the area of medium interest rate institutions that were on the borderline of financial sustainability. From this center of gravity MFIs were either spread out along the line of medium interest rate, but with higher returns on equity, or along the borderline of financial sustainability with higher interest rates. Furthermore, a significant number of unsustainable institutions were identified, with the tendency of increasing interest rates when coming closer to reaching financial sustainability.

However, this typology of MFIs was still based on a static industry analysis and did not include any dynamic effects. Against the backdrop of commercialization being a process, not a status, the dimension of time was introduced. This was done by including life-cycle theory into the interpretation.

Based on this approach three development stages, namely the youth, the growth and the maturity stages of MFIs could be identified and be linked to specific profitability - interest rate profiles:

In the youth stage, MFIs that are largely informal, credit-led and financially unsustainable seek to reach sustainability. The easiest way of reaching this goal is the increase of interest and fees, as it does not need significant structural or operational changes. This strategy is reflected in the sample by a clear trend of increasing interest rates for MFIs that come from a

state of significant losses and are approaching financial sustainability. MFIs that are just about to reach financial self-sufficiency charge by far the highest interest rates.

In the growth stage MFIs are on the edge of or have just reached profitability. The stage is marked by structural changes such as the transformation into regulated and deposit taking institutions, which allows refinancing at lower expenses. At the same time operational expenses are lowered due to better use of technology, computerization and more efficient administrative processes. Loan defaults are lowered through better client appraisal, selection and portfolio management. Gains from cost savings and increased efficiency are used to improve the competitive position, i.e. to lower interest rates, which explains the large group of MFIs on the edge or just above financial sustainability but with strong variations in their interest rates: Coming from a high interest youth stage, they are now on their path to catching up with more competitive institutions.

In the maturity stage, MFIs have reached financial sustainability while offering competitive interest rates on their lending products. New product offerings, alternative distribution channels and growing staff knowledge and experience lead to further gains. These may either be used to further decrease interest rates or to increase profitability. Profits may be reinvested into further growth of the institution or be used as dividends for investors. This assessment of the process of commercialization and its impact on interest rates and profitability allows several conclusions:

The process of commercialization triggers operational and structural changes that allow refinancing at lower expenses, operational efficiency and lower loan losses. These effects allow institutions to charge lower interest rates in a competitive environment. If the interest rates of micro loans are accepted as a proxy for the impact of microfinance, then commercialization is clearly not the problem, but it is part of the solution in microfinance.

However, commercialization is not a linear process. The statistical analysis, the plotting on a coordinate system and the linking with prior work on life-cycle theory, show that the process of commercialization begins with a strong increase in interest rates to gather financial self-sufficiency. Only in the second stage this is overcompensated by organizational and structural changes before becoming commercially viable for investors and clients in the third stage of maturity.

This up and down also puts the value of a holistic statistical analysis in perspective. During the early stage of non-sustainability, a very strong positive correlation between return on equity and interest rates can be expected, as institutions increase interest to cover their losses. This is almost mirrored in the reverse on the right side of the coordinate system, where institutions put the focus on lowering their interest rates to increase their competitive position and to accelerate growth. The statistical analysis of the dataset is strongly impacted by the share of institutions that have already finished this process of commercialization and benefit from its outcomes, i.e. the number of institutions that have reached the right side of the coordinate system. A few years back, with a larger number of institutions still being on the path of reaching financial sustainability, the statistical results would most likely have looked very different and might have indicated a strongly negative effect of commercialization.

Looking forwards, the research gives four suggestions for future work in this field.

Firstly, this research shows that understanding the policy goals of impact, outreach and profitability in microfinance, as well as effectively reaching all of them requires a clear understanding of microfinance institutions. Therefore, the evidence from this work should encourage researchers to further investigate microfinance from an institutionalist perspective.

Secondly, the results from this research need to be reviewed and confirmed. This means conducting similar statistical analysis with larger and improved datasets and critically assessing the suggested typology of microfinance institutions, especially with respect to linking profitability – interest rate profiles with stages of the life-cycle theory.

Thirdly, the processes and details that lead to increased efficiency need to be explored further. This refers to the mobilization of savings through tailored products and convenient delivery channels. It refers to the professionalization of internal processes, use of technology and the qualification of staff. Finally, it refers to risk management and portfolio quality through better understanding of client activities, their risk exposure and the design of appropriate lending products. The practical relevance of these topics has already spurred a lot of interest in this area and it is likely to grow further as a field of microfinance research.

Fourthly, the use of profits by MFIs in the maturity stage remains for now largely an uninvestigated field. Will these profits be used to further grow institutions, lower interest rates or be used as dividends to shareholders to attract additional capital? This is no longer a discussion on the process of commercialization itself. It is a discussion on the social and economic motives, values and action of institutions that are active in markets where legal and regulatory frameworks are still in an early stage of development.

Appendix 1

Country	Institution	Return on Equity	Portfolio yield (real)	Year of APR data	Nominal APR	Clients	Inflation	Real APR
Azerbaijan	Caspian Invest	9,95%	-8,49%	2012	48,10%	977	1,08%	47,02%
Azerbaijan	Turanbank	4,16%	7,09%	2010	31,78%	3.671	5,66%	26,12%
Azerbaijan	Parabank	35,00%	11,72%	2012	34,21%	7.573	1,08%	33,13%
Azerbaijan	Bank of Baku	32,53%	20,88%	2010	41,27%	104.601	5,66%	35,61%
Azerbaijan	CredAgro	4,01%	22,79%	2011	38,40%	22.006	7,87%	30,53%
Azerbaijan	FINCA	38,11%	28,98%	2012	49,88%	116.410	1,08%	48,80%
Azerbaijan	AzerCredit	20,83%	33,49%	2010	44,84%	30.137	5,66%	39,18%
Bolivia	Coop Fatima	7,35%	13,57%	2010	18,33%	5.240	2,50%	15,83%
Bolivia	ProCredit	13,85%	16,65%	2010	21,67%	83.776	2,50%	19,17%
Bolivia	IMPRO	4,40%	17,16%	2010	27,41%	1.784	2,50%	24,91%
Bolivia	Fortaleza	19,18%	17,98%	2010	22,99%	11.281	2,50%	20,49%
Bolivia	Banco FIE	21,90%	18,64%	2010	26,48%	132.839	2,50%	23,98%
Bolivia	PRODEM	25,04%	18,68%	2010	44,36%	105.784	2,50%	41,86%
Bolivia	CIDRE	2,73%	18,72%	2010	25,05%	3.488	2,50%	22,55%
Bolivia	Fassil	12,00%	19,19%	2010	24,66%	17.296	2,50%	22,16%
Bolivia	FONCRESOL	-0,26%	19,42%	2010	30,00%	4.643	2,50%	27,50%
Bolivia	BancoSol	30,14%	19,62%	2010	22,30%	135.842	2,50%	19,80%
Bolivia	ANED	0,13%	19,78%	2010	36,17%	10.555	2,50%	33,67%
Bolivia	Ecofuturo	26,40%	23,17%	2010	28,99%	43.844	2,50%	26,49%
Bolivia	AgroCapital	2,41%	23,31%	2010	30,87%	22.140	2,50%	28,37%
Bolivia	FONDECO	5,87%	23,69%	2010	32,83%	12.465	2,50%	30,33%
Bolivia	Diaconia	14,04%	25,37%	2010	29,23%	46.559	2,50%	26,73%
Bolivia	Sartawi	-60,57%	26,54%	2010	30,52%	4.798	2,50%	28,02%
Bolivia	FUBODE	9,40%	28,37%	2011	62,30%	21.097	9,90%	52,40%
Bolivia	CRECER	12,09%	31,12%	2011	31,78%	145.130	9,90%	21,88%
Bolivia	EMPRENDER	11,47%	33,49%	2011	59,37%	9.163	9,90%	49,47%
Bolivia	ProMujer BOL	8,44%	36,07%	2010	42,57%	88.642	2,50%	40,07%
Bosnia & H.	SINERGIA	258,58%	13,41%	2011	23,89%	10.200	3,68%	20,21%
Bosnia & H.	MIKROFIN	4,18%	18,06%	2011	20,61%	56.000	3,68%	16,93%
Bosnia & H.	PARTNER	2,31%	18,53%	2011	21,35%	42.158	3,68%	17,67%
Bosnia & H.	EKI	20,50%	21,35%	2011	26,06%	51.618	3,68%	22,38%
Bosnia & H.	MI-BOSPO	-0,01%	22,01%	2011	23,58%	17.206	3,68%	19,90%
Bosnia & H.	LOK	12,63%	22,28%	2011	27,43%	30.521	3,68%	23,75%
Bosnia & H.	LIDER	1,76%	24,91%	2009	24,48%	3.800	-0,40%	24,88%
Bosnia & H.	MIKRO ALDI	18,52%	25,55%	2011	32,48%	1.984	3,68%	28,80%
Bosnia & H.	Prizma	2,52%	25,61%	2011	32,08%	54.460	3,68%	28,40%
Bosnia & H.	ADRIA*	-3,67%	25,72%	2009	33,63%	381	-0,40%	34,03%
Bosnia & H.	MIKRA	-8,82%	28,54%	2011	34,71%	11.998	3,68%	31,03%
Bosnia & H.	Sunrise	27,52%	30,10%	2011	32,43%	29.359	3,68%	28,75%
Cambodia	AMK	32,03%	18,99%	2011	36,31%	262.731	5,48%	30,83%
Cambodia	SATHAPANA	25,56%	24,45%	2011	33,99%	42.389	5,48%	28,51%
Cambodia	PRASAC	28,16%	25,37%	2011	32,14%	105.953	5,48%	26,66%
Cambodia	CREDIT	17,80%	26,93%	2011	26,01%	48.035	5,48%	20,53%
Cambodia	VisionFund	15,95%	29,79%	2011	36,00%	109.402	5,48%	30,52%
Cambodia	Seilanithih	7,62%	30,59%	2011	37,26%	14.653	5,48%	31,78%
Cambodia	TPC	20,34%	31,53%	2011	36,54%	90.280	5,48%	31,06%
Cambodia	AMRET	24,56%	32,62%	2011	35,99%	226.434	5,48%	30,51%
Cambodia	Chamroeun	8,89%	44,82%	2011	52,44%	14.893	5,48%	46,96%
Colombia	MEDA	-61,93%	-1,35%	2011	33,03%	15.941	3,42%	29,61%
Colombia	FUNDESAN	3,94%	13,88%	2011	18,18%	2.800	3,42%	14,76%
Colombia	FMSD	-4,86%	14,35%	2011	26,26%	6.816	3,42%	22,84%
Colombia	Confiar	8,54%	14,71%	2011	19,58%	44	3,42%	16,16%
Colombia	ProCredit CO	-4,81%	17,15%	2011	33,52%	5.738	3,42%	30,10%
Colombia	Comerciacoop	13,21%	20,11%	2011	29,34%	5.390	3,42%	25,92%
Colombia	Finamerica	20,41%	21,46%	2011	35,83%	45.380	3,42%	32,41%
Colombia	Actuar Caldas	21,22%	24,10%	2011	29,65%	3.702	3,42%	26,23%
Colombia	Actuar Quindio	26,49%	26,52%	2011	23,68%	2.361	3,42%	20,26%
Colombia	Banco WWB	3,26%	26,69%	2011	34,42%	211.907	3,42%	31,00%
Colombia	Interactuar	18,24%	28,70%	2011	36,87%	30.270	3,42%	33,45%
Colombia	Contactar	22,41%	28,84%	2011	34,66%	24.982	3,42%	31,24%
Colombia	FMM Popayan	35,51%	31,99%	2011	36,70%	314.135	3,42%	33,28%
Colombia	Creczamos	28,62%	36,48%	2011	40,41%	25.888	3,42%	36,99%
Colombia	Actuar Tolima	13,36%	36,64%	2011	37,43%	7.917	3,42%	34,01%
Ecuador	CREDIFE	64,90%	1,42%	2011	27,61%	106.185	4,48%	23,13%
Ecuador	COAC Jardín Azuayo	12,45%	9,65%	2011	14,75%	139.112	4,48%	10,27%
Ecuador	CODESARROLLO	5,63%	10,97%	2010	16,78%	15.532	3,55%	13,23%
Ecuador	COAC 4 Octubre	12,14%	11,55%	2011	19,20%	2.059	4,48%	14,72%
Ecuador	COAC San José	9,39%	11,67%	2010	18,89%	10.594	3,55%	15,34%
Ecuador	COAC FondVida	8,30%	12,07%	2010	19,23%	2.511	3,55%	15,68%
Ecuador	ProCredit	16,80%	12,48%	2011	28,30%	46.176	4,48%	23,82%
Ecuador	COAC LaBenefica	12,63%	13,12%	2010	19,30%	3.278	3,55%	15,75%
Ecuador	COAC Luz del Valle	3,60%	13,13%	2010	21,23%	6.420	3,55%	17,68%
Ecuador	COOPROGRESO	9,01%	13,26%	2010	27,32%	22.154	3,55%	23,77%
Ecuador	COAC San Antonio	14,45%	13,62%	2011	24,35%	1.746	4,48%	19,87%
Ecuador	COAC MCCH	3,21%	14,68%	2010	19,85%	5.383	3,55%	16,30%
Ecuador	COAC Ambato	6,34%	14,87%	2010	22,27%	5.308	3,55%	18,72%
Ecuador	PS Ambato	6,34%	14,87%	2010	30,90%	5.692	3,55%	27,35%

Ecuador	Espoir	25,39%	15,80%	2010	36,45%	56.896	3,55%	32,90%
Ecuador	COAC Nacional	7,74%	16,77%	2010	24,32%	30.747	3,55%	20,77%
Ecuador	CEPESIU	4,41%	16,94%	2010	26,95%	2.011	3,55%	23,40%
Ecuador	Banco Solidario	24,32%	17,36%	2011	26,20%	134.799	4,48%	21,72%
Ecuador	COAC Santa Anita	1,07%	17,45%	2010	26,23%	2.047	3,55%	22,68%
Ecuador	FODEMI	13,70%	19,42%	2010	29,16%	28.232	3,55%	25,61%
Ecuador	FUNDAMIC	2,39%	20,96%	2010	32,07%	2.270	3,55%	28,52%
Ecuador	D-Miro	-19,63%	21,23%	2010	28,46%	36.912	3,55%	24,91%
Ecuador	Fund. Alternativa	33,22%	21,86%	2010	26,77%	4.310	3,55%	23,22%
Ecuador	INSOTEC	20,91%	33,14%	2010	29,20%	7.244	3,55%	25,65%
Ethiopia	ACSI	28,92%	1,97%	2011	18,76%	694.993	32,23%	-13,47%
Ethiopia	Wasasa	-7,00%	3,46%	2011	25,32%	53.981	32,23%	-6,91%
Ethiopia	PEACE	10,52%	3,59%	2011	21,75%	17.206	32,23%	-10,48%
Ethiopia	SFPI	14,35%	4,53%	2011	29,28%	33.342	32,23%	-2,95%
Ethiopia	Wisdom MFI	-1,56%	8,50%	2011	28,04%	45.331	32,23%	-4,19%
Ghana	Kraban Support	3,24%	1,73%	2010	81,01%	8.017	10,71%	70,30%
Ghana	Maata-N-Tudu	2,77%	14,43%	2011	58,57%	12.035	8,73%	49,84%
Ghana	East Mamprusi**	15,27%	19,54%	2011	75,01%	13.801	8,73%	66,28%
Ghana	ASA Initiative**	2,81%	27,25%	2011	83,51%	4.535	8,73%	74,78%
Ghana	Grameen Ghana	-3,06%	27,55%	2011	57,61%	9.505	8,73%	48,88%
Ghana	Cedi Finance F.**	-3,23%	37,84%	2011	146,05%	109	8,73%	137,32%
Ghana	ID-Ghana	-100,00%	45,01%	2011	70,81%	5.689	8,73%	62,08%
Ghana	APED	-24,40%	57,78%	2011	131,07%	13.774	8,73%	122,34%
India	Share	-42,10%	-1,93%	2011	26,74%	2.807.147	8,86%	17,88%
India	Nano	-1,29%	4,49%	2010	25,70%	28.501	11,99%	13,71%
India	Swayamshree	32,07%	6,79%	2010	30,91%	8.008	11,99%	18,92%
India	Spandana	-1,89%	7,74%	2010	27,95%	4.959.649	11,99%	15,96%
India	PWMACS	0,53%	8,20%	2010	31,70%	36.543	11,99%	19,71%
India	NEED	20,36%	9,15%	2010	32,05%	33.361	11,99%	20,06%
India	FFSL	11,59%	9,42%	2010	28,03%	205.173	11,99%	16,04%
India	Mahashakti	-2,58%	10,07%	2010	28,03%	38.212	11,99%	16,04%
India	Grameen Koota**	8,25%	10,27%	2010	28,44%	274.850	11,99%	16,45%
India	Samasta	1,26%	10,75%	2010	32,20%	49.358	11,99%	20,21%
India	SKS	7,93%	11,15%	2010	29,15%	6.662.415	11,99%	17,16%
India	Utkarsh	7,60%	11,65%	2012	24,71%	66.014	9,30%	15,41%
India	Arth**	2,29%	11,78%	2010	31,46%	13.170	11,99%	19,47%
India	Asomi	5,42%	11,90%	2010	39,35%	50.326	11,99%	27,36%
India	ESAF	3,35%	12,09%	2010	31,46%	220.011	11,99%	19,47%
India	IntelleCash	4,71%	12,30%	2011	28,80%	10.078	8,86%	19,94%
India	Cashpor	52,65%	13,09%	2010	25,90%	417.039	11,99%	13,91%
India	Equitas	8,15%	13,22%	2011	26,63%	1.395.978	8,86%	17,77%
India	Asirvad	5,19%	13,28%	2011	32,25%	228.074	8,86%	23,39%
India	Mimo Finance	-10,13%	13,78%	2011	29,03%	80.182	8,86%	20,17%
India	Hope	9,04%	13,86%	2011	31,10%	62.669	8,86%	22,24%
India	VFS	6,92%	14,09%	2011	25,55%	234.790	8,86%	16,69%
India	Bandhan	37,62%	14,27%	2011	25,24%	2.513.747	8,86%	16,38%
India	SVCL**	1,94%	14,30%	2012	28,60%	63.499	9,30%	19,30%
India	Fusion	1,24%	14,33%	2011	35,79%	23.323	8,86%	26,93%
India	Trident	-19,69%	14,41%	2011	33,98%	208.295	8,86%	25,12%
India	Chaitanya**	5,52%	15,09%	2012	25,99%	14.873	9,30%	16,69%
India	Seba-Rahara**	34,14%	15,12%	2010	39,20%	6.782	11,99%	27,21%
India	ASA	8,64%	15,13%	2010	39,90%	13.808	11,99%	27,91%
India	Ujjivan	10,11%	15,57%	2010	26,91%	665.778	11,99%	14,92%
India	UFSPL	8,33%	16,99%	2010	39,05%	11.988	11,99%	27,06%
India	Sarala	46,10%	17,09%	2011	34,20%	102.843	8,86%	25,34%
India	Arohan	1,63%	17,17%	2010	27,12%	187.754	11,99%	15,13%
India	Swadhaar	1,74%	17,82%	2011	29,62%	59.680	8,86%	20,76%
India	Sonata Finance	13,97%	19,47%	2010	29,17%	85.897	11,99%	17,18%
India	CDOT	38,98%	19,59%	2010	34,95%	7.558	11,99%	22,96%
India	Janalakshmi	-4,83%	19,95%	2010	42,37%	173.918	11,99%	30,38%
India	Grama Vidiyal	20,95%	20,02%	2010	32,37%	772.050	11,99%	20,38%
India	Saija	-23,01%	20,23%	2010	40,96%	9.175	11,99%	28,97%
India	GOF	3,46%	21,62%	2010	32,51%	65.000	11,99%	20,52%
India	RISE	-109,78%	24,08%	2010	33,40%	3.507	11,99%	21,41%
Kenya	Equity Bank	28,62%	12,95%	2010	31,52%	715.969	4,09%	27,43%
Kenya	RAFODE**	-1,58%	14,24%	2010	83,90%	1.200	4,09%	79,81%
Kenya	K-Rep	4,42%	14,72%	2010	24,65%	12.000	4,09%	20,56%
Kenya	Juhudi Kilimo	-122,69%	15,71%	2012	39,10%	4.795	9,40%	29,70%
Kenya	BIMAS	8,09%	20,10%	2011	37,18%	10.883	14,00%	23,18%
Kenya	Micro Kenya**	7,28%	21,78%	2011	40,60%	9.113	14,00%	26,60%
Kenya	Opportunity	94,73%	26,26%	2010	48,82%	6.758	4,09%	44,73%
Kenya	KWFT	12,22%	28,33%	2010	38,12%	334.188	4,09%	34,03%
Malawi	OIBM**	-39,80%	30,60%	2012	78,77%	52.649	21,27%	57,50%
Malawi	CUMO	-1,90%	51,95%	2012	124,36%	48.013	21,27%	103,09%
Malawi	MLF MWI	-5,32%	62,42%	2012	150,60%	24.364	21,27%	129,33%
Mozambique	Hluvuku-ADSEMA	13,33%	34,54%	2012	49,35%	5.300	2,09%	47,26%
Mozambique	BOM	-43,86%	46,87%	2012	88,74%	12.200	2,09%	86,65%
Mozambique	FDM	-65,47%	64,40%	2012	74,60%	7.200	2,09%	72,51%
Philippines	Valient	3,33%	9,56%	2011	78,81%	1.772	4,72%	74,09%
Philippines	Bangko Kabayan	9,22%	13,51%	2011	62,07%	8.941	4,72%	57,35%
Philippines	First Macro Bank	12,93%	14,09%	2011	96,14%	3.000	4,72%	91,42%
Philippines	GM Bank of Luzon	10,26%	15,41%	2011	103,88%	23.581	4,72%	99,16%
Philippines	1st Valley Bank	20,21%	20,69%	2011	36,85%	70.630	4,72%	32,13%

Philippines	RB Labason	6,42%	22,02%	2011	79,55%	603	4,72%	74,83%
Philippines	HSPFI	3,73%	23,90%	2011	117,26%	18.350	4,72%	112,54%
Philippines	Cantilan Bank	16,95%	24,65%	2011	81,26%	8.113	4,72%	76,54%
Philippines	ECLOF	3,63%	26,16%	2011	60,28%	5.476	4,72%	55,56%
Philippines	FCB Foundation	8,48%	26,67%	2011	77,41%	12.752	4,72%	72,69%
Philippines	PBC	24,94%	26,76%	2011	57,21%	41.943	4,72%	52,49%
Philippines	ASHI	-1,57%	29,52%	2011	67,30%	31.322	4,72%	62,58%
Philippines	DSPI	18,57%	31,37%	2011	90,20%	59.311	4,72%	85,48%
Philippines	ASKI	31,10%	31,98%	2011	96,08%	60.018	4,72%	91,36%
Philippines	PMP Cooperative	1,37%	32,08%	2011	87,86%	21.775	4,72%	83,14%
Philippines	MILAMDEC	21,60%	32,11%	2011	98,41%	29.836	4,72%	93,69%
Philippines	CCT Credit Coop.	29,55%	35,75%	2011	89,44%	76.168	4,72%	84,72%
Philippines	CEV	-15,27%	39,24%	2011	85,08%	3.107	4,72%	80,36%
Philippines	NWTF	10,23%	40,02%	2011	95,16%	98.363	4,72%	90,44%
Philippines	Kazama Grameen	0,45%	41,35%	2011	60,95%	26.607	4,72%	56,23%
Philippines	ASA Philippines	58,75%	44,25%	2011	56,65%	429.907	4,72%	51,93%
Philippines	Tulay sa Pag-unlad	1,73%	47,04%	2011	74,07%	287.169	4,72%	69,35%
Philippines	Taytay Sa Kauswagan	7,73%	62,69%	2011	88,16%	212.959	4,72%	83,44%
Philippines	KMBI	-0,72%	65,11%	2011	100,50%	245.017	4,72%	95,78%
Philippines	Rangtay sa Pa.	30,50%	74,97%	2011	115,76%	39.663	4,72%	111,04%
Rwanda	Urwego	7,74%	41,38%	2012	74,25%	41.246	6,29%	67,96%
Tanzania	NMB**	27,72%	10,61%	2012	28,55%	45.197	16,00%	12,55%
Tanzania	Access Bank Tanz.	1,29%	32,82%	2012	61,45%	15.819	16,00%	45,45%
Tanzania	BRAC Tanzania	7,53%	39,46%	2011	71,86%	117.261	5,67%	66,19%
Tanzania	Opportunity	-76,96%	40,27%	2012	78,38%	8.670	16,00%	62,38%
Uganda	BRAC-UGA	0,02%	-6,08%	2012	72,87%	121.959	14,13%	58,74%
Uganda	Centenary Bank**	33,61%	19,82%	2012	35,33%	133.802	14,13%	21,20%
Uganda	Opportunity Ug.**	-6,52%	36,50%	2012	84,18%	23.734	14,13%	70,05%
Uganda	FINCA UGA	-0,96%	41,13%	2012	75,85%	56.766	14,13%	61,72%
Uganda	Uganda Finance Trust	17,41%	43,35%	2012	69,03%	22.555	14,13%	54,90%
Uganda	Silver Upholders	2,85%	77,58%	2012	116,14%	2.111	14,13%	102,01%
Zambia	Micro Bankers Trust	-38,47%	30,65%	2011	61,46%	14.300	8,66%	52,80%
Zambia	Agora Microfinance	-11,23%	50,10%	2012	74,20%	4.950	6,56%	67,64%

*APR calculation based on simple average of loan portfolios – on value for individual portfolios was provided

**Mismatch between year that APR is provided for and available return on equity

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Internet Resources:

<http://www.worldvisionmicro.org/>

<http://www.opportunity.org/>

http://www.thp.org/what_we_do/key_initiatives/microfinance/overview

<http://blog.usaid.gov/tag/microfinance/>

<https://www.gov.uk/government/topics/financial-services>

<http://www.mftransparency.org/microfinance-pricing/>

<http://www.mixmarket.org/>

<http://www.imf.org/external/data.htm>