

# The promise of microfinance and women's empowerment

What does the evidence say?

February 2014



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## The promise of microfinance



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# The promise of microfinance and women's empowerment

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## What does the evidence say?

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February 2014

The microfinance revolution has transformed access to financial services for low-income populations worldwide. As a result, it has become one of the most talked-about innovations in global development in recent decades. However, its expansion has not been without controversy. While many hailed it as a way to end world poverty and promote female empowerment, others condemned it as a disaster for the poor. Female empowerment has often been seen as one of the key promises of the industry. In part, this is based on the fact that more than 80% of its poorest clients, i.e., those who live on less than US\$1.25/day, are women.<sup>1</sup> This paper discusses what we have learned so far about the potential and limits of microfinance and how insights from research and practice can help reform the industry's current products, policies and future developments.

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1. Jan P. Maes and Larry R. Reed, "State of the Microcredit Summit Campaign Report 2012," *Microcredit Summit Campaign*, Washington DC, 2012. ([www.microcreditsummit.org/](http://www.microcreditsummit.org/))

# 01

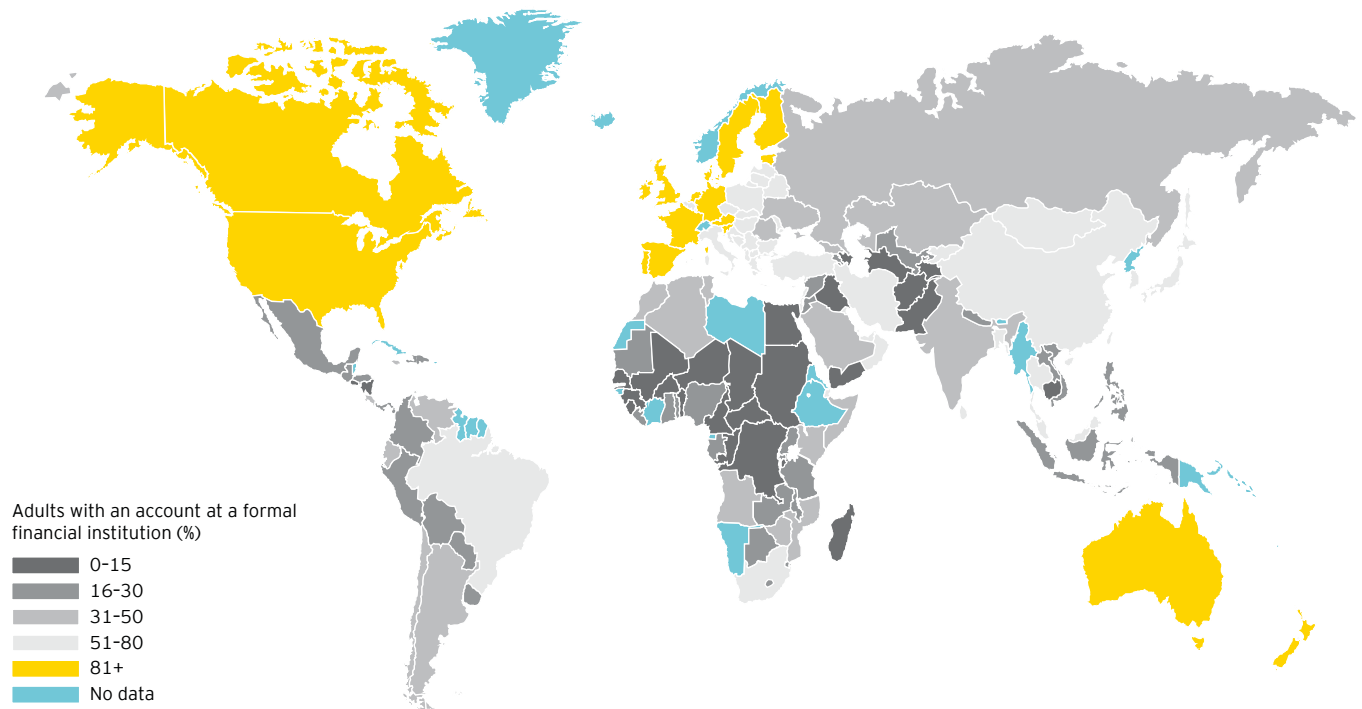


## The development of microfinance

The microfinance industry provides financial services for micro-entrepreneurs, small-business owners and other individuals who otherwise lack access to formal banking and related services. Even today, a large share of adults worldwide do not have such access (see figure in the next page). Barriers for women are particularly large. While 46% of men around the world report having access to formal financial services, the figure is only 37% for women. Additionally, women indicated significantly more often than men that they were using someone else's account.<sup>2</sup> This lack of account ownership is thought to inhibit women's ability to participate in self-employment opportunities. Without access to formal financial services, women have to rely on informal means to accumulate savings, grow a business, smoothen consumption in case of income fluctuations or insure against emergencies. These methods can be costly, risky and unpredictable, and offer fewer options to those who are restricted to their use.

2. Asli Demirguc-Kunt and Leora Klapper, "Measuring Financial Inclusion: The Global Findex Database," *Development Research Group*, The World Bank, 2012.

### Share of adults with a formal financial account<sup>3</sup>



## Three services: credit, savings and insurance

Microfinance can be divided into three broad categories: microcredit, microsavings and microinsurance. Their potential and limits for increasing economic well-being and female empowerment are discussed in more detail in Sections 4-6 below. The following provides a quick summary for each.

- ▶ The promise of *microcredit* is to provide small loans to micro-entrepreneurs to invest in their businesses, reinvest the returns and allow them to grow out of poverty. The hope is that this will provide both financial resources and personal agency to female micro-entrepreneurs. Several recent studies indicate that while microcredit can be a useful financial tool for some entrepreneurs, it has not typically generated dramatic increase in income. Some of the key challenges for microcredit therefore include the questions of how access to microcredit can better contribute to poverty reduction and what credit product design choices and screening mechanisms could increase their effectiveness, as well as their financial viability.

3. Ibid., 12

- ▶ *Microsavings* products aim to provide accessible and safe avenues to save, either for future investments or as a precaution against economic shocks. Microsavings products can include simple no-frills bank accounts as well as commitment-based products that encourage deposits or limit withdrawal in order to help savers reach their savings goals. Recent research shows promising effects of access to savings products both on the ability to smoothen consumption by self-protecting against economic shocks and to invest more in their microenterprises. A big challenge is to make such products cost-effective for microfinance institutions (MFIs), and to understand whether, given the promising evidence, there is a case for government subsidies.
- ▶ *Microinsurance* products are designed to mitigate different types of risks, such as agricultural or health risks. In emerging markets, the provision of such insurance is faced with two challenges of asymmetric information. First, as in established markets, the challenge for any insurance provider is to monitor that claims are justified, and to avoid selection of particularly risky customers into their customer base. Second, in new markets, there is an additional challenge to establish trust among potential customers that their insurance will indeed pay out in the event of a future negative shock. Current research and innovative microinsurance models explore how to overcome these challenges.

## The evolution of microfinance

Microfinance started off as a grassroots movement in the 1970s and over the last 40 years has grown in size, magnitude and geographic reach. As of December 2010, over 3,600 MFIs reported more than 200 million clients worldwide, of which over 135 million were living on less than US\$1.25 a day.<sup>4</sup>

One of the most well-known and established MFIs is the Grameen Bank, which provides credit with no collateral requirements to the poor in rural Bangladesh. Dr. Muhammad Yunus won the 2006 Nobel Peace Prize for his work as the founder of the Grameen

Bank and for pioneering modern microfinance. More than 96% of the Grameen Bank members are women.<sup>5</sup> MFIs often target women, since they are thought to be more likely to repay loans and invest the income generated in the well-being of their families and the education of their children.

Over the last few years, with rapid changes in technology, microfinance has been evolving and organizations are expanding their services in innovative ways. A case in point is the delivery of microfinance products using mobile phones. A famous example is M-PESA, a mobile-based payment and money transfer service launched in 2007 by Safaricom, the largest mobile network operator in Kenya. M-PESA, which was initially conceived as a tool to help MFIs collect loan payments, is often also used by customers for transferring money.<sup>6</sup> Users can deposit money for no charge, transfer balances and withdraw money at no monthly maintenance fee, all through their mobile phone.<sup>7</sup> The number of M-PESA users had grown to nearly 10 million in 2010.

MFIs are leveraging this dramatic penetration of mobile technology and mobile payments to improve delivery of microfinance services and products to their clients. Musoni Kenya, for example, which claims to be “the first 100% mobile MFI in the world,” has disbursed more than US\$15m loans in just four years. Governing bodies are also interested in developing the mobile banking space – the Reserve Bank of India, which is India’s central bank, has recently set up a committee to explore the merit of introducing a text-message-based mobile payment system for fund transfers primarily for unbanked Indians.<sup>8</sup>

In the recent past, the application of behavioral economics and other innovative research methods, including the growing use of randomized evaluations, have driven many novelties in the microfinance space, including a number of different savings commitment devices, text message reminders and goal setting. Both technological advancements and behavioral insights can lead to significant results and provide much scope for progress in the industry. Rigorous research plays a fundamental role in the development of such novel products.

4. Jan P. Maes and Larry R. Reed, “State of the Microcredit Summit Campaign Report 2012,” *Microcredit Summit Campaign*, Washington DC, 2012. ([www.microcreditsummit.org/](http://www.microcreditsummit.org/))

5. Grameen Bank Staff, “Grameen Monthly Update in USD: December 2013,” Grameen Bank, January 2014.

6. Robert Cull, “M-Pesa: Mobile Payments, Improved Lives for Kenyans,” *Development Research Group*, The World Bank May 2010. (<http://go.worldbank.org/UVL5PJQX60>)

7. Olga Morawczynski, “Why M-Pesa Should Offer Savings Accounts,” *Consultative Group to Assist the Poor Blog*, September 28, 2009. ([www.cgap.org/blog/why-m-pesa-should-offer-savings-accounts](http://www.cgap.org/blog/why-m-pesa-should-offer-savings-accounts)) Copyright CGAP, Consultative Group to Assist the Poor.

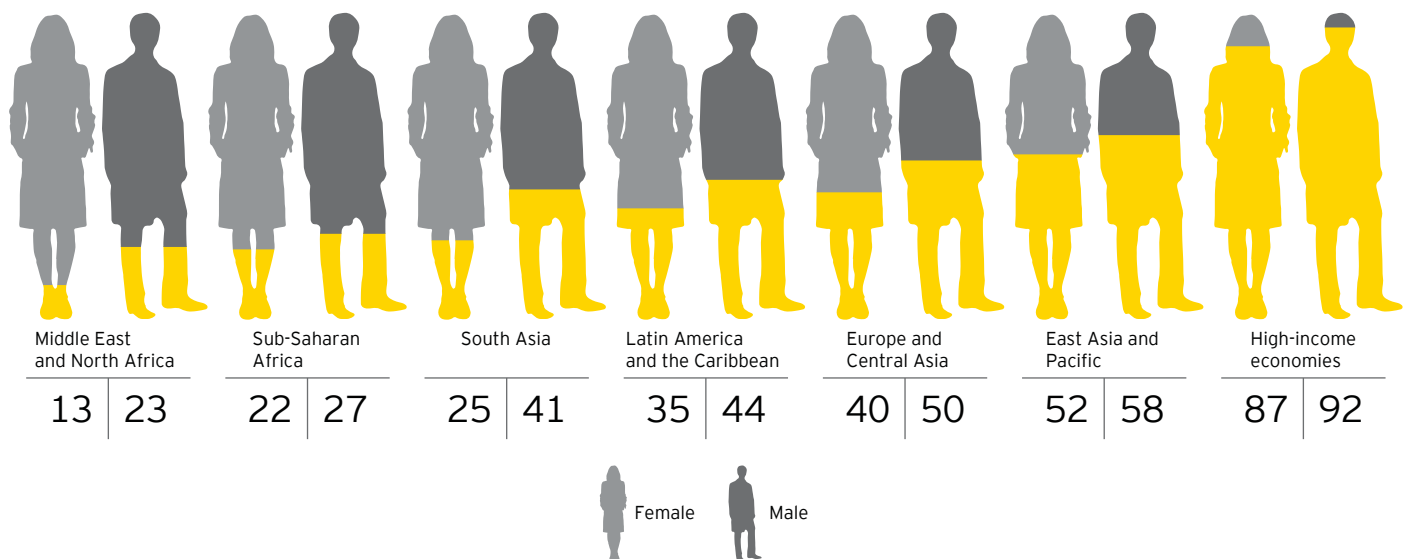
8. “RBI Sets up Mobile Banking Committee,” *Consultative Group to Assist the Poor Blog*, [www.cgap.org/news/rbi-sets-mobile-banking-committee](http://www.cgap.org/news/rbi-sets-mobile-banking-committee), October 10, 2013. Copyright Centralbanking.com.

## The role of women in microfinance

As mentioned above, more than 80% of the microfinance industry's poorest clients are women. This large share of female participants is thought to offset some of the imbalances of current access to financial services for women. In many countries around the world, cultural factors, and sometimes regulation, have traditionally restricted women's ability to access and use financial services. The figure below shows how formal account penetration varies by gender and region. The gender gap is largest in South Asia, the Middle East and North Africa.

### Account Penetration by gender

Adults with an account at a formal financial institution (%)



Source: The World Bank<sup>9</sup>

Providing financial products that benefit the poor could empower women in two ways. First, if the products are marketed and designed in a way that provides women an easy access and direct benefits, this may increase their business opportunities, ability to cope with shocks, bargaining power within the household and overall independence. Second, gender inequality tends to decline as poverty reduces.<sup>10</sup> For these reasons, providing financial products that help households escape poverty could also advance gender equity.

In the last two decades, several MFIs and models have tried to address the gender gap in access to financial services by providing targeted services to women. The underlying assumptions of this focus are that women tend to be more credit constrained than men, can organize better as a group, are more likely to repay a loan, and may be more likely to invest the returns in their family's

health and education. While it is true that women have poorer access to formal financial services than men, evidence on the impact of these services on children's health and education is mixed.<sup>11</sup> Further research and innovation are needed to find out how to effectively generate such desired benefits.

9. Asli Demirguc-Kunt and Leora Klapper, "Measuring Financial Inclusion: The Global Findex Database," Development Research Group, The World Bank, 2012.

10. Esther Duflo, "Women Empowerment and Economic Development," *Journal of Economic Literature*, 2012, 50 (4), pp. 1051-79.

11. Ibid.

# 02



## The changing reputation of microfinance and the need for reliable evidence

### Early enthusiasm

After its early years, and particularly in the early 2000s, strong enthusiasm for microfinance was widespread. In 2005, the United Nations launched the “International Year of Microcredit,” and many renowned figures lauded microfinance.



“Microcredit has brought a much-needed revolution in anti-poverty programs. ... Microcredit goes directly to poor people. It creates jobs in villages. It helps women develop confidence and independence.”

– *New York Times*, 1997

“Microfinance is an idea whose time has come.”

– Kofi Annan, United Nations Secretary-General, 2005

“Microfinance stands as one of the most promising and cost-effective tools in the fight against global poverty.”

– Jonathan Morduch, Chair, UN Expert Group on Poverty Statistics and professor at New York University, 2005

The broad argument for microfinance, and in particular microcredit, was that giving small loans to capital-constrained micro-entrepreneurs was a win-win situation for both borrowers and lenders. While an individual could use the loan to invest in their business, increase their income and escape poverty, the lending organization could earn a high return since the market was largely underserved and borrowers were willing to pay a high interest rate. There was enthusiasm from financial markets too – in 2007, Banco Compartamos, an MFI launched in 1990, completed an IPO of its stock and the company's strong growth and profitability led to the stock being 13 times oversubscribed.<sup>12</sup>

## Disillusionment over limited benefits

In recent years, the initial enthusiasm around microfinance has been replaced by some degree of skepticism. An increasing number of critical voices joined the public discourse on microfinance. These critiques were based, in part, on academic research showing limits of the effectiveness of certain products, and in part, on a number of high-profile political scandals and a regional crisis in the microcredit market.

“There are many stories of the transformative effect of microfinance on individual borrowers but until recently there has been surprisingly little rigorous research that attempts to isolate the impact of microfinance from other factors, or to identify how different approaches to microfinance change outcomes.”

– Center for Global Development, 2007

“The industry seems to be pumping debt down people's throats. It is no longer socially responsible and does not belong in developmental funds.”

– Andrew Canter, Futuregrowth Asset Management, South Africa, 2013

12. Richard Rosenberg, “CGAP Reflections on the Compartamos Initial Public Offering,” *Consultative Group to Assist the Poor Blog*, June 2007. ([www.cgap.org/publications/cgap-reflections-compartamos-initial-public-offering](http://www.cgap.org/publications/cgap-reflections-compartamos-initial-public-offering))

While several randomized evaluations in different contexts have shown that microcredit is a useful financial tool for some micro-entrepreneurs, in most cases it has not been shown to increase income and reduce poverty. Outcomes have also been found to vary significantly among borrowers. In addition, due to the aforementioned information asymmetry problems, growth in the microinsurance market has been unexpectedly slow and challenging.

## The need for a balanced, evidence-based approach

From being lauded as the magic bullet to eradicate poverty and increase women's economic empowerment, to being berated as a failure or even a disaster for the poor, the reputation of microfinance has gone through a rollercoaster of opinions. Much of these debates have been dominated by ideological positions and anecdotal evidence that underscore preconceived notions and agendas.

In reality, neither of these extreme viewpoints is entirely accurate. Microfinance products have the potential to make a large positive impact for women when applied well, and where there is a good match between the product and the customer need. At the same time, there have also been instances of low or even negative effects. An honest, differentiated inquiry is needed to learn which best practices lead to the most effective outcomes, and to determine how products and service delivery can be improved to achieve that goal.

Rigorous research, as well as honest introspection, can provide guidance to promote innovation and continuous learning for the microfinance community worldwide. Efforts for poverty reduction and for women's empowerment will be most effective if they are made from a pragmatic, facts-based perspective.



# 03



## The importance of rigorous evaluations

Recent innovations in research methodologies that measure impact and evaluate effectiveness in the social sector have opened up exciting new opportunities for learning and improvement for organizations with a social goal, including microfinance and female empowerment. Randomized evaluations provide a very rigorous and reliable way to assess impacts.

Use of randomized evaluations in microfinance has grown dramatically over the past decade. Such evaluations are often conducted in close partnership with MFIs and can be tailored to serve their specific needs. Studies using randomized evaluation methodology can demonstrate how changing specific features in various microcredit, microsavings and microinsurance products can lead to significantly different results. MFIs can use the evaluations to adjust and improve product design, service delivery or choice of their target customers in order to improve the social impacts and the financial viability of their products. The results of several such studies are discussed in Sections 4-6 below.

## Benefits of randomized evaluations

In a randomized evaluation, individuals or groups of people are randomly assigned to either participate in a given microfinance program, or not participate but serve as part of the comparison group. Over a period of time, researchers track the difference in outcomes between the participating and the comparison groups to measure the impact of the program. This approach is similar to randomized control trials for new medicines and A/B testing in the tech entrepreneurship context.

Due to the random assignment, individuals in the treatment and comparison groups are identical, on average, except for their exposure to the microfinance program. If a study instead compared people who use the MFI service with people who do not, the two groups may have significant pre-existing differences for example in terms of entrepreneurial ability, risk tolerance, motivation or wealth. Randomized evaluations eliminate this problem. The difference in outcomes between the two groups can be clearly attributed to the program or intervention and not to other factors.

There are two ways in which a randomized evaluation can be useful to an MFI or to a governing body that seeks to define regulation:

1. Evidence from completed evaluations can be taken into account when designing new products or policies. The Abdul Latif Jameel Poverty Action Lab (J-PAL), for instance, has a large and growing repository of studies about different aspects of microfinance that can be consulted online.<sup>13</sup>
2. Organizations can implement their own studies to evaluate particular aspects of their model or services. Both academic partners and specialized evaluation firms, such as IDinsight, can help the MFI implement such a study.

It is important to learn from the diversity of experiences available in the microfinance sphere and carefully analyze lessons specific to the context when designing an intervention. As the number of these rigorous studies grows, more and more information will be available to learn how to best strengthen and target microfinance services to maximize their social impact as well as their economic viability.

The following three sections analyze research results for each type of microfinance product: microcredit, microsavings and microinsurance, respectively.

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13. J-PAL's repository of studies on microfinance can be found here: (<https://www.povertyactionlab.org/finance-microfinance>) J-PAL, "Finance and Microfinance," *Abdul Latif Jameel Poverty Action Lab*, 2014.

# 04



## Microcredit

### Evidence on the impact of microcredit

After the initial enthusiasm about microcredit, the results of rigorous randomized evaluations conducted in different regions around the world led to a certain degree of disillusionment. Increasing access to credit did not lead to the dramatic reductions in poverty that proponents had hoped for. Nevertheless, the experimental evidence shows that microloans can have other important impacts. A large randomized study among about 6,850 households in Hyderabad, India, showed that increased access to microcredit did not result in any significant impact on women's empowerment or human development outcomes. However, there were other gains, including increased profits for those with the highest pre-existing profits as well as lower expenditure on temptation goods, such as tobacco or alcohol, and higher investment in durable goods and businesses among some households.<sup>14</sup>

14. Abhijit Banerjee, Esther Duflo, Rachel Glennerster and Cynthia Kinnan, "The Miracle of Microfinance? Evidence from a Randomized Evaluation," *BREAD [Bureau for Research and Economic Analysis of Development] Working Paper 278*, 2010.

A similar impact was also found in a randomized evaluation conducted in rural Morocco, where increased access to credit due to bank openings in previously unbanked areas increased the volume of existing farming activity and their profits from these activities. However, as is to be expected with any risky investment, there was significant variability in the outcomes, and while returns to investments were extremely high for some, a minority of households may even have had negative returns. At the same time, there was reduced labor income, showing that people chose increased self-employed activity over wage labor.<sup>15</sup>

With respect to social capital, measured by the number of visits and discussions about personal and business matters with other group members,<sup>16</sup> a randomized experiment in eastern India observed that there was higher social capital among the women who met weekly for loan repayments compared with those who met monthly.<sup>17</sup> These studies suggest that it is important to shift the focus from pure profit generation and consider other benefits accrued to the poor through microcredit. In particular, it is important to gain more insight into what type of client benefits from which aspects.

Beyond shedding light on the impact of access to microcredit recent research has also studied ways to improve product design based on insights from behavioral economics and other social sciences. For instance, in many early models of microlending, credit was provided to a group of individuals, with group liability being the core of a peer pressure model. The peer pressure model was controversial and has been blamed for some of the hardship and stress for members of MFIs, who found themselves unable to repay a loan. A randomized study conducted in the rural Philippines, in association with Green Bank, challenged the group liability model and showed how a move toward individual liability did not adversely affect loan repayment.<sup>18</sup> In fact, it expanded the bank's customer base, suggesting that new customers were attracted by the individual liability model.

Another refinement of the traditional microfinance model was tested by a randomized evaluation conducted among clients of an MFI in Kolkata, India. The standard microcredit model requires participants to start repayment immediately after the receipt of the loan. However, many investment opportunities take some time to generate financial returns. The study compared outcomes for borrowers in two distinct loan structures. One group was randomly assigned to a structure that required them to start repayment immediately, while the other was given a two-month grace period.<sup>19</sup> Results showed that this grace period had significant impact. Microenterprise investment was 6% higher, the likelihood of starting a new business was twice as high, and even about three years after receiving the loan, weekly business profits and monthly household income were on average 41% and 19.5% for those given a grace period compared with those who were not. These higher returns were obtained by entrepreneurs making riskier investments. In the short run, they were three times more likely to default, thus indicating a trade-off between profits for the MFI and social returns. These findings show that small changes in a product design can lead to large differences in the outcomes.

Evaluating the creditworthiness of a borrower has always been a challenge for any lending organization. This is particularly the case for MFIs due to the fact that their clients lack a formal credit history. Innovative methods of credit evaluation have been emerging of late with the goal of addressing this challenge. One study that used clients of a large peer-to-peer lending portal called Prosper assessed the performance of online lending markets and found that peer lenders were able to identify the likelihood of default with 45% higher accuracy than the credit score indicated, showing that non-standard information could lead to higher efficiency.<sup>20</sup> The use of psychometric tools has also been evaluated to identify profitable, entrepreneurial borrowers in order to improve returns to MFIs. Companies,

15. Bruno Crepon, Florencia Devoto, Esther Duflo and William Pariente, "Estimating the Impact of Microcredit on Those Who Take it Up: Evidence from a Randomized Experiment in Morocco," *Massachusetts Institute of Technology Working Paper*, December 2013.

16. Robert D. Putnam, Robert Leonardi and Raffaella Y. Nanetti, "Making Democracy Work: Civic Traditions in Modern Italy," Princeton University Press, 1994.

17. Erica Field, Rohini Pande, Shayak Sarkar and Natalia Rigol, "Do Group Dynamics Influence Social Capital and Female Empowerment? Experimental Evidence from Microfinance," *Harvard University Working Paper*, 2013.

18. Xavier Giné and Dean S Karlan, "Group versus Individual Liability: Short and Long Term Evidence from Philippine Microcredit Lending Groups," *Journal of Development Economics*, 2014, 107, pp. 65-83.

19. Erica Field, Rohini Pande, John Papp and Natalia Rigol, "Does the Classic Micro-Finance Model Discourage Entrepreneurship Among the Poor? Experimental Evidence from India," *The American Economic Review*, 2013, 103 (6), pp. 2196-2226.

20. Rajkamal Iyer, Asim Ijaz Khwaja, Erzo FP Luttmer and Kelly Shue, "Screening Peers Softly: Inferring the Quality of Small Borrowers," *NBER Working Paper 15242*, 2014.

such as the Entrepreneurial Finance Lab, deploy these tools and techniques to help banks target profitable borrowers even without a credit history. Further, personal identification can also play an instrumental role in keeping the level of default risk in check. For instance, a randomized evaluation in Malawi found that fingerprinting loan applicants boosted repayment rates for borrowers with the highest ex-ante default risk from 67% to 92%.<sup>21</sup>

## Differential impacts for women

Microcredit has often been thought to hold special promise for women. In part, this was based on the fact that such a large share of microcredit clients were women. It was also hypothesized that this access to credit would shift the balance of power in the household and provide women with more autonomy and independence. Finally, it was expected that credit given to women would have more beneficial impacts on their children and families than credit given to men.

The general findings on microfinance discussed above of course apply to women as well, particularly given the large share of female microfinance clients. However, little evidence exists to support the claim that microfinancial services offer additional benefits to female over male clients. A study conducted in the Philippines found no evidence that microloans given to women had larger impacts than those given to men.<sup>22</sup> In Sri Lanka, grants given to micro-entrepreneurs were even found to have a better impact for men: they showed a 5% return on capital each month, while for women, there was no effect on profit.<sup>23</sup> This differential result might potentially be attributable to the environment in Sri Lanka, where only 35% of women are part of the workforce and many work in lower-return sectors.<sup>24</sup> Clearly, the impacts of microfinance services on women will interact with other aspects of the gender gap in their environment.



21. Xavier Giné, Jessica Goldberg and Dean Yang, "Credit Market Consequences of Improved Personal Identification: Field Experimental Evidence from Malawi," *American Economic Review*, 2012, 102(6): 2923-54.

22. Dean Karlan and Jonathan Zinman, "Expanding Credit Access: Using Randomized Supply Decision to Estimate the Impacts," *Review of Financial Studies*, 2010, 23 (1), pp. 433-464.

23. Suresh De Mel, David McKenzie and Christopher Woodruff, "Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns," *American Economic Journal: Applied Economics*, 2009, pp. 1-32.

24. Jonathan Bauchet, Cristobal Marshall, Laura Starita, Jeanette Thomas and Anna Yalouris, "Latest Findings from Randomized Evaluations of Microfinance," *InAccess to Finance Forum*, 2011.

# 05



## Microsavings

### Evidence on the impact of microsavings

Microsavings have been much less at the forefront in the public discourse about microfinance than microcredit. In part, this may be due to the fact that for the lending institution, microsavings are generally less of a financially profitable proposition than microcredit. Unless savers pay for their account, holding accounts with very small deposits tends to be costly. In addition, banking regulations make it institutionally challenging for MFIs in many countries to be allowed to hold savings deposits for their clients. However, an emerging body of research shows that microsavings may have significant positive social returns. It, therefore, seems worthwhile to pursue new business models that make microsavings possible, potentially through public subsidies, or by bundling them with other services.



Research on microsavings can be broadly grouped into two categories: (1) studies that analyze the impact of access to savings products on a client's economic activity and well-being, and (2) studies that apply lessons from behavioral economics to help customers save more, for example, through the use of savings commitment devices. We will discuss each of these in turn.

Providing the poor with access to a safe place to keep their money has been found by a number of studies to have promising effects. In Kenya, a randomized experiment that worked with 113 Rotating Savings and Credit Associations (ROSCAs)<sup>25</sup> observed that those who were given access to simple savings devices, such as a safe box (a metal box to which the saver held the key), saw a substantial investment in preventive health in the following year.<sup>26</sup> In Chile, access to a free and easy-to-use savings account for low-income MFI clients was found to reduce the dependence of these clients on short-term debt from both informal networks and money lenders, and to increase consumption smoothing and overall well-being of participants.<sup>27</sup> Similarly in Nepal, randomized access to free and easy-to-use savings accounts for female heads of households led to increased savings and assets, as well as investments in health and education.<sup>28</sup> In Malawi, providing access to savings accounts to rural farmers resulted in increased input usage, higher crop sales and greater household expenditure over the subsequent agricultural year.<sup>29</sup> However, the specifics of the accounts and the context seem to matter significantly. In western Kenya, a study observed that though there was 63% take-up of accounts after the opening fee was waived, only 18% actively used the accounts. A user survey reflected trust issues, concerns about poor service and high withdrawal costs as barriers to account usage.<sup>30</sup>

These findings suggest that access to savings vehicles can have a significant impact on participants' overall savings. In recent years, many studies have analyzed mechanisms to help the poor save more. Many of the savings commitment devices available to those in highly developed economies, such as direct deposits from wages into savings account, are not available to the poor and particularly those working as independent entrepreneurs or in the informal economy.

Several commitment devices for low-income populations have been analyzed. Withdrawal commitment devices restrict the times and/or situations in which money can be withdrawn. Deposit commitment devices encourage regular deposits into the accounts. A randomized experiment with a bank in the Philippines showed that average savings increased by more than 80% for clients who were offered a withdrawal commitment device, which restricted access to deposits to specific purposes or time periods, based on the client's pre-specified instructions. The effect persisted for 12 months after the study, showing a lasting change due to the intervention.<sup>31</sup> In Chile, a deposit commitment device was evaluated, where participants made a commitment for regular deposits to their peer group in the MFI, and regularly monitored each other's deposit achievements. This led to a 3.5-fold increase in the balance of the accounts.<sup>32</sup>

The same study also evaluated the use of cell phone technology in this context and found that text messages providing feedback on clients' success toward their regular deposit goals yielded almost as strong a result as the peer group monitoring. Three randomized evaluations conducted with bank customers in Peru, Bolivia and the Philippines also tested the impact of regular messages. A monthly text message or letter reminder resulted in a 3% higher chance of reaching a savings goal and 6% higher savings levels.<sup>33</sup>

25. ROSCAs are groups of individuals who congregate together on a regular basis to make contributions to a fund, which in turn will be given to one individual each time in rotation. In the case of this experiment, more than 70% of the ROSCA participants were women.

26. Pascaline Dupas and Jonathan Robinson, "Why Don't the Poor Save More? Evidence from Health Savings Experiments," *The American Economic Review*, 2013, 103 (4), pp. 1138-71.

27. Felipe Kast and Dina Pomeranz, "Do Savings Constraints Lead to Indebtedness? Experimental Evidence from Access to Formal Savings Accounts in Chile," *Harvard Business School Working Paper 14-001*, 2013. [Please provide the name of the working paper.]

28. Silvia Prina, "Banking the Poor Via Savings Accounts: Evidence from a Field Experiment," *Case Western Reserve Working Paper*, 2013.

29. Lasse Brune, Jessica Goldberg, Xavier Giné and Dean Yang, "Commitments to Save: A Field Experiment in Rural Malawi," *Bureau for Economic Analysis of Development Working Paper*, 2013.

30. Pascaline Dupas, Sarah Green, Anthony Keats and Jonathan Robinson, "Challenges in Banking the Rural Poor: Evidence from Kenya's Western Province" *NBER Working Paper 17851*, 2012.

31. Nava Ashraf, Dean Karlan and Wesley Yin, "Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines," *Quarterly Journal of Economics*, 2006, 121 (1), pp. 635-672.

32. Felipe Kast, Stephan Meier, and Dina Pomeranz, "Under-Savers Anonymous: Evidence on Self-Help Groups and Peer Pressure as a Savings Commitment Device," *NBER Working Paper No. 18417*, 2012.

33. Nava Ashraf, Dean Karlan and Wesley Yin, "Female Empowerment: Impact of a Commitment Savings Product in the Philippines," *World Development* 38.3 (2010): 333-344.



## Differential impacts for women

In many societies, women may face additional barriers to having a secure place for savings, suggesting that they might potentially benefit more from access to savings products than men. A study conducted in Kenya that provided bank accounts with no opening fees but high withdrawal fees to female market vendors and male taxi drivers observed that women used their account more actively than men and increased their total savings while men did not.<sup>34</sup> Four to six months after opening the account, women who received the accounts had 38%–56% higher daily investment in their businesses and 37% higher daily expenditures than the comparison group that did not receive an account. A similar effect was not observed for men. The women with savings accounts were also less vulnerable to health shocks since they did not have to reduce their business investment to cope with the shock.

Another way in which gender is relevant for savings are differences in intra-household preferences and bargaining power between men and women. Understanding these dynamics can have important implications for product design. In the Philippines, women who had been offered access to a commitment savings

account were able to significantly increase their power in household decision-making.<sup>35</sup> Another study in Kenya gave couples the option of choosing between individual and joint savings accounts. The interest rate earned on these accounts was randomized. The study found that couples with similar preferences and discount factors adjusted their choice to take the account with the highest return. However, couples who had dissimilar preferences tended to prefer individually owned accounts, even if the interest on the joint account was higher, thus forgoing more than 58% of the potential interest they could have earned on their savings.<sup>36</sup> Intra-household preferences thus significantly impacted savings behavior.

Since many countries still require husbands to sign for female bank account holders, and access to savings vehicles is unevenly distributed, gender equality is still an important consideration in this area. This is particularly relevant given the fact that men and women often have substantially different preferences on how much to save and how to use the money. Understanding these issues can help MFIs that are active in the microsavings space to improve their products to better serve their female customers' needs.

34. Pascaline Dupas and Jonathan Robinson, "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya," *American Economic Journal: Applied Economics*, 2013, 5 (1), pp. 163-192.

35. Dean Karlan, Aishwarya Ratan and Jonathan Zinman, "Savings by and for the Poor: A Research Review and Agenda," *Review of Income and Wealth*, 2013.

36. Schaner, S.G., "Do Opposites Detract? Intra-household Preference Heterogeneity and Inefficient Strategic Savings," *Dartmouth College Working Paper*, July 2013.

# 06



## Microinsurance

### Evidence on microinsurance

The poor face a large degree of risk and instability to both their income and expenditure needs. Such fluctuations can stem, for example, from health and weather shocks and frequent unemployment spells. At the same time, the poor have much less access to formal insurance products than those living and working in highly developed markets. Microinsurance products are intended to fill this market gap. However, even though they are thought to hold significant promise for the poor, take-up of these products has so far been relatively low. One reason may be the double-sided asymmetric information problem discussed above that insurers are faced with. A growing research area is seeking to examine the underlying reason for low take-up and possible solutions.

In India, a randomized field experiment that aimed to test the importance of price and non-price factors in determining demand for rainfall insurance found that lack of trust, poor financial literacy and constraints on liquidity could be barriers to the take-up of microinsurance products.<sup>37</sup> Another study in India found that farmers who were offered insurance invested in riskier, rain-sensitive crops that yield higher average profits.<sup>38</sup> A study with 600 small-scale farmers in India who were offered rainfall insurance also examined barriers to demand by randomizing financial training to a subset of farmers. This was found to double the take-up from 8% to 16%.<sup>39</sup> These results suggest that assessing households' needs in a comprehensive manner and tailoring products to fit clients' circumstances can boost demand for such insurance products.

37. Shawn Cole, Xavier Giné, Jeremy Tobacman, Petia Topalova, Robert Townsend and James Vickery, "Barriers to Household Risk Management: Evidence from India," *American Economic Journal: Applied Economics*, 2013, 5 (1), pp. 104-135.

38. Shawn Cole, Xavier Giné and James Vickery, "How Does Risk Management Influence Production Decisions? Evidence from a Field Experiment," *Harvard Business School Working Paper*, 2013.

39. Sarthak Gaurav, Shawn Cole and Jeremy Tobacman, "Marketing Complex Financial Products in Emerging Markets: Evidence from Rainfall Insurance in India," *Journal of Marketing Research* 48.SPL (2011): S150-S162.

# 07

Risk can also be a factor that limits investments in income-yielding assets, business opportunities or new technologies, thus further limiting the scope for income growth. In rural Ghana, an experiment conducted with more than 1,100 farmers found that demand for rainfall insurance was strong and insurance led to significantly higher agricultural investment and riskier production choices. Again, the evidence suggested that imperfect trust that promised payouts would eventually be delivered can limit the demand. After receiving the payouts, the purchase of insurance increased.<sup>40</sup> These findings can have valuable implications for MFIs and policymakers on product design, risks to cover and interventions to promote investment.

## Differential impacts for women

Poor women have unique and specific needs that require coverage – for instance, women could be more susceptible to specific health risks arising from pregnancy and childbirth and are often more vulnerable to domestic violence and loss of income due to the death of their spouse.<sup>41</sup> In sub-Saharan Africa, a woman has a 1 in 31 chance of dying from pregnancy and childbirth complications, while the risk is 1 in 4,300 in the developed world.<sup>42</sup>

Thus, gender-sensitive microinsurance products that address these specific needs affordably present a large underexplored potential for the microfinance industry. BancoSol, an MFI based in Bolivia, for example, offers a health microinsurance program that includes full maternity coverage. With 62% take-up, this product is found to have higher demand among women compared to a 45% share of women among Banco Sol credit clients.<sup>43</sup>



40. Dean Karlan, Robert Osei, Isaac Osei-Akoto and Christopher Udry, "Agricultural Decisions After Relaxing Credit and Risk Constraints," *Yale University Working Paper*, 2013.

41. Anjali Banthia, Susan Johnson, Michael J McCord and Brandon Mathews, "Microinsurance that Works for Women: Making Gender-Sensitive Microinsurance Programs," International Labor Organization, 2009.

42. World Bank Staff, "World Development Report 2012: Gender Equality and Development," The World Bank, 2011.

43. Anjali Banthia, Susan Johnson, Brandon Mathews, and Michael J McCord, "Microinsurance that Works for Women: Making Gender-Sensitive Microinsurance Programs," International Labor Organization, 2009.

# Conclusion and outlook

The microfinance community is currently undergoing a profound evolution. After early exuberant enthusiasm, particularly for microcredit, and later disillusionment, new technologies both in the methods of evaluation and in service delivery make a nuanced, pragmatic and innovative new approach possible. Compared with other social enterprise sectors, microfinance has had a pioneering role in embracing and promoting the use of rigorous randomized evaluations to assess the effectiveness of its products and to continue improving its services.

While anecdotal evidence has been put forward both for very optimistic views on microfinance (e.g., amazing “from rags to riches” stories) and for dismal perspectives (e.g., cases of suicides by microcredit clients), rigorous randomized studies allow for a nuanced, reliable analysis. Similar to A/B testing in the start-up entrepreneurship culture, randomized controlled trials provide a rigorous way to obtain reliable results that go beyond what can be learned from anecdotal evidence or retrospective data analysis. Other social sectors can learn from this leading role of the microfinance industry.

Many examples in the microfinance industry show the great results that can be achieved when leaders from both research and practice work together to generate mutually beneficial insights and achievements. These collaborations have large potential to push the effectiveness of different microfinance services to new levels. We have learned that changing small features of the products, such as the repayment schedule of microloans, follow-up text messages to encourage deposits or varying structures of the peer group liability and support can have important impacts on both the social impact and the financial viability of microfinance products.

More innovation of this type is needed, particularly in light of new challenges and opportunities that face microfinance today. Questions of the regulatory environment are at the forefront ranging from consumer protection in microcredit and microinsurance products, to banking regulation that will allow MFIs to take savings deposits for their clients and facilitate the use of mobile banking. Modern technologies through cell phones, internet and social media open new and promising possibilities. These opportunities have particularly large potential when combined with new insights from behavioral economics on issues ranging from self-control management to trust-building features to facilitate take-up of microinsurance and psychometric calculations of credit risks.

The nuanced results on the impacts and effectiveness of different microfinance services show that while the industry can play a significant role in closing the gender gap worldwide, it is just one aspect among many that are needed to achieve that goal. Overall trends on the gender gap are promising. In the last eight years, since the Global Gender Gap Index has been measured by the World Economic Forum, there have been marked improvements, particularly in the areas of political empowerment, economic participation and opportunities. However, there is still a long way to go to achieve equal opportunities for women and men worldwide. Through continued innovation, combined with careful evaluation and evidence-based learning, the microfinance industry can play an important part to contribute to this goal. This is particularly the case since microfinance is one of the very few institutions that attract an overwhelming share of women, and can therefore, serve as a potential vehicle for female empowerment in many ways.

# About the authors



This thought leadership paper by Dina Pomeranz is published by EY as part of our longstanding engagement with microfinance and support for female entrepreneurs

## Dina Pomeranz

Dina Pomeranz is a faculty member at the Harvard Business School, where she conducts research on public policies toward firms and entrepreneurs in emerging markets. In particular, she has implemented large-scale randomized field experiments about determinants and impacts of microsavings for low-income micro-entrepreneurs and about firm tax evasion. In her current work, she is analyzing the impact of tax subsidies and public procurement regulations on investment and growth of small and medium enterprises in emerging markets.

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Besides her academic interests, Dina Pomeranz has been active in a variety of organizations, including as a consultant to the World Bank, the Swiss State Secretariat for Economic Affairs, and the Chilean and Ecuadorian Tax Authorities. She is also actively involved in a number of social enterprise ventures committed to translating research into practice. In this capacity, she serves on the board of Evidence Action and TAMTAM – Together Against Malaria and on the advisory board of Instiglio and IDinsight.

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