

## WHERE CREDIT IS DUE

Seven randomized evaluations from around the world show that microcredit does not have a transformative impact on poverty, but it can give low-income households more freedom in optimizing the ways they make money, consume, and invest.



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### Key Results:

**Demand for many of the microcredit products was modest.** In Ethiopia, India, Mexico, and Morocco, when MFIs offered loans to eligible borrowers, take-up ranged from 13 to 31 percent, which was much lower than partner MFIs originally forecasted.

**Expanded credit access did lead some entrepreneurs to invest more in their businesses.** In Bosnia and Herzegovina and Mongolia, access to microcredit increased business ownership. All but one study showed some evidence of expanded business activity, but these investments rarely resulted in profit increases.

**Microcredit access did not lead to substantial increases in income.** Despite some evidence of business expansion, none of the seven studies found a significant impact on average household income for borrowers.

**Expanded access to credit did afford households more freedom in optimizing how they earned and spent money.** Six studies suggest that microcredit played an important role in increasing borrowers' freedom of choice in the ways they made money, consumed, invested, and managed risk.

**There is little evidence that microcredit access had substantial effects on women's empowerment or investment in children's schooling, but it did not have widespread harmful effects either.** Microcredit did not lead to increases in children's schooling in the six studies in which it was measured, and only one of the four studies that measured women's empowerment found a positive effect. Across all seven studies, researchers did not find that microcredit had widespread harmful effects, even with individual-liability lending or a high interest rate.

From its beginnings as a lending experiment in Bangladeshi villages in the 1970s, microcredit—providing small loans to underserved entrepreneurs—expanded rapidly in the 1990s and 2000s, and now serves over 200 million clients worldwide. Traditionally, financial institutions excluded the poor, finding it too costly to make small loans to borrowers without credit histories or collateral. Yet through the expansion of group-liability lending, community-based banks, and new repayment models, microfinance institutions (MFIs) and banks have brought credit and other financial products to the poor on an unprecedented scale.

Throughout its history, microcredit has been both celebrated and vilified as a development tool. It was initially embraced by policymakers, donors, and funders as an important financial product to help small-scale entrepreneurs invest more in their businesses, increase profits, earn additional income, and potentially lift themselves out of poverty. Yet as microcredit gained widespread support, some questioned the validity of these claims. Early critics noted that reports of microcredit's success were often based on anecdotes or simple before-and-after comparisons. Some suggested that expanding credit access could even be harmful. Business expansion is risky, and if entrepreneurs' investments are not profitable, increased debt could potentially pull them deeper into a poverty trap.

Starting in the early 2000s, researchers began to conduct randomized evaluations to contribute rigorous evidence to this debate. Seven randomized evaluations have assessed some of the most pressing and important questions about microcredit:

- What is the impact of access to microcredit on financial behavior, business activity, and household welfare?
- Do borrowers' investments translate into increased income?
- Does access to microcredit help empower women or increase household investments in education or health?

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# EVALUATIONS

**This bulletin reviews seven randomized evaluations that can inform policy debates about the impact of microcredit on low-income borrowers.**

These studies, conducted between 2003 and 2012,<sup>1</sup> cover products tested in seven countries spanning four continents and a wide range of contexts and borrower types. Taken together, they are fairly representative of the global microcredit industry.

Researchers partnered with eight relatively large MFIs to conduct randomized evaluations of one or more of their products.<sup>2</sup> Four were for-profit lenders (in India, Mexico, Mongolia, and the Philippines), three were non-profit (two in Ethiopia and one in Morocco), and one chose to remain anonymous (in Bosnia and Herzegovina). In all seven studies, the MFI extended microcredit to randomly assigned individuals or communities who had not borrowed from it before. Four of the five studies that randomly offered microcredit across an entire community (in Ethiopia, India, Mexico, and Morocco) incorporate potential spillover or displacement effects on nearby businesses and measure the impact of microcredit expansion on the community as a whole.

On the next page, Table 1 summarizes the evaluations numbered 1 through 7 in the text for this bulletin. In Bosnia and Herzegovina 1, an MFI offered individual-liability loans to a randomly assigned group of marginally creditworthy loan applicants. In Ethiopia 2, peasant associations called *kebeles* were randomly assigned to receive access to group-liability loans from the Amhara Credit and Savings Institute or the Oromiya Credit and Savings and Share Company. In India 3, Spandana<sup>3</sup> opened new branches in randomly-assigned neighborhoods in Hyderabad and offered group-liability loans to women.

In Mexico 4, researchers partnered with Compartamos Banco to randomly assign some areas in the state of Sonora to receive access to group-liability loans for women. In randomly assigned villages in Mongolia, poor women who expressed interest in a loan received offers for either individual-5a or group-liability loans 5b from XacBank, allowing researchers to test the relative effectiveness of each model.



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In Morocco 6, Al Amana opened new branches in randomly assigned rural areas with low credit access and offered group-liability loans to both men and women.<sup>4</sup> Finally, in the Philippines 7, First Macro Bank randomly offered individual-liability loans to applicants with credit scores slightly below the eligibility line.

Table 1 also outlines the main features of the seven products. All of the lenders except Spandana in India 3 and XacBank in Mongolia 5 explicitly targeted entrepreneurs, but none restricted or monitored how loans were spent. The loans' nominal annual interest rates ranged from 12 to 60 percent, with the exception of Mexico 4, which had a rate of about 110 percent. Every loan's interest rate (except that in India 3) was below the median market microloan interest rate for the country.

<sup>1</sup> Researchers are currently conducting seven- and eight-year follow-up surveys in India and Morocco to measure the longer-run impacts of microcredit.

<sup>2</sup> Five of the MFI partners had at least US\$190 million in outstanding microloans as of 2012.

<sup>3</sup> Spandana Sphoorty Financial Limited.

<sup>4</sup> While households took out almost only group-liability loans, individual loans were also introduced during the study period.

# PRODUCT AND EVALUATION FEATURES

TABLE 1

| Evaluation number | Country                | Researchers  | Partner MFI   | Gender of borrowers       | Targeted to entrepreneurs?   | Eligibility   | Liability model    | Approximate loan size in PPP USD<br>(% of average household annual income) | Repayment frequency  | Annual percentage rate (APR) | Repayment performance          | Offer randomization level | Time between microcredit offer and endline survey                 |
|-------------------|------------------------|--|---|---------------------------|--|---|--------------------|--|--|------------------------------|--------------------------------|---------------------------|---|
| 1                 | Bosnia and Herzegovina | Augsburg, De Haas, Harmgart, Meghir                | Anonymous   | 40% female                | Yes<br>( <i>borrower planned to invest in a new or existing business</i> )       | Marginally creditworthy loan applicants with collateral   | Individual         | \$1,815 (9%)   | Monthly payments over an average of 14 months                      | 22%                          | 46% ever late, 26% written off | Individual                | 14 months   |
| 2                 | Ethiopia               | Tarozzi, Desai, Johnson                            | Amhara Credit and Savings Institute<br>Oromiya Credit and Savings and Share Company | 13% female household head | Yes<br>( <i>borrower had a business plan</i> )                                   | Poor households with a business plan and collateral   | "Small groups"     | \$500 (118%)   | "Regular payments" over 12 months                                  | 12%                          | 5% default*                    | Peasant associations      | 36 months   |
| 3                 | India                  | Banerjee, Duflo, Glennerster, Kinnan               | Spandana Sphoorty Financial Limited   | Female                    | No restriction to entrepreneurs  | Women from non-migrating households identified as likely borrowers; at least 80% must be homeowners | Groups of 6 to 10  | \$600 (22%)  | Weekly payments over 12 months                                     | 24%                          | 49% ever late                  | Neighborhoods             | 15–18 months (first endline)<br>and 39–42 months (second endline) |
| 4                 | Mexico                 | Angelucci, Karlan, Zinman                          | Compartamos Banco   | Female                    | Yes<br>( <i>borrower owned or wanted to start a business</i> )                   | Women   | Groups of 10 to 50 | \$450 (6%)   | Weekly payments over 4 months                                      | 110%                         | 10% ever late, 1% default      | Neighborhoods or villages | 16 months (average exposure)                                      |
| 5a                | Mongolia               | Attanasio, Augsburg, De Haas, Fitzsimons, Harmgart | XacBank   | Female                    | No<br>( <i>borrower interested in receiving a loan</i> )                         | Poor women  | Individual         | \$470 (29%)  | Monthly payments over an average of 8 months                       | 27%                          | 5% ever late                   | Villages                  | 19 months   |
| 5b                | Mongolia               | Attanasio, Augsburg, De Haas, Fitzsimons, Harmgart | XacBank   | Female                    | No<br>( <i>borrower interested in receiving a loan</i> )                         | Poor women  | Groups of 7 to 15  | \$700 (43%)  | Monthly payments over an average of 6 months                       | 27%                          | 9% ever late                   | Villages                  | 19 months   |
| 6                 | Morocco                | Crépon, Devoto, Duflo, Parienté                    | Al Amana  | 6% female household head  | Yes<br>( <i>borrower owned a business other than non-livestock agriculture</i> ) | Households with a business other than non-livestock agriculture                                     | Groups of 3 to 4   | \$1,080 (21%)  | Weekly, biweekly, or monthly payments over an average of 16 months | 15%                          | no data                        | Villages                  | 24 months   |
| 7                 | Philippines            | Karlan, Zinman                                     | First Macro Bank (FMB)  | 85% female**              | Yes  | Marginally creditworthy loan applicants with businesses who are homeowners or long-term renters     | Individual         | \$220 (3%)   | Weekly payments over 3 months                                      | 60%                          | 33% ever late, 7.4% default    | Individual                | 13 months   |

\* In Ethiopia, the repayment rate is based on MFI-reported historical general repayment rates.

\*\* In the Philippines, while FMB targeted marginally creditworthy female microcredit applicants, 15 percent of borrowers were male.

# EVALUATIONS

## Follow the Money: Microcredit's Theory of Change

Figure 1 illustrates one theory of change for microcredit. Increased access to credit may benefit a borrower in many ways. It can directly finance household needs, help borrowers shift away from risky borrowing practices, or provide a cushion from unexpected economic shocks such as job loss or home damage. But for microcredit to have a transformative effect on the poor, it must enable them to sustainably expand their earnings potential.

First, MFIs must create a microcredit product that appeals to credit-constrained entrepreneurs. When entrepreneurs take up loans, they get an additional source of capital to invest in their enterprises through a variety of different channels, from restructuring or making capital investments in a current enterprise, to expanding inventory, hiring staff, or starting a new business altogether. These investments may in turn lead to increased sales and potentially increased profits.

If entrepreneurs' returns on their investments are higher than the cost of the loans, credit may lead to increases in household income. With additional income, borrowers and their families can increase spending on food, health care, housing, education, their businesses, leisure, or any number of other goods and services. In turn, these spending increases may lead to

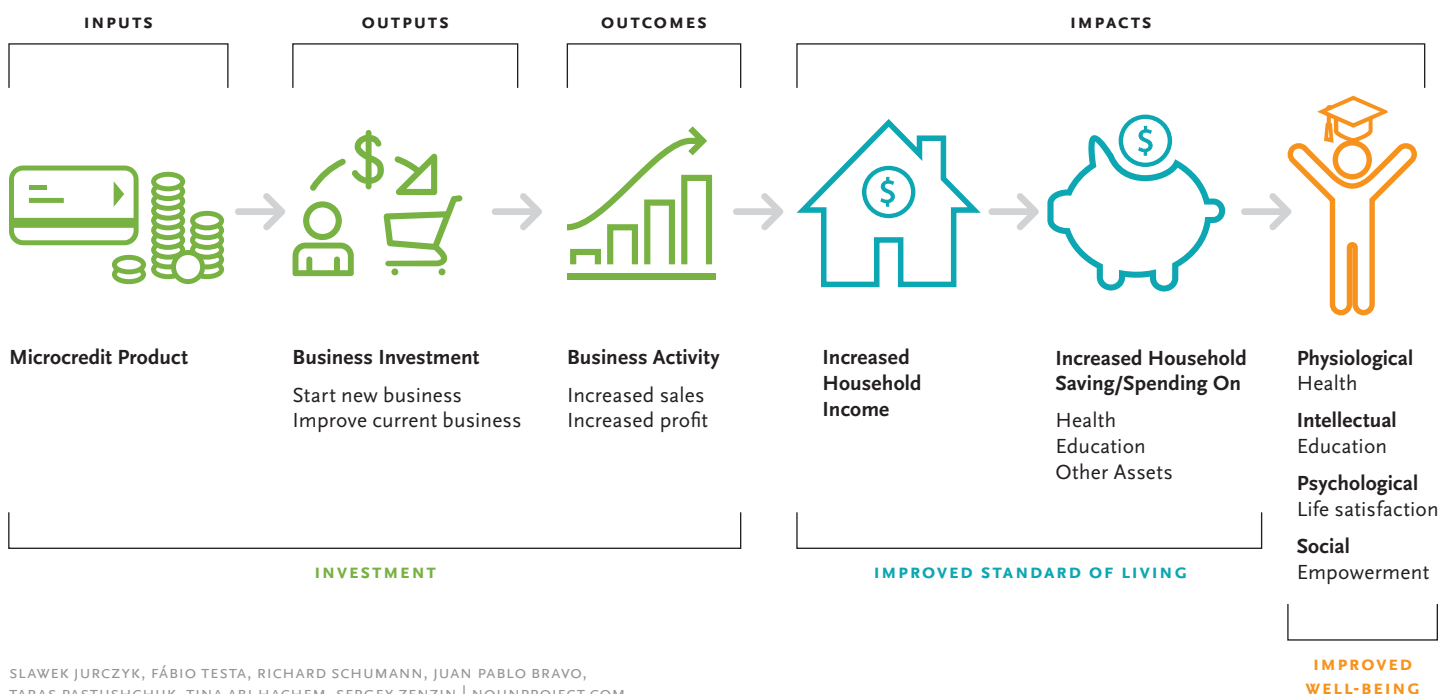


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increases in educational attainment, health outcomes, and greater life satisfaction. Financial services targeted to women or otherwise marginalized populations could also potentially improve borrowers' decision-making power or social standing by encouraging community interactions, allowing them more control over the use of borrowed funds and potentially improving their earnings power.

Microcredit's theory of change has a clear path to improved well-being, but it is necessary to consider how a borrower may veer from this path. The studies in this bulletin evaluate microcredit from input to output, outcome, and ultimate impact, and provide important insights into how microcredit programs both succeed and fail to follow this theory of change along each step of the way.

**FIGURE 1** A THEORY OF CHANGE FOR MICROCREDIT



SLAWEK JURCZYK, FÁBIO TESTA, RICHARD SCHUMANN, JUAN PABLO BRAVO, TARAS PASTUSHCHUK, TINA ABI HACHEM, SERGEY ZENZIN | NOUNPROJECT.COM

# RESULTS

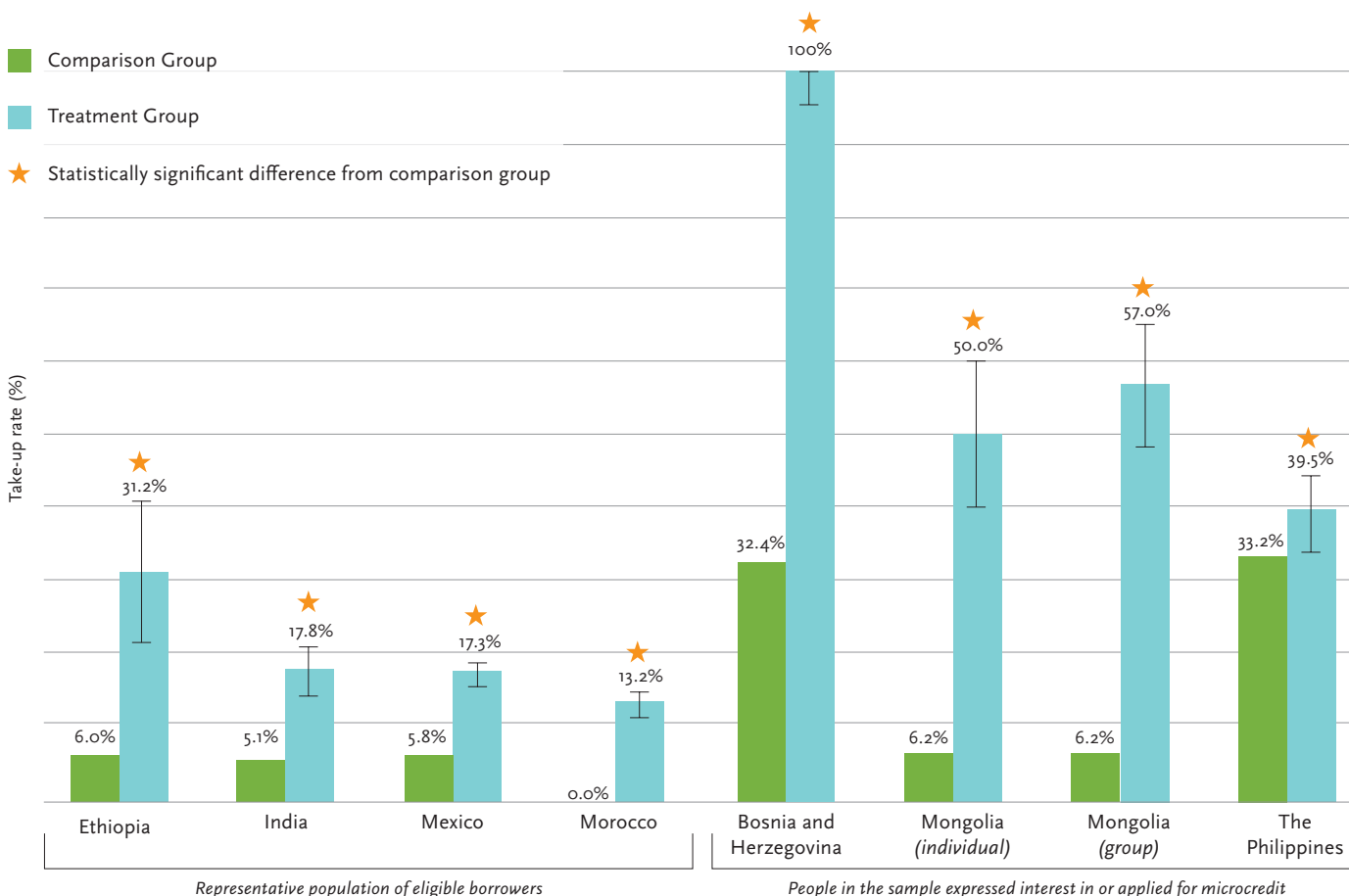
## 1. Demand for many of the microcredit products was modest.

In four studies where MFIs offered microloans to a general population of eligible borrowers, take-up ranged from 13 to 31 percent, which was much lower than partner MFIs originally forecasted. The first important question is: when MFIs offer people access to credit, do they take it up? For microcredit, demand can be an important reality check. When microcredit was marketed to potential borrowers in Ethiopia ②, India ③, Mexico ④, and Morocco ⑥, relatively few took it up (Figure 2). In rural areas of Morocco ⑥ with no previous access to microcredit, only 13 percent of villagers in the treatment group decided to create small groups to take a loan. In India ③ and Mexico ④, 18 and 19 percent of eligible borrowers in each respective treatment group borrowed from the partner MFI within 18 months of gaining access to credit.

In Ethiopia ②, 31 percent of households offered microcredit had outstanding loans at the time of follow-up.

In Bosnia and Herzegovina ①, Mongolia ⑤, and the Philippines ⑦, microcredit was offered exclusively to those who had already applied for or expressed direct interest in a loan. Thus, it is not possible to determine what microcredit take-up rates among a more general population would have been in these contexts. In Bosnia and Herzegovina ① and the Philippines ⑦, extending loans to marginally creditworthy loan applicants resulted in 100 percent and 40 percent take-up, respectively. In Mongolia ⑤, where XacBank marketed loans to women who had previously indicated interest at a community meeting, take-up was 50 percent for individual-liability loans and 57 percent for group-liability loans. Taken together, these results suggest that microcredit may be valued as a useful financial tool by some, but not all, borrowers.

**FIGURE 2** MICROCREDIT TAKE-UP WAS MODEST WHEN MFIS OFFERED IT TO A GENERAL POPULATION OF ELIGIBLE BORROWERS



Note: Statistical significance is noted at the 90 percent confidence level or higher and error bars represent 90 percent confidence intervals; In Ethiopia, India, Mexico, Mongolia, and Morocco, take-up is measured as having any loans from the partner MFI at the time of the endline survey; In India, the results displayed are from the first endline survey (1.5 years), and there is also a statistically significant difference after 3.5 years; In Bosnia and Herzegovina, comparison group take-up is measured as having any outstanding loan from any MFI and treatment group take-up is a direct measurement of those who took up the partner MFI's microcredit offer (76.3 percent of borrowers in the treatment group reported having any loans from any MFI at the time of the endline survey); In the Philippines, take-up is measured as having any loan from any financial institution in the month preceding the endline survey.



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**Borrowers reported using microloans for many purposes, including both business development and consumption.** MFIs generally target microcredit products towards entrepreneurial efforts, but borrowers' financial priorities may differ. Four studies summarized borrowers' reports on their loan use. These self-reported data must be taken with a grain of salt, as self-reports have been shown to vary significantly depending on when, how, and by whom borrowers are surveyed.<sup>5</sup> Around 83 percent of borrowers in Ethiopia **2** reported using microcredit for business purposes, while 9 percent spent their loans on schooling, ceremonies, or general consumption. In India **3**, 30 percent of borrowers reported using at least part of their loans to start new businesses and 22 percent to buy stock for existing businesses. Additionally, 30 percent reported using a portion of their loans to repay existing loans, 15 percent to buy durable household goods, and 15 percent to smooth household consumption. In Bosnia and Herzegovina **1**, 8.5 percent of clients reported spending the majority of their microloans to purchase goods. Around two-thirds of Moroccan **6** microcredit applicants declared to be planning to use loans for animal husbandry projects, with just over one-quarter intending to invest in trade-related businesses and 6 percent in other nonagricultural businesses (e.g. services and handicrafts).

**Microcredit did not cause borrowers to take on additional debt from other sources.** While some theories suggest that microcredit may spur demand for additional credit elsewhere as entrepreneurs attempt to adequately expand business activities, four studies find evidence of the opposite. In India **3**, informal borrowing from families or communities fell in neighborhoods where Spandana offered microcredit. Women who gained access to group loans in Mexico **4** were no more likely to borrow from other formal sources, but were 1.1 percentage points more likely to hold an informal loan relative to 5.1 percent in the comparison group. In Mongolia **5**, researchers found that those offered microcredit were nearly 30 percent less likely to hold a loan from other formal credit sources. In the Philippines **7**, microcredit offers did not affect loans from friends, family, or moneylenders. While there is some evidence of substitution among different types of credit, researchers did not find evidence supporting the claim that expanded access from one MFI led borrowers to take on additional debt from other sources.

<sup>5</sup> Karlan, Dean, Adam Osman, and Jonathan Zinman. 2013. "Follow the Money: Methods for Identifying Consumption and Investment Responses to a Liquidity Shock."

# RESULTS

## 2. Expanded credit access did lead some entrepreneurs to invest more in their businesses.

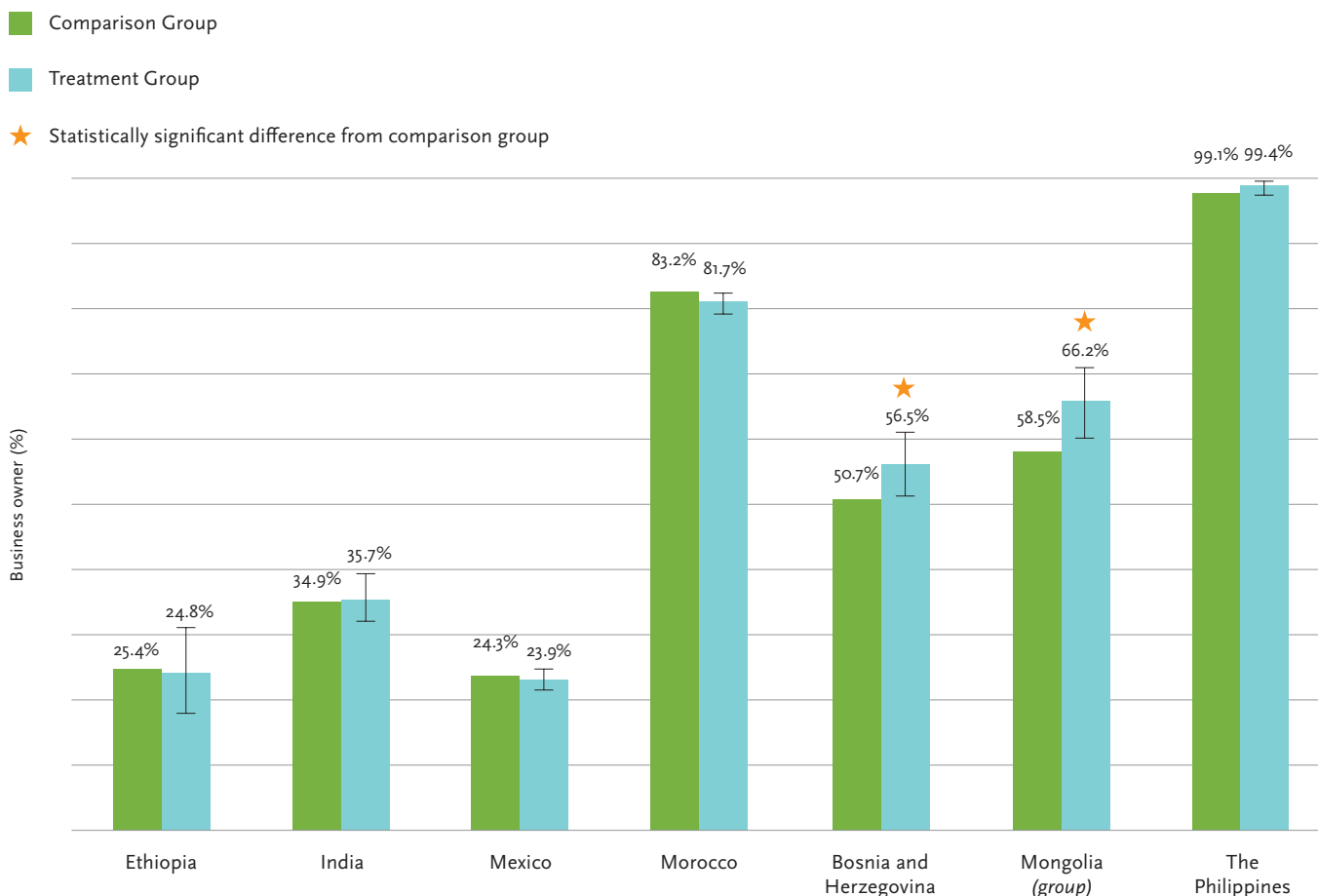
Increased entrepreneurial activity is a vital step in microcredit's theory of transformative change. If microcredit does not increase business ownership, size, or profits, it is unlikely that it will deliver increased income by relaxing credit constraints that inhibit business growth. All studies except the one conducted in the Philippines 7 showed evidence of expanded business activity, but these investments rarely resulted in significant increases in profits.

**In Bosnia and Herzegovina and Mongolia, access to microcredit expanded business ownership.** In Bosnia and Herzegovina 1, where half of all comparison group households owned a business, those offered a loan were 6 percentage points more likely to report owning a business 14 months

later. They were also 5 percentage points more likely to hold inventory. In Mongolia 5, microcredit's effect on business ownership varied by loan type. Individual-liability loans did not increase business ownership. However, women who were offered group-liability loans were 9 percentage points more likely to own a business relative to 39 percent in the comparison group, and less educated women were 31 percentage points more likely to own a business. Researchers hypothesize that joint liability may have dissuaded borrowers from using loans for non-investment purposes in this context.

The evaluations in Ethiopia 2, India 3, Mexico 4, and Morocco 5 found no effect on business ownership. In the Philippines 7, some borrowers closed their businesses; on average, treated clients operated 0.1 fewer enterprises.

**FIGURE 3** MICROCREDIT ACCESS INCREASED BUSINESS OWNERSHIP IN TWO OF THE SEVEN STUDIES



Note: Statistical significance is noted at the 90 percent confidence level or higher and error bars represent 90 percent confidence intervals; In Ethiopia, ownership is measured for non-farm businesses; In India, displayed results are from the first endline survey (1.5 years), and there is also no statistically significant difference after 3.5 years; In Bosnia and Herzegovina, differences in business ownership are not significant for multiple hypotheses testing; In Mongolia, displayed results are for household businesses. There was also a positive statistically significant difference for respondent businesses.



# RESULTS

**Generally, microcredit access increased business activities, but rarely resulted in profit increases.** Evaluations in six countries provide some evidence of increased business activity, but to varying degrees. In Mexico ④, expanded credit access increased the size of existing businesses. In Morocco ⑥, for borrowers who previously farmed and owned livestock, access to microloans increased sales from these businesses by around 20 percent. Profits also increased for the larger businesses, but decreased in smaller ones. Researchers observed similar trends for larger businesses in Ethiopia ②, India ③, and Mexico ④. In India ③, Mexico ④, and Morocco ⑥, overall business investments or expenses increased for borrowers offered microcredit. In Bosnia and Herzegovina ①, Ethiopia ②, India ③, and Mexico ④, researchers did not find any overall effect on borrowers' profits. Contrary to Morocco ⑥, however, excluding the top 1 percent of business profits from analysis in Bosnia and Herzegovina ① does reveal evidence of a significant profit increase for the remainder of the sample. In India ③, for businesses that existed before their owners gained access to microcredit, researchers found that average profits more than doubled in a year and a half. However, these effects were driven exclusively by businesses that were among the most profitable prior to gaining access to credit. In the Philippines ⑦, applicants offered microcredit had 0.3 fewer employees on average. Contrary to the other studies, this suggests that expanded access to credit shrunk business size in the Philippines ⑦.

## The Problem with Profit

Why was microcredit's impact on business profit so limited in these contexts? There are many potential reasons. Borrowers may choose to reduce their wage labor when they can earn more from their businesses, as was the case in Morocco ⑥. Many small-scale entrepreneurs may not be good at growing their businesses without additional training or support. In Mexico ④, women's business revenues increased with access to credit, but so did their expenses. As several studies found, some borrowers chose to use loans for consumption rather than investment.

There are numerous other potential explanations that the existing studies do not examine. Often low-income households own businesses that are relatively undifferentiated in a saturated market, such as owning a small shop in an outdoor market. Given that many other entrepreneurs are similarly employed, a large increase in profits for any one entrepreneur is unlikely. Furthermore, some entrepreneurs may be entrepreneurs out of necessity rather than choice, given limited job prospects in their economies, and others may simply not be motivated, or have the skills or time to substantially grow their businesses.

## 3. Microcredit access did not lead to substantial increases in income.

While microcredit helped some entrepreneurs invest, none of the seven studies found that it had a significant impact on income for the average borrower. In Morocco ⑥, borrowers' business sales and profits increased, yet they cut back on wage labor and reduced household asset sales to near-zero levels, leaving their total income unchanged. In Mexico ④, business sales expanded among those offered microcredit, but both profit and household income remained at previous levels.

An analysis of consumption (often used as a proxy for material well-being) reveals similarly mixed impacts. In India ③, total consumption among treatment households was no different from that of households in comparison neighborhoods. In Mongolia ⑤, food and total consumption increased for households in group-liability villages, but not in individual-liability villages. In Morocco ⑥, microcredit offers had no effect on total household consumption. In Ethiopia ②, researchers found evidence that microcredit offers may have actually resulted in increased food insecurity. On average, Ethiopian ② households in microcredit communities reported an additional half-month of food insecurity on top of the 1.3 months reported by households in comparison communities.

In another randomized evaluation in South Africa, researchers collaborated with a large for-profit micro-lender to randomly relax its scoring criteria for some microcredit applicants (similar to the Bosnia and Herzegovina ① and Philippines ⑦ studies). Even though these loans targeted employed individuals, not entrepreneurs, and charged relatively high interest rates (about 200 percent APR), researchers found that access to this credit product did increase income. In this case, loans helped employed individuals absorb economic shocks (e.g. family health emergencies), which allowed them to keep their jobs. Additionally, there was no evidence of any negative impacts on average.<sup>6</sup>

<sup>6</sup> Karlan, Dean and Jonathan Zinman. 2010. "Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts."

# RESULTS

**TABLE 2** SUMMARY OF MICROCREDIT'S IMPACT ON VARIOUS OUTCOMES

| Outcome                        | Bosnia and Herzegovina | Ethiopia       | India | Mexico         | Mongolia       | Morocco | Philippines |
|--------------------------------|------------------------|----------------|-------|----------------|----------------|---------|-------------|
| Business ownership             | ↑                      | —              | —     | —              | ↑              | —       | —           |
| Business revenue               | —                      | —              | —     | ↑              | —              | ↑       | —           |
| Business inventory/assets      | ↑                      | <i>no data</i> | ↑     | <i>no data</i> | ↑              | ↑       | —           |
| Business investment/costs      | —                      | —              | ↑     | ↑              | <i>no data</i> | ↑       | ↓           |
| Business profit                | —                      | —              | —     | —              | —              | ↑       | —           |
| Household income               | —                      | —              | —     | —              | —              | —       | —           |
| Household spending/consumption | —                      | ↓              | —     | ↓              | ↑              | —       | —           |
| Social well-being              | —                      | —              | —     | ↑              | —              | —       | ↓           |

Note: Green (red) arrows represent statistically significant positive (negative) differences in outcomes between the treatment and comparison groups at the 90 percent confidence level or higher, dashes represent no statistically significant difference; Ethiopia: While none of the individual business outcomes showed a positive impact, a combined business outcomes index did; a decline in household spending/consumption is measured as an increase in food insecurity; India: The increase in assets occurred only after 3.5 years, while the increase in inventories occurred only after 1.5 years; Mexico: Household spending is measured as the value of assets purchased in the past two years; social well-being is measured as a combination of women's empowerment outcomes and trust in people; Mongolia (group): Business assets measured as an index of listed assets increased, while assets measured as monetary stock did not; Morocco: There was an increase in combined business sales and home consumption, an increase in business costs, and no change in investment; The Philippines: There was a decrease in the number of businesses and number of paid employees; household spending/consumption was measured as changes in food costs and quality; a combined social well-being index showed a negative effect.

## 4. Expanded access to credit did afford households more freedom in optimizing how they earned and spent money.

Despite mixed results on income and consumption, evidence from six studies suggests that microcredit can play an important role in expanding the ways in which borrowers make employment decisions, consume, and invest. In Morocco ⑥, borrowers invested more in their businesses, increasing both sales and profits, but decided to concurrently cut back on their casual wage labor, potentially due to its less desirable and less stable nature as a source of income. Similarly, in Bosnia and Herzegovina ①, microcredit access allowed borrowers to increase their self-employment. In Mexico ④, microcredit helped women avoid selling assets to pay off debts. In India ③ and Mexico ④, households with access to microcredit decreased spending on “temptation goods”—such as alcohol, cigarettes, and gambling—to invest more in their businesses. In Mongolia ⑤, about half of all microcredit was used for household consumption; with group-liability loans ⑤b, households bought more and healthier foods. In the Philippines ⑦, microcredit access helped borrowers cope with risk, strengthen community ties, and expand access to informal credit. Collectively, these results suggest that although microcredit may not be transformative in lifting people out of poverty, it can afford people more freedom in their choices (e.g. of occupation, or financing assets) and the possibility of being more self-reliant.



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## Product Design

**Recent evidence suggests that relatively simple tweaks to microcredit products may change their impact on poverty and financial institutions' bottom line.** MFIs and banks must make many decisions about the terms of their credit products. They must determine the interest rate, whether to offer group- or individual-liability loans, whether a loan should include an initial grace period, and how often borrowers must repay, among many other choices.

Several randomized evaluations by IPA and J-PAL affiliates can help inform these product design questions. For example, a study in West Bengal, India found that offering a two-month grace period before borrowers had to begin making payments led to a 20 percent increase in monthly income after three years relative to borrowers who had to begin repayment two weeks after receiving a loan. However, those same grace period clients were more than three times as likely to default in the short run, and reported riskier business practices in the long run. This suggests that the traditional immediate repayment model simultaneously limited default and income growth.<sup>7</sup>

Immediate repayment may not be the only way to reduce delinquency. In Malawi, introducing a cost-effective fingerprint identification technology substantially increased repayment rates among high risk borrowers.<sup>8</sup> In Kenya, ongoing research suggests that using water tanks as collateralized loans may increase take-up rates with no effect on late payments.<sup>9</sup> In an evaluation in West Bengal, India, researchers found that switching from weekly to monthly repayment meetings resulted in the same high repayment rates, but dramatically reduced collection costs for the partner MFI, as well as client stress.<sup>10</sup>

Two evaluations tested the relative merits of group versus individual liability. In Mongolia [5](#), both group- and individual-liability loans resulted in similar repayment rates, providing evidence against the hypothesis that repayment rates are high only because of groups' screening and perceived repayment enforcement. In another evaluation with a bank in the Philippines, researchers randomly selected existing group-lending centers to convert to an individual-liability model. They found no difference in repayment rates between the two models. Additionally, although individual entrepreneurs opted for relatively smaller loans, an overall increase in the number of borrowers allowed MFIs to maintain comparable profit levels.<sup>11</sup>

Researchers are evaluating more product designs worldwide and their findings can help inform future microcredit offerings. Donors and NGOs may have an important role to play in innovating, piloting, and testing more client-centered products in cases where they may not be immediately commercially viable.

<sup>7</sup> Field, Erica, Rohini Pande, John Papp, and Natalia Rigol. 2013. "Does the Classic Microfinance Model Discourage Entrepreneurship Among the Poor? Experimental Evidence from India."

<sup>8</sup> Giné, Xavier, Jessica Goldberg, and Dean Yang. 2012. "Credit Market Consequences of Improved Personal Identification: Field Experimental Evidence from Malawi."

<sup>9</sup> Jack, William, Michael Kremer, Joost de Laat, and Tavneet Suri. 2012. "Expanding Access to Micro Credit: The Role of Asset-Collateralized Loans."

<sup>10</sup> Field, Erica and Rohini Pande. 2008. "Repayment Frequency and Default in Micro-Finance: Evidence from India."

<sup>11</sup> Giné, Xavier and Dean Karlan. 2014. "Group versus individual liability: Short and long term evidence from Philippine microcredit lending groups."

# RESULTS

## 5. There is little evidence that microcredit access had substantial effects on women's empowerment or investment in children's schooling, but it did not have widespread harmful effects either.

Researchers did not find that access to microcredit led to substantial increases in women's empowerment or investment in schooling. In the six studies in which it was measured, microcredit access did not increase children's schooling. Examining education in India [3](#), over 90 percent of boys and girls aged 5 to 15 were in school, regardless of whether their household had been offered microcredit 1.5 or 3.5 years beforehand. Results from Morocco [6](#) were similarly insignificant, where around 45 percent of all children aged 6 to 15 were in school, regardless of whether or not their villages received microcredit offers. In Bosnia and Herzegovina [1](#), there was a 9 percentage point decline in school attendance among 16 to 19 year olds. In households with relatively lower education levels, these adolescents also worked 1.1 hours more per week on average compared with similar households not offered a loan. In contrast, researchers found no change in teenagers' average workload in India [3](#), and teenage girls worked about two hours less per week in treatment neighborhoods.

**In three of the four studies that evaluated women's empowerment, microcredit access had no effect.** Many MFIs offer microcredit exclusively to women, creating a potential opportunity to increase female empowerment. Four studies examined the role of microcredit and women's empowerment, and three found no effect on female decision-making power or independence. In Mexico [4](#), where Compartamos emphasized empowerment as part of its product, women did enjoy a small but significant increase in decision-making power. Microloan recipients in Mexico [4](#) also reported less depression and more trust in others. In the Philippines [7](#), households offered microcredit reported more trust in their neighborhoods, potentially as a secondary result of increased opportunities for community risk-sharing.



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**Microcredit access did not have harmful effects on the average borrower.** Some critics believe that expanding access to credit may crowd out existing businesses, cause households to overextend themselves and fall into debt traps, or increase stress or depression levels among borrowers. There is little evidence to support these claims. In Mexico [4](#), microcredit was offered at a 110 annual percentage rate (APR), meaning that in just four months microloan recipients had to pay 28 percent in interest for every peso borrowed, as well as repay the principal loan amount. Researchers found no evidence of negative impacts on business revenues, profits, or household decision-making power for the poorest clients offered microcredit. Additionally, there were no differences in life satisfaction or job stress between those who did and not receive a microcredit offer. In the Philippines [7](#), male borrowers reported higher stress levels, but overall stress levels among borrowers were no different from the comparison group. In Ethiopia [2](#), where average loan sizes equated to 118 percent of annual income, there were no detrimental effects on businesses, income, youth labor, or youth education. In Bosnia and Herzegovina [1](#) and Mongolia [5a](#), where borrowers had individual-liability loans, there was no evidence suggesting that microcredit trapped or otherwise harmed borrowers.

# OPEN QUESTIONS



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## Open Questions

The seven studies featured in this bulletin provide a strong foundation of evidence on the impact of microcredit, but there are still many important questions for researchers, policymakers, and financial service providers to consider:

### **How can simple tweaks to microcredit products improve their accessibility and effectiveness?**

From improving take-up rates to targeting specific social outcomes, increasingly nuanced products may strengthen microcredit's impact in some contexts. Researchers and practitioners have made some progress, but more research is needed to deepen decision-makers' understanding of effective credit product design.

### **What are appropriate consumer protection policies to support expanded credit access while enabling people to make informed decisions about borrowing?**

Historically, political decisions have both enabled and disabled microcredit's rapid growth. Further exploration of the effects of consumer protection policies, the establishment of credit bureaus, and general regulatory oversight must be examined alongside product design innovations.

### **How does access to credit affect specific populations?**

There is growing concern among policymakers, advocates, and funders that certain types of people may do themselves more harm than good by borrowing (e.g. falling into debt traps). While there is currently little evidence to support this, understanding microcredit's effects on different types of borrowers is an important consideration for targeting clients and informing consumer protection policy.

### **Should policymakers and banks work to expand microcredit to more borrowers in communities that already have access to microcredit services?**

There is a limited body of evidence on the effects of expanding credit access in communities that already have it. A randomized evaluation with Compartamos Banco in Mexico suggests that further increasing access was a financially sustainable decision for the bank and could have ultimately benefited borrowers. When Compartamos reduced interest rates, it increased take-up by new customers without reducing its profits. Yet in Mali, researchers found that offering an agricultural loan induced effective self-selection initially. The farmers who benefited most from an influx of capital were those who chose to borrow at the first opportunity.

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# POLICY LESSONS

## If their main goal is poverty reduction, donors should facilitate, but not finance, standard microcredit lending.

While the seven studies summarized in this bulletin show that traditional microcredit can be a useful financial tool, there is little evidence to suggest that it leads to substantial improvements in income or social well-being. As the microcredit industry has grown and raised private capital, many international development donors have reduced or stopped subsidizing microcredit institutions. Given that microcredit has not led to transformative impacts on poverty, donors and private investors interested in increasing the social impact of credit could use philanthropic money to encourage the design, piloting, and testing of more flexible credit products (see third policy lesson). Donors and governments should also focus their efforts on creating supportive regulatory frameworks for financially viable and responsible product offerings for the under- and unbanked.

**Microcredit may not be the best instrument to improve business profitability, but it can be an important tool for increasing people's freedom of choice in deciding their occupations and managing their finances.** In Bosnia and Herzegovina ①, India ③, Mexico ④, Mongolia ⑤, and Morocco ⑥, access to a microloan enabled some entrepreneurs to start, expand, or invest in new assets for their businesses. Yet those investments did not translate into significantly higher profits or income. These results do not imply that microcredit institutions and banks should stop offering credit, or that credit is not an important financial service for the poor; they instead suggest that conventional microcredit alone should be neither the primary nor only instrument used to promote entrepreneurship.

Rather than increasing profitability or household income, the seven studies suggest that microcredit may be most effective as a mechanism to improve people's freedom of choice in how they earn and spend money. Financial freedom has many facets, including the ability for individuals to decide their occupation, make household spending decisions, finance larger purchases for their homes or businesses, refrain from selling off assets in times of crisis, and better manage risk. Across various contexts,

microcredit has managed to expand financial freedom in all these ways. The lack of transformative impacts on poverty should not obscure these more modest, but potentially important effects. The rapid growth and unprecedented reach of the global microcredit industry points to the fact that low-income families around the world value credit as a tool that can help them better manage their complex financial lives.

**Piloting and testing more innovative credit products may lead to greater impacts on poverty.** Despite their success in numbers, microcredit institutions could innovate more. Piloting lending models that more closely match the cash flow needs of borrowers may prove more transformative. Traditionally, microcredit has emphasized the importance of small loans, short repayment periods, and immediate and frequent repayment. These terms may limit the types of investments the loans can finance. Recent evidence shows that small tweaks to loan features can make a big difference (see Product Design on page 12). In India, adjusting repayment schedules allowed poor businesswomen to start more businesses, invest more in them, earn more profit, and increase household income, though the product would not initially be commercially viable.<sup>12</sup> And in Mali, rearranging microcredit cash flows to match agricultural seasons increased farmers' investments in their land.<sup>13</sup> These results point to opportunities for more nuanced investment by providers and donors in piloting, testing, and scaling new credit models. As these new products may not be immediately commercially viable, the donor and nonprofit community could play an important role in supporting products that could improve the impact of credit on the lives of the poor. Finally, more evaluation is needed to better understand how credit products affect different types of borrowers to help inform consumer protection regulation and MFIs' and banks' targeting strategies.

<sup>12</sup> Field, Erica, Rohini Pande, John Papp, and Natalia Rigol. 2013. "Does the Classic Microfinance Model Discourage Entrepreneurship Among the Poor? Experimental Evidence from India."

<sup>13</sup> Beaman, Lori, Dean Karlan, Bram Thuysbaert, and Christopher Udry. 2014. "Self-Selection into Credit Markets: Evidence from Agriculture in Mali."

## IPA & J-PAL OFFICES AROUND THE WORLD

Innovations for Poverty Action (IPA) is an international research organization that discovers and promotes effective solutions to global poverty problems.

[www.poverty-action.org](http://www.poverty-action.org)

The Abdul Latif Jameel Poverty Action Lab (J-PAL) is a network of affiliated professors around the world who are united by their use of randomized evaluations to answer questions critical to poverty alleviation. J-PAL's mission is to reduce poverty by ensuring that policy is informed by scientific evidence.

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