MEASURING THE IMPACT OF MICROFINANCE: LOOKING TO THE FUTURE

Paper no. 3 in the Grameen Foundation Publication Series, Measuring the Impact of Microfinance

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Published in association with Accion, Dominican University’s Brennan School of Business, and the Microfinance CEO Working Group
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_Grameen Foundation Publication Series_

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The Microfinance CEO Working Group is especially pleased to be copublishing this document with its two members Grameen Foundation and Accion for one simple reason: All of us need to fully understand the state of the research in the field we are dedicating our lives to. This study by Kathleen Odell does just that, using language everyone can understand. Most of us are not researchers, and not all of the research out there is accessible in a meaningful way to us. This review of the literature makes a massive amount of the best research accessible to all of us.

There are other reasons we are honored to be part of this project. When the first paper in this series came out, we were all a good bit younger—and perhaps a bit naïve. But taking in the findings summed up in this review, together with the two that preceded it, we can see just how much the research has matured over the years and how much more is known today than was known in 2005.

At the same time, Professor Odell helps us to think about, and plan for, the future. Throughout the study she suggests ways future research can produce actionable findings that will allow us to improve practice. And isn’t that really the goal? Certainly that is the goal for the Microfinance CEO Working Group, which has been carefully studying how we can improve our measurement of outcomes and use the results to ensure that our programs do achieve the goals we set for them.

It is especially refreshing to read Professor Odell’s reminder that there are some reasons why we should redouble our work in microfinance despite headlines like “Microcredit Doesn’t Live Up to the Promise of Transforming Lives.” First, she clearly explains in both the executive summary and in the detailed report exactly what the studies have shown, and that includes many underappreciated and encouraging findings. Second, while acknowledging the strengths of the randomized controlled trial (RCT) methodology, she cautions us not to rely exclusively on this method of research. As she points out, RCTs are expensive to conduct and often they only study impact over a relatively short duration. Furthermore, we often don’t know if an effective institution implementing best practices is running the same kind of program the researchers chose to study.

The pragmatic questions Professor Odell poses and seeks answers to by investigating the research literature are exactly the kinds of questions the Microfinance CEO Working Group and its members focus on. We are committed to applying the lessons that have been learned through research, gathering additional data for better decision-making by upgrading our own monitoring and evaluation systems. Of course, we are pleased that Professor Odell concludes that the research shows no consistent pattern of harm being done to clients. However, we must take steps to further minimize the potential for any client to be harmed by financial services through our active support of client protection and the Smart Campaign. At the same time, we are advancing the Universal Standards for Social Performance Management to increase the likelihood that we are also maximizing client benefits.

This new digitally enabled world of financial inclusion is nothing if not exciting. We agree with Professor Odell that it is too early to conclude whether and how digital finance solutions can both protect clients while advancing their well being. But you can bet that the Microfinance CEO Working Group will be working with stakeholders throughout the industry to understand and shape their impact on those most excluded, including women, the poor, and those living in the most remote areas of the world. We hope you too will give this report a careful read and join us in this mission.
Perception and reality sometimes walk together in lockstep, and sometimes they diverge significantly.

New York Times columnist Nicholas Kristof reported recently that two-thirds of Americans believe extreme poverty has increased since the 1990s, and another 29 percent think it has remained at roughly the same level. The reality is that the global extreme poverty rate has been more than cut in half since 1990 (dropping from 35 to 14 percent). It is one of the least heralded advances of human civilization in recent centuries. Sadly, it turns out that 95 percent of the American public is completely unaware of this progress.

Grameen Foundation has been working to understand how antipoverty strategies such as microfinance and financial inclusion have contributed to this rapid progress. We commissioned studies of the microfinance impact literature by independent researchers in 2005 and 2010. Of the second one, written by Professor Kathleen Odell of Dominican University’s Brennan School of Business, the thoughtful microfinance skeptic David Roodman wrote that it was “a model of public communication about social science research.”

We have reprinted the executive summaries of those earlier papers as appendices to this one, also...
written by Professor Odell, to provide readers with an understanding of the literature over several decades, as this report covers only the period 2010 to 2015.

Naturally, we were very pleased when Professor Odell agreed to write this 2015 paper, the third in this series on microfinance, and to do it pro bono, both as part of her academic work and within our Bankers without Borders® program. She sought input on drafts from many people, but she had complete editorial control of the final product, as was our policy with the earlier reports.

What did she find? First, she found that the most widely circulated studies have discovered consistently positive, if modest, impacts on the welfare of the typical beneficiary of microfinance products and financial inclusion initiatives, and significantly positive impacts on 5 to 10 percent of clients (of whom there are an estimated 200 million globally). Second, despite some unsubstantiated claims to the contrary, she found no evidence of any pattern of negative effects. Quite a few studies that have drawn less attention were even more positive than those most heralded, and Professor Odell summarizes many of them. I believe that if more studies had been conducted on the most effective and efficient providers of financial services to the poor, particularly those in Bangladesh, the results would be even more encouraging.

This helps us answer the question: Do well-conceived microfinance products and financial inclusion initiatives work? By any reasonable definition of what it means to work, of course they do. Two-hundred million people have voluntarily become clients of microfinance institutions, and tens of millions of people have opened bank accounts for the first time in recent years. Even if only 5 to 10 percent of microfinance clients experience immodest benefits, that represents 10 to 20 million households. If most of the rest experience modest gains, and a few are harmed, this represents an impressive track record that few social innovations can match.

Clearly, microfinance and financial inclusion are here to stay, as most financial service providers are financially sustainable and a growing number of national governments, not to mention the World Bank, have made aggressive commitments to advance financial inclusion. So the question is not so much “Does it work?” but rather, in which circumstances do certain financial products work best for low-income people, why does performance lag in some places, and what can this teach us about improving policy and practice? Research is beginning to address these questions, and as we look to the future, more will be needed.

At Grameen Foundation, we have already been integrating what research has taught us into our financial services work in Asia, Africa and Latin America and through our joint ventures such as Grameen Capital India and Dubai-based Grameen-Jameel Microfinance, Ltd. It is essential that these and future insights influence and shape policy and practice.

We are grateful to Professor Odell for doing such a thorough and nuanced job once again and on a tight timeline. We deeply appreciate the financial support of Accion, as well as the in-kind support of the Microfinance CEO Working Group, Dominican University’s Brennan School of Business, and Bankers without Borders®. We are also grateful to Anne Hastings for writing a compelling foreword.

While there is not yet enough evidence about what works in reducing poverty, there is nevertheless quite a bit. Too often it is misunderstood by policy-makers, the media, and the general public. This paper is our effort to demystify a literature this is often difficult for people without specialized training to digest and act upon. It is our hope that as a result, we as a society can do more of what works best and enhance those things that can be improved.
Measuring the Impact of Microfinance: Looking to the Future

www.grameenfoundation.org

Morocco
EXECUTIVE SUMMARY

This paper summarizes several important studies of the impact financial products have on the lives of their users, often people living under or near the poverty line in developing countries. It is the third in a series of literature reviews commissioned by Grameen Foundation to survey and contextualize the available evidence on the impact of microfinance. The second paper in this series, “Measuring the Impact of Microfinance: Taking Another Look,” came out in 2010. This paper limits its focus to new evidence that has emerged since then. This is not a systematic review, and while the intention is to be inclusive, given the rapidly expanding body of research in this area it is impossible for it to be exhaustive.

Since 2010, a revolution in thinking has taken place concerning the role of financial services in global economic development. In this context, it is critical to make a distinction between two elements in this revolution: microfinance and financial inclusion. Microfinance is the global industry that provides credit, savings accounts, insurance products, and various combinations of these products to poor households. Financial inclusion is the effort to ensure that poor households have access to the financial tools they need to build assets, manage risk, smooth cash flows, and take advantage of income-generating opportunities. While credit, savings, and insurance all remain central to this effort, financial inclusion brings increasing emphasis on the overall financial ecosystem, including payments systems and the engagement of a range of providers.

This shift in thinking creates a compelling challenge for this third paper in the Measuring the Impact of Microfinance series. Should the focus really be microfinance? Or does it now make more sense to look at the broader body of evidence about the impact of financial inclusion? This paper takes the latter, broader view, for two important reasons. First, development practice has shifted toward financial inclusion, with an increased emphasis on bundling products, expanding the reach of financial services, and exploring complexity in the ways that products, services, and education affect the lives of poor clients. Second, this evolution in thinking has been supported, shaped, and informed by the expanding body of research evaluating the impact of financial products.

With all of that in mind, this paper includes a number of studies on the impacts of credit, savings accounts, and insurance—the traditional microfinance products. It also includes some emerging research into other dimensions of financial inclusion.

EVIDENCE ON CREDIT

The year 2015 saw the publication of six experimental studies of the impacts of microcredit in different contexts around the world. Overall, these studies find that credit has many positive although modest effects on a range of measures. In most contexts, access to credit leads to business expansion, although this often does not translate to increases in business profits or changes in income and/or spending in the business owners’ households. On a range of social measures, the results are mixed.

A common characteristic of these six studies is their focus on credit as an isolated intervention. Today, most international development organizations with a focus on poverty alleviation and social outcomes provide clients with a range of financial services and educational opportunities. With this in mind, the outcomes seen in these studies may not be representative of the potential impacts of a coordinated financial inclusion program that includes credit. Still, taken together, the studies show that in a variety of contexts, credit serves to provide households with increased freedom of choice and flexibility, helping to manage uncertainty and reduce the effects of negative shocks.

1 Most of these studies had been circulating in working paper format for months or years before publication, so their key findings were available even before the final papers were published in 2015.
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In addition to these six experimental studies, a number of papers using other methods have also become available. New research from Bangladesh makes the case that in this market, where the adoption of microcredit is widespread, bundling credit with skill training and linking local businesses to a broader network of resources is necessary to maintain the robustness of the microcredit industry. Studies from Indonesia and India present evidence of improved children’s health in areas where financial services are available. And new research on ways in which access to microcredit loans supports and promotes international migration calls for increased attention to this relationship.

For the reader with limited time, highlights of the key results of the six randomized controlled trial (RCT) studies on credit are included here. More detail is available in the “Evidence on Credit” section.

**Group Lending in Bosnia and Herzegovina.** This study focuses on individual loans offered to applicants considered to be too risky to be regular borrowers from a well-established microfinance institution (MFI) in Bosnia. Access to a loan through the program in this study led to increases in borrowing and, by most measures, to increases in business revenues and profits as well. The impact on various measures of household consumption was negative, however. Two possible explanations for this last finding are (i) that households reduced their consumption to support business investment (a kind of generative belt-tightening story) and (ii) alternatively, that household consumption declined in response to new constraints imposed by the debt payments.

**Group Lending in India.** This study evaluates the impact of a group-lending program in the Indian city of Hyderabad. The lending had several positive effects on business outcomes, including increased profits for businesses that had high profits initially. The study does not find any detectable impact on overall consumption nor on the various social outcomes related to education, health, or women’s empowerment. However, the authors highlight two important findings: the makeup of household consumption changed (shifting toward durable goods and away from nonproductive temptation goods) and labor supply also changed, with hours spent on household businesses increasing. These outcomes, the authors argue, highlight an increase over time in households’ ability to make choices.

**Group Lending in Mexico.** This study finds that the introduction of microcredit in a previously unserviced area of north-central Mexico increases overall borrowing; it also finds that the loans seem to be used for business investment in existing businesses and risk management, reducing the likelihood of repeated asset sales and purchases. There are also modest improvements on several social measures, such as school enrollment and women’s empowerment. Importantly, there is nothing in the study to suggest systematic negative effects on communities served by the MFI in this study, despite the fact that interest rates were as high as 110 percent APR, typical for microfinance institutions in Mexico but high relative to interest rates in other markets.
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**Individual and Group Lending in Mongolia.** This study evaluates the impact of both group and individual lending in rural Mongolia. Overall, the findings of this study show several positive effects from access to microcredit, with benefits especially falling to women with lower levels of education. If education levels are used as an indicator of poverty, this finding suggests that the poorest borrowers benefit most. For group loans, this study finds positive impacts on asset ownership, total consumption, food consumption (especially healthy foods), entrepreneurship, and business profits. The findings for individual lending are less clear: asset ownership increases, and there are some indicators of an increase in entrepreneurship, but there is no evidence of increases in food consumption or other measures of business activity. Some of the benefits experienced by group-loan participating households might be experienced by individual-loan households, the study suggests, though over a longer time horizon.

**Group Lending in Morocco.** This study finds that the introduction of a group lending program in an area of Morocco previously unserved by any microfinance provider leads to an overall increase in business profits as well as a reduction in the number of hours worked outside the home. The latter leads to a reduction in outside income, which is offset by the increase in business profits, so that overall there is no net change in income. However, if access to loans allowed borrowing households to shift their focus from day labor (which households indicated was less desirable than self-employment) to a household business without overall loss of income, this could be regarded as a very positive outcome for borrowers, increasing their freedom of choice. While the study finds that business profits increased overall, there is suggestive evidence that for up to 25 percent of borrowers the effect on profits is actually negative—one of the few negative impacts observed in any of the credit RCTs.

**Group Lending in Ethiopia.** This study takes place in rural Ethiopia. The overall conclusion of this study is that despite a notable increase in borrowing (using a group-lending model) when credit is offered, there is little evidence of widespread improvement in business or socioeconomic indicators in areas selected to receive microcredit. However, the authors offer a word of caution: “Most estimates are imprecise and most confidence intervals are so large that both substantial improvements and large declines in a number of indicators cannot be rejected by the data.”

In most contexts, studies find that access to microcredit leads to business expansion, although not necessarily to greater business profits, and that savings programs consistently lead to increases in individuals’ and households’ savings.

**EVIDENCE ON SAVINGS**

Experimental evidence is available on the impacts of savings accounts in Chile, Kenya, Malawi, Nepal, and the Philippines. The studies are unanimous in finding a high demand for savings accounts, with high take-up rates and measurable increases in the overall amount that individuals and households save. There is also good evidence that access to a savings mechanism increases choices and financial freedom, working to buffer shocks and help households maintain consistent spending levels over time. A study in Kenya (Dupas and Robinson 2013a) finds that women savers increased investment in their businesses and increased their personal expenditures by 37 percent relative to a control group.

In answer to the question whether commitment savings accounts are more effective than basic accounts, the evidence is mixed. In Kenya, the provision of a safe and simple way to save (a secure locking box) led to higher levels of saving than

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EXECUTIVE SUMMARY

the provision of a health savings account with a level of commitment. In Malawi, farmers who used commitment savings accounts experienced improvements in their farming outcomes and increases in their household expenditures, while farmers with basic accounts did not realize those benefits. A second study in Malawi finds evidence that saving has measurable positive spill-over effects among the neighbors of savers.

There is also evidence on the impact of savings groups. A summary of several studies of this kind of impact finds that these groups provide a simple, community-based strategy to increase savings among the very poor. The evidence shows that savings groups are effective at meeting this goal. Households in communities that receive basic support for savings group implementation show higher levels of saving and borrowing, and even very poor households are able to participate. Some, but not all, of the studies also find increased asset ownership for households with access to savings groups. In many cases, savings group access appears to support business ownership and investment.

EVIDENCE ON INSURANCE

The empirical evidence on the impact of microinsurance is emerging. The Microinsurance Network has recently published A Practical Guide to Impact Assessments in Microinsurance, an edited volume that presents guidelines and suggestions for rigorous research on the impact of microinsurance and will hopefully serve as a resource for future assessments in this area. Based on the few existing studies reviewed in this paper, preliminary findings suggest that basic health insurance products lead to increased use of health care and can shield children from having to work more hours in the face of unexpected expenses resulting from household medical shocks.

MOBILE MONEY

More research is needed on mobile money and payments systems. Initial studies of the mobile payments system in Kenya are promising, suggesting that access to this mechanism for transferring money leads to reduced vulnerability when households experience negative events such as job loss or a health emergency. These studies also show that users of the mobile money system M-Pesa have a higher rate of employment than non-users and are more likely to have a formal bank account.

SOME FINAL THOUGHTS

The latest wave of research has presented a number of new challenges and puzzles. Three are especially compelling. First, business-focused microcredit programs assume that many microbusiness owners need credit in order to invest in their businesses. Making credit available, the thinking goes, will facilitate investment, and investment will lead to increased profits and, eventually, increased household well-being. While several of the new studies find that access to credit does indeed lead to business investment, increases in profits have been identified in only a few circumstances.

The relationship between investment and profit in microbusinesses must be better understood, since a good deal of development practice is built on assumptions about it. Second, there are important questions about the measurement of complex concepts such as women’s empowerment and better health. Researchers must ensure that their studies employ best-measurement practices, and in some cases these best practices need to be developed. Finally, there is a need for continued collaboration between researchers and practitioners as new research questions are defined and new studies are designed to answer these questions.


4 Thanks to Bobbi Gray at Freedom from Hunger for emphasizing this point; see footnote 12 for more detail.
INTRODUCTION

Since 2010, there has been a revolution in thinking about the role of financial services in global economic development. In this context it is critical to make a distinction between microfinance and financial inclusion. Microfinance is the global industry that provides credit, savings accounts, insurance products, and various combinations of these products to poor households, while financial inclusion is the broader effort to ensure that poor households have access to the financial tools they need to build assets, manage risk, smooth cash flows, and take advantage of income-generating opportunities. While credit, savings, and insurance remain central to this effort, financial inclusion brings increasing emphasis to the overall ecosystem, including payments systems and the engagement of a range of providers. Regarding payments systems, mobile money has shown tremendous promise as a more cost-effective and secure way to scale the delivery of financial services for the poor, especially those who are hardest to reach.

This shift in thinking creates a compelling challenge for this third paper in the Measuring the Impact of Microfinance series. Should the focus really be microfinance? Or does it now make more sense to look at the broader body of evidence about the impact of financial inclusion? I’ve settled on taking the latter, broader view, for two important reasons. First, development practice has shifted toward financial inclusion, with an increased emphasis on bundling products, expanding the reach of financial services, and exploring complexity in the ways that products, services, and education affect the lives of poor clients. Second, in my view, this evolution in thinking has been supported, shaped and informed by the expanding body of research evaluating the impact of financial products.

While access to credit, savings, and insurance remains central to empowering the poor, a focus on financial inclusion brings increasing emphasis to the overall ecosystem, including payments systems and the engagement of a range of providers.

True, much of this research takes what now appears to be a slightly outdated approach to evaluation, looking at single products in isolation and focusing on whether these products “work” to “solve poverty.” Nonetheless, most development practitioners have taken many lessons from the research and have refined their expectations based upon the evidence. They continue to work toward financial inclusion with an awareness that this is one of many important strategies that are working in parallel to improve conditions for the world’s poor. With all of this in mind, this paper includes a number of studies of the impacts of credit, savings
accounts, and insurance—the traditional microfinance products. It also includes some emerging research into other dimensions of financial inclusion.

While there is much new research to explore, the undertaking of research into the impact of microfinance is not itself new. Such work has been underway since the 1980s. The Measuring the Impact of Microfinance series was launched in 2005 with the aim of establishing a regular review of the literature on the impact microfinance has on the lives and communities of its clients. The first paper in the series, issued in 2005, concluded that while many studies gave one reason to be optimistic, despite many encouraging findings in individual studies one could not be fully confident of microfinance’s positive effects until more rigorous studies became available (Goldberg 2005).

By the time the second paper was released, in 2010, a number of new studies, including a handful of RCT-based evaluations, were available, but the answers to many questions about impact were still unclear. The body of evidence available in 2010 showed modestly positive impacts on microbusinesses but limited evidence of changes in household economic indicators such as income and poverty. Results were mixed concerning various measures of social well-being such as education, health, and women’s empowerment (Odell 2010). The second paper concluded with two key ideas. First, it looked forward with great optimism to the information that would be provided by the many ongoing RCTs that were evaluating various microfinance programs around the world. Second, it presented a reminder that the diversity and complexity of the microfinance industry required attention to the overall body of evidence, without attributing too much importance to a particular study or methodology.

Now, in 2015, new evidence is available. Six prominent RCT studies of microcredit have been published in a special issue of the American Economic Journal: Applied Economics and they have been summarized, blogged about, and discussed widely. While these studies have been highly visible, there are many other studies that have been conducted and published, including RCTs and studies using other methodologies, and work has been done not only by economists but also by anthropologists, sociologists, microfinance practitioners, and interdisciplinary teams.

This paper is not a systematic review. Rather, it represents the efforts of a reader who is deeply interested in economic development, financial inclusion, and assessment to understand what the current literature says about financial inclusion and traditional microfinance as tools for economic development. The role of this paper is threefold:

1. To build on the work of others who have summarized the recent RCT research,
2. To call attention to other studies that have not received the same publicity, and
3. To synthesize the body of research to draw out trends, identify gaps, and highlight unanswered questions.

This study focuses on the five-year period (2010–15) since the last paper in this series was released and explores questions and ideas that have arisen as a result of conversations and wide reading in the intervening period. The intention is to be inclusive, if not exhaustive, and to articulate clearly the landscape of existing research as well as the relationship between research and practice. In addition, a key aim is to make the findings from the academic research easily intelligible to a broad audience of practitioners, investors, and other interested readers.


6 Full references and study summaries are provided in the “Evidence on Credit” section. Sample blog discussions include the Center for Global Development’s blog at http://www.cgdev.org/blog/final-word-microcredit and Innovations for Poverty Action’s blog at https://www.poverty-action.org/node/8171.
A comprehensive study of both the history of microfinance and the evidence of its impacts is David Roodman’s 2012 book, *Due Diligence: An Impertinent Inquiry into Microfinance*. Thinking of microfinance as a development tool, Roodman outlines three distinct ways of understanding the idea of “development”: As escape from poverty; as freedom (based upon Amartya Sen’s conception of freedom as agency within one’s own life, in which education, health, democracy, human rights, and income are all freedoms); and, finally, as industry building. Roodman summarizes the evidence for each of these three conceptions of development, and his work can be used to better define the questions that research aims (or should aim) to answer. Overall, Roodman’s conclusion, based upon the evidence available in 2012, is that while the provision of financial services alone is unlikely to lead to the end of poverty, especially in the near term, financial access is an important component of economic and social freedom. He also finds that the microfinance industry has itself begun to create industrial transformation by providing billions of poor people with a means to manage their wealth.

This more nuanced view of the role of financial services in the lives of its users represents an evolution away from the classic understanding of microfinance, especially microcredit, as primarily an antipoverty tool. It seems to be in line with Chris Dunford’s argument for a revised theory of change for microfinance and a shift toward the broader concept of financial inclusion. The classic proposition of the link between microfinance and poverty reduction can be summarized as follows:

*People from poor households access microfinance services (primarily loans and/or savings) to invest in microenterprises that yield sufficient return on investment to increase household income and consumption—leading to poverty reduction.*

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Dunford’s proposed revision:

*People from poor households tap microfinance services to smooth consumption and build assets to protect against risks ahead of time and cope with shocks and economic stress events after they occur—leading to poverty alleviation.*

Here, the shift from microfinance to financial inclusion is emerging as a revised outcome: poverty alleviation rather than poverty reduction. This shift is another example of development practice learning from research, reflecting a realistic and evolving view about the role and expected impact of financial services as a useful and necessary contribution to economic development for the world's poorest.

The evidence presented in the rest of this paper represents a body of research which, in my view, makes a convincing case that while microfinance clients on average do not predictably exit poverty, access to financial services can make poverty less binding in a variety of ways.

**A CASE FOR FOCUSING ON THE EVIDENCE**

While there has been a marked shift toward a broader portfolio of financial services, access to credit is still an important component of financial inclusion. It is interesting to observe that although many studies have documented that credit has many modestly positive impacts on typical borrowers, and despite the unambiguously positive impacts of access to savings and the introduction of new strategies for financial inclusion, the perceived failings of the microcredit industry are still at the center of many popular discussions. And while it is uncommon today to meet a practitioner who believes that credit offered in isolation from other services will have a pronounced impact on household incomes or poverty rates, the failure of credit alone to dramatically transform the lives of borrowers is still presented as a significant research result. In fact, it is unclear at this point who expects such a transformation to occur.

A second important study comes from Lamia Karim, an anthropologist at the University of Oregon. Her ethnographic study (Karim 2011) is critical of the microcredit industry in Bangladesh. Karim argues that rather than empowering and improving the lives of poor clients, the industry has resulted in new forms of oppression for poor women, benefiting the middle class at the expense of the poor. Her book includes narratives describing the role of microcredit in the lives of eight Bangladeshi families, and these stories give stark insight into the ways that credit can be both constructive and destructive.

The press, as well, continues to raise questions about the role of credit in the lives of borrowers. A sampling of recent headlines:

*“Critics Say Small Loans Hurt the Poor”*11

*“Microcredit Doesn’t End Poverty, Despite All the Hype”*12

*“New Research Indicates Microloans Don’t Solve Poverty”*13

10 These remarkable stories can be found in Chapter 4, “The Social Life of Debt,” in Karim (2011).

11 From the news organization DW (Deutsche Welle), at [http://www.dw.de/critics-say-small-loans-hurt-the-poor/a-6686585](http://www.dw.de/critics-say-small-loans-hurt-the-poor/a-6686585)

12 [http://www.washingtonpost.com/opinions/microcredit-doesnt-end-poverty-despite-all-the-hype/2012/01/20/giQAttrfR_story.html](http://www.washingtonpost.com/opinions/microcredit-doesnt-end-poverty-despite-all-the-hype/2012/01/20/giQAttrfR_story.html) This piece is authored by David Roodman, but the headline doesn’t quite reflect the complexity of Roodman’s thinking on the role of microcredit.

In a recent post on a *Guardian* online site for development professionals, “The Microfinance Delusion: Who Really Wins?” anthropologist Jason Hickel goes so far as to argue that “microfinance usually ends up making poverty worse,” an assertion that is absolutely unsupported by evidence. The fact that such unsupported claims are still printed even by reputable outlets such as the *Guardian* underscores the importance of clear and detailed communication about the impact research. While the microfinance community has been criticized for relying too much on anecdotal evidence to illustrate the successes of microcredit, this practice is also common among microcredit detractors. Stories are compelling, but a true understanding of impact on the typical client must be based on rigorous research and evidence.

How can the ongoing optimism and the persuasive theories of the microfinance industry be reconciled with the criticism and concern? Certainly, among the 204 million microcredit borrowers (Reed 2014) in the world, one can find well-documented and verifiable stories both of great success and positive transformation and of over-indebtedness and lives changed for the worse. Many discussions that claim to be about “microfinance” are really about “microcredit,” which is only one of many dimensions of microfinance, much less about the broader agenda of financial inclusion, which many large development organizations now support.

For anyone committed to critical thinking and fact-based decision making, the growing body of empirical evidence is the best place to look to understand the impacts of this work. The research into the impacts of financial services on the lives of those who use them is complex, nuanced, and extremely difficult to encapsulate in a sensational headline. In fact, practitioners report that a good deal of unnecessary harm has been done to the field by the media trying to communicate the nuanced findings of the impact research with overly simplified and provocative summaries.

Many of the questions asked by the existing studies of microfinance impact, including the six widely discussed credit RCTs, seem to flow from the “classic” microfinance theory of change described above, where the focus is on poverty reduction. One implication of this is that the answers uncovered by even the newest research often seem to respond to questions that don’t reflect the evolving nature of the work being done by the development community in the area of financial services. If today’s studies are still answering last year’s questions, then surely there are many exciting opportunities ahead for research that takes fresh perspectives.

While microfinance clients on average do not predictably exit poverty, access to financial services can make poverty less binding.

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An evaluation of the impact of a microfinance program (or any program) essentially attempts to identify the various ways the program changed the lives of the households or individuals who participated in it. While this may seem straightforward, it is actually quite a difficult task due to the fact that once a person or household has participated in a program, such as by taking a loan or establishing a savings account, it is impossible to know how their lives might have evolved without that participation. This explains why studies that include only program participants cannot really demonstrate impact. An example: suppose a microbusiness owner takes out a small loan, invests the loan in her business, and three years later, reports that the loan was the key to business expansion, increased profits, and other positive changes in her economic well-being. The lender will likely consider this to be a success story, and it is. The unanswered question, however, is whether this entrepreneur might have found some other path to success if the loan had not been available. In other words, was the loan actually responsible for the success, or is there some other explanation based on the talents and skills of the borrower?

The answer to this unanswerable question, *What would have happened if this person or household had made a different choice?* is technically called the *counterfactual*, and rigorous impact research attempts in various ways to come up with a reliable estimate of it.
THREE APPROACHES TO IMPACT RESEARCH

Experimental Study. Also known as a randomized control trial or RCT, an experimental study has two distinguishing features. First, it has a control group, and second, study participants are randomly assigned to either the control group or the treatment group. The process of randomly assigning study participants to receive a service, such as a loan (be in the treatment group) or not receive it (be in the control group) eliminates any other systematic differences between the two groups. As a result, any observed differences in the outcomes between the two groups can be attributed to the service or product being studied. In addition, most RCTs have at least two rounds of participant surveys. A first survey, administered at the outset of the study, ideally before the product or service under study is introduced, is called the “baseline” survey. A second survey, conducted several months to a few years after the program is introduced, is called the “endline” survey. In an ideal RCT where the program being studied has observable impacts, the control and treatment groups will be essentially identical in the baseline survey, but differences representing the program impacts will occur in the endline survey.

The biggest advantage of experimental study design is the elimination of the problem of selection bias, that is, the bias that enters when individuals who choose to participate in a program have other qualities in common that may either exaggerate or mask the impacts of the program. In a well-designed RCT, program participation is the only systematic (that is, non-random) difference between the treatment and control groups, and it does not depend on participants’ choice. As a result, outcomes for the control group are considered to be a fairly accurate estimate of the counterfactual—what would have happened to the program participants if they had not had the chance to participate.

RCT studies of microfinance programs have some drawbacks, nevertheless. They are expensive to conduct, and often they are limited to studying impact over relatively short durations (18 months to three years, most commonly) due to the challenge of maintaining a control group without access to services similar to those being evaluated. In addition, because of their reliance on random assignment, RCT studies are best suited to programs in the initial phases of implementation.

Quasi-experimental Study. A second approach is a quasi-experimental study. Here, the study still has a control group, but assignment to the control group is not random. Researchers use a variety of strategies to design these studies so that the control group outcomes are reasonable estimates of the counterfactual. The complexity of the estimation methods can be a disadvantage of quasi-experimental studies. On the other hand, because these studies do not rely on random assignment, they can be used to evaluate programs in situations where RCTs are not viable, including the evaluation of programs that are already in place and programs that are implemented in markets where microfinance is already widespread.

Nonexperimental Study. Finally, a nonexperimental study does not have a control group, but rather focuses on the experiences of program participants. This approach is often taken in anthropological studies as well as practitioners’ studies of their own programs. While this strategy can provide deep insights into the experiences of program participants, without an estimate of the counterfactual it cannot be used to confidently estimate the impact of a program on a typical client.

Each of these approaches has advantages and disadvantages. Within the field of economics, experimental studies have been especially prominent recently due to their effectiveness at eliminating bias and the relatively clear impact estimates they provide. At the same time, concerns have been
raised about RCTs by researchers and practitioners alike. All evaluation research shares a number of challenges. Does the study ask its questions in a way that will provide the answers the researchers are looking for? Are the measures used in the study appropriate for gathering the information that the researchers desire? Do participants answer the survey questions honestly and completely? Is the program being studied representative of other, similar programs?

Good researchers conducting evaluation research should do their best to design studies that accurately answer their key questions, and likewise, responsible readers, including journalists, should do their best to understand the results, including their limitations, and discuss them responsibly.

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**A GLOSSARY OF TERMS IN SOCIAL SCIENCE RESEARCH DESIGN**

*Treatment group*: The group of individuals, households, or villages to which the program being studied is offered.

*Control group or comparison group*: The group of individuals, households, or villages that do not receive the program but are included in the study for comparison.

*Experimental design*: A study design that includes a randomly assigned control group that is statistically comparable to the treatment group.

*Quasi-experimental design*: A study design that includes a comparison group that was not randomly assigned. In the absence of random assignment, the researcher must make a convincing case that the comparison group is comparable to the treatment group in order to be confident that observed differences between groups are attributable to the program being studied.

*Non-experimental design*: A study design that does not have a control or comparison group. Examples include qualitative case studies, member profiles, field observations, focus groups, and anecdotes.

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16 An excellent discussion of the appropriate way to measure “transformation,” as well as the difficulty of accurately measuring complex concepts such as children’s health and women’s empowerment, is that written by Bobbi Gray of Freedom From Hunger, posted on the website of the Center for Financial Inclusion: [http://cfi-blog.org/2015/04/15/measuring-transformation](http://cfi-blog.org/2015/04/15/measuring-transformation).

17 These definitions are also presented in Gash and Odell (2013).
Microcredit, the most familiar and widespread of the microfinance services, has been the subject of a good deal of impact assessment research. Consisting of the issuance of small loans to (usually) poor borrowers whose access to credit has historically been limited due to poverty, geography, or both, microcredit usually takes one of two forms. In one, borrowers form groups that accept some form of joint liability for loans made to the group members. In the other, loans are dispersed directly to individuals. Along with the question of the overall impact of credit, another question that warrants attention is whether there are differences in the effects of group versus individual loans. This section summarizes several of the most prominent and widely publicized studies of microcredit. It also highlights several studies which, while they have received less attention, point to important aspects of the impact of microcredit.

Key findings from the credit studies are included in Table 1. In general, these studies find that when credit is provided, people often use it to invest in and expand their businesses. And while access to credit does not lead to sustained overall improvements in welfare measures such as household income and consumption, it does seem to allow households greater freedom of choice in what work they do and how they spend their money. A few outstanding questions remain. Why do business investment and expansion often fail to lead to increased profits and incomes? While this isn’t always the case—some increases in profits have been observed, for example, in the Bosnia and Morocco studies—but
in general, the link between increased investments and increased profits is not robust.

In terms of questions not answered in the major experimental studies, there are several lines of research that have appeared often enough to warrant discussion here. First, there is emerging evidence that microcredit plays an important role in international migration. Second, there are a number of studies showing a promising link between microfinance and health, especially children’s health. While a few health outcomes are briefly mentioned in the credit RCTs, this is another area that warrants additional investigation. Finally, despite the significant methodological challenges that arise in studying the broader macroeconomic implications of the growth of the microfinance industry, researchers continue to explore this important relationship.

**THE EXPERIMENTAL EVIDENCE**

In 2010, early experimental evidence on the impact of credit suggested modest but positive impacts on various measures of business activity, mostly based on a large study conducted in India (an earlier version of Banerjee et al., 2015a). The research and practitioner communities at the time both looked forward to additional research studying the impacts of credit in different geographical contexts.

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**TABLE 1. KEY RESULTS ON THE IMPACTS OF MICROCREDIT**

<table>
<thead>
<tr>
<th>Strong Evidence</th>
<th>Mixed or Suggestive Evidence</th>
<th>Little or No Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is good evidence that access to credit leads to increased borrowing,</td>
<td>There is evidence in some (but not all) studies that access to credit is empowering for</td>
<td>There is little evidence of large or sustained increases in income or consumption.</td>
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<tr>
<td>suggesting previously unmet demand for credit.</td>
<td>women.</td>
<td></td>
</tr>
<tr>
<td>There is good evidence that access to credit increases business creation,</td>
<td>While business profits increase in some studies, the link between business investments and</td>
<td>There is little evidence of substantial changes in household investment in education.</td>
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<tr>
<td>investment, and expansion.</td>
<td>profits is not robust.</td>
<td></td>
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<tr>
<td>There is good evidence that access to credit leads to increases in occupational choice and consumption choice.</td>
<td>There is evidence that access to credit reduces risk and allows households to maintain asset ownership during periods of stress.</td>
<td>There is little evidence of harmful effects, even in the case of individual loans and even in environments with some of the industry’s highest interest rates.</td>
</tr>
<tr>
<td>There is good evidence that access to credit reduces impulse consumption of temptation goods (such as cigarettes and tea) in favor of other, often more productive, spending and investment priorities.</td>
<td>There is mixed evidence of the impact of credit on health. A few studies show promising correlations between credit access and children’s health.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is emerging evidence of an important relationship between credit and international migration.</td>
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areas, which would also assess different models and types of programs.

The following group of experimental microcredit studies is diverse across several dimensions, including various implementations of credit (group, individual) and a broad range of geographic locations. Along with the completion and publication of these studies, in recent years a number of summary papers and reviews have presented overviews of the results, generalizing where possible (Banerjee 2013; Banerjee, Karlan, and Zinman 2015; Cull, Ehrbeck, and Holle 2014; J-PAL and IPA Policy Bulletin 2015). One caveat seems worth mentioning: in conversations about these studies, several practitioners have voiced concern over the fact that microcredit has been treated as an equivalent intervention across the six studies, without much attention given to the quality of the MFIs involved. As a result, it is unclear whether the outcomes described in the studies are representative of industry best-practices.

This section also includes a discussion of new research (Fafchamps et al. 2014) on the circumstances in which business investment leads to increases in business profits; although this is not strictly a question about credit, it provides insight into the results of several of the credit studies which find that investment and expansion do not always lead to higher profits.

**Individual Loans in Bosnia and Herzegovina.** This study (Augsburg et al. 2015) focuses on individual loans offered to applicants considered too risky to be regular borrowers from a well-established MFI in Bosnia. The study population is poorer and more disadvantaged than regular borrowers of the institution. For the purposes of the study, randomly selected individuals from this previously rejected group were offered loans. The loan term was just over one year, with 22 percent interest.

Working with the MFI, the authors identified marginal clients based on a few criteria. Marginal borrowers were defined as those who possessed insufficient collateral, and they were likely to be less educated or poorer than average borrowers. Applicants who had a poor credit history, were over-indebted, or were expected to be fraudulent were not included in the study. The evaluation was conducted in 2009, as follows. The pool of marginal applicants was identified and then told that while they would normally not be eligible, if they were willing to participate in two surveys (baseline and 12-month follow-up) they could be reconsidered with a 50 percent chance of getting a loan.

Overall, 1,196 marginal borrowers were included and surveyed, and 50 percent of them were randomly assigned to receive a loan. The follow-up survey was carried out by phone 14 months later among both those who had and those who had not gotten the loan. The study had 17 percent attrition from baseline to endline, with 995 participants taking the final survey.

The study found that at endline, the treatment group was 20 percentage points more likely than the control group to have any type of outstanding loan, and 44 percentage points more likely to have a loan from an MFI than one from a friend, family member, or other source. In other words, this intervention increased borrowing among those selected to receive a loan, although there was nothing to stop control group members from getting a loan from a source other than the study MFI. Also, households offered a loan were 6 percentage points more likely to own a business (based on a baseline of 51 percent) and 5 percentage points more likely to hold business inventory. For borrowers whose stated intent for the loan was to use it for business purposes, increases in profits were observed (an additional 681 USD in profits relative to a control group average of 1,772 USD) as were increases in revenues (an additional 1,161 USD in revenues relative to a control group average of 2,687 USD).

The study finds no impact on overall hours worked for treatment households, but it observes an approximately offsetting increase in hours worked in participants’ self-owned businesses and a decrease in hours worked elsewhere. Sixteen-
nineteen-year-olds in treatment households were observed to work more in the household business. No statistically significant differences in children’s school attendance were observed between the treatment and control group.

The study finds decreases in consumption across a range of measures including overall consumption, food consumption, household durable consumption, and consumption of alcohol and tobacco. The authors note that in theory, in the short run, investing in a business might increase or decrease consumption and savings—if overall household wealth increases in the study period, increases in savings and consumption might be observed. However, if the investment requires additional household resources beyond the loan, then consumption may be curtailed or savings decreased.

**Group Lending in India.** This paper (Banerjee, et al. 2015a) provides an update to the findings that were reported in an earlier working-paper version of the study, which was the only credit RCT included in the second (2010) paper in this *Measuring the Impact* series.

The study evaluates the impact of a group-lending microcredit program, run by the for-profit MFI Spandana, which was established in 52 randomly selected neighborhoods (out of 104) in the Indian city of Hyderabad. Interested borrowers formed self-selected groups of six to ten people each. To be eligible for participation, clients had to be female, be age 18 to 59, have resided in the same area for at least one year, and have valid identification and proof of residence. In addition, 80 percent of the members of each group had to own their homes. There was no explicit requirement that the loans be used for business purposes.

The study was designed to include neighborhoods in Hyderabad that were “marginal” for Spandana, meaning the MFI was interested in opening branches in these areas but also willing not to do so. Between 2006 and 2007, Spandana established operations in the 52 treatment neighborhoods. Over this same period, other MFIs also set up operations in both the treatment and the control study neighborhoods. This was beyond the control of the research team, but it means that the treatment being measured must be specifically understood as “access to Spandana’s lending program” rather than “access to microcredit,” since the control neighborhoods may have had access to microcredit through other lenders. Also, there was some Spandana lending to residents of control neighborhoods, since nothing prevented prospective borrowers from joining a group in a neighborhood other than their own.

A survey of 6,864 households identified as “likely borrowers” was conducted in 2007–08, 12 to 18 months after Spandana had begun lending in a community. To the extent possible, these same households were surveyed again in 2009–10 with the same questions asked in the 2007–08 survey. Ninety percent of households surveyed in 2007–08 also participated in the 2009–10 survey.

The study finds that at endpoint there was an increase in borrowing in treatment areas, suggesting a previously unmet demand for credit. Likely borrowers in treatment areas were more likely to be Spandana borrowers (17.8 versus 5.1 percent) but also more likely to borrow from any MFI. By the time of the 2009–10 survey, when Spandana had expanded into some of the control areas, 17 percent of households in treatment areas had Spandana loans, versus 11 percent in the control areas. Overall, by the second survey cycle 33.1 percent of households in treatment areas and 33.3 percent of households in control areas had a loan from any MFI. In other words, by the time of the second survey, credit use levels were the same in the treatment and control neighborhoods. However, households in treatment areas, who had access to credit over a longer period of time, had loans that were about 14 percent larger than loans in control areas. Given the growth of credit in control neighborhoods, it is important to note that impacts observed in the 2009–10 survey are based on differences in the *amount of time* households had access to credit rather than on having versus not having access to credit.
At the time of the 2007–08 survey, researchers observed little difference in the rates at which new businesses were established, although the treatment areas showed a higher likelihood of new businesses being opened by women. An increase in profits was also observed for the top 5 percent of most profitable businesses, and a decrease in profits was observed for businesses in the middle range of total profits. By the time of the second (2009–10) survey, businesses in treatment areas were observed to have larger asset stocks but still no significant difference in overall profits, except for the most profitable businesses.

Regarding work hours, this study finds that in treatment areas, household heads and their spouses increased work in the household business by just over 3 hours per week, but it finds no increase in work by adolescents. In terms of consumption, the study finds a small shift toward the purchase of durable goods in treatment areas (an increase of 17.08 rupees per month, or about 0.43 USD18), as well as a decrease in the purchase of “temptation goods” (a decrease of 21 rupees per month, or 0.53 USD). No overall effect on children’s schooling or women’s empowerment is found by the study.

**Group Lending in Mexico.** This study (Angelucci, Karlan, and Zinman 2015) estimates impacts from an expansion of group lending by Mexico’s largest microlender, Compartamos. Loans were offered through Credito Mujer, a group-lending product targeting female borrowers formed into groups of 10 to 50. Loans were offered at 110 percent APR and were repaid over 16 weekly installments. The loan rates were mid-market for Mexico during the study period, not excessively high relative to rates on other sources of credit available in the local market although much higher than the rates in most other countries. Groups met weekly, and members made payments to the elected treasurer during the meetings. A loan officer was present but did not physically collect money. If a member was unable to pay, “solidarity” payments were usually made by the other group members. Following the meeting, the treasurer deposited the payments at a nearby bank branch or convenience store.

Researchers worked with Compartamos during the rollout of the program in a previously unserviced area, north-central Sonora State in Mexico. Randomization was conducted over 238 geographic clusters, which were neighborhoods in urban areas, towns, or contiguous towns in rural areas. Treatment clusters received access to credit and door-to-door loan promotion, while control clusters received neither of these. The researchers surveyed 16,560 households, on average 27 months after Compartamos entered the neighborhood or community, within a range of 17 to 35 months.

The study finds, at endline, an increase in credit use in the treatment areas; 18.9 percent of surveyed households in treatment areas had Compartamos loans during the study period, compared to 5.8 percent of households in control areas. Treatment area households were also 5.1 percentage points more likely to have any debt, and total outstanding debt was 1,157 pesos (96 USD)19 higher in treatment areas.

The study also finds an increase in business size for existing businesses in treatment communities, with increases in both revenues (121 pesos or 27 percent over the past two weeks) and expenses (119 pesos or 36 percent over the past two weeks) but no observable impact on business profits. There is also no observable impact on business income, labor income, or remittances, but a decrease of 17 percent relative to control households is observed in income from government payments. This study finds no change in labor supply measured as either members of the household employed in a family business or child labor. The findings on asset purchase and consumption expenditures are, overall, findings of no impact other than a small reduction

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18 Using an exchange rate of 1.00 USD = 40 rupees, a rough average of monthly rates in 2007. All monetary values in the paper are reported in 2007 rupees.

19 Using an exchange rate of 1.00 USD = 12 pesos.
in spending on temptation goods. This is interesting, since it echoes a finding from the Banerjee et al. (2015a) India study.

In terms of social indicators, the study finds a very small increase in children’s school enrollment (an increase of 0.9 percentage points relative to the control group mean of 87.8 percent). It also finds an improvement in women’s decision making power by two measures (women in the treatment group were 0.8 percentage points more likely to have any say in household decision making, relative to a control mean of 97.5 percent, and showed an increase of 0.079 in the number of issues for which the woman has any say, relative to a base of 2.743), along with no increase in household conflict. Research by Angelucci (2008) suggests that an increase in women’s decision making power may be tied to an increase in domestic violence, but such a connection is not observed in this study.

**Group and Individual Loans in Mongolia.**

This study (Attanasio et al. 2015) includes 1,148 poor women in 40 villages in rural Mongolia and compares the impact of group liability loans to that of individual loans. The evaluation was conducted in cooperation with XacBank, one of Mongolia’s main banks and the country’s second largest provider of microcredit. The loans were offered at a monthly interest rate of 1.5 to 2 percent. Loans were intended to finance small-scale entrepreneurial activities and had a one- to two-month grace period depending on the term of the loan.

The group loans were based on joint liability, in which the bank would terminate lending to the entire group if any loan was not repaid. Groups could apply for a single loan for a collective project or for individually approved subloans. Before applying for a loan, the group was required to accumulate savings in a joint account of 20 percent of the requested loan amount. Group leaders managed repayments with no public repayment meetings. For the individual loans, the lender collected collateral where possible. Aside from this, there was no savings requirement.

The 40 villages in the study were randomly assigned to have interested residents obtain access to group loans, individual loans, or no loans. The experiment began in 2008, when the lender conducted information sessions in all 40 study villages. Interested women were informed of the study design (and were aware that they had only a two-out-of-three chance of getting access to credit) and asked to form potential groups of 7 to 15 women. The women were quite poor by Mongolian standards and by several measures, including income and asset ownership.

The baseline survey was conducted before randomization, so that at the time of the initial survey, women did not know whether they would be offered group loans, individual loans, or no loans. The survey was administered to women who had indicated interest in the program (about 30 per village) at the information sessions. Villages were then randomized as follows: in 15 villages, interested women received access to group loans; in another 15 villages, interested women received access to individual loans; and in the final 10 villages, interested women received no access to credit during the study period, which lasted from April 2008 through September 2009 with minor variation across villages. In all 40 villages, the lender also offered individual loans to relatively wealthy, mostly male borrowers.

A follow-up (endline) survey was then given to the participating women in October-November 2009. At the same time, a second village-level survey was conducted to collect information on how the villages had changed over the study period. Repayment information from the lender was available for the period 2008–11. Finally, in October 2011, the authors revisited one individual-lending and two group-lending villages for structured interviews with borrowers.

Both the group lending and the individual lending villages showed high take-up rates among study participants. Overall, 54 percent of the households offered a XacBank loan took the loan during the study period. This high take-up rate is perhaps not
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surprising, since study participants were recruited based on interest. In addition, the likelihood of having a microloan from any lender was 24 percentage points higher in the treatment villages, although other lenders were operating in both the treatment and the control villages.

In both the group and the individual lending villages, 70 to 80 percent of first loans were reported by the borrowers to be for business purposes. When second loans were made, 43 percent of the group borrowers and 51 percent of individual borrowers reported using the loan for business purposes. In terms of business impacts, women in group-lending villages had a 29 percent higher chance of operating a business, relative to the control villages. This effect increased with time; that is, no difference between the treatment and control groups was observed at the beginning of the loan period, but this difference increased to 53 versus 36 percent by the time the groups had been borrowing for 12 months. This effect was not observed in the case of individual lending. There is suggestive evidence of a decline in wage-labor for group borrowers, which is consistent with an increase in business entrepreneurship and self-employment.

Interestingly, this study finds that access to group loans led to the purchase and consumption of more and healthier foods, including fruits, vegetables, and dairy. Total food consumption also increased in the group-lending villages alongside a reduction in spending on tobacco. These effects were not observed in the individual-lending villages. Total asset ownership also increased in both the group- and individual-lending villages, with households more likely to own VCRs, radios, and large appliances.

Group Lending in Morocco. This study (Crépon et al. 2015) evaluates the impact of microcredit offered by Al Amana, Morocco’s largest MFI. Starting in 2006, Al Amana entered rural areas of the country previously not served by any MFI. Al Amana offers a group liability loan, with a group size of three or four, and a range of loan sizes from the equivalent of about 125 USD to 1,855 USD. The repayment period varies from three to eighteen months, depending on the size of the loan. The lender also offers a two-month grace period for animal-husbandry-based projects, which can be slower than other businesses to generate increased outputs. Loans were not offered specifically to women; in fact, an initial restriction that 35 percent of clients should be women was removed in the study area. While individual loans (a different product) were introduced late in the study, these were rarely taken, so the study focuses on group liability lending.

The study took place in 162 villages in rural Morocco where, previously, there had been no access to microcredit. These villages were on the geographic periphery of an expansion area already identified by Al Amana. Villages were sorted into 81 pairs of similar villages, and then one village in each pair was randomly selected for Al Amana to begin operations. Overall, 4,465 households were interviewed at the outset of the study (the baseline survey); at the close the study, 92 percent of them were re-interviewed, along with 1,433 additional new households.

This study finds that about 17 percent of households defined as “likely borrowers” (based on a measure constructed by the study authors) in treatment villages took out loans, compared to 0 percent in the control villages. An interesting point is that although the authors had access to administrative data from the MFI indicating that 17 percent of households in the treatment villages took loans from the MFI, only 11 percent of households reported taking loans when surveyed. There is substantial underreporting of borrowing in the household survey, suggesting that some borrowers, when surveyed, were hesitant to disclose the fact that they had taken a loan.

The study finds no effect on overall income, although there is a measured increase in business profits on average, with positive effects likely concentrated in businesses with the highest profit levels. There is a decrease in work outside the home, and an associated decrease in wage income, in the treatment areas, which is offset by increased
Measuring the Impact of Microfinance: Looking to the Future

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business profits, suggesting that households change their behavior to concentrate on a family business rather than outside work. Overall, there are no important impacts on consumption, with the exception of a decrease in spending on nonessential items (here, festivals, rather than tea and cigarettes as in other studies), which again echoes findings from the studies in India and Mexico. There are no measured changes in women’s empowerment, which is not surprising since the loans were not targeted to women.

Group Lending in Ethiopia. This study (Tarozzi, Desai, and Johnson 2015) takes place in rural Ethiopia over three years, 2003–06. Originally it was conducted to test the effectiveness of a family planning education program (Desai and Tarozzi 2011). The authors were able to repurpose the data to look at the impact of credit, since the original study also looked at the interaction between the family planning program and microcredit access.

The lending program involved two separate MFIs, which disbursed small loans to small and self-formed groups with joint responsibility for repayment. Although the program was loosely targeted at women, most borrowers were actually men. Despite the stated guidelines of the two MFIs not to require collateral, the endline survey revealed that collateral was required for most loans. The loans had an annual interest rate of 12 percent. Most households involved in the study had low socioeconomic status as measured by household size, schooling, location (being far from markets and clinics), and food scarcity.

Small communities (locally called “peasant associations”) were randomly assigned to one of four groups: one to receive microcredit, a second to receive a family planning education program, a third to receive both of these, and a fourth to receive neither. Baseline surveys were conducted in 2003 in 6,412 households in each community. Follow-up surveys were conducted in 2006 within the study communities, but not among the same households within each village. Overall, 6,263 households were included in the endline survey.

Surveyed households were located in villages both with and without the programs, and were not necessarily participating in the program(s). In fact, due to some difficulties in study implementation, the study authors focus on the impact on households of the initial group assignment, although in reality in some cases the lender offered credit in villages assigned to the control group and vice versa. Actual treatment corresponded with assigned treatment in only 78 percent of cases. This means that what the study actually measures is the impact on an average village household of the village initially being on the list to receive or not receive the microcredit program, rather than the impact on villages that actually received the program.

In control villages at baseline, only 13 percent of households reported borrowing in any form. Less than 3 percent had loans from formal institutions such as banks or co-ops and there was very little MFI or ROSCA (Rotating Savings and Credit Association, an informal savings group strategy) activity in the area.

It is not clear that initially being on the list to receive the program should be expected to have much impact on the average household in a village. Nonetheless, the authors observed that households in communities initially assigned to receive access to credit were 25 percentage points more likely to have a loan from the study lender than households assigned to the control group, with no evidence of loans from study lenders crowding out other types of borrowing. The average size of loans taken was also significantly larger in villages assigned to receive the credit program. Overall, introduction of microcredit led to an increase in the prevalence and amount of borrowing. When loans were taken, borrowers reported 83 percent of loans as having been initiated for “working capital” or “basic investment” and 9 percent for consumption, schooling or ceremonies.

Despite the increase in borrowing and borrowers’ indication that the loans were for productive purposes, there were no statistically significant impacts on business activities (net sales, stock of animals,
etc.). The study does find a measurable reduction of an estimated 2.6 hours spent by teenage girls on self-employment activities.

The study finds no statistically significant change in school attendance, although it is unclear whether that should have been expected. Wealthier households might see increased school attendance by children, but if borrowing increases the returns to children’s labor or leads to unmanageable household debt, we might expect to see decreases. So while access to credit did not get more children into school, it also does not appear to have forced children out of school.

The study also finds no statistically significant impacts on women’s empowerment, measured as self-reported participation in a variety of household decisions, based on interviews instructed to be conducted without the spouse present. At the follow-up survey, women in both treatment and control groups reported involvement in about 80 percent of decisions.

The study finds a statistically significant increase of an additional 0.5 month of food insecurity, but the researchers caution that the measure used to determine this was not very sophisticated.

**Capital Grants to Small Businesses in Ghana.** Focusing on the impact of capital infusion on microbusinesses, Fafchamps et al. (2014) studied the impact of capital grants on small businesses in Ghana. While this is not a study of microcredit, it speaks to the assumption that increased investment in a small business will in turn generate increased profits.

In this study, the authors provided small-business owners with either a cash grant (valued at about 120 USD) or an in-kind grant of equipment (of the business owner’s choice) of similar value. On average, these grants led to increased business profits; however, the impact of the grants varied across groups. For women-owned microenterprises with below-median baseline profits, neither type of grant (cash or in-kind) led to increased profits. For women-owned businesses with above-median profits, the in-kind grants led to increased profits, but the cash grants did not, suggesting that women with relatively profitable businesses chose not to use the cash grants for business development. The results are similar for businesses owned by men, although the differences between cash and in-kind grants were not as stark.

This study in Ghana is similar to earlier work in Sri Lanka by de Mel, McKenzie, and Woodruff (2008, 2009) which finds increased profits resulting from cash grants, on average. Again, the average impacts conceal important difference across types of firms—in Sri Lanka, increased profits were seen in male-owned business but not in women-owned businesses. Clearly, there is an important and interesting avenue here for additional research into the circumstances under which business investment can reliably be expected to lead to additional improvements in business outcomes and profits.

**SELECTED QUASI-EXPERIMENTAL EVIDENCE**

**Long-term Effects of Microcredit in Bangladesh.** A 2014 quasi-experimental study by two World Bank researchers provides results from a long (20-year) panel study based in Bangladesh (Khandker and Samad 2014). The study included about 1,800 randomly selected households, which (with some attrition) were surveyed three times: first in 1990–91, again in 1998–99, and a third time in 2010–11. The study finds that while no households were members of multiple microcredit programs in the initial survey, by 2010–11 31.9 percent of households were members of more than one program. This is one of several ways the study demonstrates the increasing saturation of the microcredit market in Bangladesh.

This study finds several positive correlations between microcredit participation and well-being at the household level, including income, expenditures, assets, and children’s schooling. While these results are encouraging and it is extremely compelling to have household data from such a
long period, it is unclear whether the outcomes for nonparticipants in the study can be reasonably interpreted as the counterfactual (what would have happened to borrowers in the absence of credit participation), because it is possible that the nonborrowers in the control group were systematically different from the borrowers. While households with a record of microcredit participation are clearly better off, the extent to which microcredit participation was the cause of those better outcomes is unclear. This study continues a line of research on the effects of microcredit in Bangladesh that was first published in 1998 (Pitt and Khandker 1998). Results of these studies have been vigorously debated in the literature, most notably by Roodman and Morduch (2014). Methodological concerns put forward by Roodman and Morduch make it difficult to be unambiguously confident in the results of these studies.

Nonetheless, this study comes to some interesting conclusions, based on observed declines in the positive changes taking place in participating households. Discussing the fact that more than two-thirds of activities supported by microcredit in rural Bangladesh are in the trade sector, the authors write,

Trading is perhaps now saturated with microcredit loans and households have already started to experience diminishing returns. In such circumstances, households must be assisted through skill training and the development of improved marketing networks to expand activities in more rewarding sectors and beyond the local economy; otherwise, microfinance expansion cannot be sustained (p. 29).

This conclusion suggests that in a saturated market like rural Bangladesh, simply offering more loans to more people is not a productive strategy—in this mature market, new strategies involving training and linking local businesses to a broader network of resources are more likely to contribute to continued growth.

Credit and Children’s Health in Indonesia. A quasi-experimental study conducted in Indonesia by DeLoach and Lamanna (2011) uses the Indonesian Family Life Survey (IFLS) to investigate whether access to microfinance (specifically, microcredit) has measurable impacts on children’s health. The IFLS is a longitudinal study of Indonesian families, with three waves of data collected in 1993, 1997, and 2000. By focusing on children ages zero to seven in 1993, DeLoach and Lamanna were able to select children from the broader survey and then to focus on changes in children’s height over the survey period. The study asked whether there was an observable difference in children’s heights (a measurable proxy for health and nutrition) depending on whether their home communities gained (or lost) access to microcredit over the study period. Due to the financial crisis in Indonesia in 1997, the study included not only villages that gained MFIs but also many villages where the local MFI was closed down. The authors also excluded Indonesia’s two biggest MFIs from their analysis in order to focus on the presumably more transformative presence (or absence) of a small, poor-focused MFI. The extensiveness of the IFLS allowed the authors to control for a number of factors, such as sanitation, health-care facilities, food consumption, and overall level of development (measured by numbers of cottage industries or factories) which might account for variations in children’s health across communities.

Overall, this study finds that children in communities that gained or maintained access to small MFIs grew taller than children in communities without microfinance. The authors argue that this improvement in child health is most likely a function of either an increase in women’s bargaining power at home, leading to better nutrition for children in the household, or increased social capital through community participation and engagement. While these explanations are possible, it is also possible that unobservable differences between villages with and those without MFIs, rather than the MFIs themselves, explain the height differences.
Additional Evidence on Children’s Health.

A related study of the impacts of self-help groups in India (McKelway 2014) finds that young children in households that participated in self-help groups are less growth-stunted than older siblings from the same households who were not exposed to SHG membership. Several additional studies of microfinance participation in South Asia are reviewed in Saha and Annear (2014), who reach the overall conclusion that microfinance group participation (the usual format in the South Asian countries included in their review) leads to better access to health and improved health outcomes. A review of the global evidence on the relationship between microfinance and health outcomes (Leatherman et al. 2012) concludes that the existing evidence, while incomplete and of uneven quality, clearly suggests that the addition of health-related programs to microfinance services can change knowledge and behaviors associated with a range of important and measurable health outcomes.

This compelling set of studies and reviews suggests that access to credit may improve children’s health, regardless of whether there is a change in overall household economic well-being (measured as total income or total consumption). While none of these studies is a large-scale RCT, and many may be susceptible to selection bias, this is clearly a direction for further research where deeper understanding is needed.

SELECTED NON-EXPERIMENTAL EVIDENCE

At least two existing studies have looked at the role that microcredit plays in migration. While the studies surveyed here present a negative picture of this relationship, forthcoming research from the University of California, Berkeley, will present results of an assessment of a loan project designed specifically to promote migration. Increased access to credit could be related to migration in either of two opposite ways. Where migration is viewed as detrimental to communities, there is an aspiration that increased credit access might alleviate the need to migrate, creating opportunities for community residents to invest in their own businesses and remain local. On the other hand, where credit-constrained households are unable to finance the high cost of migration, increased credit access might lead to more migration. In addition, research by Bryan, Chowdhury, and Mobarak (2014) finds that in Bangladesh, migration leads to improved household consumption, including food consumption, during the seasonal famine. This is a circumstance where loans to support migration might be desirable.

Migration and Microcredit in Rural Cambodia. This nonexperimental qualitative study by anthropologist Maryann Bylander (2014) studies how microcredit has been used in tandem with international migration in rural Cambodia in a community where so-called “migra-loans” are common. The author defines migra-loans as taking two forms: one when a household takes out a loan to finance migration, and another form when a household takes out a loan for immediate purchase or investment and then repays this loan with remittances from abroad. Based on 89 in-depth interviews, Bylander observes a correlation between increased migration and increased MFI borrowing in her study community in western Cambodia, about 100 kilometers from the border with Thailand.

In Bylander’s interviews, households indicated that with the perceived ability to increase income through migration, borrowers felt comfortable taking out sizable loans to be paid back through future remittances. Households also indicated their use of loans as a device for enforced savings, which was perceived to be more effective than saving the remittances and making purchases with the savings. The use of loans as a saving mechanism is not unique to migration and has been documented in other places (see, for example, Banerjee and Duflo 2011, p. 196; Banerjee 2013, p. 502).

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20 Self-help groups are community-based savings groups in India, which save in a common fund and then make loans to members out of the saved funds.

21 http://cega.berkeley.edu/evidence/migrantloan/
In addition, Bylander documents cases where households have sent family members abroad in response to unmanageable microloan debt, since migration was seen as preferable to alternatives such as asset sales or defaulting on the debt. In cases where migration was unsuccessful, this could lead to undesirable outcomes such as increased debt and even pressure on young children to migrate (at the expense of leaving school). Bylander includes case studies of each of these outcomes in her paper. Among other concerns, this points to longer-term human capital issues. Instead of helping children stay in school (a “classic” microcredit assumption), she suggests that credit used to finance migration could lead to kids leaving school to work.

Finally, the MFIs included in Bylander’s study were not explicitly supportive of migra-loans, although they were aware of them. Migration post-loan was considered to be beyond the control of the lenders, whose primary focus was on repayment.

**Migration and Borrowing in Mexico.**
Angelucci (2015) studies the importance of financial constraints on poor Mexican households, finding that lack of access to finance is a barrier to migration for many low- and medium-skilled workers in poor households. The study makes use of data collected during the evaluation of an antipoverty program called Oportunidades, where nutritional subsidies and scholarships were made available to poor families in 320 randomly selected villages (out of a set of 506 villages). Households were surveyed in 1997 (before the Oportunidades program) and again in 1998 and 1999.

In 1997, the rate of international migration among surveyed households was very low, 0.7 percent among eligible individuals in the 306 treatment villages. By the 1998 survey, this number had increased to 1.1 percent, from 190 to 254 total migrants.

Based on the nature and timing of the Oportunidades benefits, Angelucci concludes that the additional migration is largely financed by additional borrowing, some of which may be guaranteed by the “entitlement” to the Oportunidades program. Importantly, in treatment villages, households with at least one U.S. migrant were more likely to have taken a loan and to have larger observed loan sizes than nonmigrant households. This suggests that relaxing the credit constraint (here, by making it possible for previously ineligible households to borrow) leads to an increase in relatively expensive U.S. migration. Further, the increased migration is observed for individuals whose wage profile suggests that they come from the middle of the skill distribution.

While this study does not look directly at the role of microcredit in household migration decisions, a clear implication is that the increased credit access brought by the expansion of microcredit is likely to lead to an increase in the Mexico-to-U.S. migration of semi-skilled workers, who are unlikely to be able to immigrate legally. Given the danger and expense of these migrations, the net impact on migrant households is uncertain. This study also raises questions about the impact on the U.S. economy of increased credit-financed migration.

**MACROECONOMIC EFFECTS**
Another question is how the widespread development that has been observed in the financial sector has affected macroeconomic measures of well-being, such as economic growth and job growth. Pasali (2013) surveys the literature on the consequences of financial sector development. This extensive literature faces a number of methodological challenges, but generally there is evidence that a more developed financial sector is correlated with positive economic growth and increased levels of employment. This evidence is important, providing support for the argument that financial inclusion, which may begin with the use of microcredit, may ultimately have significant positive effects at the macroeconomic level.

Focusing on microfinance, Buera, Kaboski, and Shin (2013) present a theoretical model (based on ideas, not empirical evidence) in which microcredit is expected to have positive macroeconomic effects once it becomes sufficiently widespread in an
economy. These authors argue that there are many economies where the microfinance sector is saturated enough to have significant economy-wide effects.

One particularly interesting prediction of this model is that overall effects on *average* income per person are expected to be small, because increasing access to credit shifts income from the already wealthy to the poor. Without microfinance, individuals with large savings are able to invest in business capital and earn relatively high incomes due to the scarcity of this capital. As microfinance makes capital available to those who save less, returns to capital fall (reducing incomes of the wealthy), but low-income households are likely to be better off. In other words, a thriving microcredit sector may not lead to economic growth as traditionally measured by increasing income per capita, but rather, the most visible impact might be a reduction in income inequality, another important goal of economic development. Empirical studies testing these theoretical predictions, while challenging, would be very helpful.
EVIDENCE ON SAVINGS

If “microsavings” is defined as any mechanism by which a poor and previously unbanked individual can save small amounts over time, then there are at least three forms that microsavings can take. First, there are basic individual savings strategies, either accounts offered through banks or MFIs or simpler mechanical approaches such as locking cash boxes. Second, there are commitment savings accounts, where individuals not only save but also commit in advance to a certain level of savings at regular intervals. Finally, savings groups, sometimes known as village savings and loans (or VSLAs) create a structure through which groups save and lend on their own, without necessarily needing to open an account though a bank or MFI. In practice, in many implementations, savings groups will use a formal account as an alternative to the multi-key lock box that is widely used.

The following section includes experimental evidence on the impacts of savings accounts from Chile, Nepal, Kenya, Malawi, and the Philippines. The studies unanimously find that there is a high demand for savings accounts, with high take-up rates and measurable increases in the overall amount that individuals and households save. There is also good evidence that access to a savings mechanism increases choices and financial freedom, working to buffer shocks and maintain consistent spending levels over time. Table 2 summarizes the key findings.

In answer to the question of whether their commitment savings accounts are more effective than basic accounts, the evidence is mixed. In Kenya, the provision of a safe and simple way to save (a secure locking box) led to higher levels of saving than the provision of a health savings account with a level of commitment. In Malawi, farmers who used a commitment savings account saw improvements in their farming outcomes and increased household expenditures, while farmers with basic accounts did not realize these improvements. Finally, Flory (2015) finds evidence that saving has measurable positive spill-over effects on the neighbors of savers.
This section also includes a short discussion of experimental evidence on savings groups. These groups provide a simple, community-based strategy to increase savings among the very poor. The evidence shows that savings groups are effective at meeting this goal. Households in communities that receive basic support for savings group implementation show higher levels of saving and borrowing, and even very poor households are able to participate.

**DEMAND FOR SAVINGS ACCOUNTS IN CHILE**

In an unpublished working paper, Kast and Pomeranz (2014) study the impact of access to free basic savings accounts offered to MFI group members in Chile. Two-thirds of eligible groups were randomly selected to be offered a free savings account. For selected groups, members attending group meetings were given the option of opening a savings account with no maintenance fees, no minimum balance, and a low minimum opening deposit of about 2 USD. In this study, about 53 percent of eligible group members opened an account, and about 39 percent of eligible group members actively used an account.

A key finding of this study is a reduction in the use of short-term credit, especially borrowing from family and friends, for households with access to savings accounts. For those with access to a savings account, total outstanding short-term debt declines by 12,931 pesos (about 26 USD using an exchange rate of 500 pesos per dollar) a reduction of about 20 percent relative to the control group. Borrowing from family and friends decreases by 6,500 pesos (13 USD), a 38 percent reduction relative to the control group. This suggests that access to a basic savings account allows households to substitute savings for credit as a mechanism for buffering short-term shocks and smoothing consumption, underscoring the importance of access to a reliable savings mechanism. This also suggests that for management of day-to-day financial fluctuations (as opposed to major events or investments) savings may be many households’ preferred coping strategy.

**DEMAND FOR FREE SAVINGS IN NEPAL**

In an experimental study set in Nepal, Prina (2013) addresses the question of whether households would open and use a savings account if one was offered. In this study, about 53 percent of eligible group members opened an account, and about 39 percent of eligible group members actively used an account.

### TABLE 2. KEY FINDINGS ON THE IMPACTS OF SAVINGS

<table>
<thead>
<tr>
<th>Strong Evidence</th>
<th>Suggestive Evidence</th>
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<tbody>
<tr>
<td>When savings accounts become available, they are widely used in a variety of contexts — there seems to be robust demand for a safe and reliable way to save.</td>
<td>Women in Kenya increased business investment when they had access to savings accounts.</td>
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<tr>
<td>Even in the poorest communities, many households are willing and able to save.</td>
<td>There are mixed results on whether commitment accounts lead to better outcomes than basic accounts.</td>
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<tr>
<td>Households use savings accounts to buffer short-term shocks and manage uncertainty.</td>
<td>One study in Malawi finds that informal networks and community safety nets are strengthened when households save in a formal account.</td>
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<tr>
<td>In a number of contexts, extremely poor households with access to savings groups were able to increase savings without reducing household spending.</td>
<td>Some studies find that saving leads to women’s empowerment, as measured in various ways.</td>
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</table>
were made available. A simple savings account with no minimum deposit, minimum balance, or withdrawal fees was offered to 1,118 randomly selected female heads of household by way of local bank branches in the study area.

This study finds that 80 percent of the women who were offered accounts actively used them. Administrative data provided by the bank where accounts were held showed that the primary reasons withdrawals were made from the accounts were to buy food, pay school fees, or pay festival expenses. The accounts tended to be used for these types of household expenses, as distinct from business investment or other “productive” uses. Relative to control households, households with access to the savings accounts also increased spending on high quality foods (meat and fish) by 15 percent and increased spending on educational expenses (books, school uniforms) by 20 percent. This study demonstrates that poor households can and will save over time, even with no constraints on access to their savings, and it suggests that savings account access can support spending on nutrition and education, two common economic development goals. Although this study does not find large impacts on measures of household welfare, the findings suggest that the savings accounts support households in decisions to reallocate expenses and to feel financially secure. Households with access to savings accounts were 7 percent more likely to report that they did not feel financially stretched from month to month.

TWO STUDIES OF SAVINGS IN RURAL KENYA

In a study set in rural western Kenya, Dupas and Robinson (2013a) researched the effects of access to a savings account that not only pays no interest but also charges a substantial withdrawal fee for accessing saved funds. The bulk of the data for this study comes from detailed daily log books kept (with support from trained enumerators) by the study participants. The use of log books alleviates concerns about data accuracy that are common with survey questionnaires administered only once, and which may ask participants to recall detailed economic transactions over a long period. A group of 392 individuals (262 female market vendors, 92 male bicycle taxi drivers, and 34 male market vendors), none of whom had a formal savings account, was then identified, and the individuals were randomly assigned either to be offered the new savings account or not.

The study finds that despite the effectively negative interest rate offered by the savings account, 40 percent of female market vendors who were offered accounts actively used them. Account users increased their total savings, indicating that the commitment accounts offered by the study did not crowd out other saving. Further, market women who had access to the savings accounts also increased investment in their businesses, with their daily investment levels being about 38 to 56 percent higher after four to six months than among women who did not have access to savings accounts. Women with access to the savings accounts also recorded increased expenditures within the four to six month study period, showing an increase of 37 percent relative to the control group of women without the savings accounts.

Overall, this study suggests the existence of a savings constraint for market women. Although the savings accounts came with a cost, women were still willing to use them and appeared to realize benefits in terms of business investment as well as total expenditures.

In a second study in a similar rural western Kenya location, Dupas and Robinson (2013b) studied the effects of different types of savings accounts on savings behavior specifically targeted at health savings. The authors worked with 113 local savings clubs, called ROSCAs, with each ROSCA being randomly assigned to one of five possible groups. In the first group, participants were given a simple locking box in which they could deposit any savings. Each participant was given a key to the box,

23 The results observed for female market women were not observed for the men in the study.
along with a passbook to keep track of deposits, and they were all asked to write down the health products they were saving for on the first page of their books. This is a simple form of basic saving; it provides a safe place to save, but since savers have access to the box at any time (they also have the key), there is no restriction on their access to saved funds. In the second group, participants were given the same boxes and passbooks, but not keys to the box. This design creates a simple commitment device, since savers can put money into the box, but without the key, cannot get it out again. The third group built upon the ROSCA structure, and asked groups to create a side pot with contributions to a health-savings account. In the fourth group, the ROSCA treasurer managed individual health-savings accounts for each member. Finally, the fifth group was the control group. Selected group members were surveyed initially (pre-implementation) and then twice (at six and 12 months) after the launch of the program.

Take-up for all of these options was quite high. For the first three savings strategies, 65 to 74 percent of study participants saved, as measured at both the six- and 12-month marks. For the individual health savings account, 97 percent of participants set up an account by the 12-month survey.

The amount saved, however, depended on the savings mechanism offered. The average amount saved was highest for the locking boxes kept by study participants. Users of the health savings accounts also accrued positive, though lower, balances. The mean savings balance after 12 months was the equivalent of about 2 to 5 USD, depending on the account type.

The study also looked into three measures of investment in health: how much participants spent on preventive health products (such as bed nets or water purification devices), whether the participant or a family member had to forego medical treatment for financial reasons, and whether the participant reached her saving goal. Measured 12 months after the launch of the program, the results indicate that the ROSCA-based group saving strategy was most effective for increasing spending on preventive products, and the ROSCA-based individual account significantly decreased the likelihood of foregoing treatment for financial reasons. A second follow-up survey conducted 33 months after the launch of the program found that at this point, 39 to 53 percent of participants were still saving with the technology they received for the study.

This study provides some additional insight into the question of whether commitment savings accounts are more effective than basic accounts, where access to savings is not restricted. The success of the first saving strategy, where women were given both the locking box and the key, suggests that barriers to saving are substantially reduced by simply providing a safe and simple way to save, even without the additional constraint of a commitment device.

**COMMITMENT SAVINGS AND COMMUNITY EFFECTS IN MALAWI**

Brune et al. (2013) compare the impact of offering basic, free savings accounts to the impact of offering a commitment account with several restrictions. In partnership with an MFI serving farmers in rural Malawi, this study randomly assigned farmers to one of three groups. The first group was offered only a basic savings account. The second group was offered a basic account, or a commitment account that allowed the account holder to specify a future date until which saved funds would be frozen. The third group was the control group, which received no additional access to any kind of savings account.

This study shows markedly better impacts for the commitment accounts. For commitment savers, there was a measurable increase in deposits and withdrawals at the partner MFI, an increase of 9.8 percent (relative to the control group) in land under cultivation, a substantial increase (26.2 percent relative to control) in agricultural inputs at the next planting, a 22 percent increase in crop output in the subsequent harvest, and a 17.4 percent increase in household expenditures in the
months immediately after the next harvest. By comparison, savers using an ordinary account with full access to saved funds showed no significant improvements on any of these measures. The authors argue that the commitment savings account enabled better outcomes by helping farmers avoid sharing saved resources with their social network, which is common practice in the study community.

A working paper by Flory (2015) examines the effect of the expansion of formal savings accounts in villages in rural Malawi. In this study, alongside the expansion of access to savings through a mobile banking van, the author identified 60 matched pairs of geographical clusters located within 14 kilometers of a bank van stop and then randomly selected one cluster in each pair to receive a directed marketing campaign about the bank’s services. Following the information campaign, savings adoption rates were 3.1 to 3.7 percentage points (depending on distance from the van stop) higher in the areas that received additional information about the accounts.

Flory addresses the concern that the expansion of formal financial services may lead to the erosion of informal networks and safety nets, creating increased vulnerability for households unable to access financial services themselves, who are often the very poorest families. In this study, households in communities that received the information campaign (and therefore had higher levels of saving) were more likely to receive a cash gift during the hungry season than households in the control villages. Overall, 20.8 percent of households in control villages received a cash gift, while 30.6 percent of households in the treatment villages received a cash gift. This suggests that increased use of formal savings accounts actually strengthens informal networks and the likelihood that a household in need will receive local support.

**COMMITMENT SAVINGS IN THE PHILIPPINES**

Early research on commitment savings, conducted by Ashraf, Karlan, and Yin (2006), worked with Caraga Bank in rural areas in the Philippines. Bank clients were randomly selected to receive a home visit with an offer of a commitment savings account, a home visit with one-on-one counseling about the importance of saving, or no visit. The savings account was accessible only to the account owner and could not be accessed until maturity. Access to the savings account led to an 81 percent increase in the overall amount saved, relative to the control group.

A second study (Ashraf, Karlan, and Yin 2010), using follow-up data from the same Caraga Bank experiment, focused on women’s empowerment effects of the commitment savings accounts. Empowerment was measured by self-reported decision-making power, along with the presence in the home of “female oriented durables”—washing machines, sewing machines, electric irons, kitchen appliances, air-conditioning units, fans, and stoves. The study finds that savings account access led to an increase in women’s decision making power, especially among women with below-median power initially. The study also finds that for married women with below-median bargaining power initially, households with savings account access showed an increase in purchases of the female-oriented durable products.

Considered together, these two studies have three important messages. First, there was substantial demand for a formal savings mechanism among the members of the study population. Second, access to a formal savings account led to an increase in the overall amount saved. And finally, the provision of a formal and secure way for women
to save led to improvements in women’s status at home, with benefits strongest for women who entered the study with relatively low levels of power.

**THE EXPANSION OF SAVINGS GROUPS IN AFRICA**

Since the mid-1990s, a number of international development organizations have promoted savings groups, in which small groups (most commonly 15 to 30 women) meet on a regular basis to deposit their savings into a common fund, which is then used to support loans to group members as needed. The interest earned on the loans provides a return on the savings of the group members. At the end of a set cycle (usually nine to 12 months), the savings, with accumulated interest, are “shared out” among the group members and a new cycle is initiated. This model, which builds on community-based savings strategies that have been employed for decades or even centuries, has been supported and developed by CARE, Freedom from Hunger, and Oxfam America, among other groups.

Savings groups are relatively easy to establish and require very little infrastructure; usually, a knowledgeable facilitator and a strong, heavy lock box are all that are required to get started. Group members who have learned the methodology can teach it to others, starting new groups within and outside of their own communities. For these reasons, savings groups have been promoted as a powerful strategy to create savings and borrowing capacity, even for the very poor and for those living far from bank branches. Two recent books—Candace Nelson’s *Savings Groups at the Frontier* (2013) and Jeff Ashe and Kyla Jagger Neilan’s *In Their Own Hands: How Savings Groups are Revolutionizing Development* (2014)—provide extensive background information on savings groups.

Across seven countries studied in Africa, the use of savings group programs led to increases in both savings and the use of credit, even in very rural areas. A number of experimental studies of the effectiveness of savings groups are summarized in Gash and Odell (2013). The summary in this section includes studies based in Malawi, Ghana, Uganda, Mali, Kenya, Tanzania, and Burundi conducted by a number of international organizations in the process of implementing and expanding their savings group programs. In general, these studies suggest that increasing access to savings group programs is an effective way to increase the use of savings and credit, even in very rural areas. Studies that measured consumption show that as saving increased, household consumption did not decrease—in other words, people did not save by reducing their basic household expenditures. Savings group programs are also seen to be effective at reaching the very poor, although members of poor communities who join the groups are generally somewhat wealthier (though still poor) and better educated than those who do not join.

While the use of credit and savings increases when savings groups are available, this group of studies finds mixed evidence on household economic measures beyond financial access. Asset ownership, expenditures, and consumption increase in some, but not all, implementations of savings groups. The studies find similarly mixed results on business outcomes, with investments and profits increasing in some, but not all, cases. Finally, these studies find limited impacts on children’s school enrollments, health expenditures, and a selection of measures of women’s empowerment.
Another important financial product is insurance against risk and unexpected changes in a household’s health or financial situation. Health insurance, life insurance, and crop insurance are three of the most common products in this area. The literature on the impact and use of microinsurance is emerging. The Microinsurance Network published a handbook for impact assessment (Radermacher and Roth 2014), which includes a wealth of practical information about designing, conducting, and communicating about assessment of microinsurance. Hopefully, this handbook will provide a foundation for high-quality studies in the coming years.

A few of the available studies look into both the impact of microinsurance and strategies for increasing the use of insurance. For the most part, these studies are focused on health insurance products. A quasi-experimental study of China’s 2003 launch of nationalized health insurance for rural residents (Wagstaff et al. 2009) found that the program increased the use of health care in rural areas (though not among the very poorest) but did not appear to reduce out-of-pocket spending on health care. While this is not strictly an evaluation of microinsurance (due to the large scale of the program), it does provide some helpful insight into the impact of insurance access on health care use in rural areas.

A study of the effect of micro-health insurance on child labor in Pakistan was conducted by Landmann and Frölich (2013). In 2009, a mandatory insurance product for members of the National Rural Support Program (a large MFI
in Pakistan) was expanded to include additional members of participant households, and the MFI also offered additional support and assistance with filing claims. The expansion was randomly assigned to take place in nine out of 13 MFI branch locations. The study finds no differences in child labor outcomes for households that received only claim assistance, but a reduction in child labor hours, especially in hazardous occupations and especially for boys, in households where additional members became insured. One plausible explanation for this result is that health insurance shields households from catastrophic outcomes that would lead them to send young children to work, even in dangerous occupations. While this does not translate (in this study) into a measurable increase in school attendance, the results nonetheless demonstrate that reducing household vulnerability through insurance can have beneficial impacts on children in the household.

Finally, Schultz, Metcalfe, and Gray (2013) studied the effectiveness of providing information as a strategy to increase participation in Ghana’s national health insurance program. In this study, 275 existing MFI borrowing groups were randomly assigned into three groups: a first treatment group that received information about the national insurance program over six sessions, a second treatment group to which the information was provided in a single session, and a control group that received no additional information about the insurance program.

The study measured changes in enrollment in the insurance program as well as health and financial outcomes over a 20 month period. It finds that while knowledge about the insurance program increased for groups that received the training, there was no measurable increase in program enrollment or the use of health care for the two treatment groups.
A dimension of lack of access to financial services is
the continual reliance on cash for economic trans-
actions. Along with reliance on cash comes risk,
since cash can be lost, stolen, or destroyed. In ad-
dition, cash introduces high transaction costs as it
must be physically transferred from one person to
another. Especially in communities that rely heavi-
ly on resource sharing through networks of family
and friends as a form of insurance against risk and
catastrophe, the use of cash presents a number of
difficulties.

The shortcomings of a cash economy have under-
pinned the development of alternative solutions
that are simple and affordable enough to be used in
developing country contexts. One such solution is
mobile money, where payments and resources can
be transferred from person to person via mobile
phone. One of the best established mobile money
systems in the world is M-Pesa, which was intro-
duced in Kenya in 2007. There are now more than
81,000 M-Pesa agents and 12.2 million active cus-
tomers in Kenya, mostly small business owners
who are able to take cash deposits in exchange
for e-deposits that are managed on clients’ mobile
phones.

MOBILE MONEY AS A MEANS
to reduce vulnerability
in Kenya

In Kenya, social networks are widely accessed in
cases of economic shocks or difficulties, enabling
households to receive financial support from
family or friends in times of need. Traditionally,

24 2014 statistics from a CGAP blog: http://www.cgap.org/
blog/10-myths-about-m-pesa-2014-update
this support has come in the form of cash, either hand-delivered or passed from giver to recipient by way of a friend traveling toward the home of the recipient or, in cases of long distances, a bus driver. This use of cash imposes significant transaction costs in the form of travel time and, often, due to theft.

In a quasi-experimental study of the role of M-Pesa in reducing these transaction costs, Jack and Suri (2014) analyzed data from a large household survey conducted in 2008 and again in 2010. The 3,000 households included in the survey were randomly selected from a broad geographic area of the country. The authors focused on how household consumption changed in response to shocks for M-Pesa users versus non-users. The study controlled for a number of observable household characteristics to eliminate systematic differences between users and non-users.

The authors find two important results. First, in response to a negative income shock such as job loss, non-user households and households that were members of M-Pesa but did not have easy access to an agent show a 7 to 10 percent reduction in per-capita consumption. In contrast, M-Pesa user households show no statistically significant drop in consumption when faced with a negative income shock. Second, this cushioning effect is more pronounced for households in the bottom three quintiles of the income distribution (the poorest); this result is expected since richer households are more likely to be able to respond nimbly to an income shock with or without M-Pesa.

A possible explanation of this result is the ability for M-Pesa households who have experienced an income shock to quickly receive a transfer of resources from distant family or friends. The authors argue that the role of M-Pesa in facilitating remittances is likely more important than M-Pesa’s facilitation of personal savings, though both channels contribute to the risk-buffering effect observed among M-Pesa users.

OTHER IMPACTS OF M-PESA IN KENYA

A new financial tool as pervasive as M-Pesa is certain to have an array of economic effects. Mbiti and Weil (2013) carried out a descriptive study of the way M-Pesa has been used. They find that use of M-Pesa is correlated with reduced use of informal saving mechanisms of various kinds, including hiding money and social saving mechanisms such as ROSCAs and, more simply, saving with friends or family. M-Pesa users are more likely than non-users to use a formal bank account as a means to save.

The authors also identify a positive correlation between M-Pesa use and employment levels, with users being about 12 percentage points more likely to be employed than non-users. Finally, while users are likely to send and receive remittances (with an average of four transactions per month), they are less likely to use M-Pesa as a mechanism for accumulating significant savings. Overall, this study suggests that M-Pesa is viewed and used primarily as a means to conduct cashless transactions rather than as a savings device. This finding is similar to the conclusion reached by Jack and Suri (2014).

This preliminary research supports the intuition that a mobile money system like M-Pesa removes many of the transaction costs associated with cash and reduces vulnerability by making it easy to move resources across informal networks. The fact that M-Pesa users are also more likely to be employed and more likely to use formal banking services raises important questions. Does M-Pesa serve as a link to the formal banking sector? Does access to a mobile money network support regular employment? Additional research into these questions is much needed.
A major study published in the May 2015 volume of the journal *Science* presents research on a model that the authors refer to as a “graduation” model targeted at households living in extreme poverty (Banerjee et al. 2015b). This study, which took place between 2007 and 2014, implemented a similar six-stage program in six countries: Ethiopia, Ghana, Honduras, India, Pakistan, and Peru. The diversity of geographic locations included in the study, along with the fact that the program was implemented by different agencies in each country, provides some reassurance that the results are robust to program and implementation details.

The key research question in this study is whether the program and its six components can lead to a sustained increase in household well-being through productive self-employment activity. Households chosen (through random assignment) as program participants received the following: a one-time transfer of a productive asset (such as a cow or goat that produces milk and appreciates in value over time), a regular transfer of food or cash for a defined period (a few months to a year), technical training particular to the asset received, regular and frequent home visits, access to a (sometimes) mandatory savings account, and some basic...
access to health services, health education, or life-skills training.

Two components of this program are relevant for this survey of microfinance impact. First, the asset transfer provides some insight into the role of business investment at the most micro level. The most commonly chosen assets were some form of livestock, which varied from country to country depending on productivity and local conditions. In some cases, microbusiness inventory items were selected. Second, the provision of savings account access speaks to the role of savings in economic transformation for poor households.

A rigorous study in six globally dispersed countries found that a staged intervention program among the very poor—which included asset transfers, training, access to savings accounts, and other services—led to measurable improvements in household well-being, health, and social empowerment.

The findings of this study are striking. Study households (both control and treatment) participated in a baseline survey, a second survey immediately after the programs ended (about two years after each started), and a third survey one year later. In all, 21,063 individuals in 10,495 households were included. After the two-year survey, the treatment households (relative to the control households) showed measurable and statistically significant increases in household consumption, food security, household asset ownership, household income, physical and mental health, political involvement, and women’s empowerment. Further, after the three-year survey, several of the economic outcomes (consumption, food security, asset ownership) were persistent. Several additional outcomes, including income, time spent working and mental health, though slightly lower than after the two-year survey, still showed measurable improvements in the treatment households. Improvements in physical health and women’s empowerment were no longer measurable by the three-year survey.

There are a few important messages here. First, this study suggests that business investment in the form of an asset transfer, bundled with the other program services, leads to measurable improvements in household well-being, even for the smallest start-up enterprises. This contrasts with Fafchamps et al. (2014), which found that the smallest businesses did not benefit from an in-kind transfer. Second, these results appear to be in line with the research on savings, which shows a number of positive impacts associated with access to savings accounts. This study is particularly encouraging in its suggestion that these interventions are effective even for the very poorest recipients.

Finally, these outcomes demonstrate the effective implementation of multiple overlapping interventions that include not only financial products and services but also access to basic services and education across a range of topics. So, while the types of programs implemented in these studies might not be sustainable at a larger scale, the lessons offered by this research are clearly very applicable to organizations involved in economic development through the provision of financial services.
The body of research that has emerged over the last five years is sizeable and impressive. The studies surveyed here cover a range of geographies, products, and services. They provide an abundance of information but also leave readers with many outstanding questions. Further, as made clear in the summary below, much of the new research (with the exception of the ultra-poor evaluation) focuses on the impact of a single product or service in isolation rather than on the impact of coordinated interventions.25 As practice shifts toward a more integrated approach, appropriately matched research will need to follow.

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25 Thanks to Anne Hastings of the Microfinance CEO Working Group for emphasizing this point.

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

Credit
Overall, the evidence suggests that credit helps poor people in various ways, leading to increased freedom and choice even when changes in income and consumption are not observed during the periods under study (generally 18 months to three years). Despite ongoing popular claims to the contrary, these studies find no evidence that credit is consistently correlated with negative outcomes. This does not mean that some borrowers do not encounter problems, but the research provides reassurance that most credit programs are not measurably damaging to communities on average. In fact, access to credit is observed to predictably lead to increases in business investment, and often to lead to more flexibility for households in terms of

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occupational choice (wage labor versus working in a family business) and consumption choices.

However, the credit RCTs also demonstrate that increased business investment does not always lead to increased profits and incomes derived from those businesses during the periods under study, and this is a puzzle. Additional research into this link will be helpful. It is possible that increased profits and incomes simply take more time to appear. It is also very possible that MFIs with social aims can improve outcomes by focusing on business training and other strategies through which borrowers can translate increased business inputs into better overall outcomes.

The credit studies find mixed evidence on many social indicators such as health, education, and women’s empowerment. The outcomes on children’s health are especially encouraging, warranting further investigation. There are also clearly a number of avenues for interesting research into the measurement of more ambiguous concepts, such as “empowerment.” The emerging research on credit and migration raises a number of important questions—additional research in this area is eagerly anticipated. Finally, practitioners advocate for future research to focus not just on the impacts of credit but on the ways different credit models are working, as well as on the role of effective and targeted regulation. Also welcome would be future studies that discuss the extent to which the lenders in the studies adhere to industrywide best practices and whether the mission of the lenders is primarily financial or social.

SAVINGS

There is clear evidence that savings accounts are useful to poor households. Savings accounts provide a mechanism for consumption smoothing and the management of uncertainty, and they also have been shown in some cases to lead to increased investments in microbusinesses. The overall message from the savings studies is that while among the types of savings mechanism—basic account, commitment account, savings group—there are nuanced differences, nevertheless barriers to saving are significantly reduced through the provision of any safe and simple way to save.

MOBILE TECHNOLOGY AND INSURANCE

More research is needed on payment systems and insurance. Early studies of the mobile payments system in Kenya are promising, suggesting that access to this mechanism for transferring money leads to reduced vulnerability when households experience negative events such as job loss or a health emergency. There are also preliminary results suggesting that basic health insurance products lead to increased use of health care and can shield children from increased labor in the face of household medical shocks.

Related to this, the rapidly expanding use of cell phone technology in the provision of financial services is exciting, but it raises some very important questions. Will the increased use of technology serve as a connection to the formal banking sector? Who is served by increasingly digital services, and who is left behind? Will the very poor be excluded from services if they lack reliable access to cellular phones? A case study conducted by Julia Arnold (Grameen Foundation 2012) explores this link, and additional research is needed.

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

SUMMARY AND UNANSWERED QUESTIONS

Overall, the research continues to point to the importance and usefulness of a range of financial services in the lives of the poor. At this point, there is a lot that we know about credit and savings, and a small but growing literature about insurance and mobile payments.

Going forward, a few directions are clear. One limitation of the credit studies in particular is their focus on credit as broadly defined. These are useful to answer basic questions, but a natural next step is to study the impacts of particular models or implementations of credit, and then to study what aspects of credit programs are most correlated with positive outcomes. As new studies are designed to look into the impacts of microinsurance, mobile money, and other financial inclusion strategies, it will be useful to avoid broad categories in favor of more nuanced questions. The disadvantage is the loss of generalizability, but generalizing in this area often leads to oversimplification.

Many of the outcomes reported in the current research are relatively straightforward to measure. Measuring asset ownership, business profits, or household consumption is not trivial, but it can be done. Other outcomes, even in the current literature, are much trickier to measure. How should women’s empowerment or children’s health be measured? While a good deal of work has been done on these measures, it is not always clear that the impact studies use the best measures available, and the measurement strategies vary from one study to the next. As more complex concepts like “resiliency” and “consumption smoothing” become central, these measurement considerations will be even more important.

Research into the impact of microfinance has reached an inflection point. The first and second papers in this Measuring the Impact series concluded with anticipation of additional studies of the impact of credit. Now, through replication across diverse geographies and implementations, multiple studies directed at the high-level questions—the impact of credit on household economic, social, and business indicators—have produced similar results. Many questions are answered, to the extent that this is possible with current research methods.

With respect to credit, it is time for research that takes a new approach, which hopefully will be designed through meaningful partnership between researchers and practitioners and which will produce actionable findings that can contribute to improved practice. Multiple studies of savings programs have also produced similar results across many contexts, though there is room for much additional work in this area. Again, collaborative and productive research design should shape the next generation of these studies.

As researchers continue to investigate the impacts of insurance, mobile money, and combined services, the lessons learned from the credit and savings studies, both in terms of outcomes and in terms of methods, can be applied. Through constructive and honest collaboration, the practice of financial inclusion will continue to improve, and poor and unbanked communities around the world will continue to be better served.
REFERENCES


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The prevalence of microfinance impact evaluations has increased in recent years, with programs using studies not just to prove the effectiveness of microfinance, but to improve it as well. However, the quality and rigor of microfinance impact evaluations vary greatly. This paper surveys the most significant microfinance impact evaluations that have been published as of mid-2005 and guides readers through interpreting the results and reliability of each study.

One of the first comprehensive microfinance impact assessments was “Credit for the Alleviation of Rural Poverty: The Grameen Bank in Bangladesh,” (1988) by Mahabub Hossain. Hossain found Grameen members’ average household income to be 43 percent higher than target non-participants in comparison villages, with the increase in income from Grameen highest for the landless, followed by marginal landowners. Hossain warned it was likely that his impact findings would be overstated, however, because Grameen members were found to be younger and better educated than nonmembers, who were more likely to be landless. This type of difference between participants and comparison households is prevalent among microfinance impact evaluations and limits the conclusions we can draw from many of them.

The 1998 book, Fighting Poverty with Microcredit, by World Bank economist Shahidur Khandker, and the related paper, “The Impact of Group-Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter?” by Khandker and Mark Pitt, a Brown University economist, were influential because they were the first serious attempt to use statistical methods to generate a truly accurate assessment of the impact of microfinance among three Bangladeshi programs: Grameen Bank, BRAC, and RD-12. The centerpiece of their findings was that every additional taka lent to a woman adds an additional 0.18 taka to annual household expenditures—an 18 percent return to income from borrowing. However, NYU economist Jonathan Morduch responded with the paper, “Does Microfinance Really Help the Poor? New Evidence from Flagship Programs in Bangladesh” (1998), citing serious concerns with their data and their statistical model.

With the benefit of more data, Khandker was able to improve their model, published in a 2005 update to the study, “Microfinance and Poverty: Evidence Using Panel Data from Bangladesh.” The updated findings showed that each additional 100 taka of credit to women increased total annual household expenditures by more than 20 taka. There were no returns to male borrowing at all. Khandker found that between 1991/92 and 1998/99 moderate poverty in all villages declined by 17 percentage points: 18 points in program areas and 13 points in non-program areas. Among program participants who had been members since 1991/92, poverty rates declined by more than 20 percentage points—about 3 percentage points per year. Khandker estimated that more than half of this reduction is directly attributable to microfinance, and found the impact to be greater for extreme poverty than moderate poverty, which microfinance was found to reduce by 2.2 percentage points per year and 1.6 percentage points per year, respectively. Khandker further calculated that microfinance accounted for 40 percent of the entire reduction of moderate poverty in rural Bangladesh.

THE AIMS STUDIES

In 1995 the United States Agency for International Development (USAID) launched the Assessing the Impacts of Microenterprise Services (AIMS) Project, which developed five tools (two quantitative and three qualitative) designed to provide practitioners a low-cost way to measure impact and improve institutional performance. The tools recommended...
comparing existing clients to incoming clients and using the difference between them to estimate program impact. The idea behind the methodology was that since both the clients and the comparison households had chosen to join the program, there should be no difference in their “entrepreneurial spirit.” Otherwise, higher incomes among participants might simply be driven by superior business acumen. However, some experts, notably Dean Karlan in “Microfinance Impact Assessments: The Perils of Using New Members as a Control Group” (2001), have called into question the validity of this type of comparison. Karlan warns that this design can yield biased estimates of impact because MFIs may have originally started to work with different types of clients than they currently serve (for instance, an MFI may have cautiously started out working with better-off communities before branching out to poorer areas), and because clients who chose to enroll earlier may differ from those who chose to wait and see before joining.

The AIMS Core Impact Assessments of SEWA (India), Zambuko Trust (Zimbabwe), and Mibanco (Peru) avoid this problem through the use of longitudinal data and non-client comparison groups. “Managing Resources, Activities, and Risk in Urban India: The Impact of SEWA Bank” (2001), by Martha Chen and Donald Snodgrass, compared the impact of clients who borrowed for self-employment to those who saved with SEWA Bank without borrowing, and compared both groups to non-clients. Borrowers’ income was over 25 percent greater than that of savers, and 56 percent higher than non-participants’ income. Savers, too, enjoyed household income 24 percent greater than that of non-participants. These findings indicate that microfinance—credit or savings—can be quite effective. “Microfinance Program Clients and Impact: An Assessment of Zambuko Trust, Zimbabwe” (2001), by Carolyn Barnes, found that while clients’ income was significantly higher in 1997 than the incomes of other groups, by 1999 the difference was no longer statistically significant, though continuing clients still earned the most. “The Impacts of Microcredit: A Case Study from Peru” (2001), by Elizabeth Dunn and J. Gordon Arbuckle Jr., found that Mibanco clients earned $266 more per household member per year than non-participants.

WIDER IMPACTS

**Empowerment.** Syed Hashemi, Sidney Schuler, and Ann Riley, in “Rural Credit Programs and Women’s Empowerment in Bangladesh” (1996), used a measure of the length of program participation among Grameen Bank and BRAC clients to show that each year of membership increased the likelihood of a female client being empowered by 16 percent. Even women who did not participate were more than twice as likely to be empowered simply by virtue of living in Grameen villages. This may suggest that a positive spillover from microfinance is affecting the norms in communities, but it could also imply that Grameen selects relatively empowered communities for program placement.

**Contraceptive Use.** “Poverty Alleviation and Empowerment: The Second Impact Assessment Study of BRAC’s Rural Development Programme” (1998), by A. M. Muazzam Husain, reported that members who had been with BRAC the longest had significantly higher rates of contraceptive use. Fighting Poverty with Microcredit found credit provided to women reduced contraceptive use among participants. However, as discussed above, the results from Khandker’s earlier work may be unreliable. “The Impact of an Integrated Micro-credit Program on Women’s Empowerment and Fertility Behavior in Rural Bangladesh” (1998), by Steele, Amin, and Naved, estimated that, even after statistically controlling for prior contraceptive use, borrowers were 1.8 times more likely to use contraceptives than the comparison group. Membership in a savings group was not found to have an effect. However, analysis of the actual number of births did not reveal a statistical relationship between either savings or credit and fertility.

**Nutrition.** Barbara McNelly and Christopher Dunford, both of Freedom from Hunger, completed two comprehensive evaluations of Credit with Education programs: “Impact of Credit with Education on Mothers and Their Young Children’s Nutrition: Lower Pra Rural Bank Credit with

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Education Program in Ghana” (1998), and “Impact of Credit with Education on Mothers and Their Young Children’s Nutrition: CRECER Credit with Education Program in Bolivia” (1999). In Ghana, participants experienced an increase in monthly nonfarm income of $36, compared to $17 for the comparison group. Participants were more likely to breastfeed their children and more likely to delay the introduction of other foods into their babies’ diets until the ideal age, and they were more likely to properly rehydrate children who had diarrhea by giving them oral rehydration solution. These impacts paid off in a significant increase in height-for-age and weight-for-age for children of participants.

“Credit Programs for the Poor and the Health Status of Children in Rural Bangladesh” (2003) by Pitt, Khandker, Chowdhury, and Millimet, found substantial impact on children’s health (as measured by height and arm circumference) from women’s borrowing, but not from male borrowing, which had an insignificant or even negative effect.

**DETERMINANTS OF IMPACT**

**Control of Loan.** In “Women at the Center,” Helen Todd found that a quarter of clients in her sample were turning over their entire loans to their husbands. Todd described these women as the most marginal in her sample; though they represent only 25 percent of the members, 41 percent of the borrowers who were still poor after 10 years of participation were among this group. Other studies, however, found that that even in the case where women have the least control—i.e., women channeling their entire loans—women are better off with microfinance than without. “Rural Credit Programs and Women’s Empowerment in Bangladesh” confirms this conclusion, finding that 36 percent of Grameen and BRAC borrowers with no control of their loans could be considered empowered, compared to only 9 percent of women in comparison villages.

**Incoming Poverty Level.** The Second Impact Assessment Study of BRAC found that BRAC members’ non-land assets were 380 percent greater than those of comparison group households and net worth was 50 percent higher. Significantly fewer BRAC households were poor (52.1 percent of BRAC households versus 68.6 percent of the comparison group). However, subgroup analysis revealed that landless clients (the poorest clients) benefited least from the program, while those with 1-50 decimals of land (“the poor”) benefited most. Another study, “Monitoring Diversity of Poverty Outreach and Impact of Microfinance: A Comparison of Methods Using Data from Peru” (2005), by Copestake et al., found that impact for the wealthier half of Promuc clients was 80 percent higher than the impact for the poorer half. However, other studies, including “Micro-finance and Poverty: Evidence Using Panel Data from Bangladesh,” found that the poorest clients benefited most from participation.

**Family Crises.** In “Women at the Center,” Helen Todd found that out of the 17 Grameen Bank borrowers who were still poor after a decade, ten of them had experienced a serious illness in the family in the three years before her study. According to Todd, the families that suffer crises were almost always forced to sell off assets to pay for medical treatment and to support the family through the loss of income from the husband or the wife. Other studies show mixed results on the effect of crises. Another Todd study, “Paths out of Poverty: The Impact of SHARE Microfin Limited,” found though 49 percent of SHARE clients had experienced a family crisis or natural disaster in the previous four years, they were no more-or-less likely to have experienced an increase or decrease in poverty. Todd attributed their ability to cope with crises to their extraordinary savings rates. “Moris Rasik: An Interim Impact Assessment,” edited by David Gibbons, however, corroborates Todd’s earlier findings from “Women at the Center” (this time with a larger sample size). Among clients who had experienced both serious illness and death in the family, nearly 60 percent remained very poor, versus only 40 percent for those who had experienced serious illness only. These results highlight the need to further develop savings and insurance products for the poor.
This paper is a survey of several significant microfinance impact assessment evaluations released or published between 2005 and 2010. It is an update of a comprehensive impact assessment literature survey released in 2005, which was sponsored by Grameen Foundation and authored by Nathanael Goldberg. In the years since Goldberg’s paper was released, there have been a number of important developments in microfinance impact assessment, making this current survey a much-needed update.

The release of a handful of prominent microfinance impact assessment evaluations in 2009 precipitated a good deal of media coverage. Stories published in the Economist magazine, the Boston Globe, and the Financial Times presented the new research with a negative slant, collectively suggesting that microfinance isn’t as powerful an anti-poverty tool as suggested by many of its proponents. These media stories should be read with a healthy dose of skepticism, as even the authors of the research papers cited in the articles have made public statements disputing the oversimplifications and negative interpretations appearing in the press. One aim of this paper is to summarize the results of these new studies, disentangling the media interpretation from the actual findings reported.

One of the key developments in microfinance impact assessment since 2005 is methodological; in 2009, the first studies employing the randomized controlled trial (RCT) methodology were released. The benefit of the RCT is that in cases where it can be effectively used, it eliminates the problem of selection bias, where clients of microfinance institutions (MFIs) may be systematically different from non-clients. The possibility of inherent difference between clients and non-clients is a long-standing and well-known challenge in microfinance impact assessment (in fact, the selection bias problem plagues much of social science research), and the RCT methodology provides a solution to this challenge.

On the other hand, the RCT methodology has limitations. Programs to be evaluated with an RCT must be identified, and the evaluation structure must be put into place in advance of program implementation. Thus the RCT methodology is not useful for evaluating programs already on the ground. Also, because the RCT works by withholding treatment (in this case microfinance services) from a specified group, time horizons for study are necessarily short. Finally, in many environments (such as Bangladesh, for instance) where microfinance has been in place for years, it is virtually impossible to implement the RCT methodology because nearly everyone has access to microfinance. The debate over the use of the RCT as an evaluation tool in development economics is ongoing...

**RANDOMIZED (EXPERIMENTAL) STUDIES**

The popular press coverage primarily addressed three randomized studies. Two of these studies (“The Miracle of Microfinance? Evidence from a Randomized Evaluation,” [2009] by Abhijit Banerjee et al. and “Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya,” [2009] by Pascaline Dupas and Jonathan Robinson), when examined closely, report evidence of a number of positive impacts of microfinance on the lives of poor clients. Banerjee et al., find that the introduction of microcredit in Hyderabad, India, supports household borrowing and investment and supports the creation and expansion of small

*Note to readers: The publications cited in this reprinted executive summary are not included in the References listing to the main paper. Interested readers may find these publications by consulting Kathleen Odell’s original paper, available at http://www.grameenfoundation.org/resource/measuring-impact-microfinance.*

businesses. Dupas and Robinson study the effect of the introduction of savings accounts on business investment in Kenya, and find that formal savings accounts increase business investment and expenditure for women. The third study (“Expanding Microenterprise Credit Access: Using Randomized Supply Decisions to Estimate the Impacts in Manila” [2010b] by Dean Karlan and Jonathan Zinman) finds that the expansion of microlending to a new population in Manila, Philippines, leads to an increase in business profits for male borrowers only but has no overall effects on income or poverty. Banerjee et al. and Karlan and Zinman both test for, but do not find, evidence of social impacts of microcredit (such as women’s empowerment, increases in children’s school enrollment, or improvements in overall health and well-being). Collectively, these three studies suggest that over relatively short time periods, microfinance had positive impacts on business investment and outcomes but did not have impacts (positive or negative) on broader measures of poverty and social well-being.

In addition to the impact assessment studies above, two studies by Suresh de Mel, David McKenzie, and Christopher Woodruff (2008 and 2009) provide some evidence about returns to capital in small businesses (microenterprises) such as the businesses most frequently owned by microcredit borrowers. In the 2008 study, the authors find that small grants to microenterprise owners were almost completely invested in business expansion and that the grants increased average profits of microenterprises by about 60 percent per year. In the 2009 study, the authors investigate the difference in returns to capital for male versus female borrowers. They find increases in business profits only for male business owners.

**NON-RANDOMIZED (QUASI-EXPERIMENTAL) STUDIES**

Though the release of these randomized studies was one of the major developments in microfinance impact assessment since 2005, there have been other important (non-randomized) studies as well. As of 2005, a particularly well-respected study of the impact of microcredit in Bangladesh written by Shahidur Khandker of the World Bank. This study, which expanded upon earlier impact assessment in Bangladesh, showed a strong positive impact on income as a result of borrowing from microlending institutions. A 2009 study by David Roodman and Jonathan Morduch revisits Khandker’s study, as well as two earlier related studies (Morduch, [1998]; Pitt and Khandker, [1998]), and raises questions about the validity of the results of all three papers. Roodman and Morduch argue that methodological concerns about the earlier work should lead readers to be skeptical of the positive results of microfinance these studies report.

Work by Brett Coleman (2006) of the Asian Development Bank found that for two microlending programs in northeast Thailand, the services were more likely to reach relatively wealthy borrowers than the target group of the “poorest of the poor”. In a related paper, Toshio Kondo (2007) of the Asian Development Bank uses Coleman’s methodology to study a microfinance operation aimed at the poorest 30 percent of the rural population in the Philippines. Similar to Coleman, Kondo finds that borrowers in the program are actually relatively wealthy. Kondo finds that participation in the lending program leads to increases in per capita incomes, expenditures, food expenditures, and formal saving. However, these positive effects appear to accrue only to relatively wealthy borrowers; the poorest borrowers actually see negative effects. These studies raise important questions about whether microfinance products are reaching their intended recipients.

World Bank researchers Miriam Bruhn and Inessa Love (2009) found that the opening of branches of Banco Azteca in neighborhoods across Mexico led to an increase in informal business ownership, employment, and income for residents of municipalities where a branch was opened. Research in Thailand by Joseph Kaboski and Robert Townsend (2005) finds that MFIs, especially those targeted at women, promoted asset growth, consumption smoothing, and occupational mobility, and reduced reliance on moneylenders. A second study found that Thailand’s Million Baht Village Fund, a government microlending program, relieved credit constraints...
in participating villages and led to increases in consumption and income (Joseph Kaboski and Robert Townsend, 2009). A handful of additional studies provide context and additional (though sometimes qualified) evidence that microfinance improves the lives of borrowers and savers who use these services.

Ultimately, the question, Does microfinance work? is impossible to answer, because microfinance is not a single tool but a collection of tools. MFIs around the world serve different types of clients. These institutions offer various services including loans, savings accounts, insurance products, and various combinations of these services. MFIs also operate in diverse environments around the globe: some are urban, some are rural, some are in South Asia, some are in Africa, some are in Eastern Europe, and so on. Given this extreme heterogeneity, one of the greatest errors researchers and practitioners can make is to overinterpret the empirical results that are available to us, since each study necessarily applies only to a very specific context. Rather, keeping both the general and the specific questions in mind, each impact study must be interpreted as a small piece of a growing body of knowledge about how microfinance, in all its forms, functions in the world and how it affects the lives of the poor.

The research into the impact of microfinance that has emerged over the last five years offers some encouraging results. There is evidence from a number of studies (using a variety of methodologies across different settings) suggesting that microfinance is good for microbusinesses. This result is observed across different microfinance services, including microcredit and microsavings instruments. Based on the studies in this survey, the overall effect on the incomes and poverty rates of microfinance clients is less clear, as are the effects of microfinance on measures of social well-being, such as education, health, and women’s empowerment. Hopefully, the next wave of research will provide further insights into these critical questions.