Financial Services for Low-Income Women: Opportunities for Economic Empowerment?

Revised Final Report
December 19, 2012

International Center for Research on Women

Rekha Mehra, Payal Patel, Adithi Shetty, Anne Golla

Table of Contents

I. Introduction

Over the past thirty years, financial service interventions have featured prominently in efforts to advance women economically. They include informal savings groups, the integration of women into formal banking, and financial intermediaries that bridge the divide between them. Many efforts, particularly microcredit targeted at poor women, have achieved large scale, especially in some countries such as India, Bangladesh and Bolivia. A whole spectrum of methodologies is being applied by a wide range of institutions, some of which now offer varied products including savings and microinsurance. In the last 15 years, technological advances such as mobile phone-based banking offer new opportunities for greater outreach and scale. Some banks are also making efforts to provide loans to more women small and medium entrepreneurs.

Although these financial interventions have been extensively studied, using a range of evaluation techniques in different contexts, they have not often been examined comprehensively in the context of empowering women economically. Nor is much information available about the contexts in which particular approaches succeed and where they do not, or what products are more suitable or better meet particular demands. Very few studies look at the non-economic factors that enable women to exercise their power and control over resources and that are necessary for women to make their own choices—a critical factor in empowerment. This report examines the available evidence on the extent to and ways in which financial services have (or have not) contributed to women's economic empowerment. It seeks to highlight the research gaps and identify priorities for research and practice as guidance for how to effectively invest in creating economic opportunities for women in the financial services sector.

We begin with a definition of women's economic empowerment. Kabeer (2001) defines *empowerment* as "the expansion in people's ability to make strategic life choices in a context where the ability was previously denied to them." It involves individual agency, i.e., the idea of acting on one's own behalf, and collective actions to engage in a *process* of transformative change. Thus, women must themselves be actors in the process of change and, for empowerment to occur, the change has to be manifest in the woman herself (Malhotra and Schuler 2005). Golla et al (2011) assert that women's *economic empowerment* requires her to have both the ability to succeed and advance economically, and the power to make and act on economic decisions. Succeeding economically means women must have the skills and resources to compete in markets, and fair and equal access to economic institutions. Having power and agency to benefit from economic activities requires that women have the ability to make and act on decisions, as well as to control resources and profits. Microcredit enables a woman to access financial capital, a critical factor in economic empowerment. However, it is just one of the resources she needs for economic success. Other factors include human capital (e.g., education, skills, training), physical capital (e.g., land, machinery) and social capital (e.g., networks). In addition, for empowerment, a woman also needs the ability to control resources and to define and make choices. These definitions set the context for our analysis of the evidence on the ways in which financial sector interventions have or have not contributed to women's economic empowerment. Of particular interest are the ways in which microfinance enables women to better manage their money, reduce risk, increase consumption and, importantly, invest in or grow their businesses as a way to increase their incomes. We also examine the evidence on agency effects.

II. Microfinance: Setting the Stage

The earliest initiatives in microfinance responded to the evidence that formal banks did not typically serve the financial needs of the poor and women. Women, in particular, represented a very small proportion of borrowers (Roodman 2012, Pg. 99). In the 1970s, a number of different individuals and organizations started offering loans to the poor in various parts of the world. They included a bank in Indonesia, a U.S. non-profit in Brazil, Muhammad Yunus in Bangladesh and Ela Bhatt, founder of SEWA (Self-Employed Women's Association) Bank in India.[1] They shared the idea that small loans to the poor would help reduce poverty. It would give them the opportunity to grow their microenterprises, repay their loans and reinvest for greater growth, thereby setting in motion a virtuous cycle of economic growth and development. Microcredit was born.

Since then, the financial services sector has grown dramatically. According to the Consultative Group to Assist the Poor (CGAP), more than 10,000 organizations offer services to the poor. They include not-for profit and commercial banks, non-profit intermediaries, non-governmental organizations and specialized micro-finance organizations (MFIs).[2] In 2010, the Microcredit Summit Campaign reported more than 200 million clients of microcredit worldwide (Maes and Reed 2012). The types of products offered have multiplied and include group and individual loans, savings and microinsurance. Some MFIs offer additional services such as financial literacy, education, and skills training. Delivery mechanisms can now involve mobile phones and web-based platforms for peer-to-peer loans.

Women were not, at first, the target of microcredit except at SEWA Bank. They became so only later, in the 1980s and 1990s, for reasons that included the pragmatic concerns that women appeared more willing to put the time and effort into group-based lending that involved regular meetings and training programs. As we show later, groups became a main driver of scale in microcredit and women the main clients. Women also proved more reliable in repaying their loans.

Loan repayment was especially important for the nascent microfinance industry because it aimed for self-sufficiency. It adopted a business-like approach—a characteristic that set it apart from other development organizations seeking to help the poor. Thus, it mattered that clients repaid their loans and were also willing to pay interest and fees. Loan repayments became the source of funds for future lending, while earnings from interest and fees were used to finance costs. As MFIs grew and scaled their operations, some even became profitable. Initial investments in MFIs came primarily from national and

---

[1] SEWA Bank was founded in 1974 as an urban cooperative bank in Ahmedabad, India, with the mission of providing financial services to poor women workers.
[2] The term MFI is used in this paper to denote those that specialize in and, more generally, all those institutions that offer microfinance.

international aid agencies but now include others: internally generated loan funds from member savings, private equity funds, individuals and IPOs. In 2009, cumulative funds invested in microfinance amounted to $21.3 billion. Investors are willing because they see potential for profit.

III. Methodology

To assess the existing evidence on the ways in which financial services have reached women and influenced their economic empowerment, this paper largely draws on rigorous quantitative impact evaluations, mainly randomized control trials (RCTs), operational studies that are also RCTs, as well as some less rigorous quantitative and mixed methods impact studies. In addition to individual studies and evaluations, we also reviewed systematic meta-evaluations on the impact of financial services, which enabled us to tap into results and assessments of a much larger set of evaluations.

We identified a set of 52 randomized controlled trials (RCTs), quasi-experimental and mixed methods evaluations and assessments of microfinance since 1996 that assessed the uptake of financial services and economic impacts on clients. These studies were identified through two main avenues: 1) those cited in the meta-evaluations reviewed; and 2) searches of electronic databases including ECONLit, EBSCO, JStor, SciVerse, Science Director, CGAP's Microfinance Gateway, Mix Market data, World Bank databases, IDEAS database and Google Scholar. These studies were selected as the more recent ones among a much larger body of empirical research done on microfinance over the last several decades. From this first cut of studies identified, we then examined in-depth a smaller sub-set of studies that met all of the following criteria:

1. measured short, medium and/or long-term economic outcomes of access to or use of credit, savings or microinsurance (e.g. savings levels, consumption, risk management, household and individual income, business impact, etc.);
2. women made up a majority of the study sample, or if not, sex-disaggregated data were reported for some individual-level economic and/or agency outcomes;
3. were rigorous or moderately rigorous (RCTs or quasi-experimental, mixed methods), or were less rigorous but assessed impact on empowerment-related outcomes for women; and
4. examined financial services in low and middle-income countries in Asia, Latin America and Sub-Saharan Africa.

To assess economic outcomes, we relied heavily on RCTs because of their rigor. They are by design less vulnerable to selection bias and thus generate more robust findings. As RCTs have been conducted in microfinance only since the mid-2000s, only 22 studies are available in total, 10 on credit (some programs also include savings), 3 on savings alone and 9 on microinsurance. We examined in-depth all of the RCTs on credit and savings. One limitation of RCTs is that they typically collect data over a relatively short time horizon, usually between one or two years and this may not be a realistic time-frame in which to expect meaningful changes to occur and be observed. However, they do provide more rigorous findings on how microfinance affects short and medium-term outcomes.

We also examined quasi-experimental studies as they have been the most widely used to measure the impact of financial services for the poor. These are quantitative studies that usually compare microfinance participants with non-participants that constitute the control group. Unlike RCTs, quasi-experimental designs are generally not able to adequately control for selection bias. Since control groups are not truly equivalent to participant groups due to unobservable differences between them, this weakens the validity of the findings. Most mixed methods evaluations employ quasi-experimental designs together with qualitative methods, and thus face similar limitations. Given these methodological shortcomings, we chose to identify only a sub-set of some of the more recent and most widely-cited quasi-experimental and mixed methods studies as part of the larger universe of studies from which we drew to analyze impacts. Despite their weaknesses, quasi-experimental and mixed methods studies warrant examination because they constitute the vast majority of available evidence on microfinance, and given the fact that many of them have examined the types of economic (largely at the household level) and agency outcomes that are of interest in this paper.

In total, we conducted an in-depth review of 31 evaluations on microcredit (13 of which studied interventions that also provided either mandatory or voluntary savings), three evaluations of savings products alone, and one on microinsurance. Out of a universe of 20 meta-evaluations identified on credit, savings and microinsurance, we reviewed eight of the most recent ones. We also reviewed more than 30 white papers, reports, policy briefs, articles and books in order to explore important themes in financial services for the poor related to outreach to women, demand for and scale of services, types of products and current innovations.

Credit

The vast majority of studies on the impact of financial services are focused on microcredit. We examined in-depth 31 evaluations and studies on microcredit: 10 RCTs, 11 quasi-experimental studies, one quantitative regression analysis and three mixed-methods studies. About half of these studies assessed impacts at the household rather than the individual level, while 17 of them reported either sex-disaggregated data at the individual level or had samples made up of women only. Therefore, in assessing some studies it was difficult to understand if and how women were impacted differently within households. Finally, we did not find any impact evaluations or operational studies that examined credit targeted to women at higher levels than microcredit, such as entrepreneurs at the small and medium enterprise (SME) level.

Savings

Although savings are often provided in conjunction with credit, until recently no studies had assessed the impact of voluntary savings specifically, apart from credit. As mentioned above, within our sub-set of 33 evaluations reviewed in-depth, 13 of the interventions that were examined provided savings in conjunction with credit, and in some instances with other financial services as well. The nature of the microfinance programs assessed, as well as the designs of studies, do not allow for isolating the impacts of savings specifically. However, two recent RCTs specifically assessed the impact of commitment savings products on women participants. These studies provide important insights for how savings design elements affect economic and agency outcomes for women. We largely focus our discussion on savings on the results from these two studies.

Microinsurance

Most studies and evaluations on microinsurance have focused on health, and to a lesser degree, crop or other agricultural insurance (Magnoni and Zimmerman 2011). Studies on other types of insurance such as credit life, life and accident have been very few to date (Magnoni and Zimmerman 2011), and there are no existing RCTs that examine other types of insurance besides health and agricultural. This is partly due to the fact that it is more difficult to examine the effect of insurance products that protect against events which are less frequent such as death and accident. Most studies on agricultural insurance examine how insurance affects farmers' investments, while most health insurance evaluations assess how products influence clients' utilization of health care services. Very few of these look at the economic benefits for clients of insurance after claims are submitted, given the methodological challenges of doing so (Magnoni and Zimmerman 2011). Our review reveals that almost no studies, and none of the RCTs, have examined the impact of microinsurance on economic outcomes for women. Only one RCT on health insurance included a majority of women in its sample. While it did not measure the economic impacts of health insurance, we included it in our review because it examined operational issues of how delivery mechanisms affected uptake among male and female clients.

IV. Taking Stock of the Evidence on Financial Services

A. Credit

In theory, credit is a powerful mechanism for the economic empowerment of poor women as it can be used to reduce financial risk, smooth consumption and improve financial management, and to invest in businesses that increase earnings. In practice, as daily incomes of poor women are often extremely variable, they may use loans to meet basic daily needs such as for food and clothing or to meet lump-sum periodic expenditures like children's school fees, buy durable goods, pay for emergencies such as illness or death, or to pay off other debts. The greatest potential for women's economic empowerment may lie in the use of loans to create or invest in businesses.

Until fairly recently, poor women in developing countries had virtually no access to formal financial services. If they needed loans, they were forced to borrow from friends, relatives and money lenders, often at high rates of interest that contributed to keeping them in debt and poverty. But now, due to advances in microfinance over the past 30 years, more than 150 million women worldwide have access to microcredit (Maes and Reed 2012).[3] They typically have access to small loans; average microfinance loan size globally is estimated at US$522.8 (Rhyne 2010) at "reasonable" interest rates ranging from 25% to 75% globally (Robledo 2008).

---

[3] The Microcredit Summit Campaign reported 205.3 million clients of microcredit globally of which about 75% were women (Maes and Reed 2012).

The great success of microfinance was in inventing and using a methodology that made it possible to deliver financial services to poor women at scale. It is one of the few economic interventions to do so. An ever-widening range of institutions now provide microcredit —MFIs, government-owned banks, commercial banks, cooperative banks, and NGOs. While small loans are the main product on offer, new products are continually being added such as savings and housing loans. This section describes the key delivery mechanisms involved in microcredit and their impact in terms of scale and outreach. It then takes a critical look at the evidence on the nature and extent of the economic impact of women's access to credit on households, women and their businesses.

Success: The scale and reach of microfinance

Group-based methodologies are the most widespread form of delivering microcredit. While these methodologies differ in detail, they are typically organized around a common principle: as a substitute for collateral, they rely on group members to share responsibility for ensuring others repay their loans. The success is demonstrated by high loan recovery or repayment rates; the global average is at about 97 percent[4]. High loan recovery is regarded as a key factor in the sustainability of microfinance. Another is the commercial approach it has adopted so well, that of operating like a business, by aiming to recover costs via interest rate charges and fees, the broader goal being to achieve the "double bottom line" of sustainability and social impact.

Common among the successful group-based methodologies employed by MFIs are solidarity group credit, village banking and self-help groups. They are described below along with their scale, outreach and regional distribution.

<u>Solidarity group lending</u>: This methodology was pioneered by Grameen Bank in Bangladesh and Acción in Central America in the late 1970s, and is currently used by many other MFIs and NGOs around the world. Small groups made of self-chosen members, or members selected by staff of intermediary financial institutions or NGOs, receive microcredit. Loans are provided to individuals, but are collectively guaranteed by group members who help to ensure repayment. Members must repay loans in order to become eligible for additional and larger loans, and loan repayment installments are required on an ongoing basis. In most cases, members also contribute small amounts of savings on an ongoing basis to a group account, which is used as a fund for making emergency loans if needed. While institutions such as Grameen and Acción did not begin with a focus on targeting women clients, they gradually evolved to reach women almost exclusively. In 2008, close to 24 million or 52 percent of active borrowers of MFIs reporting data to the Microfinance Information Exchange (MIX) on lending methodology received credit from MFIs that either offered credit only through solidarity group lending, or provided both solidarity lending and individual loans (MIX Market Database 2009). Globally, women make up more than 99% of the clients of lending institutions that provide credit through the group solidarity methodology (MIX Market Database 2010, cited in Roodman 2012).

[4] Source: MIX Market Web Link: http://www.themix.org/about-microfinance/FAQ#6

The village banking methodology, started by FINCA in Bolivia is led by NGOs or MFIs and offers member-managed credit and savings. A village bank typically consists of between 25 to 50 members who run the bank, establish their own by-laws, determine how to distribute loans to members and collect repayment. Village banks receive their capital from sponsoring NGOs and MFIs, and in turn provide loans to members. Members collectively guarantee the loans of others, and also generate savings that are used to provide new loans. In contrast to credit unions, village banks target poor, rural clients. Village banking was established by FINCA in Bolivia, and is used by many other MFIs particularly in Latin America, Asia and Sub-Saharan Africa. In 2008, 39 percent of active borrowers of MFIs reporting data received loans through the village banking model (MIX Market Database 2009). Around the world, women make up about 87% of village banking clients (MIX Market Database 2010, cited in Roodman 2012).

The self-help group (SHG) approach used in India promotes collective savings among group members, who are mainly poor, rural women. Savings are channeled into a revolving fund used to provide initial loans to members. After completing a certain period of regular savings and lending among themselves, SHGs are eligible via the government's SHG-Bank linkage program to open a savings account at a bank. Members can then receive loans from these banks which, in turn are eligible for re-financing by the National Bank for Agricultural Development (NABARD), and various commercial banks. SHGs can thereby augment their loan funds and continue to disburse and manage loans to members.[5] In India, SHGs are the primary platform used to extend microcredit and microfinance more broadly to the poor. By 2010 a total of 4.6 million SHGs in India had received formal bank loans (Wilson 2010 cited in Roodman 2012, Pg. 87), and almost 68 million clients, most of them women, were members of SHGs linked with NABARD (Maes and Reed 2012).

Another model of group-based microcredit delivery targeted at the very poor, primarily in rural areas, is that of the village savings and loans associations (VSLAs). These are member-run and primarily focus on fostering savings, which are used as funds to provide loans to members. VSLAs do not access external avenues of credit. They are thus informal in nature, and unlike SHGs in India, are not linked with MFIs or other formal financial institutions. However many VSLAs are established by external supporting organizations including international NGOs. VSLAs have seen accelerated growth over the last 30 years with close to 18 million active borrowers, of which 15.5 million users are women (MIX Market Database 2009).

While successful, group-based lending has drawbacks. For instance, it requires women to meet at regularly specified intervals to be trained, set up systems, conduct business and

---

[5] The Reserve Bank of India issued a circular in 1992 to all commercial banks directing them to allow informal and unregistered SHGs to open bank accounts in their names. Further, in 1995, a Credit and Financial Services Fund was established in NABARD expressly to finance the promotion of the linkage program. This type of committed funding from NABARD paved the way for the quick scaling-up of the SHG-banking linkage program. NABARD has since been encouraging voluntary agencies, bankers, other formal and informal entities and also government functionaries to promote and nurture SHGs.

maintain group solidarity. The time spent in meetings can be onerous for women who have many competing demands on their time from economic and household work. Groups can also be oppressive if they use coercion, shaming or other harmful techniques to force loan repayment, as some do (Bernstein and Seibel, 2011).

As an alternative, some MFIs offer individual loans although this is not a new development as organizations like Acción and Banco Sol in Bolivia have done so for long, the former since the 1970s and the latter since it was founded in 1996. Grameen Bank offers individual liability loans typically for less poor clients. Individual loans are still small in size, unlike traditional finance, but like group liability loans, do not require collateral. Loan providers instead use character assessments, credit scoring and appraisal of assets and business history to determine repayment capacity. However, women make up a smaller proportion of individual microcredit borrowers than they do of group-liability credit. As of 2009, women made up a little over 2 million, or 46% of borrowers of individual loans from MFIs and other financial institutions (MIX Market Database 2009, cited in Roodman 2012).

Peer-to-peer lending**,** a variation on the individual loan model, emerged in 2005 and has grown since then. It occurs on web-based platforms such as Kiva, Zidisha and Thousand Acres. Peer-to-peer lending enables individual investors to make small loans to borrowers in developing countries. Because it channels credit from investors directly to borrowers, the model is less costly and hence more efficient. Very little information is available on the number of women in developing countries who have been reached through this approach, and the effectiveness of this mode of delivering individual loans to women.

Does microcredit advance women economically?

As microcredit has grown in reach and scale, so has interest in understanding its impact. We examine below the main findings of research on the impact of microcredit on poverty and household welfare, women's businesses and decision-making (see Annex A for table of studies examined in-depth). As noted above, much of the available literature is anecdotal or subject to selection bias. Only a handful of rigorous RCT studies are available and we rely on them for the analysis, along with some quasi-experimental studies that have good methodology and data. Studies represent of wide variety of lending methodologies and group-based and individual loans, diverse target groups, and varied impacts. Many do not examine economic impacts at the individual level, instead focusing on the household level, and among those that do, not all disaggregate data by sex. However, some of the more recent studies, particularly the RCTs, have more so examined individual-level impacts on women and men separately. In addition, many studies have also tended to look at relatively short- and medium-term impacts over periods of 1-2 years.

Household welfare and poverty reduction: One of the first large-scale quantitative studies that examined the impacts of microcredit concluded that it can lead to poverty reduction and women's empowerment (Pitt and Khandker 1998). It was long one of the most cited for its positive findings. Follow-on studies reinforced these positive results (Pitt, Khandker, Cartwright 2006; Khandkher 2003). The original research evaluated the impact of three group-based microcredit programs in Bangladesh (Grameen Bank, BRAC, the Bangladesh Rural Development Board) using a quasi-experimental design. The researchers used an external control group and retrospective survey data, with no pre-intervention data, from randomly selected households in participating and non-participating villages to investigate the gender-differential impact of providing microcredit to women and men on economic outcomes including household expenditure and assets, and empowerment. They found that credit given to women was more likely than credit provided to men to positively affect household expenditures and women's non-land assets. Khandker (2005) also found evidence that credit led to poverty reduction among women and their households, particularly among women in extreme poverty. Pitt and Khandker's conclusions were disputed and later studies using the same data set failed to replicate their results (Roodman and Morduch 2009; Chemin 2008; Duvendack 2010; and Duvendack and Palmer-Jones 2011).

Other quasi-experimental studies also found positive results. Chen and Snodgrass (2001), comparing SEWA Bank borrowers to savers and non-clients in India, found that total and per capita household incomes of savers increased by more than those of borrowers, which were also higher than those of non clients. However, the study did not find strong evidence that SEWA borrowers and savers were any better able to cope with financial shocks than were non-clients. Borrower households in Peru had annual per capita incomes that were $266 higher than non-client households (Dunn and Arbuckle 2001). In Thailand, borrower households increased consumption of fuel, meat and dairy (Kaboski and Townsend 2009).

In Zimbabwe, however, although borrowers diversified their income, household income did not increase (Barnes 2001). Further, higher levels of income diversification were not seen among the poorest households, and disturbingly, more clients than non-clients fell into poverty within the context of economic downturn and high inflation. In the Philippines, group-liability credit had an overall positive, though only marginally significant impact, on the per capita income and consumption of clients' households (Kondo et al. 2008). However, this positive impact was only seen in richer households, while in poor households the effects on income were negative or insignificant.

Other quasi-experimental studies found positive impacts of microcredit on vulnerability to shocks. For instance, Kaboski and Townsend (2005) found women's membership in credit groups of village-level MFIs in Thailand helped consumption smoothing and asset growth within the household. In northern Ethiopia, group-based microcredit played an important role in improving household food security for both women and men clients (Gobezie and Garber 2007). In Zimbabwe, Barnes (2001) found that during a period of high inflation in the country, although average household consumption of meat and dairy declined among MFI clients, very poor households were able to increase consumption of meat, chicken and fish.

Results of the four rigorous studies (RCTs) reviewed were no more conclusive. Two found no evidence of increased consumption and poverty reduction among microcredit clients and two somewhat more positive effects. In poor urban areas of Hyderabad, India, access to microcredit offered by an MFI via self-formed groups of women increased borrowing and investment in durable goods but had no significant impact on overall consumption (Banerjee et al. 2010). Similarly, Crepon et al. (2011), in studying the effects of group-liability lending by an MFI in rural Morocco, found no effect on poverty or overall per capita household consumption, though food consumption increased among households with no existing businesses. The MFI offered loans ranging in size from $124-1,885 targeted at both women and men clients but, as results were not disaggregated by sex, it is unclear exactly how, if at all, the experience of women clients differed from that of men.

On the other hand, individual small loans offered to marginally creditworthy, low-income, salaried workers in South Africa increased the household incomes and food consumption of female and male clients (Karlan and Zinman 2010). Clients were also more likely to have kept their jobs, as loans likely helped them to smooth or avoid shocks that might have otherwise prevented them from working. In the Philippines, a commercial bank offered individual small uncollateralized loans to urban clients, mostly women. Deemed marginally creditworthy although their median net monthly income of $595 was substantially higher than the poverty line, female borrowers were better able to manage economic risks (Karlan and Zinman 2011).

<u>Business investment and growth</u>: Studies show similarly disappointing results of the overall impacts of microcredit on business creation and growth. Among available quasi-experimental studies that looked at business effects of credit in Mexico, Bruhn and Love (2009) found the opening of new bank branches contributed to an increase in informal business ownership among men but not women, and had no impact on creation of formal businesses. It also led to slight increases in client income. Access to credit had no impact on business creation in Thailand or India, although it had a small impact on the number of employees in India, as it did in Peru (Kaboski and Townsend 2009; Chen and Snodgrass 2001; and Dunn and Arbuckle 2001).

Credit increased business sales of wealthier women but had no impact on poorer women in Thailand (Coleman 2006). It also had a positive impact on both male and female households' business incomes, with female-headed households 10 percent more likely to experience higher incomes (Kaboski and Townsend 2009). Credit also seems to be associated with higher informal sector earnings and business revenues among households of poor and very poor women in India, greater business revenues of mostly women micro-entrepreneurs in Zimababwe, and in Peru, with higher revenues of all household microenterprises (Chen and Snodgrass 2001; Barnes 2001; and Dunn and Arbuckle 2001).

More rigorous evidence from RCTs showed mixed results for a link between microcredit and business creation. Karlan and Zinman (2011) found individual small loans had either no or negative impact on the business outcomes of above-poverty line (mostly women) borrowers in the Philippines. Specifically, credit had a negative effect on the number of businesses and employees of both women and men clients, and no conclusive impact on business revenues. There was also no significant difference in the impact of credit on female versus male clients. In rural Morocco, access to loans among previously excluded clients did not lead to the creation of new businesses, and had mixed impact on businesses, even though the size of some loans was quite large, ranging in size from $124-1,885 (Crepon et al. 2011). Credit increased investment in household businesses. It also positively impacted revenues, profits and the number of employees of clients' existing non-livestock agricultural businesses, but did not have any impact on non-agricultural enterprises in these areas.

On the other hand, Bannerjee et al. (2010) found women's households in intervention areas of Hyderabad were more likely to have started new businesses, but that there was no significant impact on business revenues, profits or number of employees. Access to group liability loans among poor women in Mongolia had a positive impact on household business creation, but individual credit did not. In addition, group liability loans over longer lengths of time had a positive impact on women's profits (Attanasio et al. 2012).

In sum, this review shows that impact studies are very diverse with respect to credit products assessed, countries and contexts and the results examined. They also use different definitions to refer to "poor", "very poor" and "less poor" clients that are often context-specific. Therefore, it is difficult to generalize across those contexts, products and client profiles. However, the huge demand for microfinance provides strong evidence that it is useful and valued by clients, and is an important reason to continue to invest in programs, drawing upon the successes of models and products in specific countries and contexts and determining their appropriateness based on whether methodologies and products are for women/men, and the poor/less poor.

More useful than impact studies are those that seek answers to questions about specific and actionable dimensions of microcredit and its links to business creation and expansion. So, for example, results obtained by Stewart et al. (2012) from a systematic review of the poverty and business effects of microcredit and savings found little impact and could not offer much in the way of policy guidance. They did, however, discuss a study conducted in Bosnia and Herzegovina (Augsburg et al. 2011), in which microcredit led young people with high levels of education or vocational training to start businesses. Similarly, Field et al. (2010) rigorously evaluated impacts of loans with grace periods on the businesses of poor women micro-entrepreneurs in India. Women with the grace period invested 6 percent more in businesses than those with no grace period. After two years, women with the grace period increased average profits by 30 percent.

Looking at another related issue, the question of the amount of capital it takes to induce growth in women's microenterprises, Fafchamps et al. (2011) found that in-kind grants (as a proxy for loans) resulted in higher profits for women with initially larger, higher profit businesses in urban Ghana, but had no impact on those with below average profits. In the case of cash grants as a proxy for loans, women did not invest in their businesses but used them instead for household expenses. In peri-urban Sri Lanka, in-kind and cash grants to capital-constrained micro-entrepreneurs found that as compared with men, women invested very little of smaller grants but as much, if not more, of larger grants.

However, men experienced permanent increases in business income whereas women did not.

Such operational RCT studies are valuable because they tell us that loans with grace periods particularly enable women to invest in their businesses, and that those women entrepreneurs with higher profits at the outset are more likely to invest in their businesses. They can also illuminate other issues that would be worth investigating. For instance, what interventions are needed, perhaps beyond credit, to induce less profitable entrepreneurs to invest in their businesses? These issues are particularly important in the context that more than half of female entrepreneurs at the micro, small and medium enterprise (MSME) level[6] in various regions of the world (except in South Asia) are un-served or underserved in terms of access to credit (IFC 2011).

<u>Women's agency:</u> As on business and household welfare effects, some of the early evidence on women's agency came from studies in Bangladesh, which found that higher income and asset ownership resulting from participation in microcredit programs strengthened women's position within households in terms of decision making power, greater social mobility and improved access to economic resources (Pitt and Khandker 2011; Pitt et al. 2006; Khandkher 2003; Pitt and Khandker 1998; Hashemi et al. 1996). Women's participation in group-based credit was particularly beneficial in enabling them to exert greater influence in household decision-making (Pitt and Khandker 1998). While women microcredit clients in Zimbabwe did not experience any change in their ability to control business earnings, married women participants reported greater joint decision-making within the household than did non-clients (Barnes 2001). Lakwo (2006), employing a mixed methods approach, similarly found that rural women microcredit clients in Uganda experienced improved decision-making power within their households and gained greater ownership over their microenterprises and some household assets typically controlled by men, such as poultry, and beds with mattresses

By contrast, a number of other studies using mixed methods concluded that improved economic outcomes from microcredit did not translate into enhanced agency among women clients. Goetz and Sen Gupta (1996) found that the majority of women clients retained only partial or limited control over their loans and male relatives exerted substantial control. Montgomery et al. (1996) similarly contend that only a small percentage of first-time female borrowers solely managed their loans, while more than 90 percent of women managed loans together with their husbands. From these findings, both sets of authors concluded that participation in microcredit programs alone did not enhance women clients' ability to exercise agency over their loans.

---

[6] Varied definitions have been adopted by governments to define what exactly an 'MSME' is in their economy based on business culture; the size of the country's population; industry; and the level of international economic integration. These issues make it difficult to compare the 'nuanced' demand and supply of financial services for each sector. The IFC McKinsey Study 2011 defines MSMEs as follows: micro (1-4 employees), very small (5-9 employees), small (10-49 employees), and medium enterprises (50-250 employees).

Overall, there are few studies that examine the empowerment effects of microcredit on women clients, and the few quasi-experimental and mixed methods studies that do have been critiqued for various limitations in research design and methodology (Duvendack et al. 2011; Armendariz and Morduch 2010). Thus, it is useful to turn to the findings of the few recent RCTs that have examined impacts on women's agency. These studies indicate that for the most part indicate microcredit has had very little, if any impact. Banerjee et al. (2010) find that increased access to primarily group-liability credit in low-income urban neighborhoods in southern India did not affect women's role in household decision making regarding spending, investment, savings or education. Similarly, Crepon et al. (2011) find that in rural areas of Morocco, group-liability microcredit had no impact on women's agency, as measured by the number of household activities managed by women, women's decision making power within the household, and women's mobility within and outside their villages. However the statistical power of the findings from this study is somewhat limited given that the majority of the study sample is male. Only one of the RCTs (Karlan and Zinman 2010) found positive results in this area. Both female and male borrowers of individual loans in South Africa reported increased household decision making and higher community status.

The evidence from both rigorous and less rigorous evaluations on the impact of microcredit on women's agency is quite mixed. While several rigorous and less rigorous studies claim limited impact, others find that improved economic outcomes for women contribute to some facets of enhanced agency, particularly within household decision making. However, given the various methodological limitations of the quasi-experimental studies that find more positive impacts on women's agency, it is likely that these findings are overstated. There is thus a critical need for more rigorous studies on the specific contexts and ways in which microcredit influences women's agency.

Gaps and opportunities

Despite the great success of microfinance, the demonstrated demand and the huge strides made in meeting that demand, there is a continuing gap in access to microcredit among poor women. As recently as 2009, large numbers of people remained "unbanked" or excluded from any formal financial services. In 7 African countries,[7] people without access to financial services, whether formal or informal, constituted from 26 perecent of the population in South Africa to 78 percent in Mozambique (Makanjee 2010). Women's financial exclusion in the same countries represented from 24 percent in South Africa to 79 percent in Mozambique, and a somewhat larger proportion of women than men were excluded in all countries except South Africa. Women's exclusion from access to formal financial services is also particularly high in the Middle East (87, as compared to 77 percent for men) and South Asia (75 versus 59 percent for men), and slightly lower in Latin America and the Caribbean (65 percent compared to 56 perecent for men) (Demirguc-Kunt and Klapper 2012).

This is a potential opportunity for investors who seek to close the gaps that exist for women in all regions and, especially, in the Middle East and Africa. Even though the goal

[7] The Republic of South Africa, Namibia, Botswana, Malawi, Zambia, Tanzania and Mozambique

of MFIs is to be financially self-sustaining, in practice, this is often not the case. Definitions of sustainability vary by organizations and, even within their own definitions, many MFIs have not yet achieved sustainability. In part, this may be because they are mission driven and continuously seeking to expand outreach, financing this growth in various ways as, for example, out of their profits, or through investments and grant and donor funding.

MFIs employing group-methodologies may need financing to cover the costs of forming new groups, training members in the principles of microfinance and group governance, and providing support until they reach a level of development to continue on their own. Costs may vary substantially between methodologies and countries and MFIs' ability to cover them can also vary. MFIs may also need funds for on-lending as, for example, in the village banking or the SHG models where some of these funds come from local banks per the methodology. Such investments can take the form of a line of credit or a guarantee fund, the cost of which the MFI may pay back through interest earned via on-lending. The critical balance for a potential investor, especially a grant-maker, is to ensure that the commercial viability principles on which microfinance is based are not disturbed.

There is scope, on the research side, for rigorously testing product demand. As microfinance matures and starts to segment its market, as it is already beginning to do with individual versus group liability loans, there will be a need to test the kinds of products that are sought by women in more finely-tuned income groups, say, among the very poor, less poor, lower middle-income, etc.

There is also a critical gap, as shown above, in loan products that are useful for women entrepreneurs. Research is needed to support the design of tailored products. In the last decade some promising models have emerged of tailored credit products and services offered largely by commercial banks, sometimes in conjunction with aid agencies and governments, to SME level women entrepreneurs in Sub-Saharan Africa, East Asia and South Asia (IFC 2011). For example, a number of banks in these regions have been offering a holistic suite of products and services for this profile of women entrepreneurs that includes term loans, loans for working capital and to support business expansion, as well as advisory services, mentorship and networking services (IFC 2011).[8] Other types of products and services may be needed for different profiles of micro-entrepreneurs as less successful micro-entrepreneurs are less inclined to invest loans (or grants) in their businesses (Fafchamps et al. 2011). Research can help fill the gap in identifying the kinds of products women entrepreneurs at various levels—micro, small and medium— demand in various places.

For some women micro-entrepreneurs, it may be necessary to offer other types of services that may include credit but also go beyond it to develop their business skills and make them "loan ready" and better able to leverage credit. Some MFIs and banks are

[8] Examples of promising credit product and other service offerings targeted at SME-level women entrepreneurs are highlighted in the IFC's report *Strengthening Access to Finance for Women-owned SMEs in Developing Countries,* Annex B.

already doing so, offering business management, financial literacy, or enterprise-specific training (e.g. provided by Opportunity International, FINCA, SEWA). Such packages of credit and non-financial services are commonly referred to as “credit-plus” or “microfinance-plus.” Another group of MFIs and banks (e.g., Grameen, Banco, Compartamos in Mexico and BancoSol) opted not to mix financial with business services because they did not want to compromise the efficiency and quality of the financial services by adopting too broad an agenda, and one that fell outside their main expertise area (Roodman 2012). This was a particular concern especially in the early years of microfinance but may be less so now that the methodologies are so well established. In fact, some MFIs like BASIX in India, consider it essential to offer the full suite of services with the idea that these services should go hand-in-hand in order to impact on business development. They are, therefore, experimenting with ways to combine these services that are effective and yet avoid the known pitfalls associated with “diluting” services. For example, a Freedom from Hunger affiliate study found that female rural and urban borrowers in Peru who received business training along with loans showed improvement in business knowledge, repaid loans more reliably, and increased client retention rates for the microfinance institution (Karlan and Valdivia 2009).

B. Savings

Savings is a way for poor women to accumulate sums of money that can serve many of the same purposes as do loans—consumption smoothing, risk mitigation, or with larger accumulations, investments in business creation or expansion. The risk mitigation function of savings is critical for low-income women and their households because they typically do not have a social safety net under them. They are often just one unexpected illness or other crisis away from financial disaster that may cause them to fall deeper into poverty or debt, or sell assets. A significant advantage of savings over credit is that it does not involve repayment and the risk of indebtedness—important reasons why poor people can and want to save (Roodman 2012). A potential disadvantage is the need to wait until the appropriate sum required for a purchase or investment is accumulated.

Despite the obvious benefits, savings for poor women has not grown as fast as credit. A key reason for this was that credit was often provided by NGOs set up mainly for this purpose and they were prohibited by law from taking deposits. This was the case in some Latin American countries and in India. Unlike banks, NGOs were unregulated and the safety of deposits therefore could not be assured, an especially important consideration as their clients were poor. There are many other reasons both on the side of demand among poor women themselves and because the microfinance industry has been slow to offer voluntary savings products even though many group models require savings whether for on-lending or to guard against default. On the demand side, there is the strong perception that poor women will have difficulty saving because their earnings are low and irregular and women are subject to demands for cash from other household members.[9] In other cases, financial institutions themselves have held back because of regulatory constraints as mentioned above, risks involved in managing deposits and the costs associated with

[9] This is the case even though paradoxically, as demonstrated above, many group-based loan programs require prior accumulation of savings as the basis for making loans.

managing many small deposit accounts (Counts and Meriweather 2008). In Latin America, the prohibition on collecting deposits was one of the reasons that led to the creation of for-profit banks such as Banco Sol and Banco Compartamos. In India, group-based savings are permitted because they fall in the “informal finance” category. As they are retained within the group that generated them, it is assumed that it is in the group’s own interest to ensure the funds are protected. Of course, members of SHGs linked to banks have a formal (regulated) savings options beyond the group.

Many MFIs start microcredit operations by requiring members to contribute to a compulsory savings fund. These funds serve purposes such as a pool for loan funds, or an emergency fund that the MFI or group can use to protect against delayed payments and defaults. Some MFIs claim that they mandate savings to inculcate the thrift habit among clients. Typically, forced savings are inflexible accounts as clients have to abide by strict rules about how much to contribute and how often, and there are restrictions on withdrawals. Clients cannot withdraw these forced savings at will and some MFIs even require savings to be held until clients leave the program. As a result, some MFIs hold substantial funds in forced savings. In much of the 1990s, at Grameen Bank, for example, clients’ savings were 40 percent greater than their borrowings (Roodman 2012).

However, it is only since the late 1990s that MFIs began to offer more flexible savings products and, those that did experienced rapid increases in such accounts (Meyer 2001). A survey of 340 MFIs around the world found that while only 129 of them offered savings between 2004 and 2006, those that did experienced greater growth in savings than in loan accounts (Stephens 2008). Grameen Bank began to take deposits more than a decade ago, and as of 2011 had more than $1.4 billion in savings, as compared to an outstanding loan portfolio of $965 million. Many other MFIs around the world followed suit. In Indonesia, the public Bank Rayat Indonesia (BRI), which shifted in the 1980s from acting as a lender of subsidized credit to taking a more market-based approach currently has 4.5 million loan accounts and 21 million savings accounts (MIX Market data, cited in Roodman 2012). In Kenya, the MFI Equity Bank has more than 4 million account holders and 715,000 borrowers (Maes and Reed 2012), and between 2004 and 2006 more than 500,000 clients in the country opened savings accounts at MFIs (Stephens 2008). In Latin America, BancoSol and MiBanco in Peru also hold more savings accounts than loan accounts (MIX Market data, Roodman 2012; Stephens 2008). The fact that MFIs with regulatory approval to accept deposits often have substantially more savers than borrowers, demonstrates the great demand among the poor to access safe, reliable and convenient means to store and accumulate savings (Deshpande, 2008).

Many MFIs now offer both credit and voluntary savings. Savings accounts also take many forms. Some accounts are completely flexible, permitting deposits and withdrawals of any amounts at any time. There are also time deposits in which savings are held for fixed periods and offer higher rates than more liquid accounts. Others may have varied limits on the number of withdrawals per period.

While there are some poor people who can and do save, there are others who do not. There are many reasons why they do not: valuing the present more than the future and, therefore, a preference for spending now; wanting to save but lacking the discipline required to do so; or pressures from family and friends to help them financially. Whatever the reason, some MFIs try to design products that will overcome the personal challenges that savers confront.

One such product is the commitment savings or programmed savings account. It was introduced and tested in Malawi, Philippines, Nicaragua and other developing countries for its effectiveness in encouraging savings among low-income and women clients. This savings product places high costs on deposit-holders for withdrawals made before a pre-determined length of time or level of savings has been achieved, or may only allow withdrawals for use towards specific types of expenditures that are decided upon by clients and bank officers at the time an account is opened. The product has so far been largely targeted to women clients who find it difficult to save for any reason including family pressures.

Some research on the impact of savings shows mixed results. Kaboski and Townsend (2005) in a study in rural Thailand found that pledged savings had a weak effect on business formation while flexible savings had a negative effect. Another study in Northeast Thailand found savings contributed to higher business revenues of wealthier women, but not among poorer women (Coleman 2006).

The results of rigorous studies report more positive results. Three RCTs evaluate effects of savings on businesses and consumption (see Annex B for table of these RCTs). Each investigated the impact of a commitment savings product. Dupas and Robinson (2011) studied the role of savings constraints among men and women micro-entrepreneurs in Kenya. The micro-entrepreneurs were randomly assigned access to savings accounts that offered no interest on deposits and included substantial withdrawal fees. Researchers had the savers keep daily logs with information on business investments, expenditures and health shock. Findings from this study are particularly illuminating. One-fourth of the women saved more than 1,000 K Sh (US$14.28) based on small daily incomes of about $2 per day. Savings had a strong positive impact on business investment among treatment women (40 percent increase) but no measurable effect on men's. Women also spent 10-20 percent more on food relative to the control group. Savings accounts also seemed to make the Kenyan women somewhat less vulnerable to health shocks, which were particularly common in the sample. While women without an account often had to draw upon their working capital in response to illness, female savers did not have to reduce their business investment levels and were better able to afford medical expenses for more serious illnesses.

Brune et al. (2011), in a rigorous evaluation conducted in Malawi, found positive impact of commitment savings on farmers' input use and yields and on household expenditures. However, women represented just 6 percent of the sample (3,150) and results were not sex-disaggregated so it is difficult to tease out how women were affected.

Two of the three RCTs also looked at product uptake (Ashraf et al 2008; Dupas and Robinson 2011). They found that the discipline required by commitment savings products helped women overcome their personal challenges and save successfully. In the Philippines, Ashraf et al (2008) examined the effects of a commitment savings product and targeted marketing efforts on savings among women. They found a strong positive impact on savings levels of clients after a year. Savers purchased more durable goods traditionally associated with women such as washing machines, kitchen appliances, fans and stoves. Although savings levels were not sustained two years later, the researchers thought the product was a valuable option for clients who had difficulties in saving because of personal or familial financial pressure.

Two less rigorous studies examine the effects of women's participation in SHGs in India (including both savings and credit) on women's decision-making, and find contradictory results. Swain and Wallentin (2007) found SHG membership lead to increases in household decision-making, participation in social networks, and reduced prevalence of domestic violence, while Garikipati (2008) found that participation in SHGs had no or limited impact on women's household decision-making power on issues regarding fertility and land transactions. However, the only RCT that looked at decision-making, reported that women savers had greater decision-making power regarding spending. Also, increases in women's decision making power were stronger among women with below-median decision making influence at baseline (Ashraf et al. 2008).

Overall, each of the three rigorous evaluations found positive effects of savings on expenditures and, in Kenya on women's business investments and, in Malawi, on input use and crop yields of men and women. Ashraf et al. also found more decision-making power in the household among women savers. Although these results come from just three studies, they are more clear-cut and favorable than those of the impacts of credit. They suggest that poor women may derive more economic benefits from savings than credit. MFIs are thus on the right track to better serve their clients if they offer both savings and credit.

Gaps and opportunities

The strong evidence on the benefits of savings points to the need for MFIs to reach more women with more and better options for savings. Savings is a particularly favorable alternative for very poor women for whom credit is not feasible because they would have difficulty repaying a loan. For them too, formal savings would be safer and more secure than the traditional ways of saving by holding cash or jewelry. For women who belong to informal savings groups such as rotating savings groups it would be a step up to have access to more formal alternatives such as banks or MFIs. Although informal savings groups help women save by providing discipline and group support, they are often riskier than more formal structures. Research in Uganda showed, for example, that 22 percent of savings were lost in informal savings schemes as compared with 3.5% in the formal sector (Wright and Mutesasira 2001).

Knowing that some women have difficulty saving and that different products may be appealing to different profiles of women, there is an opportunity to invest in product development research and testing. It would be useful to determine the kinds of savings products that would help poor women save in different circumstances and at varying social levels. There is also a need for research on women's ability to control and use their own savings and make household economic decisions.

Finally, it would be helpful to know through additional rigorous research if the initial positive results of commitment savings on women's economic situation, especially business investment, hold up in other contexts and locations.

C. Micro-insurance

Microinsurance has the potential to economically empower women by helping them to mitigate risk. Risk and shocks of various types can be especially harmful to the poor, particularly poor women, as their earnings are often irregular, and sudden death or illness can lead to persistent and cyclical poverty. Women who face a financial shock or crisis are also particularly vulnerable because they usually tend to be responsible for providing care to family members during periods of financial or health shocks. Their ability to earn income may thus be negatively affected by the need to care for others, and yet, women are also often also tasked with managing household finances related to basic survival and care-giving (Lund and Srinivas 2000; Banthia et al. 2009).

In theory, insurance can prevent women and their families from having to adopt unfavorable coping strategies such as selling off productive assets that may in turn worsen their economic position and weaken their future productive capacity. Thus, in as much as it offers women an opportunity to mitigate risk, particularly when offered in conjunction with other financial products and services, microinsurance can be a valuable means to maintain and stabilize the economic position of poor women and their families. In addition to providing a safety net, microinsurance is also hypothesized to lead to greater investments by poor clients in areas such as education and businesses.

Various forms of microfinance have been offered to the poor since the mid-1990s. They include credit life insurance (which covers unpaid loan amounts in the event of a borrower's death), life insurance for spouses, health, accident, property, crop and livestock insurance. Crop insurance intended to protect farmers from losses arising from drought or rainfall has been offered by national governments around the world for even longer. The main providers of formal microinsurance are small to large private and public insurance companies, which partner with MFIs, NGOs, trade unions and credit co-ops to offer insurance policies to their members. Informal forms of insurance that do not have linkages with insurance companies, sometimes known as community-based insurance schemes, also offer risk protection to poor households that cannot afford premiums, and rely more so subsidies. They involve groups of members who contribute small amounts voluntarily to a common fund, which can then be used by members if they become ill or face some other financial shock. Formal insurance with linkages to private or public insurance companies represents the second generation of microinsurance offerings.

One of the earliest formal microinsurance schemes, and one that was primarily targeted to women, was developed in 1992 by SEWA in India. SEWA's holistic insurance scheme, Vimo SEWA, provides health, life and asset insurance coverage at various price points for its female members, as well as non-members who opt to enroll. Members can also buy health insurance for their husbands and children at small incremental prices. SEWA strove to offer these options to their members at affordable rates by expanding the number of policyholders to spread risk (Banthia et al. 2009). Most members pay an annual premium, and this amount is passed on to two formal-sector insurance companies, which subsidize one-third of the scheme and take on most of the financial risk. An innovative payment option SEWA provides to its members is the ability to pay the insurance premiums with the interest accrued on savings accounts. As of 2009, Vimo SEWA had reached 200,000 women, men and children with its various insurance schemes (Banthia et al. 2009).

A number of other MFIs including BancoSol in Bolivia, Delta Life in Bangladesh, La Equidad in Colombia, and the Center for Agriculture and Rural Development (CARD) in the Philippines also provide various forms of health and life insurance policies with tailored benefits for women, who tend to make up a larger percentage of their clients. BancoSol offers female clients a comprehensive health microinsurance policy at relatively low premiums that includes maternity benefits. Within the first two years of piloting the scheme, 14,000 clients had purchased the health policy, 62 percent of whom were women (Banthia et al. 2009). Unlike most life microinsurance policies, CARD in the Philippines has modified its insurance product to provide coverage to spouses, thereby enabling women to receive financial support in the event of spousal death.

Recent success: The scale and reach of microinsurance

In recent years, there has been an upsurge in the number of MFIs, banks and insurance companies around the world that offer microinsurance, and in client uptake of microinsurance products. The ILO estimates that around 500 million people are currently covered by microinsurance in the world's poorest 100 countries, Brazil, Mexico and South Africa (Churchill and Matul 2012).[10] The vast majority of the insured are in Asia (Roth et al. 2007), and primarily in India (Churchill and Matul 2012). However, it is not known what percentage of microinsurance holders are women. The growth in microinsurance since the early 2000s can be partially attributed to increased government involvement, particularly in India and South Africa, to subsidize policies and promote public-private partnerships by encouraging private and public insurance companies to develop delivery channels that reach low-income clients (Churchill and Matul 2012). And indeed, many commercial players have entered the microinsurance market in recent years. Currently 33 out of the biggest 50 insurance companies around the world provide microinsurance, which represents a dramatic growth since 2005 when only seven such companies did (ILO, cited in Rosenberg 2012).

Another factor that contributed to the expansion of microinsurance in recent years is technological advances in mobile phone-based payment transfer mechanisms that make it easier to receive premium payments and pay out insurance benefits to clients (Churchill

[10] This estimate includes government-subsidized schemes that charge some sort of premium.

and Matual 2012). Insurance providers and distributors are increasingly using mobile banking, as well as existing networks created by microcredit and savings institutions, as platforms through which to reach potential clients. For example, the NGO MicroEnsure partners with local financial institutions and insurance companies in Sub-Saharan Africa and Asia to design and deliver microinsurance policies for the poor. In Ghana it collaborated with the mobile phone service provider Tigo to set up a mobile phone-based system for users to enroll in a life insurance policy that expands coverage automatically based on monthly airtime usage. Within just over one year, MicroEnsure enrolled one million participants in this insurance scheme, more than 60 percent of whom were women (Coleman 2012).

A similar approach was developed in Kenya to provide crop insurance to farmers. There, mobile money through the M-PESA network enables insurers to reach a large number of households. The insurance program, Kilimo Salama, is a partnership between the Syngenta Foundation for Sustainable Agriculture, UAP Insurance and Safaricom, which uses M-PESA and a mobile phone-based data system that syncs with weather stations to issue insurance policies and deliver pay-outs to farmers. Since it was piloted, Kilimo Salama has insured almost 64,000 farmers and is looking to expand (Tran 2012).

Different types of insurance products have achieved varying degrees of reach over the years. Credit life insurance has been the most widely adopted (McCord and Roth 2011, Wipf et al 2011). This is largely due to the fact that it is one of the easiest forms of insurance for financial institutions to provide bundled together with credit and to roll premiums into the cost of the loan for borrowers. Yet it offers important protection for families against indebtedness as a result of any outstanding loans of a family member who dies. Banco Compartamos, Mexico's largest microfinance bank and one of the largest providers of microinsurance, provides credit life insurance bundled with all loans. Ninety-six percent of Compartamos' clients are women (MIX Market database 2011)[11] and all of Compartamos' more than 2 million borrowers have this standard insurance policy (Roodman 2012). The next most common is other types of life insurance, which together with credit life represents 56 percent of the microinsurance market (Roth et al. 2007). These are followed by accidental death and disability, and then by health microinsurance (Roth et al. 2007). Although health microinsurance is relatively new, recent estimates indicate that around 40 million people worldwide have access to it, again mainly in India (Leatherman et al. 2010). While crop insurance has been tried for decades in many different contexts, very few programs have been successful or widely adopted (Roodman 2012, Pg. 95; Morduch 2006).

Challenges to effectiveness

In spite of its large reach currently, for much of its history the microinsurance industry has struggled to create successful models that are profitable and also widely taken up by the poor (Roodman 2012). A number of supply-side and demand-side factors have tended to limit the success of microinsurance, though it is not clear to what extent these have

[11] Comportamos Banco data from 2011.Web link: http://www.mixmarket.org/mfi/compartamos-banco/report

been overcome in recent years to enable the expansion of the industry. On the supply side, developing and implementing effective distribution systems for insurance is more complex than providing credit and savings for several reasons. Insurance overall carries the risk to the provider of moral hazard (that those taking insurance will change their behavior to make them more likely to require a claim) and adverse selection (that those who are most likely to require a claim will be more likely to purchase insurance). In the case of micro-insurance, also, it is relatively more costly to provide insurance to large numbers of clients who can only pay small premiums. Further, newcomers to insurance, as many poor clients are likely to be, must be educated to understand how insurance works and can benefit them. Educating clients about insurance offerings, as well as processing and verifying many small claims submissions can also be very expensive for providers. Thus, it is difficult to set premium rates that are both likely to cover the cost of delivering insurance and affordable for the poor, factors that make delivery of microinsurance especially challenging.

Demand-side constraints are mainly that the poor, who have difficulty making ends meet day to day, are often unwilling to make regular payments for products from which they believe they may never receive a payout. Without prior experience, poor and new client may not understand the potential financial benefit of enrolling in insurance, which highlights the need for more effective marketing and client outreach strategies and of education. Other demand and supply-side impediments are highlighted in a study of Vimo SEWA, which examined the extent to which poorer women were able to enroll in health insurance and receive benefits for health services used. The researchers found that poorer female policy holders, especially those in rural areas, were much less likely than men to submit claims for health care they received, due in part to their lower literacy rates and limited negotiation skills (Ranson et al. 2006). This raises the issue of the need to simplify submission processes for claims, and that insurers may need to provide additional guidance and support to women clients to ensure they receive benefits for which they are eligible.

Gaps and opportunities

Despite the fact that microinsurance has reached sizeable scale and has recently experienced an upsurge in the number of clients, not much is known about how women benefit from microinsurance in terms of household risk management, income, poverty, or business impacts. As discussed in the methodology section, our review found no rigorous evaluations that assessed the impact of microinsurance on women's economic outcomes. In fact, the existing empirical evidence on how microinsurance affects clients' ability to cope with shocks is also very limited. For example, studies on crop insurance including the newer forms of index crop insurance that pay benefits to farmers based on average levels of production or rainfall in a given area, have focused on assessing effects on investment choices, not on subsequent economic impacts. A few have found that agricultural insurance incentivizes farmers to increase investment, but overall the evidence is not conclusive as to whether or not microinsurace positively impacts businesses (Magnoni and Zimmerman 2011). Furthermore, all of the studies on crop or other agricultural insurance either do not disaggregate findings by sex, or do not evaluate insurance interventions that have reached women. In general, there is also not sufficient evidence on how insurance, either alone or in conjunction with other financial services, affects poor clients' ability to protect assets, smooth consumption or support investments in non-agricultural businesses (Magnoni and Zimmerman 2011).

Although we were unable to find results on how microinsurance has affected women's economic empowerment, our review found one existing operational RCT that provides some insights on product design and outreach to clients, and that also highlights the challenges associated with promoting microinsurance to low-income populations. To assess the effectiveness of MFIs as delivery agents of a national health program among informal workers in urban Nicaragua, Thornton et al. (2010) randomized premium costs and the location of enrollment— the central office of government program or local branches of partner MFIs. Perhaps surprisingly, the study found that MFIs had a slight negative effect on enrollment rates. Uptake overall was low, even among women and men whose health expenses were higher than the annual premiums, and there was no difference in uptake among women and men. Further, although lowering insurance premiums encouraged enrollment, most policy holders did not renew the policy once the subsidy ended, indicating that short-term reductions in premiums were not effective in retaining clients. The researchers concluded that there was a low willingness to pay premiums because individuals did not value insurance as a means of managing risk, which aligns with a recurring theme that has for long hampered the microinsurance industry. More evidence from operational studies that assess product design and delivery and uptake among female and male clients would be valuable to better understand how microinsurance has succeeded in achieving recently-reported scale.

Although a picture is emerging of a rapidly growing area of financial services to the poor, what is missing at a basic level is an understanding of the factors that have contributed to increased uptake among clients, the quality of insurance products and services delivered to clients, and the frequency with which payouts are made. At a level higher, a major research gap is the lack of evidence on the economic benefits that accrue to women and other clients from the use of insurance products, either alone or together with credit or savings. Therefore it is not possible to assess what types of microinsurance products and delivery mechanisms are effective or not.

However, given the dramatic increase in recent numbers of clients, it is especially important to track and understand how the system is working. Some of the questions that need to be explored include the following: What proportion of clients are women? What types of products are reaching them? Do the available products meet their needs as, for example, for maternity health benefits? Are low-income clients receiving the benefits owed? Are there gender differences in making claims and receiving payments? As discussed earlier, the fact that most existing studies and evaluations of microinsurance do not collect sex-disaggregated data on uptake and usage also means that there is limited information about how products and delivery mechanisms can be more effective at reaching women specifically.

Given the potential for microinsurance to reduce economic risk and vulnerability among women, the field can stand to benefit from greater investments to simultaneously test and evaluate different insurance schemes and ways to deliver them, including some of the innovative methodologies that are currently being implemented. Research in this area should first seek to understand what types of product features and delivery mechanisms related to marketing, distribution and claims processing are more effective at attracting and retaining female clients. This is where operational RCTs that test specific design and delivery elements of microinsurance could generate important findings. Furthermore, more studies are needed to assess how microinsurance, particularly life and accident on which there has been little research, affects women's economic position when faced with negative shocks. For example, while it seems that microinsurance schemes such as Vimo SEWA and those offered by BancoSol and CARD that are tailored to the needs of women may be more effective at reaching out to women clients, more information is needed on how they have economically impacted women. Some important questions to explore related to impact are how microinsurance affects women's savings levels, business investments and household economic security.

On the programmatic side, given the challenges associated with reaching the poor over much of microfinance's history, external investments would very likely be valuable in supporting the work of insurance providers and distributors to conduct outreach to women and the poor on the value of insurance and claims submission processes. Given that these activities are resource-intensive and contribute to inefficient cost structures in providing microinsurance, subsidization of this component of service delivery could help to further expand reach and ensure that women are able to benefit from insurance payouts to offset frequent or rare shocks.

D. Branchless and mobile banking

Branchless and mobile banking are promising new developments that have great potential to expand financial inclusion and facilitate access to financial services among the poor. Specifically, they can help to overcome the barriers of high costs and lack of proximity to financial institutions that often impede the poor from accessing financial services (Alexandre 2011). In this way, they offer the prospect of enabling low-income people who commonly use informal financial services to readily access a range of more affordable, convenient and secure banking services via safe and secure electronic transactions. Mobile banking, in particular, also offers people the option to bank on-site from their homes and circumvent ground transportation and other costs posed by distance. This is especially important for women whose mobility may be limited by culture, cost or time poverty. Mobile banking also has the potential to reduce challenges to physical safety that women may face in traveling long distances to banks or MFIs.

Branchless banking includes banking via mobile phones as well as deployed technology such as point-of-sale (POS) networks, kiosks, smart cards and ATM systems. Branchless banking platforms serve as convenient delivery channels for various kinds of financial services including loans, savings and insurance. They enable clients to make micropayments to merchants or peer-to-peer (P2P) transfers to individuals, send long-distance remittances and receive payments from others. More recently-developed second-generation services that are being offered in many countries in Asia, Africa and Latin America include the ability to access savings, credit and insurance accounts in order to deposit savings, send loan repayments, and access account information.

There is no universal form of mobile banking; rather, purposes and structures vary from country to country. The institutional and business models that deliver these systems also vary across countries. In terms of mobile banking, some services are offered entirely by banks, others by telecommunication providers, while others involve partnerships between banks and mobile phone service providers. Regulatory factors, which can vary dramatically in different country contexts, play an important role in determining if and how financial institutions can deliver mobile banking services, and through which institutional arrangements. Much of the infrastructure needed to support mobile banking and branchless banking services is still under development in most countries.

Gaps and opportunities

The number of mobile banking service deployments has increased substantially since the mid-2000s, and on-going product and service innovations continue to generate new opportunities. Mobile banking has experienced more rapid evolution and adoption in low and middle-income regions where there are higher wireless penetration rates, such as in Southeast Asia, South Asia and East Africa. Currently there are at least 110 active mobile money systems around the world, which reach more than 40 million people. M-Pesa, the most prominent mobile money service, which started in Kenya now operates in six countries and has 20 million users (Donovan 2012).

Given the relatively recent emergence of branchless and mobile banking, the evidence on its effectiveness is extremely limited. No rigorous impact evaluations are currently available. However, some early process and performance evaluations on mobile banking have sought to assess client demand for and uptake of these services, how clients use mobile banking services, and the effectiveness and costs of mobile-based financial transactions. A study of M-Pesa in Kenya found that households that used the service were able to overcome negative income shocks, while those that did not experienced a decline in consumption by an average of 6-10 percent (Suri and Jack 2011, cited in World Bank 2012). Another study revealed that people used M-Pesa primarily to send money, although some also used it for savings (Stuart and Cohen 2011). Similar research in South Africa showed that although mobile banking had the potential to increase financial inclusion, it had not done so thus far (Porteous 2007, cited in World Bank 2012). More studies on mobile banking are needed to understand how, if at all, mobile money systems such as M-Pesa contribute to expanding financial inclusion among women.

A critical factor that needs to be considered in discussions on mobile banking is that there is a gap in women's ownership of mobile phones. The 2010 report *Women & Mobile: A Global Opportunity* (GSMA Development Fund and Cherie Blair Foundation for Women 2010), reports that globally, there are 300 million fewer female than male subscribers of mobile phones in low- and middle-income countries, and that women are 21 percent less likely to own mobile phones than men. Specifically, it finds that the gender gap in mobile phone access is 23 percent in Africa, 24 perecent in the Middle East, and 37 percent in South Asia. While this gap represents a substantial gender divide in access to mobile phone technology, it also offers an opportunity for further market research on the women's demand for and ability to purchase mobile phones.

Very little information is available about the particular experience of women users of mobile banking, or on how mobile banking may impact women differently from men. In fact, despite the early successes of branchless and mobile banking, our review finds that there is very little focus by the diverse range of actors in the industry on how to design and deploy innovations that can expand reach to women users or address their financial inclusion needs. As discussed earlier, however, mobile banking in particular has the potential to support women's ability to access financial services in safe, more convenient ways. A recent study also demonstrated other potential benefits for women. Mobile money payment transfers and digital savings accounts, which are less visible than cash, were found to be more effective than other vehicles in allowing women to store and exercise agency over their financial resources outside the home (Morawczynski 2009, cited in World Bank 2012).

Outside the area of financial services, an RCT of a drought-recovery cash-transfer program in rural Niger that used mobile money to make the transfers reported gender-related impacts. The study found some evidence that households in which women received the cash transfers through mobile phones consumed more diverse foods and cultivated more diverse crops, and that they were more likely to have reported engaging in joint decision-making related to education and agricultural production (Aker et al. 2012). Though the sample size was small, making it difficult to detect statistical significance, the study suggests that more discrete form of delivering a transfer payment through mobile phones may have enabled women to exert greater agency over how to use income. Research such as this on how mobile banking may influence women's control over financial products could contribute valuable insights in understanding what models of interventions are most effective in improving women clients' control over and use of their own income. More such studies are needed.

Although innovations in the design and delivery of branchless and mobile banking platforms are driven by formal financial institutions and telecommunication companies, there is still opportunity for external investment to contribute to the expansion of options that can benefit women users. For one, greater market research is needed to understand women's demand for and use of branchless and mobile banking. Insights from such research can inform thinking about how to more effectively design mobile phone applications in ways that facilitate women's ability to conduct financial transactions. Given the fact that barriers still exist to women's access to and use of mobile phones, there is a need to support capacity-building efforts by civil society organizations and microfinance institutions that train women on how to use mobile phones and facilitate access to loans to enable women to purchase mobile phones.

Lastly, more targeted studies and evaluations that collect sex-disaggregated data are needed to understand to what the extent and which women are among the users of branchless and mobile banking services, the factors that influence their uptake, and how branchless and mobile banking affect women's financial inclusion, ability to control financial resources, and savings and incomes.

V. Conclusions and Recommendations

The strongest evidence that credit works for poor women is the huge number who have demonstrated their demand for it, apparently using it in ways that they see fit and repaying their loans in a timely and reliable way. The broad features of microcredit that seem to have worked well for and have generated such great demand among low-income include the ability to substitute collateral with collective guarantees through group responsibility for loan repayment, small repayment installments, and the ability for women to graduate to higher loan sizes after successful repayment. These supply-led features have been developed over the years by microfinance providers based on an improved understanding of what female credit clients seek from credit, as well as through recognition that group lending methodologies have on the whole worked well for low-income women.

As there are still huge numbers of poor women who remain unbanked, this remains an area for donor investment. In order to fill in the gap, investors should offer both group-based and individual loans, thereby expanding choices for women borrowers. However, investors should also take care to invest in ways that do not disrupt the commercial orientation of many MFIs. Ways of doing so include providing lines of credit or loan guarantees to MFIs, as many investors are currently doing and for which there is still scope in places where MFIs are growing their programs. Other areas that are suitable for and can most readily capitalize on external investment are those related to building client capacity to effectively leverage credit and other financial products. For example, investments in delivering training in financial literacy, business management and group formation may be helpful in successfully on-boarding new entrant clients and helping establish them on a stable trajectory for using financial services.

There is also great potential to invest in loan product development to offer more options of individual and less restrictive loans than is now the case, especially for women whose financial needs exceed the scope of group-based microfinance. Further, given that uptake of savings and credit is more likely among already-established and successful businesswomen, investors who want to help women strengthen their businesses should focus on supporting this level of women entrepreneurs.

On the research side, despite the immense literature on microfinance there is a very large gap in rigorous studies that afford comparability on how specific types of financial products, and different ways of delivering them, have affected women economically. For one, studies of interventions that target both women and men should disaggregate data by sex, as well as examine individual and household-level economic outcomes when possible. There is also a great need to know more about how women are impacted by specific financial services and which women benefit under what circumstances. Therefore, studies that examine the differential impacts of specific components of financial service interventions or offerings (e.g. group versus individual liability loans; voluntary savings versus group based credit), and for different profiles of women in specific locations, would be useful. RCTs have been particularly valuable for assessing the effect of specific product design on client uptake, demand and early economic outcomes. Thus, it would be worthwhile to invest in additional RCTs on credit and savings products in order to develop and test specific products, and assess how they are sought by and work for women.

The strongest empirical evidence on the impact of financial services shows that savings has a positive impact on women's businesses and expenditures. There is some limited rigorous evidence that credit does. However, the evidence on savings derives from just three studies, one of which did not disaggregate effects on women and men farmers. There is some evidence from a few studies of both credit and savings which finds that less poor, more successful businesswomen are more likely to experience improved business outcomes from the use of savings or loans than are poorer, less successful ones. This includes the finding from the RCT by Fafchamps et al. (2011) that grants to businesswomen had a positive impact on the profits of businesses that were larger and more profitable at the outset, but no impact on business that started out less successful.

Given the positive impact of savings products, the microfinance industry should seek to enhance the accessibility of savings products for women at various income levels. Expanding savings for very poor women would be a particularly valuable area for investment, as it protects against the risk of over-indebtedness while offering many of the same benefits as credit in supporting women's business investments, as well as strengthening resilience to shocks. Very poor women have shown that they can and will save. For those women who have difficulty saving or guarding their savings, commitment savings products have demonstrated thus far that it is possible to design products that can support women's ability to save. Additional investments in designing and evaluating varied savings products in more diverse geographical contexts would be valuable in informing how to develop a wider range of savings products that appeal to diverse types of women seeking to save.

Given that both microinsurance and branchless and mobile banking have recently experienced rapid uptake, but that very little is known in terms of reach to and impact on women, it would also be useful to fund RCTs to develop and test specific products. Much more operational and impact research is needed to track the extent to which specific products in both service areas are reaching women and which profiles of women, and how they meet women's needs and help to mitigate risk in conjunction with other types of financial products. As with microcredit and savings, investments can also be channeled in ways that support the efforts of MFIs to conduct outreach to women but without compromising the commercial orientation of private sector providers and partners. For example, subsidization of activities to educate and support women clients to choose appropriate insurance products and file submission claims, or to train them on how to use mobile phones to make financial transactions and access financial services can help to effectively expand reach to women and ensure their needs are being met by the a generation of financial products and services.

Annex A. Studies on Credit and credit/savings examined in-depth

	Authors	Title	Country	Intervention Setting	Methodology	Unit of Randomization (for RCTs)	Sample profile	Intervention	Business Impact	Impact on Women's Agency	Other Economic Impacts
Group Based Credit											
Village Banking											
1	Coleman (2006)	Microfinance in Northeast Thailand: Who Benefits and How Much?	Thailand	Rural	Quasi-experimental, pipeline design Panel data of participating and non- participating HHs n= 455 HHs Low-moderate robustness		Poor and less poor women	Credit Some savings, which may be used to provide loans	Increased business sales among wealthier members (no impact on poorer women)		Positive impact on savings of wealthier members (no impact on poorer women)
2	Kaboski and Townsend (2009)	The Impact of Credit on Village Economies	Thailand	Rural and peri-urban	Quasi-experimental, natural experiment Panel data at HH level from before and after intervention n= 960 HHs Moderate robustness		Male- and female-headed HHs	One-time government grant to establish village banks that offer credit	Positive impact on HH business and labor incomes No impact on business formation or investment Female-headed HHs 10% more likely to have above-average business incomes		Almost 1-1 increase in HH consumption of income-elastic goods (e.g. fuel, meat, dairy, alcohol)
3	Kaboski and Townsend (2005)	Policies and Impact: An analysis of Village-Level Microfinance Institutions	Thailand	Rural	Structural model Longitudinal dataset n= 2,880 HHs Moderate robustness		Mainly poor women	Credit+ (some training in income-generation) Savings Village-level MFIs; some use production credit groups, women's groups	Weak effect of pledged savings on business formation Flexible savings accounts associated with less business formation Women's groups positively affected business start-up		Women's groups and pledged savings positively associated with increased job mobility Negative effect of flexible savings on job mobility Positive impact of cash loans from production credit groups and women's groups on HH asset growth Both flexible and pledged savings products associated with less reduction of consumption during bad year
Group Solidarity											
4	Banerjee et al. (2010)	The Miracle of Microfinance? Evidence from a Randomized Evaluation	India	Urban	RCT Tested impact of opening of new MFI branches n=2800 Rigorous	Slum community	Poor women	Mainly group-liability credit Also offers mortgage and insurance products, and savings accounts	No significant impact on women's business revenues, profits or number of employees Positive impact on business formation among women's HHs Positive impact on HH consumption of durables, among HHs with existing businesses	No impact on women's decision-making on HH spending	No impact on overall average per capita HH consumption

5	Crepon et al. (2011)	Impact of Microcredit in Rural Areas of Morocco: Evidence from a Randomized Evaluation	Morocco	Rural	RCT Tested impact of opening new MFI branches n=5,551 HHs Rigorous	Villages	Majority are poor men; small sub-sample of poor women	Group-liability credit	Led to higher revenues, profits and number of employees of clients' existing non-livestock agricultural businesses (no impact on non-agricultural enterprises) Expand scale of HHs' existing livestock and other agricultural activities HH businesses HHs with existing livestock business increased stock of animals No impact on HH business creation	No impact on number of HH activities managed by women, women’s decision making power within HH, or women’s mobility	No impact on poverty or average per capita HH consumption HHs with no existing business increased food and durable consumption HHs with existing business reduced overall and non-durable consumption, but increased savings
6	Chen and Snodgrass (2001)	Managing Resources, Activities and Risk in Urban India: The Impact of SEWA Bank	India	Urban	Quasi-experimental Statistical comparison of members and non-members Panel data collected two years apart; no pre-intervention data n=798 women Low-medium rigor		Poor and very poor women microentrepreneurs, laborers, sub-contractors	Group-liability credit+ (various types of training) Savings Microinsurance	Positive impact on HHs' total informal sector earnings and microenterprise revenues No impact on women's principal microenterprises Small impact on number of employees of HH businesses		Increase in women clients' informal sector earnings Increased total and per capita incomes of clients' HHs (savers more so than borrowers, and greater increases among repeat borrowers) Positive association between credit/savings and consumption of durables Weak association between credit/savings and income diversification, food consumption and resilience to shocks
7	Gobezie and Garber (2007)	Impact Assessment of Microfinance in Amhara Region of Northern Ethiopia	Ethiopia	Rural	Quasi-experimental and qualitative methods Surveys of incoming and mature clients n=690 clients Low rigor		Mainly very poor women	Group-liability credit Savings	Loans were not used as much for investment in microenterprise activity	Increased women's role in HH decision making	Credit contributed to improved food security among HHs of both women and men clients
8	Hashemi et al. (1996)	Rural Credit Programs and Women's Empowerment in Bangladesh	Bangladesh	Rural	Mixed methods: Quasi-experimental design; collected qualitative data n= 1,300 clients Low rigor		Mainly women; very poor and poor	Group-liability credit Mandatory savings		Higher income from savings and credit increased women's ability to make small and large purchases, and involvement in major HH decisions	Increased women's ownership of productive assets

9	Khandker (2005)	Microfinance and Poverty: Using Panel Data from Bangladesh	Bangladesh	Rural	Retrospective analysis of survey data from clients and non-clients over time (over 7-8 years) Low rigor		Mainly women; very poor and poor	Group-liability credit for income-generation activity Some loans for consumption and housing			Credit led to higher poverty reduction among women clients' HHs than among men's Slightly higher impact on HHs in extreme poverty, than those in moderate poverty MF accounts for more than half of the 3% decline in poverty among clients Female borrowing has a positive effect on HH food consumption (male borrowing has no effect)
10	Kondo et al. (2008)	Impact of Microfinance on Rural Households in the Philippines	Philippines	Rural	Quasi-experimental ex-post evaluation n= 2,276 HHs Data from client and non-client HHs in each treatment and intervention village Low rigor		92% of sample is female 10% of sample is poor; 4% is very poor.	Group-liability credit	Positive effect on number of enterprises and employees of clients		Mixed impact on HH income, expenditures and food consumption: positive impact only for higher-income HHs; impact on poor HHs is negative or insignificant
11	Pitt et al. (2006)	Empowering Women with Microfinance: Evidence from Bangladesh	South Asia/ Bangladesh	Rural	Quasi experimental Panel survey data collected at two points in time (6-8 years apart) Low-medium rigor		Overall- mainly women, but some men extremely poor- 60%	Group-liability credit		Positive impact on women's role in HH decision making on expenditures Increased access to and control over loans and income Positive impact on women's mobility outside the home	
12	Pitt and Khandker (1998)	The Impact of Group-Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter?	Bangladesh	Rural	Quasi-experimental Retrospective analysis of a panel HHs in participating and non-participating villages; no pre-intervention data n=1,538 Low rigor		Very poor women	Group liability credit+ mainly for microenterprise activity Training in skill development, literacy, bank rules, investment strategies, health, gender)		Group-based credit particularly beneficial in enabling women to exert greater influence in HH decision making	Credit to women more likely than credit provided to men to positively affect HH consumption and women’s non-land assets

SHGs											
13	Erulkar & Chong (2005)	Evaluation of a Savings and Micro-credit Program for Vulnerable Young Women in Nairobi	Kenya	Urban	Quasi experimental Panel data from participants and control group; data before joining and 1-2 years after n=652 (32% attrition) Low-medium rigor (high attrition, selection bias) Low rigor		Poor, out-of-school female youth (age 16-29) Were microentrepreneurs or planned to be	Group-based savings and credit+ through SHGs (savings more common) Credit intended for business start-up or expansion Business management, life skills and sexual and reproductive health training; mentoring		Participation contributed to enhanced ability of girls to negotiate some decisions within relationships	Participation associated with higher levels of individual income among girls, and higher HH assets Associated with higher individual savings levels More than half of participants had difficulty with timely repayment
14	Garikipati (2008)	The Impact of Lending to Women on Household Vulnerability and Women's Empowerment: Evidence from India	India	Rural	Quasi experimental Panel data from SHG HHs and non-SHG HHs Qualitative methods n=291 HHs Low rigor		50% sample is female Poor; most women are laborers	Credit and savings through linkages to banks		Limited and mixed impact on women's HH decision making and control over resources Loans to women mainly used for family enterprises and business primarily controlled by husbands	
15	Swain and Wallentin (2007)	Does Microfinance Empower Women? Evidence from Self-Help Groups in India	India	Rural	Quasi experimental External control group and panel survey data from HHs of SHG members and non-SHG members No pre-intervention data n=961 HHs Low rigor		Poor women	Credit and savings through linkages to banks		Increased women's HH decision making related to economic activity and control over own savings	
Individual Credit Only											
16	Feigenberg et al. (2011)	The Economic Returns to Social Interaction: Experimental Evidence from Microfinance	India	Urban and peri-urban	RCT Tested the impact of meeting frequency and social interaction on repayment rates of individual-liability loans n=1016 women Rigorous	Credit groups	All women	Individual-liability loans			In the absence of group liability and enforcement, more frequent group meetings led to greater social interaction and reduced default rates
17	Karlan and Zinman (2011)	Microcredit in Theory and Practice: Using Randomized Credit Scoring for Impact Evaluation	Philippines	Urban	RCT Assessed impact of offering access to individual loans to marginal clients who otherwise would have been n=1601 individuals Rigorous	Individuals	Less poor microentrepreneurs (incomes higher than poverty line); 85% female.	Individual credit	No conclusive impact on business revenue Negative impact on number of businesses of both women and men Negative impact on number of employees of women and men		Credit enabled clients to better manage economic risk

18	Karlan and Zinman (2010)	Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts	South Africa	Urban	RCT Assessed impact of offering access to individual loans to marginal clients who otherwise would have been rejected n= 787 individuals Rigorous	Individuals	Poor men and women wage workers	Individual credit		Reported experiencing increased HH decision-making (though small sample size of married women, and imprecise estimate)	Positive impact of access to credit on clients' retention of jobs Positive impact of access to credit on HH incomes Loans increased HH food consumption No significant difference in impact of credit given to men and women
Group and Individual Credit											
19	Attanasio et al. (2012)	Group Lending or Individual Lending? Evidence from a Randomized Field Experiment in Mongolia	Mongolia	Rural	RCT Tested impact of opening of MFI branches by assigning group liability loans, individual loans or no MFI branch n=1,448 Rigorous	Villages	Poor women	Group-liability and individual credit originally intended to for business purposes	Access to group liability credit had positive impact on HH business creation (no impact of individual credit) Access to group credit had positive impact on women's profits in areas with access to credit for longer period		Strong positive impact of access to group loans on HH food consumption Access to individual loans had no impact on HH non-durable consumption (but had positive impact among women with low education levels)
20	Barnes 2001	Microfinance Program Clients and Impact: As Assessment of Zambuko Trust, Zimbabwe	Zimbabwe	Urban	Quasi experimental Panel data clients and non-clients two years apart; no pre-intervention data Low rigor		75% of sample is female; microentrepreneurs; 50-66% are poor microentrepreneurs	Group and individual-liability enterprise loans for existing enterprise Credit+ for very poor (business management training)	Credit had positive impact on expansion of clients' business products and services, and markets entered Positive impact on business revenues and sales (results not sex-disag.)	Greater joint HH decision-making among married women and men clients No change in women's ability to control business earnings	No impact on household income Positive impact on income diversification, but not among poorest HHs More clients than non-clients fell into poverty Very poor clients' HHs increased consumption of meat, chicken, fish, milk compared to non-clients
21	Dunn and Arbuckle 2001	The Impacts of Microcredit: A Case Study from Peru	Peru	Urban	Quasi-experimental Panel data collected two years apart from clients and non-clients; not consistent pre-post data n=701 (25% attrition) Low rigor		Majority of sample women; a third are poor, others are low-middle income	Individual and group-liability microenterprise loans	Positive association of credit with HH's total revenues and profits from all microenterprises Positive association of credit with number of employees (results not sex-disaggregated)	No impact on women's HH decision-making related to resources	Positive association with credit and HH income (total and per capita) Clients' HHs better able to maintain income diversification Some evidence that loans exacerbated HHs' ability to cope with shocks, especially among poor HHs Increased food consumption among poor HHs, and reduced consumption among non-poor HHs No impact of credit on clients' personal savings

Credit- Unknown Methodology											
22	Bruhn and Love 2009	Economic Impact of Banking the Unbanked: Evidence from Mexico	Mexico	Urban and rural	Regression analysis Uses secondary cross-municipality and cross-time HH-level data to assess impact of opening of new bank braches sample size unclear Low rigor		Targets low-income, mainly microentrepreneurs, men and women.	Credit for merchandise and non-merchandise Savings accounts Mortgage and insurance products	New bank branches contributed to increase in informal business ownership among men, but not among women No impact on creation of formal businesses Slight positive impact on incomes of women clients (and men)		Some positive impact on employment of women and men clients
Testing Individual vs. Group Credit Models											
23	Attanasio et al. (2012)	Group Lending or Individual Lending? Evidence from a Randomized Field Experiment in Mongolia	Mongolia	Rural	RCT Tested opening of MFI branches by assigning group liability loans, individual loans or no MFI branch Rigorous n=1,448	Villages	Poor women	Group-liability and individual credit originally intended to for business purposes	Access to group liability credit had positive impact on HH business creation (no impact of individual credit) Access to group credit had positive impact on women's profits in areas with access to credit for longer period		Strong positive impact of access to group loans on HH food consumption Access to individual loans had no impact on HH non-durable consumption (but had positive impact among women with low education levels)
24	Giné and Karlan 2011	Group Versus Individual Liability: Short and Long-term Evidence from Philippine Microcredit Lending Groups	Philippines	Rural	RCT Compares impact of individual and group liability credit, and group and individual savings models Rigorous	Lending centers of bank	Women microentrepreneurs	Group (group solidarity) and individual-liability credit for business expansion provided by a rural bank Mandatory savings for group liability loans; voluntary individual savings accounts			Conversion from group to individual liability did not negatively affect loan repayment rates Individual loans (with no savings requirement) result in lower voluntary savings levels Individual liability loans attract more new clients
Loans with Grace Periods											
25	Field et al. (2010)	Term Structure of Debt and Entrepreneurial Behavior: Experimental Evidence from Microfinance	India	Unknown	RCT Tested the benefit of using a grace-period for loans instead of starting repayment immediately n=845 clients Rigorous	Credit groups	All women; poor microentrepreneurs and wage works (75% have home-based business)	Group liability credit	Women with grace period invested 6% more of loans in businesses than those with no grace period After two years, women with grace period increased average profits by 30%		19% of women with a grace period group defaulted on loans (compared to 2% default rate among women with standard repayment)

Returns to capital for women and men											
26	Fafchamps et al (2011)	When is Capital Enough to get Female Microenterprises Growing? Evidence from a Randomized Experiment in Ghana	Ghana	Urban	RCT Assessed the returns to capital to men and women by providing cash and in-kind grants to businesses n=730 firms Rigorous	Firms	More than half of sample are female microentrepreneurs	Grants (in-kind, cash) as a proxy to credit	In-kind grants led to higher profits only for women with initially larger, higher-profit businesses Cash grants have no impact on women's businesses; tend to be used for HH expenses No impact of grants on profits of women with initially below-average profit businesses Both cash and in-kind grants had positive impact on men's businesses		
27	de Mel et al (2009)	Are Women More Credit-Constrained? Experimental Evidence on Gender and Microenterprise Returns	Sri Lanka	Peri-urban	RCT Measured returns to capital to men and women by providing cash and in-kind grants to businesses n=405 Rigorous	Firms	Low-capital microentrepreneurs; half of sample is female	Grants (in-kind, cash) as a proxy to credit	Women invest very little of smaller grants in business, but as much, if not more than men of the larger grants Women do not experience permanent increases in business income from grants, while men do		

Annex B. Studies on Savings only examined in-depth

Authors	Title	Country	Intervention Setting	Methodology	Unit of Randomization (for RCTs)	Sample profile	Intervention	Business Impact	Impact on Women's Agency	Other Economic Impacts
Commitment savings										
Ashraf et al. (2008)	Female Empowerment: Impact of a Commitment Savings Product in the Philippines	Philippines	Unknown	RCT Tested impact of commitment savings on women's HH decision making n=3,125 clients and non-clients Rigorous	Bank clients	60% of sample is women; most are married	Individual commitment savings product provided by a rural bank Account matures only when a pre-specified goal is reached Savings training		Positive impact of commitment savings on HH decision making power of women who started below the median level of decision making power	Consumption of durables associated with women increased only among married women who started below the median level of decision making power
Brune et al. (2011)	Commitments to Save: A Field Experiment in Rural Malawi	Malawi	Rural	RCT Assessed impact of commitment savings n=3150 Rigorous	Individual farmers	Poor and low-middle income farmers; mostly male (only 6% female)	Commitment savings Financial education training (savings and budgeting)	Positive impact on agricultural input use and crop outputs (results not sex-disag.)		Positive impact on farmers' yields (not sex-disag) Positive impact on total HH expenditures
Dupas and Robinson (2011)	Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya	Kenya	Rural	RCT Tested importance of savings constraints for self-employed individuals n=185 individuals Moderate rigor (small sample size)	Individuals	Poor women and men microentrepreneurs	Individual commitment savings products offered by a village bank Interest-free account; high withdrawal fees	Positive impact of savings on business investment among women (40% increase) Increase in women's private expenditures (37 to 40% higher) No effect for men		Some impact on making women less vulnerable to health shocks

References

Afrane, S. 2010, Impact Assessment of Microfinance Interventions in Ghana and South Africa: A Synthesis of Major Impacts and Lessons, Journal of Microfinance, vol. 4, no. 1, pp. 37-58.

Aker., J., Boumnijel, R., McClelland, A. & Tierney, N. 2011. Zap it to me: The Short-term impacts of a mobile cash transfer program. Working paper 268, Center for Global Development. Washington, DC.

Aker., J., Boumnijel, R., McClelland, A. & Tierney, N. 2012. Zap it to me: The Short-term impacts of a mobile cash transfer program. Working paper, Center for Global Development. Washington, DC.

Alenxandre, C. 2011. What Can Branchless Banking Do to Advance the Field, and What Can It Not Do? From Mobile Banking to Point of Service. Global Microcredit Summit. Commissioned Workshop Paper. Valladolid, Spain.

Armendáriz de Aghion, B. & Morduch, J. 2010. The Economics of microfinance. Working Paper, 2nd Edition. Cambridge: MIT Press.

Ashraf, N., Karlan, D., & Yin, W. 2008, Female Empowerment: Impact of a Commitment Savings Product in the Philippines, Economic Growth Center, Yale University, New Haven, Connecticut, 949.

Attanasio, O., Augsburg, B., de Haas, R., Fitzsimons, E., Harmgart, H. 2011. Group lending or individual lending? Evidence from a randomised field experiment in Mongolia. Working Papers 136, European Bank for Reconstruction and Development, Office of the Chief Economist.

Augsburg, B. et al. 2011. Microfinance at the margin: Experimental Evidence from Bosnia and Herzegovina. Paper presented at the conference Mind the Gap: From Evidence to Policy Impact. Cuernavaca, Mexico.

Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. 2010. The miracle of microfinance? Evidence from a randomized evaluation. Duflo, Esther, Glennerster, Rachel, and Kinnan, Cynthia. Working Paper.

Banthia, A., Johnson, S. McCord, M. and Matthews, B. 2009. Microinsurance that works for women: Making gender-sensitive microinsurance programs. Microinsurance Paper No. 3, Microinsurance Innovation Facility. Geneva, Switzerland, International Labor Organization.

Barnes, C. 2001, The Relationship Between Microfinance and Households Coping With Illness and Death in Zimbabwe: An Exploratory Study, Management Systems International.

Bauchet, J., Marshall, C., Starita, L., Thomas, J., & Yalouris, A. 2011. Latest Findings from Randomized Evaluations of Microfinance. CGAP.

Bernstein, A. and Seibel, H.D. 2011. Reparations, Microfinance, and Gender: A Plan, with Strategies for Implementation, Cornell International Law Journal, Vol. 44

Bruhn, M. and Love, I., 2009. The economic impact of banking the unbanked: Evidence from Mexico, Policy Research Working Paper Series 4981, The World Bank.

Consultative Group to Assist the Poor (CGAP). Washington, D.C. Blog post on the Global Development Research Center website: http://www.gdrc.org/icm/cgap-mfindustry.html

Chemin, M. 2008. The benefits and costs of microfinance: evidence from Bangladesh. Journal of Development Studies, 44(4), 463-484. 2012.

Chen, M. A. & Snodgrass, D. 2001. Managing Resources, Activities, and Risk in Urban India: The Impact of SEWA Bank.

Cheston, S. & Kuhn, L. 2002. Empowering Women Through Microfinance, United Nations Development Fund for Women (UNIFEM), New York, NY.

Churchill, C. and Matul, J.M. 2012. Protecting the Poor: A Microinsurance Compendium. Vol. II, ILO / Munich Re Foundation

Cohen, M. 2002. Making microfinance more client-led. Journal of International Development, 14, 335-350.

Coleman, B.E., 2006. Microfinance in Northeast Thailand: Who Benefits and How Much? Asian Development Bank, Manila, Philippines, World Development Vol. 34, No. 9, pp. 1612–1638.

Coleman, I. 2012. Insurance Innovations for the Poor. Democracy in Development. Council on Foreign Relations Blog. Web Link: http://blogs.cfr.org/coleman/2012/11/06/insurance-innovations-for-the-poor/

Collins, D., Morduch, J., Rutherford, S., & Ruthven, O. 2009, Portfolios of the Poor: How the World's Poor Live on $2 a Day.

Counts, A. & Meriweather, P. 2008. New frontiers in microsavings. Grameen Foundation. Washington, D.C.

Crepon, B., Devoto, F., Duflo, E. & Pariente, W. 2011. Impact of microcredit in rural areas of Morocco: Evidence from a Randomized Evaluation. Working Paper.

Deininger, K. & Liu, Y. 2009. Economic and social impacts of self-help groups in India. World Bank Policy Research Working Paper No. 4884.

Demirguc-Kunt, A. & Klapper, L. 2012, Measuring Financial Inclusion The Global Findex Database. World Bank Policy Research Working Paper 6025.

Dolan, J. 2009. Accelerating the Development of Mobile Money Ecosystems. DFID-CGAP-GSMA report.

Donovan, K. 2012. Mobile Money for Financial Inclusion. Chapter 4 in Book: Information and Communications for Development 2012: Maximizing Mobile. Conference Edition. The World Bank

Dupas, P. & Robinson, J. Saving Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya.

Duvendack, M. 2010. Smoke and mirrors: evidence from microfinance impact evaluations in India and Bangladesh. Norwich, UK: University of East Anglia.

Duvendack, M. & Palmer-Jones, R. 2011. High noon for microfinance impact evaluations: re-investigating the evidence from Bangladesh. Working Paper 27. Norwich UK: University of East Anglia.

Dunn, E. & Arbuckle, J.G. 2001. The Impacts of microcredit: A Case study from Peru. Assessing the Impact of Microenterprise Services (AIMS). Management Systems International: Washington, DC.

Duvendack, M., Palmer-Jones, R., Copestake, J., Hooper, L., Loke, Y., & Rao, N. 2011, What is the Evidence of the Impact of Microfinance on the Well-being of Poor People, DFID Systematic Review.University of East Anglia.

Fafchamps, M., McKenzie, D., Quinn, S. R., Woodruff, C. 2011), When is capital enough to get female microenterprises growing? Evidence from a randomized experiment in Ghana, NBER Working Paper No. 17207.

Feigenberg, B., Field, E. & Pande, R. 2011. The Economic returns to social interaction: Experimental evidence from microfinance.

Field, E., Pande, R., Papp, J. & Rigol, N. 2010. Term structure of debt and entrepreneurial behavior: Experimental evidence from microfinance.

Garikipati, S. 2008. The Impact of lending to women on household vulnerability and women's empowerment: Evidence from India.

Giné, X. & Karlan, D. 2011. Group versus individual liability: Short and long-term evidence from Philippine microcredit lending groups.

Gobezie, G. & Garber, C. 2007. Impact Assessment of Microfinance in Amhara Region of Northern Ethiopia. Working Paper .

Goetz, A. M. & Gupta, R. S. 1996, Who takes the credit? Gender, power and control over loan use in rural credit programs in Bangladesh. World Development, vol. 24, no. 1, pp. 45-63.

Goldberg, N. 2005, Measuring the Impact of Microfinance: Taking Stock of What We Know. Grameen Foundation.

Golla, A. M., Malhotra, A., Nanda, P., & Mehra, R. 2011, Understanding and Measuring Women's Economic Empowerment. Definition, Framework and Indicators. International Center for Research on Women: Washington, DC.

GSMA Development Fund and Cherie Blair Foundation for Women. 2010. Women and Mobile- A Global Opportunity: A Study on the mobile phone gender gap in low and middle-income countries. London: GSMA.

Hashemi, S. M., Schuler, S. R., & Riley, A. P. 1996, Rural Credit Programs and Women's Empowerment in Bangladesh, World Development, vol. 24, no. 4, pp. 635-653.

IFC (International Finance Corp.) and GPFI (Global Partnership for Financial Inclusion). 2011. Strengthening Access to Finance for Women-Owned SMEs in Developing Countries. Washington DC: GPFI.

Johnson, S. 2005. Gender Relations, Empowerment and Microcredit: Moving on from a Lost Decade. European Journal of Development Research, vol. 17, no. 2, pp. 224-248.

Kabeer, N. 1998, Money Can't Buy Me Love? Re-evaluating Gender, Credit and Development in Rural Bangladesh, Institute of Development Studies (IDS), Sussex, UK.

Kabeer, N. 2001, Conflicts over Credit: Re-Evaluating the Empowerment Potential of Loans to Women in Rural Bangladesh, World Development, vol. 29, no. 1, pp. 63-84.

Kabeer, N. 2005, Is Microfinance a 'Magic Bullet' for Women's Empowerment? Analysis of Findings from South Asia, Economic and Political Weekly.

Kaboski, J.P. and Townsend, R.M. 2005. Policies and Impact: An Analysis of Village-Level Microfinance Institutions. Journal of the European Economic Association, Vol. 3, No. 1

Kaboski, J.P. and Townsend, R.M. 2009. The Impacts of Credit on Village Economies

Karlan, D., Osei-Akoto, R., & Udry, C., 2010. Examining Underinvestment in Agriculture: Measuring Returns to Capital and Insurance. Innovations for Poverty Action.

Karlan, D., Valdivia, M. 2009. Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions. Working Paper No. 107. Review of Economics and Statistics 93(2).

Karlan, D. & Zinman, J. 2011, Microcredit in Theory and Practice: Using Randomized Credit Scoring for Impact Evaluation. Science 332.

Karlan, D. & Zinman, J. 2010. Expanding credit access: Using randomized supply decisions to estimate the impacts.

Karlan, D. S. 2001. Microfinance Impact Assessments: The Perils of Using New Members as a Control Group.

Khandker, S. R. 2003. Micro-finance and Poverty: Evidence Using Panel Data from Bangladesh. World Bank, Washington, DC, 2945.

Khandker, S. R. 2005. Microfinance and Poverty: Evidence Using Panel Data from Bangladesh. World Bank Economic Review, vol. 19, no. 2, pp. 263-286.

Kondo, T., Orbeta, A., Jr., Dingcong, C., & Infantado, C. 2008. Impact of Microfinance on Rural Households in the Phillippines. Working Paper 4.

Leatherman, S. et al., 2010. Innovations and Barriers in Health Microinsurance. Microinsurance Paper No. 6, Microinsurance Innovation Facility, ILO

Lund, F., Srinivas, S., 2000. Learning from experience: A gendered approach to social protection for workers in the informal economy

Maes, J. P., Reed, L. 2012. State of the Microcredit Summit Campaign Report 2012. MCS Report, Microcredit Summit Campaign, Washington, D.C.

Magnoni, B., & Zimmerman, E. 2011. Do clients get value from microinsurance? A systematic review of recent and current literature. Appleton, WI: The MicroInsurance Centre.

Makanjee, M. 2010. State of financial inclusion in Africa. FinMark Trust. Web Link: http://www.afi-global.org/library/publications/state-financial-inclusion-africa-maya-makanjee-finmark-trust

Malhotra, A. and Shuler, A. 2005. Women's Empowerment as a Variable in International Development In Measuring Empowerment: Cross-Disciplinary Perspectives. Narayan, D. ed. Washington, D.C.: World Bank, Gender and Development Group.

McCord and Roth, 2011. Partnerships: Microfinance Institutions and Commercial Insurers. Microinsurance NOTE 3. The Microinsurance Center, USAID

MIX Market Database. Report creates for years 2008-2010 from web link: http://www.mixmarket.org/profiles-reports/crossmarket-analysis-report

Montgomery, R., Bhattacharya, D., & Hulme, D. 1996. Credit for the poor in Bangladesh. In D. Hulme, & P. Mosley (Eds.), Finance against poverty. London: Routledge.

Morawczynski, O. 2009.*Exploring the Usage and Impact of Transformational M-. Banking: The Case of M-PESA in Kenya.* Journal of East African Studies, 3(3).

Morawczynski, O. & Krepp, S. 2011. Saving on the mobile: Developing innovative financial services to suit poor users. The Mobile Financial Services Development Report, 51-58. Washington, DC: World Economic Forum.

Morduch, J. 1998, Does Microfinance Really Help the Poor? New Evidence from Flagship Programs in Bangladesh, Harvard University; Stanford University.

Morduch, J. 2006. Micro-Insurance: The Next Revolution? Chapter in Book: What Have We Learned About Poverty? Oxford University Press.

Odell, K. 2010 Measuring the Impact of Microfinance: Taking Another Look. Grameen Foundation Publication Series.

Pitt, M. M., Khandker, S. R., & Cartwright, J. 2006. Empowering Women with Micro Finance: Evidence from Bangladesh. Economic Development and Cultural Change, vol. 54, no. 4, pp. 791-831.

Pitt, M. M., Khandker, S. R., Chowdhury, O. H., & Millimet, D. L. 1998. Credit Programs for the Poor and the Nutritional Status of Children in Rural Bangladesh, Population Studies and Training Center at Brown University, Providence, Rhode Island, 98-01.

Porteous, D. 2007. Just how transformational is M-banking? FinMark Trust.

Ranson, M. K., et al. 2006. Making health insurance work for the poor: learning from SEWA's community-based health insurance scheme. Social Science Medicine 62, 707-720.

Rhyne, E. 2010. The State of Global Microfinance: How Public and Private Funds Can Effectively Promote Financial Inclusion for All. Testimony before the Subcommittee on International Monetary Policy and Trade Committee on Financial Services, U.S. House of Representatives

Robledo, C. 2008 Managing the Risks of Growth in Microfinance: A Case Study of Bolivia, Microbanking Bulletin, Issue 17.

Roodman, D. & Morduch, J. 2009. The impact of microcredit on the poor in Bangladesh: revisiting the evidence. Working Paper No.174, Center for Global Development.

Roodman, D. 2012 Due Diligence, An impertinent inquiry into microfinance, Center for Global Development, Washington DC.

Rosenberg, T. 2012. The Microinsurance Revolution. New York Times on the Web. Web Link: http://opinionator.blogs.nytimes.com/2012/06/06/the-microinsurance-revolution/

Roth, J., McCord, M.J., Liber, D. 2007. The Landscape of Microinsurance in the World's 100 Poorest Countires. The Microinsurance Center, LLC.

Ruthven, O. 2002, Money mosaics: Financial choice and strategy in a West Delhi squatter settlemen", Journal of International Development, vol. 14, no. 2, pp. 249-271.

SIDA. 2006. Microfinance and women's empowerment: Evidence from the self help group bank linkage programme in India.

Steele, F., Amin, S., & Naved, R. T. 2001, Savings/credit group formation and change in contraception, Demography, vol. 38, no. 2, pp. 267-282.

Stewart, R., Van Rooyen, C., Dickson, K., Majoro, M., & De Wet, T. 2010. What is the Impact of Microfinance on Poor People?: A systematic review of evidence from Sub-Saharan Africa.

Stewart, R., Van Rooyen, C., de Wet, T. 2012 Do micro-credit, micro-savings and micro-leasing serve as effective financial inclusion interventions enabling poor people, and especially women, to engage in meaningful economic opportunities in LMICs.

Stuart, G. & Cohen M. 2011. Cash-in, cash-out: The Role of M-PESA in the lives of low-income people. Financial Services Assessment.

Suri, T., and Jack, B. 2011. Risk Sharing and Transaction Costs: Evidence from Kenya's Mobile Money Revolution. Working paper. Massachusetts Institute of Technology, Cambridge, MA, and Georgetown University, Washington, DC.

Swain, R.B. & Wallentin, F.Y. 2007. Does microfinance empower women? Evidence from self help groups in India. Uppsala University Working Paper 2007: 24.

Thornton, R. L. et al., 2010. Social Security Health Insurance for the Informal Sector in Nicaragua: A Randomized Evaluation. Health Economics. 19: 181–206

Tran, M. 2012. Microinsurance: providing a more stable future for small-scale farmers? The Guardian on the Web. Web Link: http://www.guardian.co.uk/global-development/2012/jun/29/microinsurance-stable-future-small-scale-farmers?INTCMP=SRCH

Wilson, K. 2010 "Jipange Sasa" In Financial Promise for the Poor: How Groups Build Microsavings, pp.99-107. Kumarian Press

Wipf et al. 2011 Improving Credit Life Insurance, Briefing Note 8, Microfinance Innovation Facility, International Labor Organization

World Bank. 2012. Information and Communications for Development 2012: Maximizing Mobile. Web Link: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/0,,contentMDK:23190786~pagePK:210058~piPK:210062~theSitePK:282823,00.html

Zand, S. The Impact of Microfinance Programmes on Women's Lives: A Case Study in Kabul Province. Case Study Series . 2011. Afghanistan Research and Evaluation Unit.