



Women's Economic Empowerment Through Financial Inclusion

A Review of Existing Evidence and Remaining Knowledge Gaps

Authors

Kyle Holloway
Zahra Niazi
Rebecca Rouse

The opinions expressed in this report are of the authors and do not reflect the opinions of Innovations for Poverty Action or its research affiliates.

Acknowledgments

Special gratitude to Laura Burke and David Batcheck of Innovations for Poverty Action.

Sincere appreciation goes to the following experts who provided technical advice and comments on versions of this report: Simone Schaner and Russell Toth. The authors are grateful to the researchers who participated in an early workshop on women's financial inclusion research in November 2016: Jenny Aker, Emily Breza, Leora Klapper, Natalia Rigol, and Simone Schaner. The authors also thank the Bill & Melinda Gates Foundation for its support of this project.

Cover Photo: Tugela Ridley

Innovations for Poverty Action (IPA) is a research and policy non-profit that discovers and promotes effective solutions to global poverty problems. IPA designs, rigorously evaluates, and refines these solutions and their applications together with researchers and local decision-makers, ensuring that evidence is used to improve the lives of the world's poor. Our well-established partnerships in the countries where we work, and a strong understanding of local contexts, enable us to conduct high-quality research. This research has informed hundreds of successful programs that now impact millions of individuals worldwide.

www.poverty-action.org

Women and Financial Inclusion

Increasing access to and use of quality financial products and services is essential to inclusive economic growth and poverty reduction. Research shows that when people participate in the financial system, they are better able to manage risk, start or invest in a business, and fund large expenditures like education or a home improvement (E.g., Ashraf et. al, 2010, Dupas and Robinson, 2013b, Cull et. al., 2014).

Increasing women's financial inclusion is especially important as women disproportionately experience poverty, stemming from unequal divisions of labor and a lack of control over economic resources. Many women remain dependent upon their husbands, and about one in three married women from developing countries have no control over household spending on major purchases (United Nations, 2015). About one in 10 are not consulted about the way their own earnings are spent (United Nations, 2015). In addition, women often have more limited opportunities for educational attainment, employment outside of the household, asset and land ownership, the inheritance of assets, and control over their financial futures in general.

Despite important advances in expanding access to formal financial services in the developing world in recent years, a significant access gap remains between men and women. This is illustrated through a basic measure of financial inclusion: account ownership. Globally, only 58 percent of women hold an account in a formal financial institution, compared to 65 percent of men (Demirguc-Kunt et al., 2015). This gender gap is even more pronounced between men and women in developing markets,

with the largest gap, 18 percentage points, observed in South Asia (Demirguc-Kunt et al., 2015).

Providing low-income women worldwide with effective and affordable financial tools to save and borrow money, make and receive payments, and manage risk is critical to both women's empowerment and poverty reduction. However, the path to greater women's financial inclusion is dependent upon the creation of a more gender inclusive financial system that addresses the specific demand- and supply-side barriers faced by women, supported by an inclusive regulatory environment. These barriers range from something as basic as the lack of assets for collateral to more structural constraints such as account opening requirements that disadvantage women. Figure 2 summarizes some of the potential barriers women face in accessing financial services and products.

While there is a growing body of evidence surrounding the impact of financial inclusion and the importance of product design in achieving desired welfare impact outcomes, there remains much to learn about the ways in which formal financial products and services can contribute to women's economic empowerment. This review finds that, overall, financial service providers and other stakeholders can leverage appropriate product design features to overcome some of these barriers to women's financial inclusion. Even so, broader social constraints related to intra-household bargaining power and the social status of women may continue to limit the broader impact of financial inclusion on women's economic empowerment. There is a need for further evidence on effective product-led strategies to address these barriers and improve economic empowerment outcomes for women.

FIGURE 1

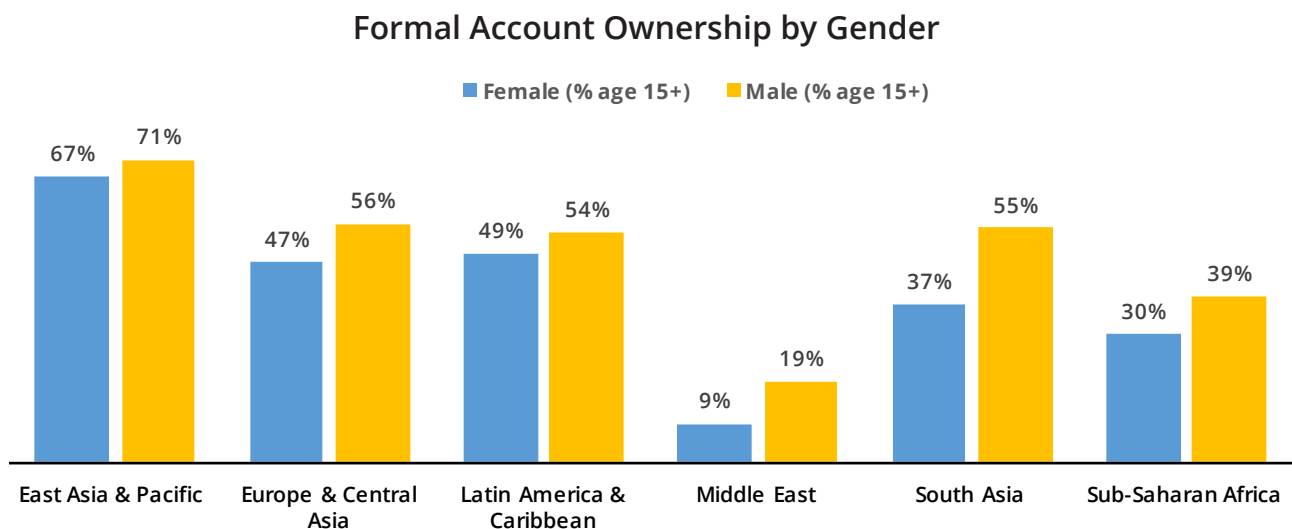


FIGURE 2

Gender-Based Barriers to Financial Inclusion

Demand Side Barriers	Supply Side Barriers	Legal & Regulatory Barriers
Lack of bargaining power within the household	Inappropriate product offerings	Account opening requirements that disadvantage women
Concentration in lower-paying economic activities	Lack of gender-specific policies and practices for product design and marketing	Barriers to obtaining formal identification
Competing demands on women's time related to unpaid domestic work	Inappropriate distribution channels	Legal barriers to owning and inheriting property and other collateral
Lack of assets for collateral		Lack of gender-inclusive credit reporting systems
Lack of formal identification		
Reduced mobility due to time constraints or social norms		
Lower rates of cell phone ownership among women, needed to access many digital products		

The remainder of this paper is organized by product and presents the existing evidence on the impact of savings, credit, payments, and insurance products on women's economic empowerment outcomes, as well as the remaining open research questions in each area. The studies included in this review are limited to those designed as randomized control trials (RCTs), widely considered to be the gold standard in impact evaluation methodology.

Savings

The ability to manage risk and smooth consumption in the face of shocks or loss of income is an essential component of women's economic empowerment. There is much research that supports the importance of saving at the individual and macroeconomic level (see Karlan et al., 2014), yet women in the developing world consistently report lower levels not only of account ownership but rates of formal savings balances. The greatest gender gap in formal savings held is observed again in South Asia.

New research in this space is beginning to explore the impact of accessible savings products on women's savings and expenditures. Researchers are also beginning to explore women's unique preferences surrounding product liquidity and control, and how changes in product design can impact savings product use as well as the final destination of women's savings.

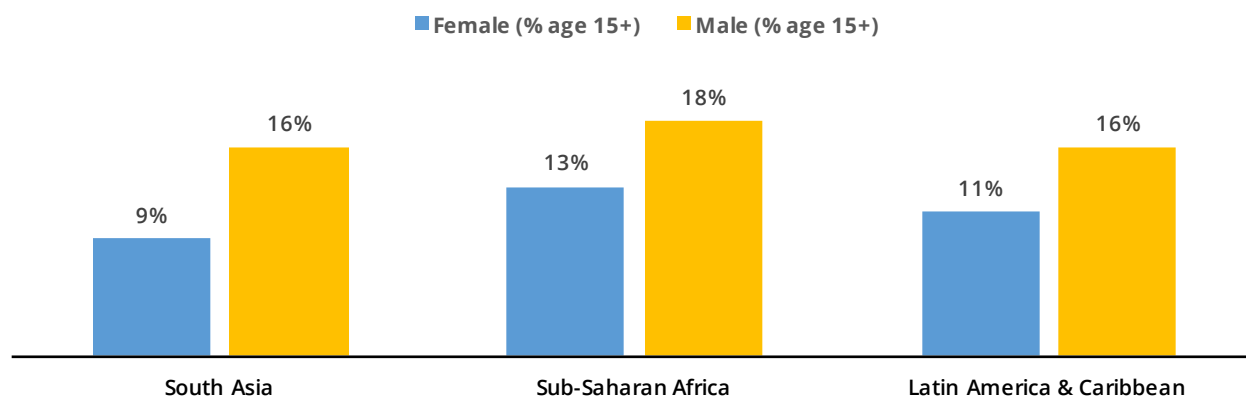
Simplified Accounts to Remove Barriers to Entry

One barrier to access and use of formal savings accounts among women might be the costs associated with opening and maintaining accounts. The offer of simplified, or no-frill, low-cost accounts may be a way to reduce this barrier to entry and improve account ownership among women. However, evidence on the impact of these simplified accounts is mixed.

A study in Chile found, for example, that individuals (91 percent of whom were women) who were randomly assigned to receive a free savings account not only reduced short-term debt by 20 percent, but also reduced consumption cutbacks associated with a negative income shock as compared to those who did not receive an account (Kast and Pomeranz, 2014). Similarly, in Nepal, researchers studied the effect of offering easily accessible, no-fee accounts to female heads of household living in slums. The accounts were popular, with 84 percent of women opening an account and 80 percent making at least two deposits in the first year. While there was no evidence to suggest the accounts led to an increase in assets, women in the treatment group did increase spending on education, meat and fish purchases, and festivals and ceremonies (Prina, 2015). Follow-up research suggests that financial access among these unbanked female heads of household led to an increase in schooling levels of daughters and the

FIGURE 3

Percent of Adults Who Saved in a Formal Financial Institution Last Year by Gender



Source: 2014 Global Findex Database

education aspirations parents have for them (Chiapa et al., 2015). The accounts also helped households better respond to health emergencies. Households with an account saw a smaller drop in income after a health shock compared to those without an account. Both these studies suggest that no-frills accounts lead to positive downstream effects.

Conversely, a study in India targeting low-income women as part of a public welfare program found that simply providing basic savings accounts had no observational impact on women’s employment, earnings, or even the rate of utilization of these accounts (Field, 2016a). Researchers did find, however, that basic training on account features led to increased use, suggesting that basic literacy and technical know-how might have been a barrier to account use rather than simple access. Similarly, evidence from a study conducted in Uganda, Malawi, and Chile found that offering simplified saving accounts to individuals (over 55 percent of whom were women) did not result in a significant increase in savings or to any positive downstream impacts such as on business investment, or expenditures on education or health (Dupas et al, 2016). These results suggest that there is a need for more work to understand the specific barriers to take-up and usage of formal financial accounts among women in order to design products and policies with the highest likelihood for success.

Understanding preferences for (II)liquidity and control

Women may demonstrate different preferences for levels of liquidity and privacy in their savings products, depending on their personal and household investment goals, as well as their level of bargaining

power within their households. For example, a study in rural Kenya offered married couples the opportunity to open up to three accounts: a joint account and individual accounts in the name of the husband and/or the wife. Each account was randomly assigned one of four temporary interest rates (between 0 percent and 20 percent APY) to incentivize savings in the accounts. The study found that large temporary interest rate subsidies on the individual accounts led to increased income via investments in entrepreneurial activities in the long run, while subsidies to the joint account had no impact on income but led to increased investments in household assets such as home repairs or livestock. Couples who received high interest rates on their joint account reported higher levels of agreement about the usage of that account.

These results suggest that savings which are explicitly co-owned by spouses are subject to different demands and uses than individually owned savings. This could have implications for women’s preferences for privacy and control over their savings, especially in contexts where women have lower bargaining power within the household (Schaner, 2016).

The evidence also suggests that deposit accounts designed to restrict access and reduce the liquidity of savings can help individuals subject to high social and intra-household demands save more. Product tests in Malawi (Brune et al., 2015) and Kenya (Dupas and Robinson, 2013a, 2013b) suggest that illiquid accounts with significant withdrawal costs or linked to a specific commitment can be effective in encouraging savings for clients facing significant demands on their income from outside the household. In the Philippines, offering a commitment savings account

led to increased expenditures on female-oriented durable goods such as sewing machines and kitchen appliances for married women with low bargaining power (Ashraf et al., 2006, 2010).

Additionally, certain product features, which may be intended to increase access, can actually lead to decreased usage as the additional liquidity that they provide may reduce a woman's control over the account. A study in Kenya found that offering free ATM cards, which increased account accessibility and reduced withdrawal fees, caused individuals with a stronger position in the household (the majority, men) to significantly increase usage of the accounts, while individuals with low household bargaining power (the majority, female) reduced account usage (Schaner, 2015).

In areas where access to a traditional formal financial institution represents a barrier, savings group models such as Rotating Savings and Credit Associations (ROSCAs) or Village Savings and Loan Associations (VSLAs) can be effective solutions. Indeed, non-RCT work in Kenya argues that women's use of ROSCA models are consistent with a preference for safeguarding their savings from immediate consumption by their husband, especially for those with independent sources of income (Anderson and Baland, 2002). Traditionally, these groups have been vehicles for investment capital among women without credit histories and without collateral to borrow. However, a traditional ROSCA model where participants receive a single lump-sum payout, sometimes determined by lottery, can be inappropriate as a tool to smooth consumption, where more flexible access to money is required. Evidence from Mali shows that changing savings group structure to enhance flexibility can lead to positive outcomes in women's ability to deal with negative income shocks. Women in these flexible savings groups increased their savings by 31 percent relative to the control group, were 10 percent less likely to be food insecure, and livestock holdings, a preferred way to store wealth in Mali, increased by 13 percent (Beaman et al., 2014).

These findings suggest that design tweaks that take into account the specific needs and preferences of women can enhance their access to savings products, as well as the impact of those savings on investments and the ability to smooth consumption in the face of income shocks. However, many open questions surrounding optimal product design and delivery for women remain:

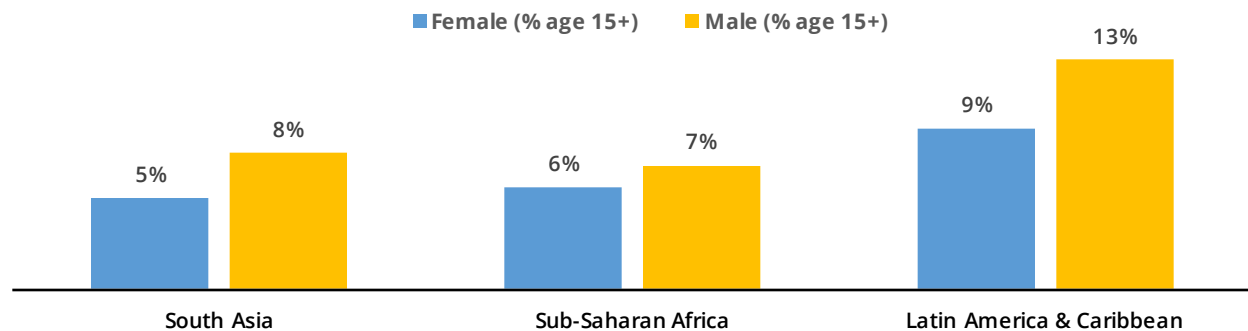
- **Design savings products for phases in a woman's life**
How should interventions be targeted at different points in women's lives to maximize impact? Researchers should explore the ways that savings products can be designed with

certain goals or life cycle phases in mind. For example, the financial needs and preferences of women are different during adolescence than in marriage or in old age. Similarly, saving products should be designed and targeted to women addressing their specific needs at that point in their lifecycle, for example, a pregnant woman might have a need for saving for prenatal healthcare, while an adolescent girl might need to save more for education expenses. Women with children might be more risk averse and, in the absence of insurance products, would have a need for saving products to help mitigate income shocks.

- **Incorporate innovations in digital products and channels**
Innovations in digital finance can enhance the impact of savings products, for example by reducing transaction costs, increasing privacy and control, or by building transaction histories. Researchers should study the impact of digital products and channels on take-up and usage of savings products, as well as how features such as apps and messaging can improve women's savings outcomes and the ability to make desired investments and expenditures via savings. What product design features maximize an account holder's control and privacy?
- **Test what happens when ROSCAs go digital**
If the group dynamic of ROSCAs is a key component for their success, can digital financial tools be designed in a way that preserves this component? Are there benefits to incorporating digital tools? A study from the Philippines evaluating the impact of mobile banking on coed microfinance groups found that these tools led to a 20 percent decline in average daily balances and in the frequency of deposits over two years (Harigaya, 2016). This preliminary work underscores the need for additional experimentation surrounding the role of digital financial tools and ROSCAs.
- **Fully understand barriers to take-up**
Barriers to the take-up and usage of savings products go beyond cost and physical proximity to points of service. Researchers should continue to explore barriers to take-up and usage on both the demand and supply sides, to determine the most effective design and distribution strategies for women, or the most effective combination of design features.
- **Fully understand mechanisms behind financial decision-making in the household**
Preliminary evidence suggests that product features can contribute to changes in women's savings behavior if they incorporate tools to

FIGURE 4

Percent of Adults Who Borrowed from a Formal Financial Institution Last Year by Gender



Source: 2014 Global Findex Database

maintain greater control over assets. Future work should seek to understand who makes the decisions surrounding expenditures within the household and test for the best mechanisms by which products can help to increase women's bargaining power. How much can these changes in control alter intra-household bargaining power in the long run, and do these changes create positive spillovers in other areas?

Credit

Women still lag behind men in terms of use of formal credit products according to the latest Global Findex Survey. Early microfinance models which provided group liability loans to small groups of women were based on the assumption that women are more credit constrained than men, and therefore expanding women's access to credit can lead to greater investments in income generating activities and ultimately to increased incomes and welfare improvements for the household.

However, the evidence on the impact access to credit has on female entrepreneurs has shown little to no transformative effect on consumption or women's empowerment outcomes. One randomized evaluation of a group microcredit program in Hyderabad, India, found no increase in profits among the majority of businesses studied, and no change in a set of women's empowerment indicators or in household expenditures in health or education, which may have been indicative of greater female bargaining power within the family (Banerjee et al., 2015). Another study from Mongolia finds that women's access to a group lending microcredit model led to increases in rates of business creation, and modest improvements in profits and nutrition

(Attanasio et al., 2015). Researchers working in Mexico found modest effects on business size and female decision-making in a randomized evaluation of microcredit, but do not consider these results to be 'transformative' (Angelucci et al., 2015). Similarly, studies have also found limited returns to capital for female owned enterprises. A study in Sri Lanka found that cash grants generated large profit increases for male owned enterprises, but not for female owned. (De Mel et al., 2009). A similar study in Ghana found that cash grants to female entrepreneurs produced no significant return on capital, but in-kind gifts of inventory or equipment to women showed significant average return among successful female enterprises, a difference significant among women but not among men. The effect of the cash treatment was more positive for individuals with the most self-control, suggesting that providing capital in-kind may help entrepreneurs with a self-control problem keep the capital invested in the firm (Fafchamps et al., 2014).

These mixed results suggest that barriers to women's entrepreneurship and income growth may go beyond credit or capital constraints.

Level of Control over Business Investment Choices

Several studies shed some light on why simply providing women with access to credit may not be leading to significant impacts on income and welfare. There is evidence suggesting that the potential impact of credit interventions may be impacted by the interpersonal relationships within the household and the degree of autonomy a woman has over financial decision-making. In the Sri Lanka study mentioned above, grants generated large profit increases for male owners, but not for

female owners, with the gender gap being larger in female-dominated industries. Women with more decision-making power and more cooperative husbands invested a larger share of the grant in working capital, with positive returns (De Mel et al., 2009). In Uganda, a study offering a combination of either grants or subsidized loans with training to men and women entrepreneurs found no effect for female enterprises from either form of capital or the training. However, the results showed large effects (54 percent greater profits) for men with access to loans combined with training (Fiala, 2015a). Follow-up work (Fiala, 2015b) discusses how inefficiency in household decisions can hurt business outcomes. Results show that this inefficiency is reduced when women have more control over the money in the household.

Social Barriers to Entrepreneurship

Research suggests that several non-financial barriers may play a role in keeping women in small scale, low-earning enterprises, or keep them from starting businesses at all. These barriers include potential restrictions on women's mobility, low levels of human capital, and demands on women's time such as for childcare (International Finance Corporation, 2011). Addressing these barriers first may lead to higher investment in income-generating activities, higher demand for credit products, and higher earnings.

In India, researchers tested the impact of peer effects on a microenterprise training program targeting low-income women by inviting participants to bring a friend with them to attend the training, instead of attending alone. The study found that demand for the business training program was higher among those women who were able to bring a friend, and that women who attended with a peer were more likely to borrow and report increased business activity, expenditures, and income. These women were also less likely on a follow-up survey to refer to themselves as "housewives." The results suggest that the cultivation of a social support network can play an important part in overcoming social barriers to entrepreneurship among women, and thereby increased their demand for formal credit products. These effects were especially pronounced among women in castes with more restrictive social norms, suggesting that these women benefited the most from their peer network (Field et al., 2016b).

While investment in a microenterprise can lead to at least modest income gains, existing evidence suggests that credit constraints are not the only factors at play that may limit entrepreneurship and business growth among women in the developing world. Researchers should continue to explore the role of gender norms and intra-household

bargaining power in women's business outcomes, and test product and program innovations that can directly address women's unique preferences and challenges:

- **Understand the mechanisms behind women's choice of business activity**
To what extent is the selection of business activity affected by prevailing gender norms, or other related factors such as competing demands on a woman's time? How do these factors affect their decisions to invest, and/or their returns on investments? Can financial products impact income generation decisions, and what is the best way to build products that meet the needs of women's businesses?
- **Product design to improve women's control over investment and expenditure choices**
For women with limited bargaining power in the household, how can product design features enhance their ability to control decision making surrounding investments and expenditures? For example, can innovations in digital finance improve access to and take-up of credit products among women? Do these features lead to improved income generation or business outcomes?
- **Design products to increase profitability for women microentrepreneurs**
Are there simple design changes to existing financial products that can affect profitability for women owned businesses? For example, a study in India found that simply providing grace periods, which provided flexibility in paying off loans to women microentrepreneurs, led to increased household income and business profits in the long run (Field et al, 2013). There is a need for more research on how existing credit products can be modified to improve business outcomes for women, which could have potentially positive downstream effects.
- **Understand disincentives to women's investment in a business**
Women may not be incentivized to grow a business if they do not have control over their earned income. Researchers should look at the impact of products and services that provide women with more control over earned income, to explore potential impacts on investment choices.
- **Learn whether other ancillary services enhance the impact of microcredit**
Are there non-financial products or services which may address social barriers to entrepreneurship to enhance the impact of borrowing? What are the specific barriers to entrepreneur-

ship that women face, beyond credit constraints, and what are the most effective interventions that can address them? How do these interventions interact with access to credit?

- **Understand the impact of consumer credit**
Not all credit is used for business activities. Do women face unique preferences for consumer credit products, and are there specific demand or supply side barriers which affect access to consumer credit? What is the impact of consumer credit on overall household welfare and women's decisions surrounding expenditures?

Payments

Payment products have emerged as one of the most promising tools for financial inclusion in recent years, and can serve as an on-ramp to other formal financial products and services, for example via social benefits or wage payments. Digital finance has opened the door to greater product design innovations in the payments space by reducing some of the traditional barriers to financial inclusion such as transaction costs from time saved in traveling to and back from a bank branch, added privacy, and trust. These costs are especially pertinent for women and can be a significant barrier to take up and usage. Women are also increasingly the main recipient of social protection programs, therefore digitizing payments of these social protection programs and linking them with formal financial products could be a way to draw women into the formal financial sector.

However, to access many types of digital products you need access to a mobile phone. Women on average are 14 percent less likely to own a mobile phone than men, which translates into 200 million fewer women than men owning mobile phones (GSMA 2015). Furthermore, even when women own a mobile phone, they use it less frequently than men. However, initial research on digital payments shows that they can provide women with more privacy and control over their financial transactions and income flows, helping to overcome some of the challenges that women face surrounding savings and investment decisions. Indeed, a recent panel study suggests that mobile money may contribute to the alleviation of women's poverty in Kenya (Suri and Jack, 2016).

Privacy and Control

Initial research has shown that products designed to provide women with independent access to income streams can help limit the social demands on income and increase the decision-making power of

the account holder. In India, researchers tested the impact of having women's wages from India's public workfare program deposited into their own personal bank accounts versus accounts owned by the male head of household. Having the money deposited into their own accounts increased women's rate of labor participation, without any increase in market wages. The impacts were concentrated among women who had not previously worked for the program and those whose husbands disapproved of women working. These results suggest that gender norms limit women's labor market engagement and that policies which increase women's control over household resources can encourage labor force participation in settings where male preferences constrain female employment (Field et al., 2016a).

Other research shows that products designed to provide beneficiaries of targeted government cash transfer programs with greater privacy and control over their benefits can increase the likelihood that women receive the transfers, in addition to affecting how the transfer is spent. In Niger, delivering transfers electronically, compared to manual cash transfers, increased the likelihood (from 8 to 47 percent) that the recipient, who was a woman, was solely responsible for obtaining the transfer. Additionally, there is evidence that women who received their transfer electronically bought more types of food items and increased their diet diversity (Aker et al., 2014).

Taken together, this research suggests that payment products that give women more control over income and spending can lead to positive outcomes for female bargaining power in the household, leading to different labor market participation and household expenditure decisions. While results surrounding digital payments products are promising, the gap in the take-up, use, and impact of digital financial services between men and women remains large. Remaining research questions include the following:

- **Increase women's mobile phone ownership**
The expansion of digital payments, and mobile money, in particular, is limited by women's access to and use of mobile phones. What are the barriers to mobile phone ownership that women face, and what are the most effective interventions to overcome them? What are the innovations on the supply side that need to happen to expand ownership and usage, for example through innovations in agent networks?
- **Transition from digital payments to users of other digital financial products**
Where and why do women drop off of the mobile financial services customer journey? What are the most effective ways to promote continuous usage of digital payments products,

not just to receive payments but for the creation of functional mobile money ecosystems which rely on frequent transactions? How can mobile money payments serve as effective on-ramps to the use of savings and other digital financial products? Are these additional products necessary to the creation of a profitable ecosystem for mobile money in a particular market?

- **Design products to maximize control and privacy**

Digital financial services have the potential to provide women with greater control over their finances and financial decision-making. What product design features maximize an account holder's control and privacy? Does one size fit all when it comes to control and privacy?

- **Ensure effective consumer protection**

As new innovations in technology and product design hit the marketplace, how can regulators and practitioners ensure that users receive appropriate information about the terms and features of products, and are protected from predatory practices? Are there consumer protection issues that are specific to women, or specific barriers that women face to accessing safe information about these products? What can policymakers and members of the private sector do to ensure that new female customers are treated fairly and have sufficient financial skills so they know and trust digital financial services enough to adopt them?

that men and women face different types of risks (income vs. health). However, women who did invest in insurance had higher average yields and better managed food insecurity and income shocks (Delavallade et al., 2015).

There is still much work to be done around insurance to understand why low take-up rates persist, and the ways in which women's experience with, understanding of, and demand for insurance products may be different. Broad research topics include:

- **Design appropriate insurance products**

Men and women face different types of risk and have different risk profiles. What are the types of risks most relevant to women and what insurance products are appropriate for managing this risk?

- **Increase demand for insurance products among women**

Can innovations in digital finance have an impact on demand for microinsurance products by removing barriers to entry? What are the barriers for women in particular to low take up of insurance products?

- **Create effective distribution networks**

What kind of distribution networks would be most suitable for insurance products targeting women? Should insurance products be bundled with non-financial products or services targeted towards women?

Insurance

Insurance can be an important tool with which to safeguard against future financial shocks and protect assets. While several studies have observed positive returns to investments in insurance (Karlán et al., 2014 and Delavallade et al., 2015), demand for formal insurance products, especially among women, remains low. According to a review by the International Labour Office, subscription to micro-insurance products is rarely above 30 percent across a set of studies looking at both harvest insurance and health insurance products (De Bock and Gelade, 2012).

There is evidence to suggest that the lower demand for insurance among women as compared to men can be attributed to differences in spheres of activity, risks faced, institutional trust, risk aversion, and financial literacy. In Senegal and Burkina Faso, while men had a much stronger demand for weather insurance, women had a stronger demand for emergency savings, consistent with the conjecture

Conclusion

As this review shows, although the demand- and supply-side barriers to women's financial inclusion are vast, appropriate product design features can help overcome some of these barriers. Evidence suggests that design tweaks that take into account the specific needs and preferences of women can enhance their access to financial products, as well as the impact of those products on women's ability to make investments and smooth consumption in the face of income shocks. Products which allow women greater degrees of control and privacy surrounding their incomes and spending decisions appear to be particularly promising. Researchers should continue to explore the role of gender norms and intra-household bargaining power in women's economic empowerment outcomes, and test product and program innovations that can directly address women's unique preferences and the challenges they may face.

References

- Aker, J. C., Boumnijel, R., McClelland, A., & Tierney, N. (2014). Payment Mechanisms and Anti-Poverty Programs: Evidence from a Mobile Money Cash Transfer Experiment in Niger. Working Paper.
- Akter, S., Krupnik, T. J., Rossi, F., & Khanam, F. (2016). The influence of gender and product design on farmers' preferences for weather-indexed crop insurance. *Global Environmental Change*.
- Anderson, S. & Baland, J. (2002). The Economics of ROSCAs and Intrahousehold Resource Allocation. *The Quarterly Journal of Economics*, 117(3), 963:995.
- Angelucci, A., Karlan, D., & Zinman, J. 2015. Microcredit Impacts: Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco. *American Economic Journal: Applied Economics*, 7(1), 151:182.
- Attanasio, O., Augsburg, B., De Haas, R., Fitzsimons, E. & Harmgart, H. (2015). The Impacts of Microfinance: Evidence from Joint-Liability Lending in Mongolia. *American Economic Journal: Applied Economics* 7(1), 90:122.
- Ashraf, N., Karlan, D., & Yin, W. (2006). Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines. *The Quarterly Journal of Economics* 121(2), 635:672.
- Ashraf, N., Karlan, D., and Yin, W. (2010). Female Empowerment: Impact of a Commitment Savings Product in the Philippines. *World Development* 38(3), 333:344
- Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *American Economic Journal: Applied Economics* 7(1), 22:53.
- Beaman, L., Karlan, D., Thuysbaert, B. (2014). Saving for a (not so) Rainy Day: A Randomized Evaluation of Savings Groups in Mali. Working Paper.
- Brune, L., Gine, X., Goldberg, J., & Yang, D. (2015). Facilitating Savings for Agriculture: Field Experimental Evidence from Malawi. *Economic Development and Cultural Change*, 64(2), 187:220.
- Chiapa, C., Prina, S., and Parker, A. (2015). The Effects of Financial Inclusion on Children's Schooling, and Parental Aspirations and Expectations. *Journal of International Development*, 28(5), 683:696
- Cull, Robert J., Tilman Ehrbeck, and Nina Holle (2014). "Financial inclusion and development: Recent impact evidence." CGAP Focus Note 92.
- De Bock, O., Gelade, W. (2012). The Demand for Microinsurance: A Literature Review. Research Paper No. 26, Microinsurance Innovation Facility. Geneva, ILO.
- Delavallade, C., Dizon, F., Vargas Hill, R., & Petraud, J. P. (2015). Managing Risk with Insurance and Savings: Experimental Evidence for Male and Female Farm Managers in the Sahel. World Bank Policy Research Working Paper No. 7176.
- De Mel, S., McKenzie, D., & Woodruff, C. (2008). Returns to Capital in Microenterprises: Evidence from a Field Experiment. *Quarterly Journal of Economics*, 123(4), 1329:1372.
- De Mel, Suresh, David McKenzie and Christopher Woodruff. (2009). Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns. *American Economic Journal: Applied Economics*, 1(3), 1:32.
- De Mel, S., McKenzie, D., & Woodruff, C. (2012). "One-Time Transfers of Cash or Capital have Long-Lasting Effects on Microenterprises in Sri Lanka." *Science* 335(6071), 962: 966.
- Demirguc-Kunt, A., Klapper, L., Singer, D., and Van Oudheusden, P. (2015). The Global Findex Database 2014: Measuring Financial Inclusion around the World. Policy Research Working Paper 7255, World Bank, Washington, DC.
- Dupas, P., & Robinson, J. (2013a). Why Don't the Poor Save More? Evidence from Health Savings Experiments. *American Economic Review*, 103(4), 1138:1171.

- Dupas, P., & Robinson, J. (2013b). Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. *American Economic Journal: Applied Economics*, 5(1), 163:192.
- Dupas, P., Karlan, D., Robinson, J., and Ubfal, D., (2016). *Banking the Unbanked: Evidence from Three Countries*. Center for Global Development, Working Paper 440.
- Fafchamps, M., McKenzie, D., Quinn, S., and Woodruff, C. (2014). Microenterprise Growth and the Flypaper Effect: Evidence from a Randomized Experiment in Ghana. *Journal of Development Economics*, 106, 211:226.
- Fiala, Nathan. (2015a). *Rethinking the Microfinance Model: Returns to Subsidized Microcredit for Male and Female Entrepreneurs in Uganda*. Working Paper.
- Fiala, Nathan. (2015b). *Business is tough, but family can be worse: Experimental results on family constraints and enterprise development*. Working Paper.
- Field, E., Pande, R., Rigol, N., Schaner, S., Troyer Moore, C. (2016a). *An Account of One's Own: Can Targeting Benefits Payments Address Social Constraints to Female Labor Force Participation?* Working Paper.
- Field E., Jayachandran, S., Pande, R., Rigol, N. (2016b). *Friendship at Work: Can Peer Effects Catalyze Female Entrepreneurship?* *American Economic Journal: Public Policy*. 8 (2): 125-153.
- Field, E., Pande, R., Papp, J., and Rigol, N. (2013). *Does the Classic Microfinance Model Discourage Entrepreneurship among the Poor? Experimental Evidence from India.* *American Economic Review*, 103(6), 2196:2226.
- GSMA, (2015). *Bridging the Gender Gap: Mobile Access and Usage in Low- and Middle- Income Countries*. London.
- Harigaya, Tomoko. (2016). *Effects of Digitization on Financial Behaviors: Experimental Evidence from the Philippines*. Working Paper.
- International Finance Corporation. (2011). *Strengthening Access to Finance for Women-Owned SMEs in Developing Countries*. Washington DC.
- Jack, W., & Suri, T. (2014). *Risk Sharing and Transactions Costs: Evidence from Kenya's Mobile Money Revolution*. *American Economic Review*, 104(1), 183:223.
- Jack, W., & Suri, T. (2016). *The Long-run Poverty and Gender impacts of Mobile Money*. *Science*, 354 (6317), 1288:1292.
- Karlan, D., Osei, R., Osei-akoto, I., & Udry, C. (2014). *Agricultural Decisions after Relaxing Credit and Risk Constraints*. *Quarterly Journal of Economics*, 129(2), 597:652.
- Karlan, D., Ratan, A., Zinman, J. (2014). *Savings By and For the Poor: A Research Review and Agenda*. *The Review of Income and Wealth*, 60(1), 36:78
- Karlan, D., & Zinman, J. (2010). *Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts*. *Review of Financial Studies* 23(1), 433: 464.
- Kast, F., & Pomeranz, D. (2014). *Saving More to Borrow Less: Experimental Evidence from Access to Formal Savings Accounts in Chile*. NBER Working Paper No. 20239.
- Prina, Silvia. (2015). *Banking the Poor via Savings Accounts: Evidence from a Field Experiment*. *Journal of Development Economics*, 115, 16:31.
- Schaner, Simone. (2015). *The Cost of Convenience? Transaction Costs, Bargaining Power, and Savings Account Use in Kenya*. Working Paper.
- Schaner, Simone. (2016). *The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor*. Working Paper.
- United Nations. (2015). *The World's Women 2015: Trends and Statistics*. United Nations, Department of Economic and Social Affairs, Statistics Division. Sales No. E.15.XVII.8.