How households' financial decisions change when they face a shock: Insights from the India demonetization

Pierre Bachas (Princeton University), Giorgia Barboni (Princeton University), Parul Agarwal (IFMR-LEAD)

In India, about 17% of employment occurs in micro and small enterprises (Central Statistics Office, MOSPI, Government of India, 2013) Compared to medium enterprises, small-size businesses are more exposed to the risk deriving from bad income realisation. These businesses often sell a single product and their income tends to be seasonal (e.g. dairy farmers, food sellers). Their limited buffer stock savings and access to financial markets also imply that they can be severely impacted by demand and liquidity shocks.

The challenges to diversify risk on their income become increasingly relevant with the share of the family income that originates from this business activity. The household may only have a limited set of external income-generating options to resort to and as a consequence short-term shocks to business activity can have important impacts on consumption and investment.

In the project "*Repayment flexibility, contract choice and investment decisions among Indian microfinance borrowers*" (IGC project n. 1-VRF-VINC-VXXXX-89219), Giorgia Barboni and Parul Agarwal suggested a new intervention that can mitigate the negative effects of business income seasonality and temporary shocks, which may be amplified if borrowers have an outstanding loan they have to repay frequently. Providing repayment flexibility (in the form of a three-months repayment holiday) can help small entrepreneurs manage their liquidity, taking into account their different cash flows over the peak and lean seasons of their business. At the same time, repayment flexibility can be exerted if a sudden shock hits the business. In this case, repayment flexibility can be seen as an insurance product that insulates households from both idiosyncratic and systemic risks. At the beginning of 2016, we partnered with an Indian Microfinance Institution, Sonata Microfinance Pvt., headquartered in the Indian State of Uttar Pradesh, to introduce a flexible microfinance contract which allowed a three-months repayment holiday option. The borrower can exert this option after having successfully repaid three monthly instalments. Sonata offered the flexible contract at a two percentage points higher interest rate than the standard, rigid contract (28% versus 26% for the flexible and rigid contract, respectively). The underlying intuition is that by making the flexible contract more expensive, Sonata would reach a separating equilibrium where more entrepreneurial borrowers are still attracted by the flexible option, while the less entrepreneurial ones stick to the cheaper, rigid schedule (Barboni, 2016). Before the product was actually offered in its branches, Sonata allowed the research team to set up a Randomized Controlled Trial to test the flexible repayment program among twenty-eight branches in Uttar Pradesh. In half of these branches, newly enrolled borrowers, signing up for an individual liability business loan, were given the option to choose between the standard rigid contract offered by Sonata, or the more expensive flexible contract. In control branches, similar borrowers were only offered the rigid contract. The total study sample consists of 793 borrowers. Our experimental design allows one to study two aspects of repayment flexibility: first, within treated branches, we can study which borrowers select into the flexible versus the rigid contract, based on their characteristics. Second, by comparing borrowers in treated and control branches, we can assess the impact, in terms of business income and repayment rates of offering a (separating) menu of contracts versus the traditional contract only.

The experiment has led to several findings. First, in treated branches, the take-up rate of the flexible product is 31% (120 out of 383 clients). In line with previous work from the authors, this result shows that repayment flexibility does not represent an appealing contract feature to every borrower. In addition, a comprehensive baseline administered before the loans were sourced allows us to relate borrowers' characteristics to their choice for higher repayment flexibility versus the traditional rigid repayment schedule. We find that borrowers who opted for the flexible option are significantly more time-consistent than those who opted for the rigid contract. In addition, the share of present-biased borrowers among those who chose the flexible contract is significantly lower. Borrowers who preferred the flexible schedule are also more likely to be risk-taking (although this difference is not significant). At the same time, they are more likely to keep a frequent budget of their business activity, suggesting that they are more disciplined and accurate in keeping their financial statements. Looking at business characteristics, we find borrowers choosing the flexible schedule to be significantly more likely to carry out a business activity characterised by seasonal income streams (dairy farming, agriculture, hotels and shops), and less likely to be involved in business activities less affected by seasonality. This moves towards our assumption that borrowers can use the repayment option to mitigate the mismatch between business profits and repayments. Administrative and loan data from Sonata will then be used to gather detailed information on borrowers' business activities. This, in turn, will help us estimate differences between treated and control branches in terms of business income and repayment rates.

In terms of timeline, loans were sourced by Sonata loan officers starting from September 2016. Borrowers from treated branches who chose the flexible option could start their repayment holiday only after the fourth month of their loan tenure. In addition, all flexible customers were asked to report which reason they planned to use their repayment holiday for. Although not binding, this information is important to understand whether flexible customers use the repayment holiday for liquidity *versus* risk management. This is even more relevant in light of the recent demonetization reform implemented in India at the beginning of November 2016. The unannounced demonetization took by surprise the Indian economy and while its stated objective was to reduce corruption and tax evasion, it also had unintended consequences on the heavily cash-based Indian economy. The massive liquidity shortage that followed the reform hit particularly hard small businesses, which did not have enough cash buffer to compensate the lack of physical payments from their customers, or advances from their suppliers, and keep their business running. The situation might have worsened when households started to cut on consumption, thus generating a demand shock, with both banks and suppliers unable to retrieve repayments.
This project thus plans to study the unique liquidity shock from demonetization and its impact on business income and on households' financial decisions. An important advantage is that we can leverage information from the extensive baseline survey which was carried out for the repayment flexibility project (described above) on almost 800 households carrying out business activities in Uttar Pradesh, *before* demonetization took place. This unique setup allows us to administer a follow-up *after* the demonetization, to the same subjects, to study how this shock has impacted their business, consumption and wellbeing.
Based on the data collected, the first aim of the study is to quantify the magnitude of the negative shock and its nature (temporary *versus* permanent; affecting which types of households and businesses). To the best of our knowledge, the literature so far has focused on either income shocks to households (Duflo, 2003; Haushofer and Shapiro, 2016, among others); or on microenterprises (De Mel, McKenzie and Woodruff, 2008; Banerjee and Duflo, 2013), separately. In this "natural shock" setting, we can instead study the causal impact of demonetisation on a broader set of development outcomes, on both households and microenterprises simultaneously.

We formulate two sets of hypotheses concerning i) businesses income and production; ii) households' outcomes. First, demonetization may impact small business liquidity through two main channels. The reduction in cash in the economy might imply that some buyers are unable to pay immediately and resort to making payment promises. In addition, suppliers might cut back on payment advances and short-term loans and instead require immediate payments. Second, demonetization can impact businesses through general equilibrium effect, with a reduction in overall demand, and limited product availability from suppliers. Finally, businesses may try to adjust to this sudden shock through several mechanisms: adoption of new payment technologies such as online and mobile; reduction of inventories; limited investments; lay-off of workers or delay wage payments; and cut down on other payments (e.g. loan repayment).
On the households' side, we expect to observe changes in household consumption, wellbeing and women's bargaining power in the households. At the individual level, we also expect that subjects' level of trust in the institutions (banks, the Indian government, other financial institutions) may have been affected by the demonetization. We plan to capture these outcomes through an extensive survey that will contain: i) a business and income module; ii) a detailed consumption section; iii) questions on borrowing and saving. We will also ask questions to identify whether the demonetization has increased the stress level in the households. Finally, we will include a module on trust. We will administer the follow-up to both spouses in the household. This will be to precisely capture any differential effect the demonetization had on men versus women in the household.

Combining data pre- and post-demonetization, we will be able to measure, using a Differences in Differences approach, the extent to which the liquidity shock has changed the economic lives and financial decisions of these individuals. In doing so, we will rely on different degrees of heterogeneity across our subjects, namely the type of their business (seasonal versus not-seasonal), and in which "phase" of their business activity they were hit by the shock (peak season versus lean season). In this sense, the first set of outcomes we will study will be whether subjects who opted for the flexible repayment option used the repayment holiday precisely in the time following demonetization, to insulate themselves from the shock.

This proposal thus seeks funding to carry out a post-demonetization follow up, which will be administered from June 2017. We anticipate that the cost for this survey round will be 19,922$ dollars, with duration of four months. A detailed budget is enclosed to this application. Field operations will be carried out through IFMR-LEAD, a well-established research institution in India who has extensive expertise in field work management. Beside the itemized budget, attachments include a letter of support from IFMR as well as the PIs' CVs.

References

Banerjee, A. V., & Duflo, E. (2014). Do firms want to borrow more? Testing credit constraints using a directed lending program. The Review of Economic Studies, 81(2), 572-607.

Barboni, G. (2016). Repayment Flexibility in Microfinance Contracts: Theory and Experimental Evidence on Take-Up and Selection, *mimeo*.

De Mel, S., McKenzie, D., & Woodruff, C. (2008). Returns to capital in microenterprises: evidence from a field experiment. The Quarterly Journal of Economics, 123(4), 1329-1372.

Duflo, E. (2003). Grandmothers and granddaughters: old‐age pensions and intrahousehold allocation in South Africa. The World Bank Economic Review, 17(1), 1-25.

Haushofer, J., & Shapiro, J. (2016). The short-term impact of unconditional cash transfers to the poor: Experimental Evidence from Kenya. The Quarterly Journal of Economics, 131(4), 1973-2042.

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Itemized Budget

Particular	USD	Narrative
Personal Cost	6,308	Time of research team, software developer and field operations team for the period of 4 months
Travel	1,385	Travel for pilot and training of enumerators for data collection and monitoring
Data Collection	11,276	Data collection of 793 respondents. Training and data collection cost (Team of enumerators and Quality check team of 20, digital data collection device)
Administration and Support	953	Finance and Accounts support for Project Implementation
Total	**19,922**	

IFMR LEAD | LEVERAGING EVIDENCE FOR ACCESS AND DEVELOPMENT

March 17, 2017

Letter of Support from IFMR LEAD

Dear Madam/Sir,

With this letter, I confirm IFMR-LEAD's willingness to provide support to the field operations that will be carried out for the led by Pierre Bachas, Giorgia Barboni and Parul Agarwal. The project intends to study households' financial decision-making in the Indian context, and in particular in light of the recent demonetization.

IFMR LEAD has been conducting policy and action-oriented research on economic development and finance in India since 2005. We have substantial experience collaborating with many academics to manage and implement randomized impact evaluations, and have completed over 50 rigorous studies in our core research areas. Our field teams collect primary survey data at individual, household, village, firm, or institutional level. Our field and data management experts ensure that data is collected and safeguarded in compliance with the Institutional Review Board (IRB) requirements.

Our Financial Inclusion team engages in research studies to help poor households overcome barriers to savings and to measure the effectiveness of various savings products. The proposed research project is aligned with one of our focus areas, and we believe it has great potential to help us better understand the barriers to saving the poor face. We are therefore happy to offer any assistance as may be permitted in our capacity as a research implementing organization.

Sincerely,



Sharon Buteau
Executive Director IFMR LEAD

INSTITUTE FOR FINANCIAL MANAGEMENT AND RESEARCH

Giorgia Barboni

Julis-Rabinowitz Centre
for Public Policy and Finance
Princeton University
Princeton, NJ 08540

Phone: +1 (617) 415-6871
Email: gbarboni@princeton.edu
Web: http://www.giorgiabarboni.com

ACADEMIC POSITIONS

Post-Doctoral Research Fellow, Julis-Rabinowitz Center for Finance and Public Policy, Woodrow Wilson School, Princeton University — September 2016 -
Visiting Scholar, Evidence for Policy Design, Harvard Kennedy School — February 2016 - July 2016
Post-Doctoral Research Fellow, Trinity College Dublin — August 2014 - December 2015

EDUCATION

PhD, Economics, Sant'Anna School of Advanced Studies (Pisa, Italy) — 2012
Thesis Title: *Essays on Credit Markets in Developing and Developed Countries*
Committee: Leonardo Becchetti, Martin Brown, Alessandra Cassar, Giovanni Dosi, Luigi Marengo

Visiting Phd Student, University of Namur — 2011 - 2012

Visiting Phd Student, London School of Economics — 2010 - 2011

MA, Economics, LUISS Guido Carli (Rome, Italy), *110/110 cum laude* — 2008

BA, Economics, LUISS Guido Carli (Rome, Italy), *110/110 cum laude* — 2006

TEACHING EXPERIENCE

Financial Services in Less Developed Countries
(Guest Lecturer, SIER 2016, African School of Economics) — 2016
Rethinking Financial Inclusion: Smart Design for Policy and Practice
(Teaching Assistant, Harvard Kennedy School) — 2016
Economics of Less Developed Countries (Lecturer, Trinity College Dublin) — 2015
Experimental Economics (Teaching Assistant, Sant'Anna School of Advanced Studies) — 2013

EMPLOYMENT

Senior Researcher for the project "Impact of Rural Microfinance on Poverty and Well-being"
(PIs: Erica Field and Rohini Pande) — 2016
National Bank of Belgium, Internship, Research Department — 2012
Bank of Italy, Internship, Research Department — 2010

PUBLICATIONS

Barboni, G., Cassar, A., Trejo, A. R., Wydick, B. (2013). Adverse Selection and Moral Hazard in Joint Liability Loan Contracts: Evidence from an Artefactual Field Experiment. *Journal of Economics and Management*, 9(2), 153-184 (Special Issue on Field Experiments in Economics and Management, Guest Editor: John List, University of Chicago)

Barboni, G. (2013). Signalling through Joint-Liability: an Adverse Selection Model, *Rivista Italiana degli Economisti*, 18(3), 299-318 (Special Issue on Social Cohesion and Financial Exclusion, Guest Editors: Leonardo Becchetti, Arnold W. Boot, Robert Lensink, Alberto Zazzaro)

BOOK CHAPTERS

Barboni, G. (2015). The Geography of Financial Services Providers in Kenya in: Heyer, A. and King, M. (eds). *Kenya's Financial Transformation in the 21st Century.* Nairobi, Kenya: FSD Kenya.

WORKING PAPERS

"Repayment Flexibility in Microfinance Contracts: Theory and Experimental Evidence on Take-Up and Selection" (2016), *R&R Journal of Economic Behavior & Organization*

"Does your neighbour know you better? Local banks and credit tightening in the financial crisis" (2012), with Carlotta Rossi (Bank of Italy), *R&R Journal of Banking and Finance*

"First time lucky? An experiment on single versus multiple bank lending relationships" (2012), with Tania Treibich (Maastricht University), LEM Working Paper 2012-13, *R&R Experimental Economics.*

"Foreign Banks as Shock Absorbers in the Financial Crisis?" (2015), *approved for publication in the National Bank of Belgium Working Paper Series*

RESEARCH IN PROGRESS

"Repayment flexibility, contract choice and investment decisions among Indian microfinance borrowers", with Parul Agarwal (CMF, IFMR-LEAD) - followup

"Improving the usage of efficient cookstoves in India", with Parul Agarwal (IFMR-LEAD), Anca Balietti (Harvard Kennedy School), Adrien Matray (Princeton University) and Rohini Pande (Harvard Kennedy School) - pilot completed

"Relaxing financial constraints to MSMEs: The impact of microequity on business growth", with Adrien Matray (Princeton University), Atif Mian (Princeton University), Rohini Pande (Harvard Kennedy School), Natalia Rigol (Harvard Kennedy School) and Ben Roth (MIT)

"Natural calamities and social safety net programs: A field experiment on mobile cash transfers to vulnerable populations in Bangladesh", with Parul Agarwal (CMF, IFMR-LEAD) and Abu Shonchoy (Institute of Developing Economies (IDE) JETRO and University of Tokyo) - pilot completed

"The role of cultural proximity on banks' lending strategies", with Antonio Accetturo (Bank of Italy), Michele Cascarano (Bank of Italy), Emilia Garcia-Appendini (University of St. Gallen) and Francesca Modena (Bank of Italy) - data analysis

"Expanding credit access to MSMEs: Evidence from India", with Parul Agarwal (CMF, IFMR-LEAD) - ongoing

GRANTS

FMO Grant (co-PI: P. Agarwal, IFMR-LEAD), €321,397 2015
IGC Grant (co-PIs: P. Agarwal, IFMR-LEAD and A. Shonchoy, IDE), £20,000 2015
IGC Grant (co-PI: P. Agarwal, IFMR-LEAD), £50,586 2014
Levi Strauss Foundation (co-PIs: A. Cassar, USF and T. Demont, U. of Marseille), $60,000 2013
Pio Sodalizio dei Piceni, research grant, €6,500 2011

FELLOWSHIPS, HONORS AND AWARDS

Luigi Einaudi Foundation Scholarship 2016
Trinity College Dublin, Postdoctoral Fellowhip 2014
Robert Solow Postdoctoral Fellowship 2013
Sant'Anna School of Advanced Studies, Postdoctoral Fellowship 2012
European Banking Center, travel grant 2012
AMID (Actors, Markets, and Institutions in Developing Countries: A micro-empirical approach, Marie Curie Initial Training Networks (ITN) under the 7^{th} Framework network), doctoral fellowship at U. of Namur 2011
AMID (Actors, Markets, and Institutions in Developing Countries: A micro-empirical approach, Marie Curie Initial Training Networks (ITN) under the 7^{th} Framework network), doctoral fellowship at LSE 2010

PROFESSIONAL ACTIVITIES

(Selected) Conferences and Seminars:
2017: PacDev 2017; SEEDEC 2017 (scheduled)
2016: Trinity College Dublin; IPA Research Gathering on Financial Inclusion; European Economic Association; Tilburg University; SIER (African School of Economics)
2015: IGC Development Economics Seminar (presented by co-author)
2014: Micro Working Group, Trinity College Dublin: University of St.Gallen, PiF seminar.
2013: National Bank of Belgium, lunch seminar; Third European Research Conference on Microfinance (accepted); CUCS conference, Turin; University of St.Gallen, PiF seminar; Bank of Italy.

Refereeing: *Industrial and Corporate Change, The B.E. Journal of Economic Analysis and Policy; Economic Development and Cultural Change; World Development*

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EMPLOYMENT

Princeton University	Postdoctoral Researcher, Department of Economics and Julius-Rabinowitz Center for Public Policy & Finance (JRCPPF)	2016-

EDUCATION

University of California, Berkeley	Ph.D. Economics	2010-16

Dissertation Title: "Tax Design Under Weak Enforcement"
References: Professors Emmanuel Saez, Edward Miguel, Paul Gertler & Danny Yagan

London School of Economics	Msc. Economics	2009-10
	Bsc. Economics	2006-09

RESEARCH FIELDS:

Public Economics, Development Economics

WORKING PAPERS:

"Not(ch) Your Average Tax Rate: Corporate Taxation Under Weak Enforcement" *with Mauricio Soto*

"Bank Non-Secrecy: Taxation and Financial Service Use in Mexico" *with Anders Jensen*

"Banking on Trust: Debit Cards, Cash Transfers, and Savings in Mexico" *with Paul Gertler, Sean Higgins and Enrique Seira*

"An Empirical Test of Information Trails: Does Firm Size Matter for Tax collection?" *with Anders Jensen*

SELECTED GRANTS, FELLOWSHIPS AND AWARDS:

Journal of Development Economics Award, UC Berkeley	2016
Center for Equitable Growth Fellowship, UC Berkeley	2015
Best Paper Award, Oxford's Center for Business Taxation Doctoral Meeting	2014
Burch Center for Tax Policy Fellowship, International Growth Center Research Grant	
Young Economist Award, International Institute for Public Finance (IIPF) conference	2013
UC MEXUS Grant for research on Mexico, Tinker Summer Grant for research in Latin America	

INVITED SEMINARS AND PRESENTATIONS

ASSA Chicago	2017
IADB Research, World Bank Research, Princeton, Pompeu Fabra, Toulouse School of Economics	2016
LMU Munich, Columbia, University of Zurich	
UC Berkeley, NTA Boston, Université Paris II, Institute for Fiscal Studies, NEUDC Brown, DevPec Stanford	2015
UC Berkeley, Oxford CBT Doctoral Meeting ZEW Manheim Public Finance Conference	2014
Visiting Researcher ITAM (Summer)	2013

REFEREEING ACTIVITY

Journal of Public Economics, AEJ Applied Economics, Economic Development & Cultural Change, International Tax and Public Finance

OTHER RESEARCH EXPERIENCE

Short Term Consultant, The World Bank Social Protection Division	2013
Research Assistant for Professor Edward Miguel, University of California, Berkeley	2011-12
Evaluation Coordinator, Innovations for Poverty Action, Kenya	Summer 2011

OTHER INFORMATION:

Languages: English (fluent), French (native), Greek (native), Spanish (fluent)
Citizenship: France and Greece

Parul Agarwal

Address: IFMR-LEAD, Buhari Towers, 2nd Floor, No. 4, Moores Road, Nungambakkam, Chennai- 600006, India

Email: parul.agarwal@ifmr.ac.in Tel: +91-9840144134

Education

Xavier Institute of Management, Bhubaneswar (XIMB), India 2008-2010
Post Graduate Diploma in Management- Rural Management

Ramjas College, University of Delhi, India 2005-2008
B.A. (Honours) Economics

Work Experience

Centre for Microfinance, IFMR-LEAD, Chennai, India April 2010- Present
Current Position: Associate Director- Financial Inclusion

- ***Strategy:*** Responsible for developing and executing the institution's long term research portfolio, primarily impact evaluations. Helping identify gaps in knowledge on financial services for the poor and designing a strategic plan to achieve goals.
- ***Management:*** Supervising a team of Research Managers and Research Associates who work on a variety of randomized controlled trials across India. Responsible for developing the research capacity of the centre, and ensuring end-to-end capability including conceptualizing research idea, furnishing hypotheses and study design, instrument development, data collection, monitoring, data preparation, analysis, report writing, knowledge dissemination and policy outreach.
- ***Research:*** Responsible for helping design new, policy relevant research studies in collaboration with external and internal principal investigators. At present leading some of the research studies as a principle investigator or a co-researcher.
- ***Support other portfolio:*** Assisting the teams responsible for offering training and capacity building to stakeholders and creating a policy influence of the results from the studies conducted. Working closely with these teams to contribute further to the sector.

Research Projects

Projects completed or in progress
Working as a principal or co-investigator

- ***Impact evaluation of an affordable day care programme to empower Indian mothers:*** This randomized controlled trial is being set up in the state of Rajasthan. As part of this study, the implementation organization will open and operate day care centres for rural children in the age group of 1-5 years. The study intends to evaluate the impact of this service in mother's employability, empowerment and mental health.
- ***Randomized controlled trial of a soft commitment savings product:*** This research evaluates the impact of a soft commitment savings device in comparison with the hard commitment and regular savings instruments. A pilot was conducted in the Indian state of Karnataka and investigators are currently drafting a paper using the results.
- ***Repayment flexibility, contract choice and investment decisions among Indian microfinance borrowers:*** This research study is being set up in Bihar where sample small entrepreneurs will be offered a flexible loan product along with a rigid loan product and will be asked to choose one. Researchers hypothesize that a grace-period in repayment schedule would lead to better business outcomes.

- ***Impact evaluation of a financial model that services mciro small and medium enterprises:*** Research team recently completed an evaluabiltiy assessment of the financial provider that funds the businesses that are not funded by banks or by micro finance institutions. A rigorous impact evaluation will soon follow.

- ***Understanding the drivers of mobile money product usage and the impact on migrants and their families in India:*** This study is being conceptualized with a telecom company in India and with an NGO that works with domestic migrants across popular migration corridors. The research intends to evaluate the impact of a financial product that eases the financial transactions and savings between and at origin and destination of migration.

- ***Characteristics of migrants' families and decision to migrate:*** This was a quasi-experimental study conducted with the families of migrants at the origin in the states of Orissa, Bihar and Uttar Pradesh. The objective was to understand how the decision making and social and financial behavior of families get altered with a key member migrating out and also to understand how a decision to migrate is made.

- ***Is urban poverty a spillover of rural poverty (with special reference to migration and job opportunities)?:*** The objective of this research study was to assess if people migrating from rural to urban areas for better employment options are any better off at the destination. This study was conducted in urban slums of Delhi and Orissa.

- ***Self Help Group Bank Linkage: Through the responsible finance lens:*** This study was conducted with 600 Self Help Groups spread across the states of Madhya Pradesh, Bihar and Karnataka. The objective was to evaluate the financial and non-financial practices of groups within and outside the group. It also intended to capture the group dynamics, cohesiveness and reaction to the new regulatory framework.

- ***Map of Microfinance distribution in India:*** This project was an attempt to develop a visual tool for all the stakeholders of the sector to enable them to understand the spread and depth of microfinance penetration in India.

- ***Exploring the nature, scope and feasibility of existing technological infrastructure of India's national e-governance plan's customer service centre scheme:*** Under NeGP in India, a lot of customer service centres have been set up that provide both financial and non-financial services. This study, conducted in Madhya Pradesh, intended to understand if these centres can be used to deliver innovative financial products.

- ***A scoping study on financial literacy training programmes in India:*** This was a nation-wide study conducted to document and understand various models of financial literacy.

- ***Evaluation of village development plans in Tamil Nadu:*** This was a qualitative evaluation of India's National Bank of Agriculture and Rural Development (NABARD's) programme on participatory village development.

Publications

- Agarwal, P (2015), 'Financial literacy: When, what and how', Columns, Ideas for India
- Agarwal, P (2014), 'The plight of complimentary migrants: Children at brick kilns', Notes, Ideas for India
- Agarwal et.al (2014), 'Evaluation of Village Development Plans in Tamil Nadu', Centre for Microfinance, IFMR-LEAD
- Agarwal et.al (2013), 'Self Help Group Bank Linkage: Through the responsible finance lens', Sage Publications and Access-ASSIST
- Agarwal et.al (2013), 'Helping the poor to save', Columns, Ideas for India
- Agarwal et.al (2012), 'Evaluation of financial literacy training programmes in India: A scoping study', Centre for Microfinance, IFMR-LEAD
- Agarwal et.al (2012), 'Is urban poverty a spillover of rural poverty (with special reference to migration and job opportunities)?', ZIRAF
- Agarwal et.al (2010), 'Map of microfinance distribution in India', Centre for Microfinance, IFMR-LEAD

Workshops and Conferences

- Assisted in organizing and conducting the training workshop for NABARD officials in 2013 and 2014
- Attended and presented at the conference titled “Making impact evaluation matter”. It was organized by 3ie and Asian Development Bank at Manila in 2014
- Attended and presented at the conference titled “Political Economy, Accountability and Governance”. It was organized BRAC Institute for Governance and Development at Dhaka in 2014
- Presented at a conference hosted by IMTFI at University of California, Irvine in 2013
- Presented at a conference hosted by IFMR and College of Agriculture Banking at RBI in 2011

Interest Areas

- Labour employment and mobility
- Micro-savings and asset accumulation
- Product innovation in financial inclusion