Development Economics

Lecture 24: Microcredit

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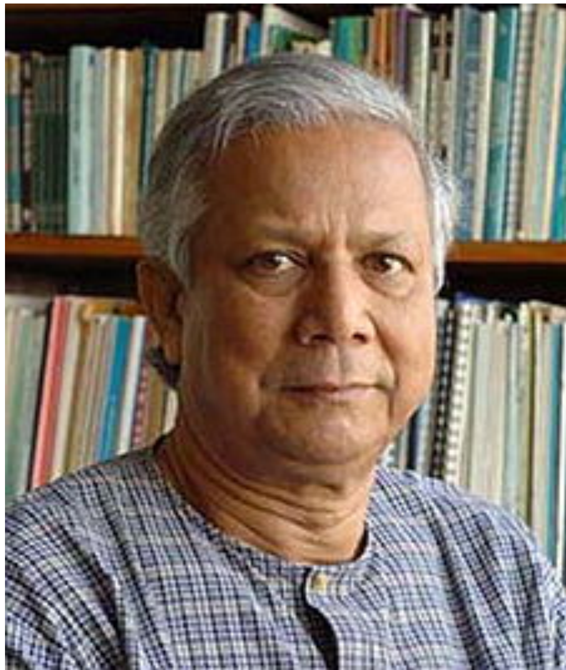
Today

1. Microcredit
2. Problems with credit markets—why the poor can't get credit
3. How group lending solves (some) of the problems. Model.
4. Problems with group lending
5. Microcredit becomes microfinance

Microcredit

- Microcredit: providing small loans to poor people

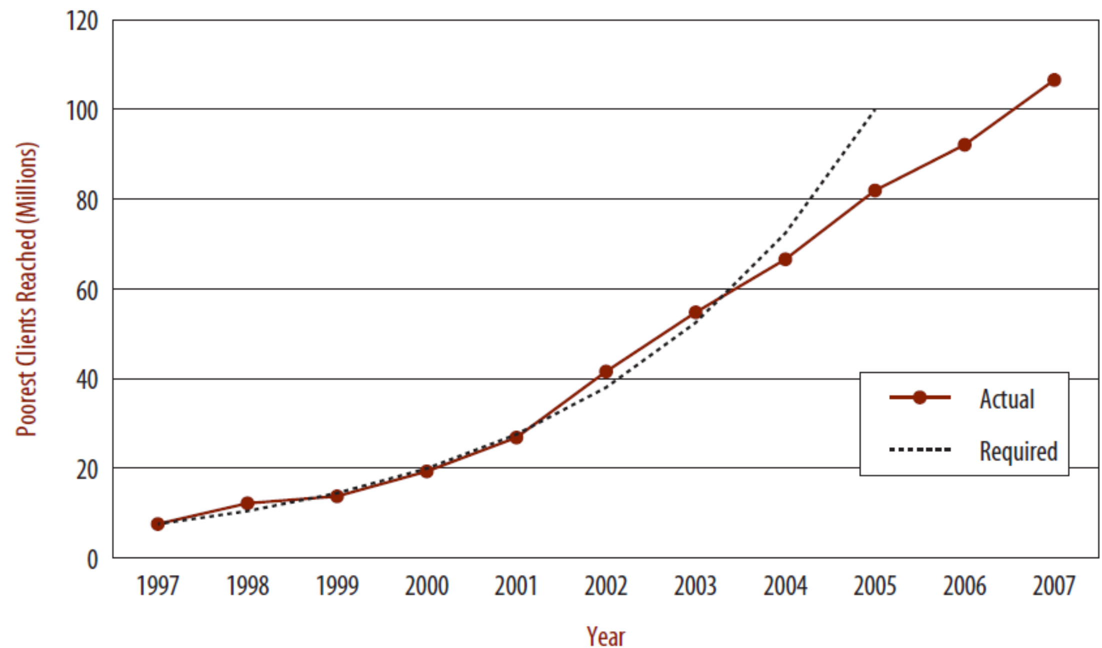


Muhammad Yunus (photo: Tanveer Islam)

- Modern microcredit "movement" started in Bangladesh in 1976
  - Muhammad Yunus wanted to improve lives of local villagers
  - Provided small loans, and was amazed that all of villagers paid back, and seemed to make profitable investments
  - Thought: Poor want credit, and can pay back, but are not getting credit
  - Founded Grameen Bank, to provide credit to poor
  - Yunus and Grameen won Nobel Peace Prize 2006

Microcredit

- Microcredit spread slowly at first, but accelerated in 1990s
- Today reaches around 154 million total households (100 million poor households)
  - Exact definition hard, since depends on how define microcredit, poorest household
- Trend today is to call it microfinance, and to talk about Microfinance Institutions or MFIs
- Around 3500 MFIs in operation, ranging from very large (BRAC, Grameen), to very small



Source: Daley-Harris, Sam. (2009) State of the Microcredit Summit Campaign Report 2009. http://www.microcreditsummit.org/state_of_the_campaign_report/

Characteristics of microcredit

- Microcredit has been mostly to women
  - ~80% of clients are women
  - Poor engaged in many non-farm activities, microcredit often to fund these activities
  - Women seem to have higher repayment (perhaps take on less risk, or more attuned to social pressure, or more responsible)
  - Lending to women valuable for social objectives (health, poverty, fertility)
- Focus on poorest borrowers
  - Many MFIs have asset or income cut-offs
    - Early on, Grameen would only lend to those with half-acre or less
  - Economic reason: larger loans make default more costly, and poor are more likely to find social costs, and denial of future credit costly
  - Social reason: focus on poverty

Why is it difficult for the poor to get credit?

- No collateral
  - *Ex post* Moral Hazard or Strategic Default (don't repay even if can)
- Adverse selection
  - Formal banks cannot tell who is a good credit risk
  - Poor have no credit history (since can't borrow) and so banks cannot tell who is likely to repay
- Fixed costs of loan
- *Ex ante* Moral Hazard
  - After get loan, may make riskier investment than told loan officer
  - Additional risk is good for borrower, bad for lender

Group Lending

- Key early innovation of microcredit: lend to a group of people
- Typical approach (many variations):
  - No collateral
  - Serve only the poorest people, sometimes only women
  - A group of five people may approach the MFI, all get a loan
  - Group is collectively responsible for repayments
  - If default, entire group is excluded from all future loans
  - So others in group have incentive to pressure potential defaulter to pay, or pay themselves.

Group Lending

- Keep costs low since lend to group
  - Loan officer typically does not check what loan is used for, depends on group to monitor
  - Meets with many groups at once
- Keep interest rates (relatively) low
  - Grameen typically charges 20-30% annual interest
  - Much lower than moneylender interest rates (100% or more)

Group Lending

- Group lending helps solve the lender’s information problem
  - When Safe and Risky borrowers are both in market, and lender cannot distinguish between them, lead to high costs of lending, excludes Safe borrowers
  - But if borrowers know each other well, and know who is a good risk and who is a bad risk
  - Don’t want to be in a group with a bad risk
  - So safe and risky groups form and lender can offer interest rate that brings Safe back in

Model Group Lending

- 4 borrowers
  - 2 Safe (Safe1 and Safe2)
  - 2 Risky (Risky1 and Risky2)
- Bank or MFI cannot tell type, but borrowers can
  - MFI can only offer one interest rate i
  - Cost of funds for MFI is r
- Form groups of two for loans of size L
- Both members of group get a loan at same time
- Must pay back partner's loan if he or she defaults

Model Group Lending

Safe1 and Safe2 always repay

get $R_S > (1+r) L$

Risky1 and Risky2

probability *p* get return $R_R > 2(1+i)L$

probability *(1-p)* get 0 and default

If partner defaults, must repay ***both*** loans

(as long as you get R_R)

Safe borrowers want to be together

Return for Safe1 if partners with Safe2 >

Return for Safe1 if with Risky1 or Risky2

Safe borrowers form a group together

Risky borrowers have to form group

What is return for Safe1? Return =

Return on loan – cost of loan – cost of partnership =

$R_S \quad - \quad (1+i)L \quad - \quad 0$

Max iS for Safe1 and Safe2:

$0 = R_S - (1+i_S)L \rightarrow i_S = R_S/L - 1$

What is expected return of Risky1?

= E[Return – cost – cost of partnership]

$$=p[R_R - (1+i)L] \quad + (1-p)0 \quad - p(1-p)(1+i)L$$

Risky1 pays back | Risky1 defaults | Risky1 can pay, Risky2 default

= return – cost if project succeeds

+ return – cost if project fails

$$= p[R_R - (1+i)L - (1-p)(1+i)L] + (1-p)0$$

Max interest rate at which Risk1 still wants loan

$0 = p[R_R – (1+i)L – (1-p)(1+i)L] + (1-p)0$

$0 = R_R – (1+i)L – (1-p)(1+i)L$

$= R_R – [1+ (1-p)] (1+i)L$

$i_R = R_R/[(2-p)L] – 1$

Risky1 does not care how risky Risky1 is, only how risky Risky2 is

How do i_R and i_S compare?

Max interest rates:

$$i_S = R_S/L - 1$$

$$i_R = R_R/[(2-p)L] - 1$$

Possible for $i_S > i_R$

if so, and lender offers i_S then no risky loans

Even if $i_S < i_R$, lender may find it profitable to offer i_S

→ both Safe and Risky groups want loans

Because Risky borrowers pay when partner defaults

Lender only loses if both default (1-p)(1-p)

How group lending helps

- Group lending helps adverse selection
  - Risky borrowers bear costs of each other's defaults
  - May drive them out of market
  - MFI gets higher expected return from risky borrowers
- Group lending helps with strategic default by raising cost of default
  - Group lending means that if I default it is costly to all of the rest of group
  - Social costs of default are very high—since my group is now mad at me
  - Turns social capital into collateral!

How group lending helps

- Peer Monitoring
  - Group members can monitor each other better than banks—since they typically know each other
  - Group lending may help with a *ex ante* moral hazard since group members bear costs of extra risk if one of the group decides to make a risky investment
  - So have an incentive to stop risky investments
  - Similarly group lending solves *ex post* moral hazard since group members know outcome of investment—difficult to hide from neighbors, so enforce payback
- Group lending delegates monitoring from bank to group, and so allows MFIs to make loans might not be able to make otherwise

Problems with group lending

- Not necessarily efficient
  - The bad luck (or bad behavior) of one group member can be costly to all others
  - Incentive to still loan to rest of group means threat may not be real.
  - May induce overly safe behavior—group may enforce rules which are optimal for all group members, but some efficient (risky) investments may not take place
  - If one member defaults, the social and physical pressure from neighbors can be enormous—high repayment rates may come at a large (too large?) cost

Problems with group lending

- Requires monopoly
  - The threat is that the group will not get future loans if don’t repay, but competition reduces threat
  - Recent attempts to start “credit rating” agencies for MFIs to deal with problem of MFI competition
- May work well only in some places
  - Bangladesh (all of South Asia) densely populated
  - Social relationships strong—much social capital, lots of monitoring easy since close together
  - Other parts of the world less densely populated, have different social customs, and so the group model may not work. Urban areas looser social networks

Microcredit to Microfinance

- Shift away from group lending into more general lending to poor
  - Progressive lending: lend small amounts at first, and then increasingly large ones
  - Learn about whether the person is a good credit risk, before make large loan (determine whether safe or risky)
- Shift towards small savings services
  - Saving and borrowing intimately related
  - Poor may be borrowing only to find a safe way of saving (can borrow and invest in lump sum, rather than have to hold amount at home until can invest)

Microcredit to Microfinance

- Profits?
  - Some for-profit microcredit enterprises have opened up
  - If microcredit is good for the poor (gains from trade), is it good to make profits from the poor?
  - But if can never makes profits, will the poor ever get good financial services?