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Providing Financial Services to the Poor: Social Banking and Micro-credit

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SOCIAL BANKING

Early (60's, 70's) recognition that the poor have very bad access to credit markets, combined with confidence in the power of government, led to intervention of government in banking sector, either directly (state-owned bank and credit cooperative) or indirectly (through regulation of public banks).

Social Banking: Credit (and bank accounts) targeted to the poor, delivered in locations close to where the poor live, often at subsidized interest rate.

However, government's intervention in banking to the poor was fraught with problems (Besley, (1995), Handbook of Devpt Economics).

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PROBLEMS WITH GOVERNMENT'S INTERVENTION

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➔ Low repayment rates(Besley (1995))
  ➔ 30 % Pakistan
  ➔ 41 % IRDP (India) in 1986
  ➔ 51.6 % in Bangladesh in 1980
  ➔ 18.8 % in 1988-89 (flooding) in Bangladesh
➔ Write-off of debts often decided for political reasons, especially in the rural sector. Therefore borrowers expect that they will not need to repay
  ex. in India "It is widely believed by people in the village that if they hold out long enough, debts incurred as a remedy of failure to repay this loan, as they have been in the past (as they were, for example, after the state legislature assembly elections in 1980." Harris (1991)

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Politicization of the lending process
ex. India (Shawn Cole)

Nationalized banks lend more to agriculture. Shawn Cole also shows that lending to agriculture follows a "political" cycle:
➔ More lending to agriculture in election years than any other time
➔ This is identified separately from year effect because all States do not have election in the same year (so you can introduce both dummies for the election cycle and year dummies).
➔ This not true for private banks
➔ This is particularly true in States where the previous election was contested

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➜ Concentration of lending among wealthy farmers
  ex. Brazil
  ➜ farms with more than 10,000 hectares received loans in
    value equal to 75% of their agricultural output
  ➜ farmers with less than 10,000 hectares received loans in
    value equal to 6% of agricultural output.
  ➜ the marginal productivity of credit is higher for small farmers
  ➜ larger farmers are disproportionately likely to default

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BENEFITS?

Recognition of these problems led to the gradual abandon
of social banking (e.g. in India in the early 1990s).

But did it have any benefit? Burgess-Pande (2004) address
these questions using the Indian experience.

In 1961, 1/2 of Indian towns and all of Indian villages were
unbanked. Banks were nationalized in 1969. Indian
experience characterized by 3 periods (roughly).
  ① Until 1977, relative freedom of banks to establish themselves in
    town.
  ② 1977-1991: Social banking period: Bank's activity is regulated
    through licensing rules:e.g. a Bank can open 1 branch in a
    `banked" location if it opens 4 in unbanked locations. (a
    location is a census location with a minimum population).
  ③ 1991-ON end of social banking.

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Pattern of branch opening:
  ➜ Period (1) banks were building in richer areas, where pent-up
    demand was higher
  ➜ Period (2) banks were forced to open in areas with few banks.
  ➜ Period (3) Banks could again start building more in richer areas.

B-P run a regression of branch opening in a state on district
dummies, year dummies, and interaction number of banks in
1961*year dummies. Graph the interactions. The three
periods are readily apparent.
(divergence-convergence-nothing)

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To evaluate the effect on poverty, B-P:
  ① Run the same regression, with poverty and other outcomes of
    interest as dependent variables. Similar pattern.
  ② Estimate parcimonious models (with trends), which summarizes
    these patterns.
  ③ Note that there is no similar trends for other policies.
  ④ Construct instrumental variable estimates of the impact of the
    bank branch expansion on poverty etc..

Social Banking: A good idea?

Burgess and Pande, the first systematic impact analysis of the social program, find strong positive effect of this expansion on poverty. Looks like the poor got something out of it after all.

Townsend-Kaboski (2002) find that Thai villagers living in villages where there is a credit cooperative suffered less from the Asian crisis than those who don't.

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Yet the program was discontinued in India, on the ground that high default rates meant it cost a lot of money to the banks. We continue many programs that cost money (i.e. building school). Cost benefit analysis is important...

Search for ways of providing credit to the poor that are more efficient: micro-credit institutions.

The reach of Micro-Credit

In 2000:
- ➜ they served 13 million clients
- ➜ they had USD $7 billion outsanding loans
- ➜ repayment rates 97 %

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- ➜ lend to the poor, disproportionately to the women
- ➜ small loan sizes
- ➜ Flagship program is Grameen, founded in 1977 by Yunus, 2M clients in 2000. 92% repayment rate, but going down.
- ➜ Other well-known institution: FINCA, BANCOSOL, BRI, BKD, ACCION, BRAC.

Targeting

- ➜ Some institutions lead predominently to poor people. Some (BANCOSOL, BRI) target slightly richer clients (small businessmen).
- ➜ Targeting of Grameen is studied by Rai et al. (1999).

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  - ➜ Suppose we compare consumption levels of borrowers vs non borrowers. Problem with this procedure?
  - ➜ Collect a *panel* data set.
  - ➜ Compare distribution of incomes between future borrowers and non-borrowers of Grameen *before* Grameen sets up a program in the village

Incentive structure

① Term loan with short terms
② Regular repayment schedules
③ Group lending (often).
④ (No) collateral

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⑤ Some collect savings ex. Safe Save, FINCA: forced savings. Value of some of these programs may be to offer the ability to save in a safe instrument. E.g. FINCA offers loan at high interest rate, and forces the women to save at very low interest rates.
⑥ More than just finance: Grameen's 16 decisions, Freedom for Hunger training program (contraception, education, small business finance).

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Two sets of empirical questions are interesting for us:

1. How do they achieve such high repayment rates?

2. Do they really help the poor?

WHY ARE REPAYMENT RATES SO HIGH?

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We know very little...

➔ Is the group valuable? Not all microfinance institutions lend to groups.

➔ Why is the group valuable?
  ➔ Selection of like members
  ➔ effective monitoring / stigma
  ➔ insurance

➔ Role of other Mechanisms
  ➔ repayment schedule
  ➔ dynamic incentives
  ➔ lending to women (better repayment by women).

THE ROLE OF SOCIAL CAPITAL:KARLAN (200 2)

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Evidence from FINCA-Peru: Groups of 30 people. Some individuals are invited by their peers. The others are randomly assigned to a group as a function of their arrival date to the bank.

➔ Social capital and repayment rates:
  ➔ People are more likely to repay when they live closer to other people from the group, and when more people from the group are from their group.
  ➔ Insurance: After drop out, people "closer" to others are more likely to stay in the bank.
➔ Selection People invited by members of the bank are more trustworthy in a trust game (with everyone) than people who came on their own.

IMPACT: FINANCIAL SUSTAINABILITY

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Focus on financial sustainability has obscured the debate. Despite high repayment rate, most of these organizations (including Grameen) are not financially sustainable (Morduch).

Grameen charges interest rates of 15.9% - would need to charge 32% to be sustainable - it has a cost to lend to poor people.

Institutions that lend to richer people are more likely to be financially sustainable.

If you prove sustainability, no need to prove benefits to clients. (no cost-benefit analysis necessary). Not much works on benefits.

THE EVALUATION PROBLEMS

A large Survey in program and non-program village undertaken by the World Bank is studied in Pitt and Khandker and Morduch.

The data set has 1,800 observations for 87 villages in 29 tanas (districts) Some villages have program, other don't.

Participants and non participants are surveyed.

$$E[Y_i^T|T] - E[Y_i^{NT}|T] = E[Y_i^T - Y_i^{NT}/T] + E[Y_i^{NT}/T] - E[Y_i^{NT}/NT]$$

Sources of selection bias:

➜ Selection of villages by Grameen: $E[Y_i^{NT}|V_T] \neq E[Y_i^{NT}|V_C]$. Grameen selects poor villages. Direction of the bias?
  ➜ Average consumption in Grameen villages: 4.32-
  ➜ Average consumption in Control villages: 4.37

➜ Selection of participants within villages:
  $E[Y_i^T|V_T, T] \neq E[Y_i^{NT}|V_T, C]$
  ➜ Eligibility criterion : $E[Y_i^{NT}|V_T, E] \neq E[Y_i^{NT}|V_T, N]$. Grameen selects poor people. Direction of the bias?
    ➜ Average consumption of eligible : 4.17
    ➜ Average consumption of non eligible (in grameen villages): 4.51
  ➜ Self selection : $E[Y_i^{NT}|V_C, E, T] \neq E[Y_i^{NT}|V_T, E, C]$. Dynamic people choose to participate: Direction of the bias?

IDEA 1: DIFFERENCE IN DIFFERENCES- MORDUCH, 1998

Grameen eligibility rule: Rules out individuals holding more than 0.5 acres of land.

Measure the effect of effect of having *access* to Grameen: being eligible, and being in a program village.

$$DD = E[Y_i^{E,V_T}|V_T, E] - E[Y_i^{N,V_C}|V_T, N] - (E[Y_i^{E,V_C}|V_C, E] - E[Y_i^{N,V_C}|V_C, N])$$

Assumptions:
  ① $E[Y_i^{E,V_C} - Y_i^{N,V_T}|V_C, E] = 0$ No effect of eligibility in non-program villages (i.e.: no other program use the same criterion!).
  ② $E[Y_i^{N,V_T}|V_T, E] - E[Y_i^{N,V_T}|V_T, N] = E[Y_i^{N,V_C}|V_C, E] - E[Y_i^{N,V_C}|V_C, N]$

PITFALLS WITH DIFFERENCES IN DIFFERENCES

➜ Results (see handout): Anything wrong?
➜ What went wrong?
➜ Assumption (2) of DD is probably not satisfied. Think about Grameen targetting problem:
  ➜ Whom are you thinking about when you think about putting the program?
  ➜ Is the DD assumption likely to be satisfied in this case?

IDEA 2: USING THE DISCONTINUITY IN THE ELIGIBILITY RULE

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➜ Assume that the rule is being strictly followed - Then the probability of borrowing drops from p to 0 suddenly when land reaches 0.5 acres

➜ We can compare individuals just below 0.5 acres and just above 0.5 acres and obtain the estimate we are looking for.

IS THERE A DISCONTINUITY?

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In practice, eligibility coincides only imperfectly with landholding: cf. Figure 2 & 3 & Table 1 in the handout:

➜ The probability of eligibility declines with landholding

➜ The probability of borrowing conditional on being eligible increases with landholding (60% of eligible with more than 0.5 acre borrow, and 39 % of eligible with less than 0.5 acre borrow).

➜ → the probability of borrowing declines only slowly with landholding.

➜ No discontinuity in borrowing at 0.5 acres

This suggests that Grameen might be using the following procedure,

① Everybody with land below 0.5 acres is eligible

② If the Grameen employees like somebody (or think he/she has a good project) they will label him eligible and give him a credit

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The mis-targeting has two consequences

➜ It undermines a strategy based on discontinuity

➜ It makes "eligibility" endogenous since eligible means chosen by the program participants, in particular for borrowers above 0.5 acres. Therefore the comparison based on eligibility status are biased upwards (figures).

CONCLUSION

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We do not know.... Example where randomized evaluation would be very useful but very costly:

➜ For group credit: Randomization at the group level

➜ Consumption is very variable: would need large samples to detect effects that are not huge.