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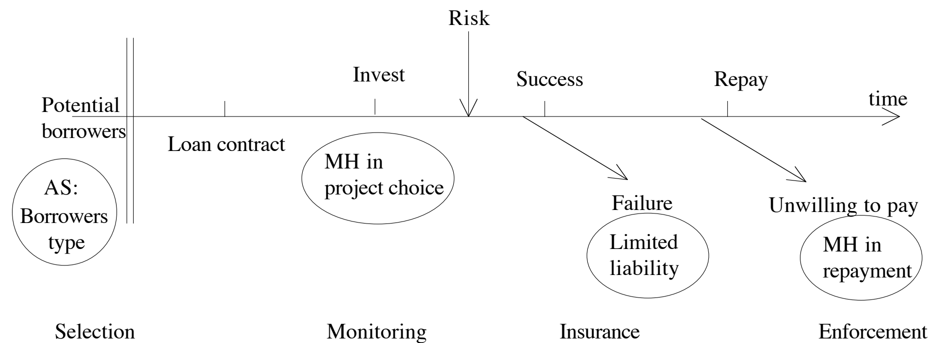
Handout ≠6
Access to Financial Services in Development

I. The lending problem



Moral hazard (MH): There is moral hazard behavior when someone does not do what he is supposed to do (such as repaying its loan or using the funds in a productive way) using the fact that this cannot be known or cannot be punished.
Adverse selection (AS): There is an adverse selection problem when one cannot know the quality of the partner (borrower), and thus properly select only good borrowers.

- Loans are transactions over time, with risk ⇒ Need for insurance ⇒ MH problems
  Risk: Borrower needs insurance (limited liability), as even loans for good projects cannot be repaid in bad years.
  But lender cannot provide insurance as he cannot monitor genuine failures from false claims ≡ Problem of enforcement. (Moral Hazard (MH) in repayment).
  Limited liability induces risk taking behavior - need for monitoring (MH in project choice)

- Screening: lender cannot screen risky from safe borrower ex-ante due to lack of information (Adverse selection (AS)).
  If one knew which borrowers are risky or safe, one could give them each a contract with high interest rate for risky borrowers that pay less often and low interest rate for safe borrowers that pay more often. With a unique contract at an average interest, safe borrowers are subsidizing risky borrowers. This is not efficient

Solutions?
- Intense information collection for screening and monitoring, and punishment mechanism for enforcement
- Design a contract that makes borrowers reveal who they are (truth-telling) and that satisfies their best interest (incentive compatibility)

II. The banks' solution: Why the poor are excluded from formal financial institutions

- Require collateral to overcome problems of MH. Access to credit restricted to those with collateral: wealth-constrained market.
  Collateral solves the problem of AS, although it is not the optimal solution. There are better contracts with a menu of combinations for collateral and interest at different levels
  No provision of insurance ⇒ Poor may not want to put their collateral at risk. They are "risk constrained".

- ⇒ Efficiency cost: many good projects are not funded (allocation of credit is unrelated to the marginal productivity of capital).
  Equity cost: poor are excluded. Allocation of credit to wealthy reinforces inequality.

III. The traditional sources

3.1. Local moneylenders

- They have access to local information about borrowers: can avoid AS and give insurance.
  They can put pressure on borrowers to repay: e.g., take forms of collateral that bank could not use: animals, house, use of the land, reputation. Control of MH

- But high cost of credit:
  High correlation between outcomes of borrowers' projects (high covariation of project outcomes, money lender cannot diversify risk).
  Need keep high liquidity position to give immediately emergency loans.
  May have monopoly power.
  Very high cost of loans limits their use to insurance, short run needs, high return operations (buy-sell animals, merchants), and small amounts.

3.2. Local sources of credit based on interlinkages

- Traders of products, providers of inputs: credit to clients
  Landlords, employers: credit to tenants, workers.
  Types of interlinkages:
  Borrower who sells output to merchant-lender.
  Borrower who purchases inputs from merchant-lender.
  Borrower who provides rent in labor services to landlord-lender.
  Borrower who transfers usufruct rights of land to farmer-lender (land pawning).

- Information: control of AS and eventually provision of insurance
  Interlinkage is used to pressure to repay: borrower would be cut-off from other parts of the transaction if does not repay, creating incentive to repay. Control of MH

- Disadvantage: highly segmented market.

IV. Microfinance institutions (MFI)

Group lending: solidarity groups

A technique to channel loans to borrowers without collateral (Grameen Bank in Bangladesh, Acción Internacional, Banco Sol in Bolivia).

- Rules:
  Self-selected groups. Use local information. Solve AS problem.
  Individual loans but joint liability:
  Each member is responsible of repaying the loans of those who default.
  Whole group loses access to future loans if any loan is not repaid.
  Loans are small and increasing: dynamic incentives to induce borrowers to pay (MH in repayment)

- Group's control of AS, MH and provision of insurance:
  Dynamic incentives should be sufficient to insure willingness to repay for the group, and selection by members insure that borrowers with no future plans (and hence unwilling to pay back their loan) do not creep in groups of willing borrowers. Note that large heterogeneous groups are more effective for risk diversification
  Group members have <u>an incentive to mutually insure</u> against idiosyncratic risks (but not against global shocks): Repay loan for member with true failure (advance his payment). This could create MH in repayment and risk taking within group.
  Members can and want to monitor/help each others' projects using local information: hence. Note that small homogeneous groups are more effective for monitoring.
  In addition, group exercises pressure on each member to repay if he can, based on social capital (ostracization in community), interlinkages among members, and seizure of collateral (e.g., personal belongings).

  How large a group? Trade-off between control of MH in choice of project and insurance. Grameen: minimum 5.

- Advantages:
  Access to loans for poor people with no collateral.
  Lower transactions costs than individual loans from the bank:
  Group self-select in types: bank only needs verify 1 or 2 members.
  Can use intermediary NGO: Genesis (Guatemala) charges 7 % points on loans from commercial bank. Hence, unlimited expansion possible. Banks seek good financial NGOs to reach large potential market of borrowers among the poor (small loans, but very large number of people).
  Link modern/global institutions (bank with access to broad financial and insurance market) with traditional/local institutions (solidarity group with access to local information and social capital).

- Disadvantages:
  Expensive credit: 7% charge for management over the interest rate charged by the bank. But cheaper than usurer.
  Weak insurance capacity, especially if group is homogenous. Can only insure for idiosyncratic shocks.
  If increasing differentiation within the group: group explodes as increasingly unequal cost of insurance if loans are of different sizes.
  Graduation problem from group loans to individual loans: individual needs collateral; needs public credit records. But NGO often prefers to keep good clients instead of graduating them!

V. Empirical evidence on Microfinance out-reach and impact on clients.

- Access to credit
  There are some descriptive statistics on participants/non-participants, Probit estimation of participation (Zeller, WD 94). Using characteristics of the population in 92, before the entry of the MFI in 95, Amin, Rai, and Topa analyze the targeting of the MFI on poor and vulnerable. (JDE, 2003)
  Do not answer: Who gained access to credit? Who remains excluded (among "good" borrowers, with profitable projects).

- Impact
  Morduch: Estimation of average treatment effect (eligibility to credit, rather than amount of credit) with method of double difference.
  Assumption: $E(y_{ev} - y_{nv} \mid \text{no MFI}) = E(y_{ev'} - y_{nv'} \mid \text{no MFI}), \forall v, v'$, e for eligible household, and n for non-eligible household.

  Hence : Av. Impact = $E(y_{ev} - y_{nv} \mid v \in T) - E(y_{ev'} - y_{nv'} \mid v' \in C)$.

VI. Challenges facing the MFI sector

- Credibility of sanctions
  Culture of grants: clients used not to repay. NGO not used to be tough.

- Financial survival of MFI
  Culture of failure/non-sustainability of NGOs: clients don't repay ⇒ self-fulfilling failure
  Group lending sustainable and replicable only if linked to commercial bank, not dependent on donations/grants for capital. Donations/grants only for start-up costs and learning period.
  Best practice for lending not established: optimum group formation, product development.

- Incentive contract for the agents (that may not share the goals of financial sustainability and social inclusion of the MFI)
  MFIs initially based on little financial constraint and agents motivated by a mystique (to reach the poor). With maturity and size, need to formalize the personnel management system.
  Need to design a contract. Profit sharing for financial sustainability and random audit for social inclusion?

  Observations: Incentives for financial performance are progressively put into place (bonus based on number of clients, volume of portfolio, and repayment rate; either individual or at the branch level). Not for social inclusion yet.

- Why competition is bad for microfinance, and the solution through Credit Bureau
  Willingness to repay based on being the best alternative. Needs monopoly.

Cross-subsidization of more expensive borrowers (poor, rural, small loans, etc) by more profitable clients (several years in the program, more entrepeneurship, successful, etc.). However, with current competition, need to offer better clients better terms ⇒ less funds for reaching the poor ⇒ drift in clientele.

➔ Competition may break the MFI system: gives alternative for the "bad" borrowers; draws out "good" borrowers and agents; encourages excessive debt as borrowers have access to multiple sources.

➔ **Credit bureau**: A system of information sharing among the Bank

VII. Conclusions on MFI

How useful for poverty reduction?

To use loans, poor need good projects: good policy context, good institutional context, help from NGO to prepare projects. Hence, MFI complementary to those, not a substitute.

Loans will help most entrepreneurial of poor, not the "poorest of the poor".

No panacea, but important partial solution.