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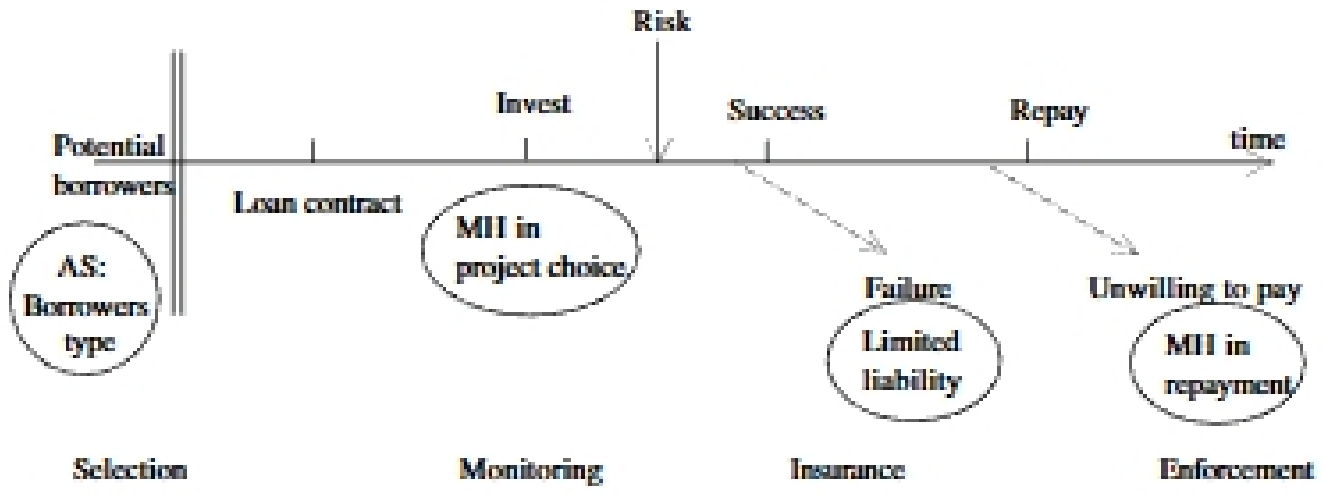
Handout #8
Access to Financial Services in Development

I. The lending problem



- 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)

4.1. ROSCAS (Rotating Savings and Credit Associations)

- Rules:
  N members.
  Equal deposits *d* at regular intervals.
  One member takes all contributions at one meeting: gets *Nd*.
  Different rules of attribution: random draw, bidding on order of turns (creates interest revenue for others).

  Example: 10 members that put $10/week.
  1st winner: gets $100 interest free. Repays weekly at zero interest.
  10th winner: gets $100 having lost interest on all previous deposits.
  However: Repeated game: random distribution of gainers and losers.
  Loss is zero if money has zero opportunity cost.

- Advantages:
  No AS and MH: members self-select and know each other well.
  Insurance: some in the bidding ROSCAS, but weak.
  No management costs.
  Self-imposed forced saving: would have consumed the $100 otherwise.
  Social function: information sharing within club, other deals, women away from home.

- Disadvantages:
  Rigid and limited access to credit:
  Timing not effective for insurance.
  Fixed quantity *Nd*.
  No external injection of funds.
  No long run savings: only serves for small investment with indivisibilities (durable goods and small equipment)

4.2. 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