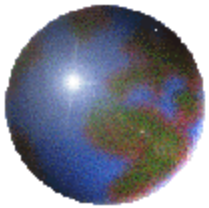
*How Do Low-Income People Access Financial Services?*
*Understanding and Quantifying Micro-Finance Markets*
**Washington DC, Oct 26, 2004**



# The Common Denominator – Numbers
# Using cross-country and micro data on access

**Thorsten Beck**
**Development Research Group**
**The World Bank**

# Access – Why do we care?

- In an ideal world, without market frictions and transaction costs,
  - Agents can separate consumption-saving from investment decision, and are subject to intertemporal budget, but not liquidity constraints.
  - Idiosyncratic risk can be diversified
  - Payment services enhance market exchange
- Financial deepening " causes" growth (Rajan and Zingales, 1998; Demirguc-Kunt and Maksimovic, 1998; Beck, Levine and Loayza, 2000)
- …and is pro-poor
  - The poorer population benefits disproportionately from financial intermediary development (Beck, Demirguc-Kunt, and Levine, 2004; Honohan, 2004)
  - Financial development levels the opportunity playing field – especially for efficient newcomers (Rajan and Zingales, 2003)
  - Alleviating credit constraints reduces child labor and increases education (Jacoby, 1994; Jacoby and Skoufias, 1997; Dehejia and Gatti, 2003)

# But should lack of access concern us? Defining the access "problem" is not easy

- Lack of access to financial services is not necessarily a "problem"
  - Households/firms able to have access might not want use it…
    - Distinguish between access and participation
  - … or may want access, but are rationed out
    - Financial service providers unable to generate a sustainable business activity within a feasible combination of costs and risk-adjusted returns
    - Must increase "bankable" demand
- Broadening access (micro setting) may not relax credit/savings constraints
  - Selection bias – households with good prospects anyway apply for credit
  - No additionality – clients that already have access move to new providers
- Differentiate between access to different services: credit, deposit and payment

# From concern to concept to data – Access indicators and their use

- We would like to have data for two different questions:
  - What is the observed access and participation?
    - Benchmark countries or regions within countries
    - What explains variation in observed access and participation?
  - What is the relationship between access/participation and certain desirable outcomes
    - Economic and social development (MDG)
    - Firm growth
    - Household welfare
- Only answers to both questions will help us identify policies and strategies that expand welfare-improving access
- In the following, I will distinguish between two lines of work:
  - Symptoms and indicators of access/participation
  - Relationship between indicators of access/participation and desirable outcomes

# Indicators of access – old friends and new ventures

- Traditional: Liquid Liabilities/GDP, Private Credit/GDP, Interest spread, etc.
- More recently: firm-level data (WBES, ICS) and household data (LSMS, specialized surveys)
- New work:
  - Cross-country indicators of access and participation
  - Provider-surveys/data
    - Bank-level survey of cost and outreach strategies of financial services
    - Institution-level data for MFIs
  - Impact studies of microfinance
  - Expert surveys?

# Access asymmetries and segmentations - The symptoms

- Geographic: deficient access to branches and outlets
  - Problems: population density, underdeveloped rural areas (e.g., physical infrastructure), security, lack of demand
- Socio-economic: deficient access/participation for some population segments
  - Problems: high minimum deposits, administrative burden and fees, segmentation
- Opportunity: reliance on past record and real estate collateral (instead of on expected future performance)
  - Problems: credit services limited to entrepreneurs with credit history, connections, or immovable collateral, lack of formality

# From symptoms to indicators – physical outreach

- Indicators:
  - Branch/outlet/ATM penetration (legal definition)
  - Compare penetration in urban/rural areas
  - Availability and use of phone and e-finance
  - Alternative providers
- Use of indicators:
  - Comparison and benchmarking across countries and geographic units within countries
    - Relative to GDP, population, area, aggregate financial service provision
    - Consider residual from a regression on GDP, population and area
- Pitfalls:
  - Relate it to other country characteristics
  - Are more branches better? (Overbranching?)
  - Policies and regulations on branching

# Use of geographic indicators – Branch density across countries

| | Area/branch | Population/branch | GDP/branch (USD) | Residual branch intensity |
|---|---|---|---|---|
| Singapore | 1.3 | 8,700 | 188m | -0.82 |
| Spain | 12.7 | 1,000 | 21m | 3.43 |
| Bangladesh | 21.1 | 22,300 | 8.4m | 0.00 |
| U.S. | 105.2 | 3,345 | 125m | 0.02 |
| Mexico | 244.5 | 13,104 | 80.2m | -0.08 |

*Source*: Beck, Demirguc-Kunt, Levine and Martinez Peria (2005). The residual branch intensity is the deviation of the actual from the predicted number of branches – relative to the predicted number -, from a regression of the number of branches on GDP, area, and population.

# From symptoms to indicators – socio-economic segmentation

- Indicators
  - Number of clients (relative to population; mostly accounts)
  - Types of loan and deposit accounts
  - Deposit and loan size distribution, SME lending
  - Fees and minimum balances for deposits
  - Cost and time of payment services
  - Firm-level surveys
  - Household surveys
- Use of indicators:
  - Cross-country comparisons on firms' financing patterns and obstacles
  - Characteristics that can explains firms' and households' access to financial services
  - Identify main impediments to access/participation to finance (economic, legal, social, infrastructure etc.)
- Pitfalls:
  - "70% of population do not have access" – so what?
  - Control for household and firm characteristics when assessing access and participation

# Use of firm-level data – Financing obstacles and patterns across countries

- Self-reported financing obstacles
  - Clarke, Cull and Martinez Peria (2002): Firms in countries with higher share of foreign banks report lower financing obstacles
  - Beck, Demirguc-Kunt, Laeven and Maksimovic (2005): Older, larger and foreign-owned firms report lower financing obstacles

- Financing patterns
  - Clarke, Cull and Martinez Peria (2002): Firms in countries with higher share of foreign banks report higher share of investment financed with bank loans
  - Beck, Demirguc-Kunt and Maksimovic (2004): Small firms finance a lower share of investment with external, esp. bank, finance. Financial and institutional development helps increase share of external finance
  - Clarke, Cull and Martinez Peria and Sanchez (2004): Large foreign banks lend more to SMEs than large domestic banks across 4 Latin American countries

# From symptoms to indicators – Finance for the “most worthy”?

- Closely linked to socio-economic segmentation
- Mostly anecdotal evidence
  - What collateral is accepted by banks?
  - What information requirements do banks have?
  - What are criteria in lending process?
- Indirectly inferable from infrastructure
  - Contractual environment
  - Credit information systems
- Possible areas to be explored with expert surveys
  - Time and cost to apply for loan
  - Infer size of eligible borrower segment from collateral, information, minimum loan etc. requirements (provider surveys) and firm/household surveys

# What does observed access and participation tell us?

- Self-reported financing obstacles might not be constraining
- Low outreach might be a result of low demand and/or access to alternative delivery channels
- Since we cannot observe participation in ideal world, we need to infer lack of access from
  - Observed access and participation
  - Relationship between access/participation and economic and social outcomes
  - Experiments

# From access to desirable outcomes – financing obstacles and financing constraints

- Are firms reporting higher financing obstacles actually constrained?
- Beck, Demirguc-Kunt and Maksimovic (2005): firms that report higher financing obstacles experience lower growth;
- This relationship is stronger for small firms
- This relationship is stronger for firms in countries with less developed financial systems
- Financial development helps the small firms disproportionately, thus leveling the playing field
- Problem: traditional indicator of financial development

# Digging at the grassroots: Evaluating the impact of microfinance (Gine et al.)

- One problem in evaluation is selection on unobservable characteristics
- Solution: Randomized evaluation
  - Treatment and control group
  - Random assignment or matching
- Examples:
  - Joint vs. individual liability (Philippines)
  - Starting a micro-business: Business TA or Credit? (Pakistan)
  - Growing an export-oriented crop: Agricultural TA or Credit? (Kenya)
- Problems:
  - Randomness really feasible?
  - Acceptance of experiment
  - Replication in other countries

# Assessing the microfinance promise (Cull, Demirguc-Kunt and Murdoch)

- How do we promote MFI efficiency, sustainability and outreach?
  - Assess the importance of lending methods, complementary service offerings and sources of funding for MFI financial sustainability and outreach
  - Assess the importance of the broader environment (regulation, contracting, macro, formal financial institutions, etc.) on MFI financial sustainability and outreach
- Source: CGAP
- Unbalanced panel of 200 MFI in >40 countries with 700 observations.

# Collecting new cross-country data on access and participation

- Beck, Demirguc-Kunt, Levine and Martinez Peria (2005):
  - Deposit, lending and payment services across different financial service providers
    - Branches, number, volume and size distribution of loans and deposits, number and size of payment transactions (incl. remittances), number and distribution of branches/ATM
    - Focus on banks and bank-like institutions
  - Up to 90 countries
  - Sent to bank regulatory entities

- Beck, Demirguc-Kunt, Laeven and Martinez Peria (2005):
  - Cost and range of deposit, lending and payment services offered by banks
    - Minimum balances and fees for deposits, minimum amount, fees and interest rates on loans, information and time required to open an account, application procedure and time to access a loan, criteria to open new branches/ATMs, time and cost of payment services
  - Targeting five largest banks in 60 countries

# Using new cross-country data on access and participation

- Can give us insights into all three symptoms of exclusion: geographic, socio-economic and opportunity
- Allows benchmarking
- Cannot be interpreted isolated, but in relation to:
  - Other country/firm/household characteristics
  - Other data sources (user data: firms, households; expert surveys)
  - Desirable outcomes
- Will allow us to:
  - Identify relevant dimensions of access and participation
  - Identify policies and strategies to expand welfare-improving access and participation

# Concluding remarks

- Developing access indicators will help us
  - Benchmark countries
  - Disentangle channels of finance-poverty relationship
  - Develop strategies and policies to expand welfare-improving access in an efficient and sustainable way
- New indicators will include
  - Cross-country indicators capturing the different dimensions of access/participation and exclusion (geographic, socio-economic and opportunity)
  - Supplier data: both banks and specialized institutions (MFI)
  - Expert surveys?
- New work will and should include:
  - Cross-country studies, country case studies, impact experimental studies
- Important distinction
  - Benchmarking ("70% of population do not have access")
  - Assessing relationship between access and desirable outcomes ("Exclusion from financial services locks people into poverty")
  - Relate several data sources to each other: holistic approach