

Group Lending or Individual Lending?

Evidence from a Randomized Field Experiment in Mongolia

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Mongolia

Mongolia

- Population density: 1.7/km² (Bangladesh: 1,127/km²)
- 30 per cent of the population below the national poverty line
- Animal husbandry main economic activity in rural areas
- Landlocked with extreme climate (-35°C / +35°C)

XacBank

XacBank

- Mongolia's 4th largest bank. Focus on rural areas
- Wants to expand lending to poor rural women
- Remoteness of borrowers makes lending expensive
- Potential “innovations”:
 - mobile lending units
 - mobile phone banking
 - group lending...?

Group lending vs. individual lending

Pros and cons of joint liability

- Lender
 - Joint-liability lets borrowers generate and use information on co-borrowers, to the bank's advantage (Ghatak and Guinnane, 1999)
 - Carpena, Cole, Shapiro and Zia (2010, India): switch from individual to group liability improved repayment
 - Giné and Karlan (2010, Philippines): similar repayment rates
- Borrower
 - Downside: Discouragement, excessive peer pressure?
 - Upside: Social network, empowerment?
 - No comparative empirical evidence yet on borrower impact

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Group lending vs. individual lending

Existing literature

- Meanwhile: industry moving towards individual lending
- We ask: What is the impact of joint vs. individual liability on borrowers, *all else equal*?
- Existing experiments that analyze borrower impact do not focus on liability structure per se:
 - ① Banerjee, Duflo, Glennerster, Kinnan (2009) in India: group
 - ② Karlan and Zinman (2010) in the Philippines: individual
 - ③ Augsburg, De Haas, Harmgart, Meghir (2011) in Bosnia: individual

Group lending vs. individual lending

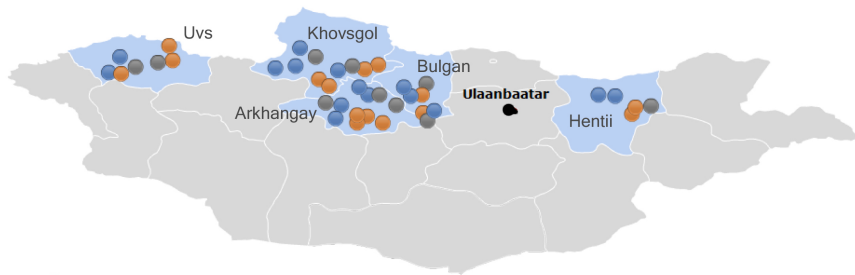
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Design

- We compare three groups of women
 - 1 Those *offered* individual loan(s)
 - 2 Those *offered* group loan(s)
 - 3 Control group who were not *offered* any loans
- Ensure that ex ante these three groups were similar along (un)observed characteristics
 - randomization over 40 villages: 15 – 15 – 10
 - stratification at province level

Participating provinces and villages



- Group-lending soum centers
- Individual-lending soum centers
- Control soum centers

Rural Mongolia



Sample selection

- MWF held info sessions and compiled lists of about 30 interested *and* eligible women in each village
- Relatively poor women
 - sedentary not nomadic population
 - explicit eligibility criteria (income and wealth)
- Annual income
 - average rural household: MNT 3,005,000 (USD 2,610)
 - our sample: MNT 1,100,000 (USD 955)

Bayaan-Adraga in Hentii province



Timeline

- Info sessions in villages, women sign up: **February 2008**
- Baseline survey respondents ($n=1,148$), villages, loan officers: **March-April 2008**
- Randomization: **April 2008**
- Group formation in group villages: **April 2008**
- Loan roll-out: **April 2008-September 2009**
- Follow-up survey respondents ($n=961$) and villages: **October-November 2009**
- Collection of repayment data: **Ongoing**

Successful randomization

- Village characteristics (e.g. no. inhabitants, no. banks, distance to paved road, price of food products)
- Household characteristics (e.g. no. children, age respondents, earnings, consumption levels)

Debt at baseline

- At the start of the experiment, more than half of the households had at least one outstanding loan
 - about 75 per cent of this debt was used for consumption and not for investments
 - only 10-15 per cent used for female-owned businesses
- Consumer debt might have partially crowded out microcredit for investment purposes

	Respondents with existing debt	Avg no. of loans	Value in % yearly HH income	Share for private use	Monthly interest rate
Control souns	57%	2.5	0.9	72%	2.2
Individual souns	69%	2.7	0.9	74%	2.1
Group souns	64%	3.1	1.1	79%	2.3

Consumer debt



Loan take-up

- After 1.5 years, 54 per cent of the treatment respondents had borrowed at least once from XacBank
 - half of the non-borrowers never applied
 - a quarter applied but refused the offer
 - a quarter applied but was refused by XacBank
- The program nevertheless led to a significant difference between treatment and control villages in the change in microcredit penetration
- Borrowing probability during the experiment was 24 percentage points higher in treatment villages (74 vs. 50 per cent)

Estimation approach

- Intention-to-treat (ITT) analysis
- Difference-in-differences estimation
 - regress outcome variables on treatment-village dummies, a survey-wave dummy, and their interactions
 - include individual and village characteristics ($t = 0$) to improve estimate precision
 - results unchanged when we only use follow-up data
- Test for heterogeneous impact
 - by education level
 - by length of exposure to microcredit

Findings: Impact of group lending (i)

- Increased food consumption of household (17 %-points)
 - fruit and vegetables
 - dairy products (home produced)
 - non-alcoholic beverages
- Reduction in cigarette consumption
- Some increase in ownership of personal assets
 - VCRs, radios, large household appliances

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Findings: Impact of group lending (ii)

- XacBank's group loan increases probability of operating a small business by 10%
 - driven by women with lower education
 - over time also increased business revenues and profits
- Over time a *reduction* in the probability of receiving or giving informal transfers to family and friends

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Findings: Impact of individual lending

- No impact on non-durable consumption
- Weak positive impact on asset ownership (but disinvestment in sheep and cattle)
- No clear impact on enterprise ownership
- No impact on business revenues or profits
- Over time an *increase* in the probability of receiving or giving informal transfers to family and friends

Too early to write-off group lending?

- Positive effect of group loans on entrepreneurship and consumption though not (yet?) on income levels
 - We analyze marginal impact of additional access to finance
 - ITT with treatment rate of about 50%
- Cooperation between women may empower the less educated
 - Supportive evidence: In individual-lending villages women set up enterprises over time but only with their husband
- Joint liability may not only instill repayment discipline but also ensure that borrowers invest in productive assets
 - Supportive evidence: group borrowers decrease transfers, individual borrowers increase transfers

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Thank you