

Impact of microcredit on poverty reduction

Experimental evidence from Bosnia & Herzegovina and Mongolia

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Research questions

Impact of microcredit on poverty reduction in Bosnia and Herzegovina and Mongolia

- 1 **Bosnia and Herzegovina:** What is the impact of extending microcredit to a poorer, "marginal" client group?
- 2 **Mongolia:** What is the impact of joint versus individual liability contracts, all else equal?

Characterise "impact": on the participating households and on the microfinance institutions.

Research motivation

Studies designed to speak to 3 main questions:

- 1 Can microfinance be extended [to a new/poorer client group] and improve welfare?
=> Microfinance at that time considered as effective but leaving out the very poor.
- 2 Can microfinance be extended [to a new/poorer client group] and still be financially self-sustainable?
=> Unresolved (political) discussion of high interest rates.
- 3 Which type of lending contract achieves higher impacts (if any)?
=> Move towards individual lending in industry at large

Access to microcredit

- Pitt and Khandker (1998, JPE)
 - Positive impact, in particular female borrowers
 - Refuted by replications (Morduch 1998; Morduch and Roodman 2012)
- Randomized controlled trials (RCTs)
 - Banerjee, Duflo, Glennerster, Kinnan (2009): India (group)
 - Crépon, Devoto, Duflo, Parienté (2011): Morocco (mainly group)
 - Karlan and Zinman (2010, South Africa) (individual consumer loans)
 - Karlan and Zinman (2011, Manila-Philippines) (individual)
- Poverty impact of microcredit limited and heterogeneous
- **Our studies:** Aim to better understand the impact across borrowers.

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Group lending vs. individual lending

Pros and cons of joint liability

- Lender perspective
 - Joint liability: borrowers create and use info on co-borrowers to the bank's benefit (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 perspective
 - No comparative empirical evidence yet on borrower impact
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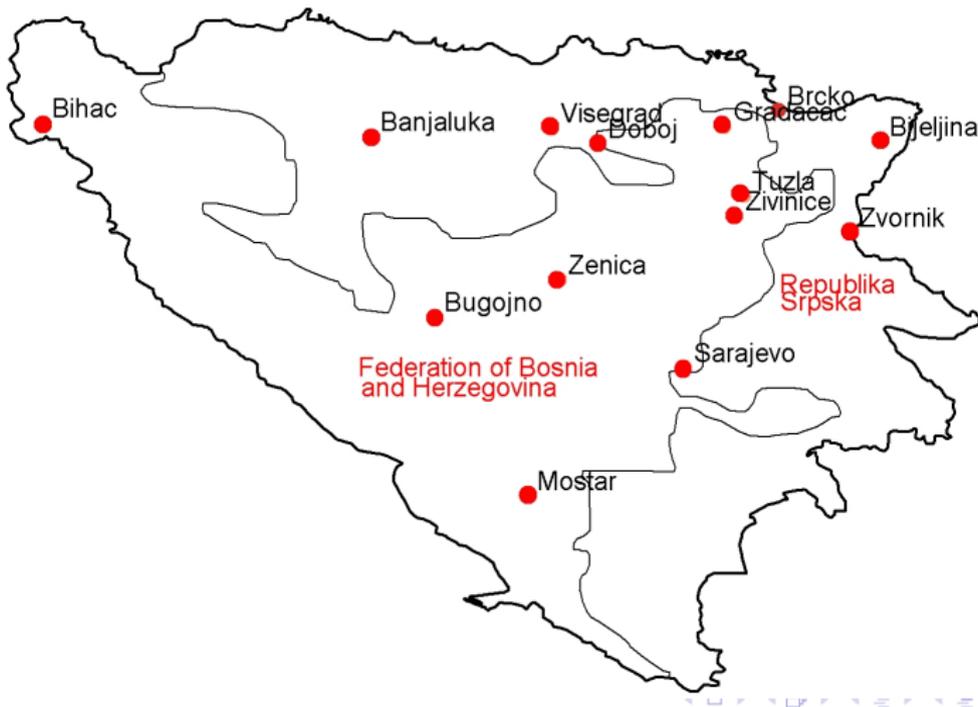
Study 1: Microfinance at the Margin: Experimental Evidence from Bosnia and Herzegovina



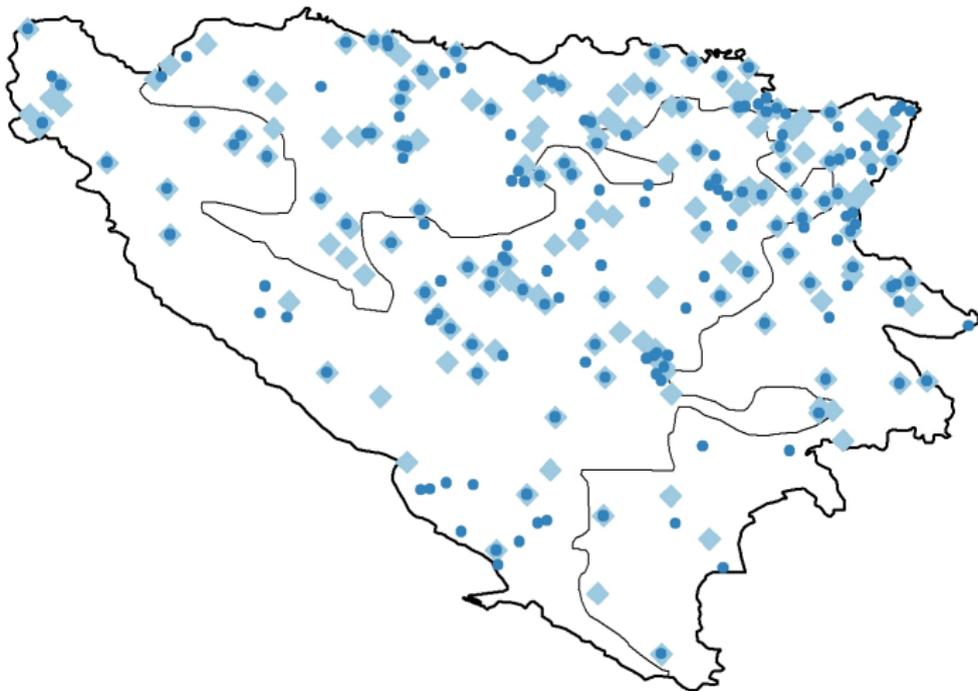
Study Details

Target group	Marginal clients: Someone who loan officers would normally reject, but to whom they would consider extending loans if they were asked to take up slightly more risk.
Loan product	<i>Interest rate:</i> annual, 22% <i>Avg. maturity:</i> 11 months <i>Avg. loan size:</i> US\$ 1,500
Evaluation	<i>Follow-up:</i> Feb-July 2010, 14 months after baseline <i>Design:</i> RCT (at the individual level) <i>Sample:</i> 1,198 (potential) and marginal clients <i>Attrition:</i> 17% <i>Main challenge:</i> somewhat high attrition <i>Methodology:</i> ATT, Simple Diff

Participating branches



Participating households



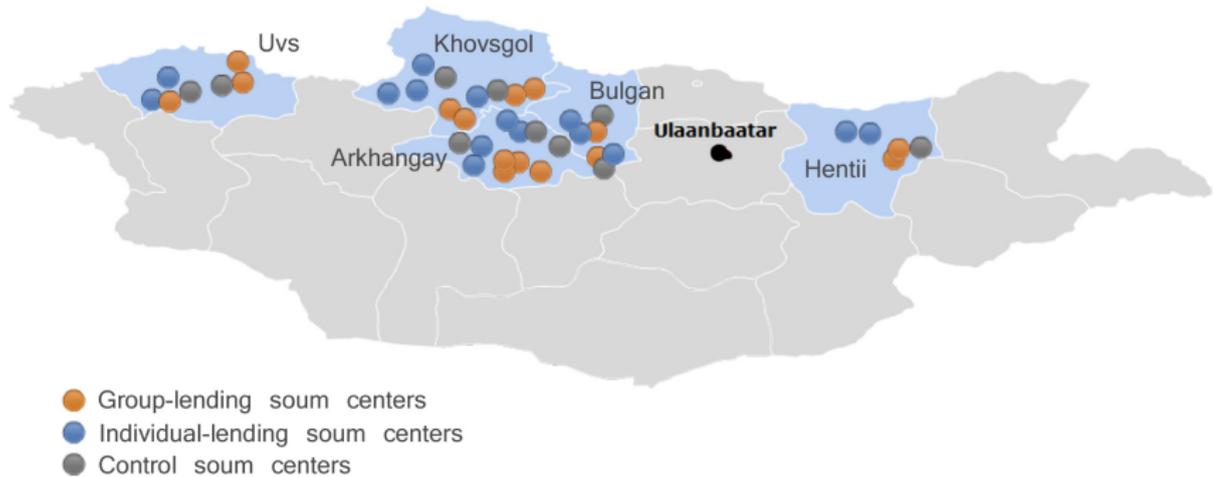
Study 2: Group Lending or Individual Lending? - Mongolia



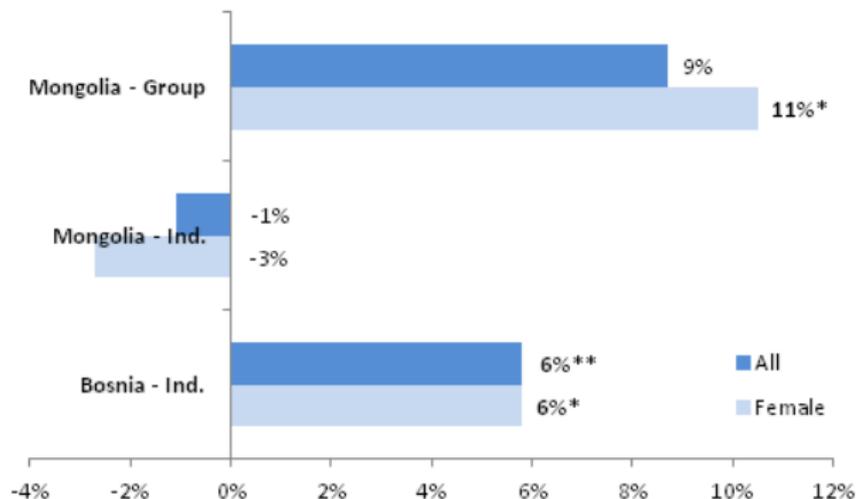
Study Details

Target group	Relatively poor women, sedentary not nomadic population
Loan product	<i>Interest rate:</i> monthly, 1.5-2% <i>Avg. maturity:</i> 224 days (I), 199 days (G) <i>Avg. loan size:</i> US\$ 411 (I), US\$ 279 (G)
Evaluation	<i>Follow-up:</i> Oct/Nov 2009, 1.5yrs after baseline <i>Design:</i> RCT (at the village level) <i>Sample:</i> 40 villages (15-15-10) 1,148 female (potential) borrowers <i>Attrition:</i> 14% <i>Main challenge:</i> small sample <i>Methodology:</i> ITT, DiD

Participating provinces and villages

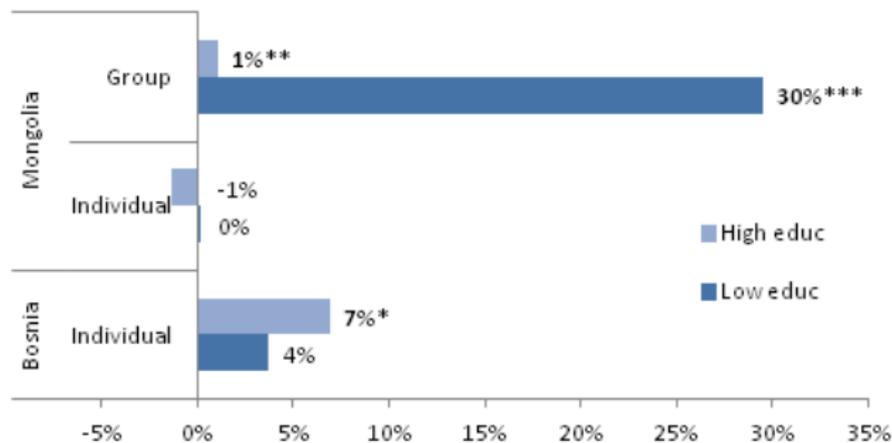


Impacts: Business Ownership - Overall



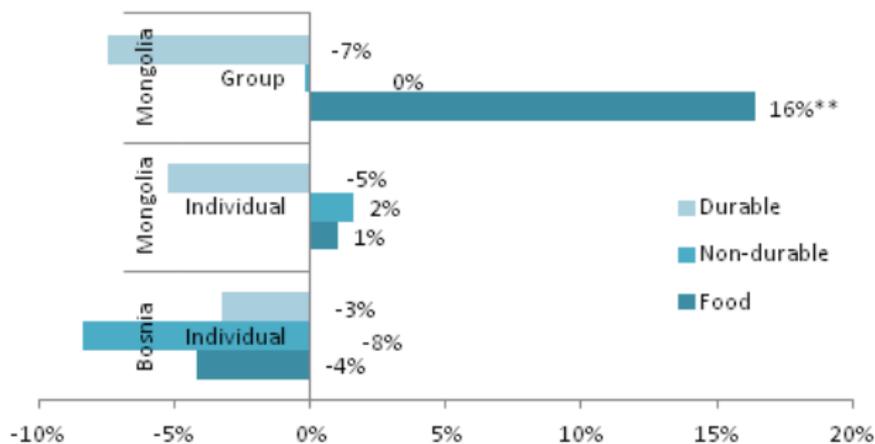
Impacts: Business Creation - by education

Business ownership - by education



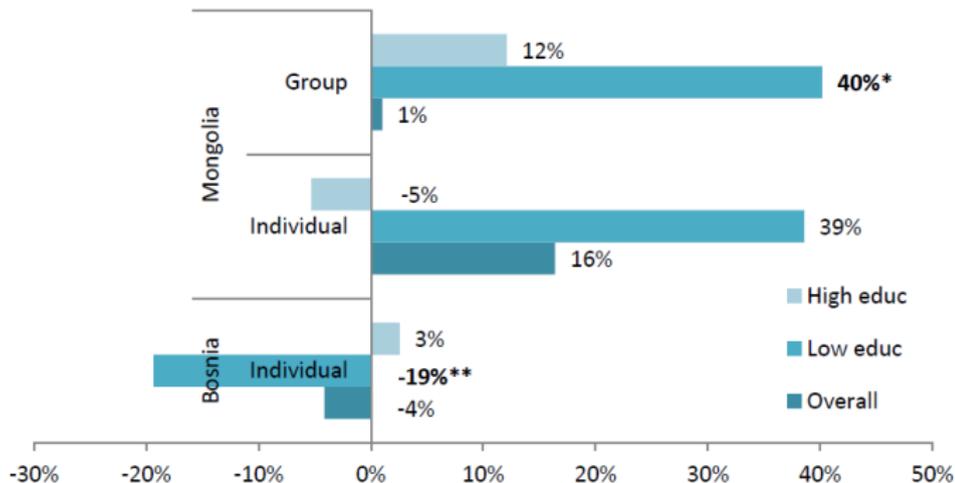
Impacts: Consumption - Overall

Percentage change in consumption



Impacts: Consumption - by education

Consumption - by education



Impact summary - Mongolia

Group loans:

- likelihood of owning a female enterprise increases by 10% (mainly driven by the less-educated),
- enterprise profits increase over time

Group and individual loans:

- positive impact on food consumption (stronger for group loans)

=> Results in line with theories that stress the disciplining effect of group lending.

=> Joint liability may deter (female) borrowers from using loans for non-investment purposes such as consumption and informal finance to others.

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Impact summary - Mongolia cont.

Supporting evidence - Informal transfers:

We show:

- a decrease in informal transfers to families and friends in group lending villages,
- an increase of such transfers for borrowers in individual-lending villages.

No significant difference in repayment rates between the two lending programs both of which did not include weekly repayment meetings.

Impact summary - Bosnia

- Access to credit allowed borrowers to start, expand, and keep alive small-scale businesses
- However, reduction in (food) consumption for less educated borrowers.

=> Results indicate that:

- Households that already had a business and where the borrower had more education ran down their savings, presumably to complement the loan and to achieve the minimum amount necessary to expand their business;

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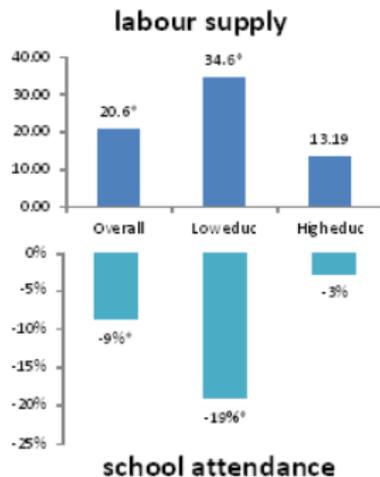
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Impact summary - Bosnia

- But, in less-educated households, without savings, reduced their consumption and substantially increased the labor supply in the own household enterprise of young adults (16-19 year olds).
- School attendance dropped for the same group of young adults.



Literature - Access to credit and human capital

Impact access to credit on schooling ambiguous

- 1 Households no longer use child labor to smooth consumption
 - Jacoby and Skoufias (1997, India)
 - Beegle, Dehejia and Gatti (2003, Tanzania)
 - Karlan and Zinman (2010, Peru)
- 2 Households scale up production; child and hired labor imperfect substitutes: schooling reduced
 - Kring (2004, Philippines)
 - Menon (2005, Pakistan)
 - Nelson (2011, Thailand)

Take-away message 1

While there are many advantages to individual lending in terms of added flexibility, the continuing process of liability individualization by MFIs may run the risk that certain borrowers, in particular less-educated female borrowers who may not be able or willing to borrow and invest on their own, may gradually lose access to formal financial services.

Take-away message 2

These types of women benefit from access to group lending (s.a. through increased food consumption) in the Mongolian context while at the same time we find no difference in repayment rates between the two lending programs (group and individual lending).

Take-away message 3

Unintended consequences might occur when targeting a more marginal client group, as we show in the Bosnian context where microfinance was readily available for regular borrowers, where households of marginal clients with low education levels reduced the school attendance of their teenage children and let them work more in the household's business instead.

Take-away message 4

We document that extending individual loans to such a poorer group of clients is significantly more risky for the microfinance institution in the Bosnian context. This suggests that loan officers effectively used information on applicants' characteristics to distinguish between regular and marginal clients (even without a formal credit-scoring system).

Take-away message 5

Based on our two studies, a one-size fits all approach may not be optimal. In Mongolia the poorest benefited from a new, group lending program but in Bosnia the poorest did not benefit from getting access to the regular loan product of EKI (instead they set up marginal businesses on which they defaulted a lot).

Take-away message 6

In a similar vein, borrowers use microcredit in different ways - business or consumption. If we can better distinguish these two types of borrowers, perhaps we can start developing products that are better targeted to both.

Annex

ANNEX