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# Joint-Liability with Endogenously Asymmetric Group Loan Contracts\*

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## Abstract

Group lending is a common practice that Microfinance Institutions (MFIs) utilize when lending to individuals without collateral. We develop a multi-agent principal-agent model with costly peer monitoring and solve for the optimal group loan contract. The optimal contract exhibits (i) a joint-liability scheme; and, (ii) asymmetric loan terms which can be interpreted as appointing a group leader, who has strong incentives to monitor her peer. Relaxing the joint-liability scheme implies the breakdown of equilibrium monitoring. When the contractual asymmetry is relaxed, the peer-monitoring game exhibits multiple Nash equilibria: a (weak) good equilibrium at which borrowers monitor each other and a (strong) bad equilibrium without monitoring. This key result suggests that profit maximizing MFIs should provide *asymmetric* group loan contracts - even to a homogeneous group of borrowers - to ensure stability in repayment rates.

**Keywords:** Microfinance, Joint-liability, Group leader.

**JEL Classification Numbers:** G21, O12, O16.

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