

Authors

Dean Karlan
Northwestern University

Jonathan Zinman
Dartmouth College

Observing Unobservables: Identifying Information
Asymmetries with a Consumer Credit Field
Experiment*

Dean Karlan and Jonathan Zinman

December 10, 2008

*Contact information: dean.karlan@yale.edu, jzinman@dartmouth.edu. We are grateful to the National Science Foundation, BASIS/USAID, and the Bill and Melinda Gates Foundation for funding research expenses, and to the Lender for implementing the experiment and financing the loans. Thanks to Jonathan Banchet and Karen Lyons for excellent research assistance. Thanks to four referees, the editor Cécile Meghir, seminar participants, and numerous colleagues (in particular Ghazal Brynn and Chris Udry) for helpful comments. Much of this paper was completed while Zinman worked at the Federal Reserve Bank of New York (FRBNY), and we thank FRBNY—particularly Jamie McAndrews, Jamie Stewart, and Joe Tracy—for research support. The views expressed herein are those of the authors and do not necessarily reflect those of our funders, the FRBNY, or the Federal Reserve System.

1

Observing Unobservables: Identifying Information Asymmetries with a Consumer Credit Field Experiment

Information asymmetries are important in theory but difficult to identify in practice. We estimate the presence and importance of hidden information and hidden action problems in a consumer credit market using a new field experiment methodology. We randomized 58,000 direct mail offers to former clients of a major South African lender along three dimensions: (i) an initial “offer interest rate” featured on a direct mail solicitation; (ii) a “contract interest rate” that was revealed only after a borrower agreed to the initial offer rate; and (ii) a dynamic repayment incentive that was also a surprise and extended preferential pricing on

future loans to borrowers who remained in good standing. These three randomizations, combined with complete knowledge of the lender's information set, permit identification of specific types of private information problems. Our setup distinguishes hidden information effects from selection on the offer rate (via unobservable risk and anticipated effort), from hidden action effects (via moral hazard in effort) induced by actual contract terms. We find strong evidence of moral hazard and weaker evidence of hidden information problems. A rough estimate suggests that perhaps 13% to 21% of default is due to moral hazard. Asymmetric information thus may help explain the prevalence of credit constraints even in a market that specializes in financing high-risk borrowers.

November 01, 2009