

Authors

Dean Karlan
Northwestern University

Sendhil Mullainathan
Harvard University

Measuring Personality Traits and Predicting Loan Default with Experiments and Surveys[§]

Dean Karlan
Yale University

Sendhil Mullainathan
Harvard University

Orniz Robles
Bureau of Labor Statistics[†]

January 2011

Abstract: We use two natural field experiments and surveys to identify character elements, and test whether these traits can be used to predict the likelihood of loan default. In the first experiment we identify subjects with high psychosomatic moral costs by observing their reactions when a bank error is made in their favor. In the second experiment we identify subjects that were less naïve about their own ability to meet future commitments. We found that both individuals with higher moral costs and individuals who were the least naïve displayed lower default rates than other groups. We also explore the relationship between qualitative survey-based social capital measures and loan default. We find that survey-based social capital measures are not predictive of loan default for these individual loans, contrary to the results from a prior study with group loans. Lastly, we examine whether more general personality index measures predict default, and we find that they do not. Overall, the lessons present evidence of moral hazard in microentrepreneurial credit markets to the extent that they reflect choice by the borrower about whether to repay. They also show the potential for adverse selection insofar as these personality measures are typically unobservable to the lender.

JEL Classification: O16, N95

Keywords: Default, Naïve Beliefs, Personality Index, Social Capital

[§] We thank Carissa Ferris, Matthew Grant, Tomoko Hatogaya, Nicole Mazzello, Sang Suk Lee and Hannah Trachtenman for excellent research assistance. This article has benefited from the comments of Navee Ashraf, Lucas Coffman, Justin Ellis, Arima Khwaja, Kirk Moore and participants at the Harvard Economic Development workshop. Any and all errors are the authors' own.

[†] All views expressed in this paper are those of the authors and do not necessarily reflect the views or policies of the U.S. Bureau of Labor Statistics.

Measuring Personality Traits and Predicting Loan Default with Experiments and Surveys

We use two natural field experiments and surveys to identify character elements, and test whether these traits can be used to predict the likelihood of loan default. In the first experiment we identify subjects with high psychosomatic moral costs by observing their reactions when a bank error is made in their favor. In the second experiment we identify subjects that were less naïve about their own ability to meet future commitments. We found that both individuals with higher moral costs and individuals who were the least naïve displayed lower default rates than other groups. We also explore the relationship between

qualitative survey-based social capital measures and loan default. We find that survey-based social capital measures are not predictive of loan default for these individual loans, contrary to the results from a prior study -with group loans. Lastly, we examine whether more general personality index measures predict default, and we find that they do not. Overall, the lessons present evidence of moral hazard in microentrepreneurial credit markets to the extent that they reflect choice by the borrower about whether to repay. They also show the potential for adverse selection insofar as these personality measures are typically unobservable to the lender.

January 01, 2011