ReStud 33504 Referee Report

Title: Why not borrow, invest, and escape poverty?

Comments for the Authors

The authors propose that one reason that the poor do not use microfinance loans to make high-return business investments is because of risk-aversion. In their model, there is a single investment opportunity, and borrowers can affect the success of this investment by their investment. Poor, risk-averse individuals will choose a corner solution where they avoid risk in this model. An online lab experiment with Czechs is set up with this framework in mind, and people behave according to the theory when facing the exact choices proposed by the theory.

The idea that risk aversion prevents some poor individuals from taking productive investments in the absence of insurance markets is certainly plausible and part of many other papers. The main innovation here is to provide a framework in which this leads to corner solutions, with no microfinance borrowing, and then a poverty trap even when there are no production non-convexities. While this is a nice theoretical demonstration, I have several doubts about its usefulness in explaining real borrowing decisions.

1) Portfolio theory and risk diversification: in the theoretical model, there is a single investment project with binary outcomes, in which success equals a high return, and failure a low return. Investment increases the probability of success. There is a threshold level of risk aversion, above which more risk averse agents will not invest anything.
    a. In practice households face many other sources of risk to their incomes, from risk surrounding own production of agriculture, to the risk of any government benefits arriving on time, to the riskiness of casual daily labor. So long as the risky project is not perfectly correlated with these other risks, then portfolio optimization tends to avoid corner solutions.
    b. In practice, just as small business owners face lots of different production technologies that help smooth out non-convexities in production, they also face many different investment opportunities that can be used to form of a portfolio of investment activities and diversify risk. Farmers can choose which mix of crops to plant, what mix of fertilizer to use, how much irrigation to use, etc. The owner of a retail store can decide how much to invest in different types of marketing, what product varieties to stock, etc. As soon as there is this broader portfolio of activities to choose among, there will be more gains from diversification.
2) Non-separability of households and businesses: for very poor households, the business and household consumption decisions may be non-separable. As a result, the business can be affected by household shocks such as sickness or sudden household cash flow needs. If microfinance can be used to help in consumption smoothing in the household, this could help risk-averse business owners be more willing to make investments in their businesses that are hard to liquidate without making big losses. Secondly, if poor people are close to consumption floors or asset thresholds, then risk-averse individuals can at times exhibit extreme risk-taking behavior (Lybbert and Barrett, 2011).
3) What is success and why is it binary? A small business owner makes a portfolio of investment decisions and ends up with some business profits. These profits tend to be highly volatile,

changing a lot from month to month. If they take a loan to buy some more working capital, then there is a continuum of different possible returns they could make on this - it is hard to map this to the model in the paper which separates the likelihood of success from the returns conditional on being successful unless the margin is whether the business is operating or not. But then what matters is the comparison of profits to the opportunity cost of capital, and some sort of household consumption floor combined with a borrowing constraint that determines how many weeks the business can continue to operate when profits are below average. It is thus very hard to see how the toy model in the paper corresponds to actual business decision-making. That is, the paper illustrates a potential mechanism through a stylized model and corresponding lab experiment set in this stylized model, but then does not discuss well how seriously we should consider this as indicative of real-world behavior when facing real business decisions.

References:

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