

Explaining Simultaneous Borrowing and Saving[‡]

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Extended Abstract

Motivation: Access and availability of savings constitute an important instrument for household wellbeing and cushion against various risks. In addition, households can save and borrow at the same time and the decision most of the time comes interchangeably. Given project is aimed to provide new empirical insights on the determinants as well as the mechanisms of formal and informal type of savings thus filling the gap in the literature.

Microfinance movement emerged in early 1970s with the aim to lift people out of poverty by providing access to small loans for low income households to support their private entrepreneurship (Yunus, 2002).

Within microfinance agenda, accesses to reliable savings instruments and savings mobilization constitute an important factor for personal and household development. Savings help households, especially for low income ones, to smooth consumption and finance productive investments in human and business capital (Karlan et al. 2014).

Research question and objectives: Empirical evidence on use and the determinants of savings instruments is thin. More important, little is known on the profile of savings from environment where households lack access to formal savings instruments and therefore use other forms. *What are the determinants of formal and informal savings? What type of savings is demanded by different sub-group of households? What are the mechanisms of savings and how savings are depleted?*

Addressing these research questions, proposed project is aimed to provide a new set of empirical insights on the determinants of formal and alternative forms of savings, as well as identification of mechanisms of savings.

The evidence is expected to be based on a household survey in Uzbekistan, a country with a strong collectivist culture including special informal savings clubs which function similar to a Rotating Savings and Credit Association (ROSCA) and offering alternative savings instruments.

Given that households undertake various borrowing, lending and savings transactions, maintaining so-called "portfolios of poor" (as defined by Collins et al. 2009), *the second* objective

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of the research project is devoted for simultaneous borrowing and savings. The issue of simultaneous borrowing and saving is a new strand in microfinance literature. The main concern is based on observed patterns of why would an individual take credit if has already sufficient savings? The literature suggests several potential explanations: (a) traditional theories - based on option value of savings (b) behavioral explanations - based on self-control problems of individuals to save and suggested commitment savings contracts and (c) other ad hoc empirical explanations based on a particular country or microfinance institution case analysis.

Methodology: econometric methodology is based on two-step procedures: In a first step, we predict the probability of a household to belong to either of four categories: (i) those who borrow only (ii) those who save only (iii) those who borrow and save (iv) those who don't borrow and don't save. Since all four probabilities add up into one, we eliminate the fourth category. We estimate the maximum likelihood function to predict the probability of a household to belong into (i), (ii), (iii) categories of borrowing and savings:

$$\log L = \sum_{i=1}^n \sum_{j=1}^m y_{ij} \log P_{ij}$$

In the second stage, we then proceed for estimating actual amount of borrowing and savings of households. This can be done by estimating simple regression conditional that a household is in either in (i), (ii), (iii) categories.

$$\text{Amount of Borrowing / Saving} = f(\alpha_i, x_i)$$

$$\text{Amount of Borrowing / Saving} = \alpha_i + \beta_1 \text{age} + \beta_2 \text{education} + \beta_3 \text{employment} \dots \beta_n \text{literacy} + \varepsilon_i$$

Contribution of findings to literature: general contribution of this project to mainstream literature could be defined as follows:

First, we quantify all aspects of money circulation within and outside family by measuring lending to, borrowing from and savings. We also differentiate between household and entrepreneurship assets and income so that to identify the impact accordingly.

Second, in contrast to other studies, we define variables and the determinants based on household level so that to avoid skewed indicators when have a household head as a primary unit of measure. This is important so that to have an objective vision of whole family as opposed to a single individual, which is an important phenomenon in collectivistic societies, where Uzbekistan could be classified to.

Thirdly, once we identify the profile and heterogeneity of families in terms of lending, borrowing and savings we then actually estimate the respective amounts. This conveys an important policy contribution so that to identify potential market niche for consumer lending, deposit mobilization and other retail banking strategies of financial institutions.

Finally, the findings also going to provide empirical evidence on long-term contributions of microfinance to institutional economics which is largely missing in the literature and currently is a hot policy concern (Platteau, 2000).

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