CFS Research Brief (*FLRC 11-6*)
October 2011

Center for Financial Security
UNIVERSITY OF WISCONSIN-MADISON

TIME-INCONSISTENCY AND SAVINGS: EXPERIMENTAL EVIDENCE FROM LOW-INCOME TAX FILERS

By Damon Jones and Aprajit Mahajan

This paper describes a pilot version of a field experiment designed to test theories of time-inconsistency (a model of quasi-hyperbolic discounting) in the context of a savings decision made by low-income tax filers. By estimating the effect of impatience on savings decisions, the results of the study can be used to improve the design of savings incentives for this population, and evaluate the welfare effects of these savings programs.

A large body of economic research focuses on the determinants of household savings. One important concern in this literature is whether many households are saving adequately. In the short-term, inadequate savings renders households vulnerable to negative income shocks (e.g., unforeseen health expenses). In the long-run, households may not be able to achieve a desired standard of living in retirement. At the macro level, a low national savings rate translates into lower levels of investment and thus lower rates of economic growth.

This project uses a set of experimental interventions in conjunction with survey data to examine some of the leading explanations for household saving behavior. Specifically, the study examines the role impatience plays in saving behavior among low-income households by offering respondents monetary prizes for achieving savings goals. Results will answer two key questions: 1) To what extent does impatience play a role in saving behavior among low-income households, and 2) Can a better understanding of impatience improve the design of policies aimed at encouraging saving among those households? A clearer picture of the role of impatience and of a commitment to save can inform policy decisions about the design of financial tools that aim to help low-income households reach savings goals.

The pilot phase of the study described here drew respondents from a pool of clients at a VITA site in New York City. Using the previous year's tax returns, participants were randomly assigned to two treatment groups: the commitment group or the non-commitment group. In December, filers in the commitment group were asked to choose between receiving their tax refunds right after filing in February, or saving their refunds until a later date and earning a match on their savings. Members of the non-commitment group were not asked to make such a decision prior to tax season.

> *Key Research Questions:*
> *To what extent does impatience play a role in saving behavior among low-income households?*
> *Can a better understanding of impatience improve the design of policies aimed at encouraging saving among those households?*

At the tax site during filing season, members of both treatment groups had the option of saving their refund in an illiquid account and receiving a match, the size of which depended on how long the money remained. The design results in six groups: commitment and non-commitment, and within each of these, those with an early/immediate incentive, those with a late/delayed incentive, and a set of baseline group members. Taken together these interventions allowed the researchers to estimate the relative importance of time-inconsistency—that is, the degree to which filers preferred to forego matches on their savings in order to receive their refunds more quickly.

This project both contributes an empirical test of economic theories of time-inconsistency, and takes place in a policy-relevant setting. The fact that the respondents were drawn from VITA-site filers meant that participants' average income was low (about $17,000), and the sample contained an overrepresentation of women. Sample attrition posed a challenge in the pilot phase; the majority of this attrition was due to the inability to reach many participants by phone.

The increase in savings probability for the immediate incentive group is between two and three times as large as for the delayed incentive group.

The results suggest that study participants have time-inconsistent preferences, and that, compared to a delayed incentive, more immediate incentives for savings can have an effect up to two to three times greater on the likelihood of saving. The longitudinal data still being collected will reveal whether the availability of an illiquid savings vehicle can smooth annual consumption for low-income filers.

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Financial Literacy Research Consortium. The opinions and conclusions expressed are solely those of the author(s) and do not represent the opinions or policy of SSA, any agency of the Federal Government, or the Center for Financial Security at the University of Wisconsin-Madison.

The Financial Literacy Research Consortium

The Financial Literacy Research Consortium (FLRC) consists of three multidisciplinary research centers nationally supported by the Social Security Administration. The goal of this research is to develop innovative programs to help Americans plan for a secure retirement. The Center for Financial Security is one of three FLRC centers and focused on saving and credit management strategies at all stages of the life cycle, especially helping low and moderate income populations successfully plan and save for retirement and other life events, including the use of Social Security's programs.

The Center for Financial Security

The Center for Financial Security at the University of Wisconsin-Madison conducts applied research, develops programs and evaluates strategies that help policymakers and practitioners to engage vulnerable populations in efforts which build financial capacity. The CFS engages researchers and graduate students through inter-disciplinary partnerships with the goal of identifying the role of products, policies, advice and information on overcoming personal financial challenges.

For More Information:

Center for Financial Security
University of Wisconsin-Madison
Sterling Hall Mailroom B605
475 N Charter St.
Madison, WI 53706
(608) 262-6766
http://www.cfs.wisc.edu/