

Savings and prize-linked savings accounts<sup>☆, ☆☆</sup>

Kadir Atalay, Fayzan Bakhtiar, Stephen Cheung, Robert Slonim\*

School of Economics, Faculty of Arts and Social Sciences, University of Sydney, Sydney, NSW 2006, Australia

## ARTICLE INFO

## Article history:

Received 22 June 2013  
 Received in revised form 14 July 2014  
 Accepted 23 July 2014  
 Available online 28 August 2014

## JEL classification:

D14  
 G11  
 E21  
 C91  
 L83  
 D12

## Keywords:

Personal finance  
 Savings  
 Lotteries  
 Online experiment  
 Individual decision making

## ABSTRACT

Many households have insufficient savings to handle moderate and routine consumption shocks. Many of these financially fragile households also have the highest lottery expenditures as a proportion of income. This combination suggests that prize-linked savings (PLS) accounts, combining security of principal with lottery-type jackpots, can increase savings among these at-risk households. Results from an online experiment show that the introduction of PLS accounts increase total savings and reduce lottery expenditures significantly, especially among individuals with the lowest levels of savings and income. The results imply that PLS accounts offer a plausible market-based solution to encourage individuals to increase savings.

© 2014 Elsevier B.V. All rights reserved.

## 1. Introduction

In a recent U.S. survey, [Lusardi et al. \(2011\)](#) found that half of the respondents would be unable to come up with \$2000 if an unexpected emergency arose, and that two-thirds of respondents in the lowest income bracket had less than \$2000 in savings. Given that unpredictable consumption shocks exceeding \$2000 are routine ([Blundell et al., 2008](#)), *these low levels of savings and financial illiquidity place many households at risk and create negative externalities associated with financial distress. Substantial theoretical and empirical work has examined potential causes and solutions to the low savings problem (see, for example, Crossley et al. (2012) for a recent review), yet appropriate policy responses remain unclear.*

<sup>☆</sup> We greatly appreciate the financial support from the School of Business and the Faculty of Arts and Social Sciences at the University of Sydney. We are grateful for discussions and assistance from Garry Barrett, Colin Cameron, Thomas F. Crossley, Pablo Guillen, Graham Loomes and three anonymous referees and the editor (Ragan Petrie) for helpful suggestions and comments.

<sup>☆☆</sup> The authors gratefully acknowledge the support of the Faculty of Arts and Social Sciences at the University of Sydney.

\* Corresponding author at: School of Economics, 370 Merewether Building, University of Sydney, Sydney 2006, Australia. Tel.: +61 2 9036 9187; fax: +61 2 9351 4341.

E-mail addresses: [kadir.atalay@sydney.edu.au](mailto:kadir.atalay@sydney.edu.au) (K. Atalay), [fbak9077@uni.sydney.edu.au](mailto:fbak9077@uni.sydney.edu.au) (F. Bakhtiar), [stephen.cheung@sydney.edu.au](mailto:stephen.cheung@sydney.edu.au) (S. Cheung), [robert.slonim@sydney.edu.au](mailto:robert.slonim@sydney.edu.au) (R. Slonim).

This paper investigates whether prize-linked savings (PLS) accounts, common outside of the U.S.,<sup>1,2</sup> can encourage savings, especially among those who are more vulnerable to routine financial shocks. PLS accounts combine the feature of traditional savings accounts that guarantees the principal investment with a lottery that provides a chance for a life-changing payoff (Kearney et al., 2011). High lottery expenditures (on average \$540 per year in the U.S., and relatively higher as a proportion of income among households with lower income) suggests a potentially strong appeal for PLS accounts among people with low income (Kearney et al., 2011). Demand for PLS products<sup>3</sup> has been found outside the U.S. (e.g., Lobe and Hölzl, 2007; Tufano, 2008). While these studies demonstrate demand for PLS products, they have a number of important shortcomings. First, these analyses are conducted at a high level of aggregation and as a consequence they are unable to examine the distribution of responses across incomes or different demographic groups. In addition, because of the high level of aggregation, their results at best reflect average households. Indeed since the average is calculated by income weights, these results are most informative about the behavior of high income households (i.e. the households least targeted by saving policies). On the other hand, micro econometric studies on PLS have been limited to descriptive evidence. Tufano et al. (2011) examined individuals' interest regarding the first U.S. PLS product introduced in 2006. Their survey results indicate that the PLS product appeals more to heavy lottery players, non-savers and those with low savings.

The research on PLS products, focusing on demand, has thus far been unable to directly examine perhaps the two most important policy questions that we address in the current study. First, does the introduction of a PLS product increase total savings, or does it instead cause a reallocation of demand away from other forms of savings, thus not addressing the financial illiquidity problem and not creating new savers? Second, if the PLS product increases total savings, what are the sources of the expenditures?

We address these questions by running an experiment with subjects who were recruited from two online panels; one panel has a representative sample of the U.S. population and the other has a disproportionately larger sample of low income and low savings individuals. The experiment is "framed" (Harrison and List, 2004) since it uses the contextually natural language subjects see in the field (e.g., the experiment uses the terms savings and lotteries). However, unlike a *natural field experiment*, subjects were aware that they were participating in an experiment that was otherwise similar to a laboratory study.

Subjects in our experiment were asked to make a series of choices on the allocation of a \$100 budget. In the first set of choices they could allocate their budget between receiving cash within 2 weeks of participation and putting their money into two financial instruments that we offered in the experiment, (i) an interest bearing savings account that guaranteed principle and interest payment 10 weeks later and (ii) lottery tickets. In these choices we varied the interest rate on the saving account and the odds of winning the lottery. In the second set of choices we added an option for subjects to invest in PLS accounts. In these choices we again varied the interest rate on the savings account and the odds of winning the lottery, as well as the odds of winning the lottery component in the PLS account. In one panel, at the end of the experiment there was a 10% chance that one decision was chosen to pay subjects while in the other panel all choices were hypothetical. In both panels, we also conducted a short survey at the end of the experiment on participant's socio-economic characteristics and savings behavior.

In our analysis of subjects choices, we first examine whether the introduction of PLS accounts increases total savings, and then the sources of the increased total savings. Given the disproportionately higher demand for lottery expenditures among those with lower income,<sup>4</sup> we also examine whether the demand for PLS accounts reduces lottery expenditures. Our results show that the introduction of a PLS account indeed increases total savings quite dramatically (on average by 12% points), and that the demand for the PLS account comes from reductions in lottery expenditures and current consumption. We further show that these results are stronger among study participants with the lowest reported savings on the survey.<sup>5</sup> We also show that the results across the panels with actual and hypothetical payoffs do not differ significantly once we control for observable subject characteristics. This result suggests that results from hypothetical questions can provide a cost-effective method to study the types of questions studied here, but researchers should be cautious about using hypothetical questions more generally since in other contexts such as decisions regarding prosocial behavior some evidence suggests that inferences from hypothetical questions and decisions with financial incentives can differ dramatically (Lacetera et al., 2013).

The paper proceeds as follows. The following section presents the experimental design and hypotheses, Section 3 presents the results and Section 4 concludes. Our results suggest that PLS accounts offer a plausible market-based solution to

<sup>1</sup> PLS accounts are currently offered in over 20 countries and have been available since the 1694 "Million Adventure" in the United Kingdom (Murphy, 2005).

<sup>2</sup> Current laws prevent the introduction of PLS accounts (most states in the U.S prohibit privately run lotteries), yet the pilot programs designed by Tufano and D2D Fund suggest potential for legal means to introduce PLS short of changing laws.

<sup>3</sup> We write 'PLS product' when referring to naturally occurring 'real world' PLS accounts and we later write 'PLS account' when referring to the PLS account in our experiment.

<sup>4</sup> Extensive research has tried to explain the higher demand for lotteries and gambling among people with lower income. One approach allows individuals to use subjective probability weighting to over-weight low probability events, e.g. rank-dependent expected utility theory (Quiggin, 1982); cumulative prospect theory (Tversky and Kahneman, 1992). Another approach, skewness, allows utility to depend upon both absolute and relative wealth so that lotteries offer an opportunity to move up in terms of relative wealth (Shefrin and Statman, 2000). Crossley et al. (2011) suggest that people can use lotteries to convexify their budget sets.

<sup>5</sup> 'Reported' savings refers to participants' responses to our survey question on their savings behavior.

Download English Version:

<https://daneshyari.com/en/article/10437691>

Download Persian Version:

<https://daneshyari.com/article/10437691>

[Daneshyari.com](https://daneshyari.com)