TIAA Institute Fellows Symposium

Behavioral Finance and Saving: Determinants of Retirement Readiness

A research forum co-hosted with the Pension Research Council

Research Study Executive Summaries

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Dear Colleagues:

Welcome to **Behavioral Finance and Saving: Determinants of Retirement Readiness**, a TIAA Institute Fellows Symposium co-hosted with the Wharton School’s Pension Research Council. This symposium marks the next stage of the Institute and Pension Research Council’s Behavioral Finance Initiative, with research presentations on how common behavioral factors and biases affect retirement planning and financial decisions.

On the pages that follow, you will find abstracts of these research studies to be discussed:

- **Interactions between Episodic Memory and Intertemporal Choices in Older Adults**
  Karolina M. Lempert, David A. Wolk, and Joseph W. Kable
- **Probability Weighting and Household Portfolio Choice: Empirical Evidence**
  Stephen G. Dimmock, Roy Kouwenberg, Olivia S. Mitchell, and Kim Peijnenburg
- **Behavioral Factors and Long-run Financial Well-Being**
  Victor Stango and Jonathan Zinman
- **Optimal Illiquidity**
  John Beshears, James J. Choi, David Laibson, and Brigitte Madrian
- **Are the Elderly More Likely to Receive Conflicted Financial Advice? Evidence from Client Surveys**
  Jonathan Reuter and Michael Finke
- **Debt and Financial Vulnerability**
  Annamaria Lusardi, Olivia S. Mitchell, and Noemi Oggero

The TIAA Institute and PRC are proud to support this important work, and we look forward to a thought-provoking discussion!

Sincerely,

Dave

Olivia

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David P. Richardson
Senior Economist
TIAA Institute

Olivia S. Mitchell
Executive Director
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Interactions between Episodic Memory and Intertemporal Choices in Older Adults
Karolina M. Lempert, David A. Wolk, and Joseph W. Kable

As older adults enter retirement, they face many choices involving tradeoffs between smaller payouts available immediately versus larger total payouts in the future. When making such intertemporal choices, people generally prefer rewards sooner rather than later, a tendency called temporal discounting. Intertemporal choice research in older adults has yielded inconsistent results, suggesting that variability in cognitive decline among older adults may contribute to variability in temporal discounting. There is evidence that the episodic memory system plays a role in reducing temporal discounting. Given that episodic memory declines in older adults, this project aims to determine whether neuroanatomical and behavioral correlates of episodic memory are associated with temporal discounting during healthy aging, and to test whether positive autobiographical memory retrieval prior to intertemporal choices reduces temporal discounting in older adults. Here we found a significant correlation between episodic memory ability and temporal discounting, such that older adults (ages 59-87) with better episodic memory show less temporal discounting (i.e., more financial patience). This relationship remained significant even when controlling for factors such as age, general executive function, and risk aversion. However, cueing older adults to recall episodic memories prior to intertemporal choice did not influence their decision-making. Thus, overall episodic memory decline in older adults might limit the utility of episodic memory-based interventions to change choice.

Probability Weighting and Household Portfolio Choice: Empirical Evidence
Stephen G. Dimmock, Roy Kouwenberg, Olivia S. Mitchell, and Kim Peijnenburg

Standard economic models assume that people confronted with risky choices maximize expected utility, yet in the real world, people often make predictable errors when evaluating risky outcomes. Specifically, people display “Inverse-S” shaped probability weighting, which involves underweighting large probabilities but overweighting small probabilities. Although many laboratory studies find evidence of probability weighting in decision-making, there is little direct evidence from outside the laboratory. This study uses incentivized lotteries to measure individuals’ degree of probability weighting in a nationally representative sample of the US population, and it then tests how this behavioral bias affects peoples’ actual investment decisions. As theory predicts, our Inverse-S measure is positively associated with both non-participation and individual stock ownership, but negatively associated with mutual fund ownership. Conditional on stock ownership, Inverse-S is positively associated with portfolio under-diversification. Robustness tests rule out several alternative interpretations.
Behavioral Factors and Long-run Financial Well-Being
Victor Stango and Jonathan Zinman

Behavioral economics lacks empirical evidence on some foundational empirical questions. We adapt standard elicitation methods to measure multiple behavioral factors per person in a representative U.S. sample, along with financial condition, cognitive skills, financial literacy, classical preferences and demographics. Individually, B-factors are prevalent, distinct from other decision inputs, and correlate negatively with financial outcomes in richly-conditioned regressions. Conditioning further on other B-factors does not change the results, validating common practice of modeling B-factors separately. Corrections for low task/survey effort modestly strengthen the results. Our findings provide bedrock empirical foundations for behavioral economics, and offer methodological guidance for research designs.

Optimal Illiquidity
John Beshears, James J. Choi, Christopher Clayton, Christopher Harris, David Laibson, and Brigitte Madrian

We calculate the socially optimal level of illiquidity in a stylized retirement savings system. We solve the planner’s problem in an economy in which time-inconsistent households face a tradeoff between commitment and flexibility (Amador, Werning and Angeletos, 2006). We assume that the planner can set up multiple accounts for households: a perfectly liquid account and/or partially illiquid retirement savings accounts with early withdrawal penalties. Revenue from penalties is collected by the government and redistributed through the tax system. We solve for the socially optimal values of these penalties, and the socially optimal allocations to these accounts. When agents have heterogeneous present-biased preferences, the socially optimal system has three accounts: (i) a liquid account, (ii) an account with an early withdrawal penalty of ≈ 100%, and (iii) an account with an early withdrawal penalty of ≈ 10%. With heterogeneous preferences, the socially optimal retirement savings system in our stylized model looks surprisingly like the existing U.S. system: (i) a liquid account, (ii) an illiquid Social Security account (and defined benefit pensions), and (iii) a 401(k)/IRA account with a 10% penalty. The socially optimal allocations to these accounts and the predicted equilibrium flows of early withdrawals – “leakage” – also match the U.S. system.
Are the Elderly More Likely to Receive Conflicted Financial Advice? Evidence from Client Surveys

Jonathan Reuter and Michael Finke

We use high-quality survey data collected from the clients of financial advisers to ask whether older investors in the U.S. are more likely to receive and accept conflicted financial advice. We are motivated by recent findings that actual (but not perceived) financial literacy declines with age, and by growing evidence of conflicted financial advice by broker-dealers, which exist alongside Registered Investment Advisers (RIAs), but which charge different types of fees and face a lower legal standard of care. We find that older clients are more likely to state that it is “critical” to work with an advisor who “puts the needs of me and my family first” and who is trustworthy. Older clients also exhibit systematically higher levels of trust in and satisfaction with their advisers. On their own, these patterns are consistent with older clients having been more successful than younger clients in matching with trustworthy advisers. However, despite similar levels of self-assessed financial literacy, we also find that older clients are less likely to match with an RIA or to understand how their adviser is being compensated for providing financial advice. The fact that older investors, who control the majority of financial assets in the United States, are both more trusting of their advisers and less knowledgeable about potential conflicts of interest increases the likelihood that they are the receiving and accepting conflicted financial advice.

Debt and Financial Vulnerability

Annamaria Lusardi, Olivia S. Mitchell, and Noemi Oggero

We analyze older individuals’ debt and financial vulnerability using data from the Health and Retirement Study (HRS) and the National Financial Capability Study (NFCS). Specifically, we examine three different cohorts (individuals age 56–61) in different time periods, 1992, 2004 and 2010, in the HRS to evaluate cross-cohort changes in debt over time. We also draw on data from two waves of the NFCS (2012 and 2015) to gain additional insights into debt management and the capacity of older individuals to shield themselves against shocks. Our goal is to assess how the financial position of older individuals has evolved over time, along with the potential consequences for retirement security. We find that more recent cohorts have taken on more debt and face more financial insecurity, mostly due to having purchased more expensive homes with smaller down payments. In addition, they are more likely to have engaged in expensive borrowing practices. Factors associated with better debt outcomes include having higher income, more education, and greater financial literacy; those associated with financial fragility include having more children and experiencing unexpected large income declines. Thus shocks do play a role in the accumulation of debt close to retirement. Nevertheless, it is not sufficient to have resources: people also need the capacity to manage those resources, if they are to be financially secure heading into and after retirement.
About the TIAA Institute
The TIAA Institute helps advance the ways individuals and institutions plan for financial security and organizational effectiveness. The Institute conducts in-depth research, provides access to a network of thought leaders, and enables those it serves to anticipate trends, plan future strategies and maximize opportunities for success. To learn more, visit www.tiaainstitute.org.

About the Pension Research Council
This nonprofit Center of The Wharton School of the University of Pennsylvania is committed to generating debate on key policy issues affecting pensions and other employee benefits. It sponsors interdisciplinary research on the entire range of private pension and social security programs, as well as related benefit plans in the United States and around the world.