## **WELCOME**

Welcome to the 2016 Boulder Summer Conference on Consumer Financial Decision Making!

Consumer financial decision-making is a topic that is naturally interdisciplinary. No one field can claim to have all the answers, so there is a very real benefit in having a forum like this for conversation with scholars from Finance, Economics, Marketing, Behavioral Science, Public Affairs, Anthropology, Management, Law, Sociology, Operations & Information Management, Strategy, Psychology, Risk and Actuarial Studies, Public Health, and Consumer Sciences. Consumer welfare is strongly affected by household financial decisions large and small; we are very fortunate to have participation in the conference by people involved in the regulation of consumer financial products, by experts from nonprofit organizations that have a mission to promote better financial decision making, and by experts from the business world of financial services.

Over the next three days, we are in for a treat. Sunday afternoon, renowned behavioral economist Dan Ariely will present opening keynote remarks about emergency savings by lower-income consumers. The keynote talk will be followed by a keynote panel discussion with leading experts from academia and the world of consumer advocacy. We hope that the keynote session stimulates academic research on the topic. We will follow the keynote session with a cocktail party and poster session, giving us a chance to get to know more about others at the conference.

Monday, we begin our plenary sessions with a focus on struggles consumers have with household finance. What interventions can help consumers strike the right balance between spending and saving versus debt accumulation? On Tuesday, we begin with a look at how financial know-how influences financial behaviors, including how this plays out within families. We'll look at vulnerability to financial dishonesty, nudges to improve retirement outcomes and other ways in which financial behavior is affected by the salience of information.

The conference will be highly interactive, with plenty of time built into each session for discussion and opportunities for informal interaction built into our receptions and luncheons in and near the St. Julien Hotel.

Thank you!

John Lynch & Donnie Lichtenstein, Conference Co-Chairs, and our fellow members of the Program Committee: Tony Cookson, Shaun Davies, Bart de Langhe, Phil Fernbach, Diego Garcia, Nick Reinholtz, Yanwen Wang, Brian Waters

# 2016 Boulder Summer Conference on Consumer Financial Decision Making May 22-24, 2016

# St. Julien Hotel and Spa, Xanadu Ballroom

# **PROGRAM**

# Sunday, May 22<sup>nd</sup>

1:00 – 2:00 PM	Conference Packet Pick-up & Poster Setup St. Julien, Xanadu Ballroom Lobby
2:15 – 2:30 PM	<b>Welcome</b> (John Lynch and Donald Lichtenstein) Xanadu Ballroom
2:30 – 3:00 PM	Opening Remarks
	Mindset and Emergency Savings by the Poor Dan Ariely (Duke University, Behavioral Economics)
3:00 – 4:15 PM	Keynote Panel Discussion on Emergency Savings
	Rachel Schneider (Center for Financial Services Innovation)
	Clinton Key (Pew Charitable Trusts)
	Rourke O'Brien (University of Wisconsin-Madison, Public Affairs)
4:15 – 4:30 PM	Break
4:30 – 6:30 PM	Poster Session and Reception St. Julien, Outdoor Terrace (weather permitting) (Conference registrants only, please)

# Monday, May 23<sup>rd</sup>

7:00 – 8:00 AM Continental Breakfast

Xanadu Ballroom Lobby (Conference registrants only, please)

8:00 – 9:15 AM Session 1: Coming In and Out of Bankruptcy

Consumption and the Credit Channel Over the Business Cycle:

Evidence from Bankruptcy Flags

Tal Gross (Columbia, Public Health)

Matthew Notowidigdo (Northwestern, Economics)

Jialan Wang (CFPB)

Struggling to Bankruptcy

Robert Lawless (University of Illinois, Law)

Katherine Porter (UC Irvine, Law)

Deborah Thorne (Idaho, Sociology)

Discussant: Mark Cole, Hope Loan Port

9:15 – 9:30 AM **Beverage Break** (Xanadu Ballroom Lobby)

9:30 – 10:45 AM Session 2: Hidden Financial Disadvantages of the Poor

Frugality is Hard to Afford

Yeşim Orhun (University of Michigan, Marketing)

Mike Palazzolo (University of Michigan, Marketing)\*

Growing Up Without Finance

James Brown (Iowa State, Finance)

Tony Cookson (University of Colorado-Boulder, Finance)

Rawley Heimer (Federal Reserve Bank of Cleveland)

Discussant: Janneke Ratcliffe (CFPB)

10:45 – 11:00 AM **Beverage Break** (Xanadu Ballroom Lobby)

# 11:00 – 12:15 PM Session 3: Psychological Effects of Constraint and Relaxation of Constraint

Rumination and Decision Making Among the Poor Gita Johar (Columbia, Marketing) Rachel Meng (Columbia, Marketing) **Keith Wilcox** (Columbia, Marketing)

The Liquid Hand-to-Mouth: Evidence from Personal Finance Management Software

> Michaela Pagel (Columbia, Finance) Arna Vardardottir (Copenhagen Business School, Economics)

Discussant: Gal Zauberman (Yale University, Marketing)

12:20 – 1:45 PM **Lunch Break** – The Mediterranean Restaurant, 1002 Walnut Street (Conference registrants only, please)

2:00 – 3:15 PM Session 4: Fringe Borrowing & High Cost Alternatives by the Banking Sector

Tough Times Borrowing: Effects of Fringe Lending Regulation on Credit Standing, Search, and Access

Roman Galperin (Johns Hopkins, Management) Kaili Mauricio (Federal Reserve Bank of Boston)

Does Sustained Use of Overdraft and Deposit Advance Lead to Spiraling Fees?

**Sergei Koulayev** (CFPB) Charles Romeo (CFPB)

Discussant: Alex Horowitz, Pew Charitable Trusts

3:15 – 3:30 PM **Beverage/Snack Break** (Xanadu Ballroom Lobby)

## 3:30 – 4:45 PM Session 5: Improving Credit Card Repayments

The Influence of Goal-Setting on Credit Card Payment Decisions

Daniel Bartels (Chicago, Marketing)

Abigail Sussman (Chicago, Marketing)

The Effects of Interest Rate Changes and Add-On Fee Regulation on Consumer Behavior in the U.S. Credit Card Market

Alexei Alexandrov (CFPB)\*
Ozlem Bedre-Defolie (ESMT, Economics)
Daniel Grodzicki (Penn State, Economics)

Discussant: Stefan Hunt, Financial Conduct Authority, UK

5:00 – 7:00 PM **Reception** – St. Julien Outdoor Terrace (weather permitting) (Partners and spouses welcome)

## Tuesday, May 24th

7:00 – 8:00 AM Continental Breakfast

Xanadu Ballroom Lobby (Conference registrants only, please)

8:00 – 9:15 AM Session 6: Financial Know-How and Financial Capability

Psychological Antecedents of Consumer Financial Fragility

Daniel Bartels (Chicago, Marketing) **Stephen Spiller** (UCLA, Marketing)

Jonathan Westfall (Delta State University, Psychology)

The ABCs of Financial Education: Experimental Evidence on Attitudes, Behavior, and Cognitive Biases

Shawn Cole (Harvard, Finance)

Fenella Carpena (UC Berkeley, Economics)

Jeremy Shapiro (Princeton, Economics)

Bilal Zia (World Bank)

Discussant: Billy Hensley (National Endowment for Financial Education)

9:15 – 9:30 AM **Beverage Break** (Xanadu Ballroom Lobby)

9:30 – 10:45 AM Session 7: It's a Family Affair: Family Influences on Financial Behavior

On a Need-to-Know Basis: Divergent Trajectories of Financial Expertise in Couples and Effects on Independent Search and Decision Making

**Adrian Ward** (University of Texas-Austin, Marketing) John Lynch (University of Colorado-Boulder, Marketing)

Intergenerational Linkages in Household Credit

Andra Ghent (Wisconsin Madison, Economics)

Marianna Kudlyak (Federal Reserve Bank of Richmond)

Discussant: Joanne Hsu (Federal Reserve Board)

10:45 – 11:00 AM **Beverage Break** (Xanadu Ballroom Lobby)

#### 11:00 – 12:15 PM Session 8: Nudging to Improve Retirement Outcomes

Checklists as Selective Choice Architecture

Kirstin Appelt (UBC, Marketing)

Melissa Knoll (CFPB)

Eric Johnson (Columbia, Marketing; CFPB)

Jon Westfall (Delta State University, Psychology)

Who is Easier to Nudge?

John Beshears (Harvard, Management)

James Choi (Yale, Finance)

David Laibson (Harvard, Economics)

Brigitte Madrian (Havard, Public Policy)

Sean Yixiang Wang (NBER)

Discussant: Susan Thorp (University of Sydney, Finance)

# 12:20 – 1:45 PM **Lunch Break** – The Mediterranean Restaurant, 1002 Walnut Street (Conference registrants only, please)

# 2:00 – 3:15 PM Session 9: Causes and Consequences of Consumer Susceptibility to Financial Dishonesty

Scam the Declined or Decline to be Scammed: A Model of Elder Fraud Simon Gervais (Duke, Finance)

**Terrance Odean** (UC Berkeley, Finance)

Out of Sight, Out of Mind: Consumer Reactions to News on Data Breaches and Identity Theft

**Vyacheslav Mikhed** (Federal Reserve Bank of Philadelphia) Michael Vogan (Moody's Analytics)

Discussant: **Leslie John** (Harvard Business School, Negotiations, Organizations, & Markets)

### 3:15 – 3:30 PM **Beverage/Snack Break** (Xanadu Ballroom Lobby)

#### 3:30 – 4:45 PM Session 10: Information Salience and Financial Decisions

Attention Variation and Welfare: Theory and Evidence from a Tax Salience Experiment

**Dmitry Taubinsky** (Univ. of California-Berkeley, Economics) Alex Rees-Jones (Wharton, Operations Research)

Does Salient Financial Information Affect Academic Performance and Borrowing Behavior Among College Students?

Maximilian Schmeiser (Federal Reserve Board) Christiana Stoddard (Montana State University, Economics) Carly Urban (Montana State University, Economics)

Discussant: Milica Mormann (Univ. Miami, Finance & Marketing)

### 4:45 – 5:00 PM **Closing Remarks**

Speaker: Terry Odean (University of California-Berkeley, Finance)

# Poster Presentations by Category Sunday, May 22<sup>nd</sup>, 4:30-6:30 PM St. Julien, Outdoor Terrace (Weather permitting)

#### Risk

1. Variance Neglect In Consumer Search

Nicholas Reinholtz – University of Colorado-Boulder (Marketing)

2. The Rainbow or the Pot of Gold? Consumers' Beliefs about Economic Mobility, Economic Striving and Financial Risk Taking

Nancy Wong - University of Wisconsin-Madison (Consumer Sciences)

3. Consumer Pension Risk Preference Heterogeneity and Optimal Pension Asset Allocation Benedict Dellaert – Erasmus University (Marketing)

#### Saving & Investing

- 4. Inflation Communication and the Attractiveness of Long-term Investments

  Thomas Langer University of Muenster (Finance)
- Social Trading: Performance, Communication, and Flows
   Nic Schaub University of St. Gallen (Finance)
- 6. (Emotional) Reference Point Formation: An Eye-Tracking Experiment **Milica Mormann** – University of Miami (Finance)
- The Behavioral Economics of Household Savings and the Legal Treatment of Lotteries, Prize-Linked Savings Accounts, and Equity Crowdfunding James Chen – Michigan State University (Law)
- 8. Equity Crowdfunding: Harnessing the Wisdom of the Crowd Shaun Davies University of Colorado at Boulder (Finance)
- 9. Portfolio Choice with House Value Misperception

  Jose Fillat Federal Reserve Bank of Boston (Finance)
- 10. Converging vs. Diverging: The Effect of Visual Representation of Goal Structure on Financial Decisions

**Joonkyung Kim** – University of Toronto (Marketing)

#### Retirement

- 11. Long-term care Risk, Income Streams and Late in Life Savings

  Hazel Bateman University of New South Wales (Risk and Actuarial Studies)
- 12. Engaging Pension Plan Participants: Investment and Insurance Frames

  Wiebke Eberhardt Maastricht (Marketing and Supply Chain Management)
- 13. Delegation, Trust and Defaulting in Retirement Plans: Perspectives from Plan Executives and Members

**Susan Thorp** – University of Sydney (Finance)

#### Health Care

- 14. The Effect of Advertising Price Savings On Preventive Health Care Decision Making **Meng Li** University of Colorado-Denver (Public Health)
- 15. Poor Financial Choices in the 2014 Post-ACA Individual Health Insurance Market: A Case of Foregone Subsidies

John Hsu – Harvard Medical School (Health Policy)

#### Individual Differences & Heterogeneity

16. Are We All Behavioral (More or Less)? Measuring the Prevalence and Impact of Multiple Behavioral Factors

**Victor Stango** – UC Davis (Economics and Finance)

17. Misbehavioral Law and Economics: Separating and Pooling in Responses to Consumer Financial Mistakes

Jacob Hale Russell – Stanford University (Law)

18. Honesty in Financial Services: The Regulator and the Regulated

**Barbara Fasolo** – London School of Economics and Political Science (Management) **Zoe Rahwan** – London School of Economics and Political Science (Management)

#### Currency, Credit, & Debit Cards

- 19. Estimating the Loss in Surplus from the Elimination of Deposit Advance Products

  Charles Romeo Consumer Financial Protection Bureau (Office of Research/Economics)
- 20. U.S. Consumers' Adoption and Use of Bitcoin and other Virtual Currencies

  Scott Schuh Federal Reserve Bank of Boston (Research/Economics)
- A Closer Look at Credit Card Deleveraging: 2009-2013
   Larry Santucci Federal Reserve Bank of Philadelphia (Payment Cards Center)
- 22. Measuring Peer Effects in the U.S. Credit Card Market

  Daniel Grodzicki Penn State University (Economics)

- 23. Message Not Received The Effects of Creditor Pressure on Consumer Debt Management Anna Custers University of Oxford (Financial Literacy)
- 24. The Effect of Minimum Wage on Consumer Credit **Joanne Hsu** (Federal Reserve Board)

#### Time Preferences

- 25. Can't Help Myself: The Effects of Helplessness on Time Preferences

  Ania Jaroszewicz Carnegie Mellon University (Social and Decision Sciences)
- 26. Overcoming Impulsiveness: Identifying Prime Targets for Interventions to Promote Consumer Savings

Sarah Newcomb – University of Maine (Behavioral Economics)

27. Tuition Aversion: Impatience Induced Suboptimal Financial Decision Making for Higher Education **Haewon Yoon** – Boston College (Marketing)

#### Attention & Salience

28. Understanding the Expense Prediction Bias

Chuck Howard – University of British Columbia (Marketing and Behavioral Science)

- 29. Heuristic Perceptions of the Income Tax: Evidence and Implications

  Alex Rees-Jones Wharton School (Operations, Information and Decisions)
- 30. Salience of Debt and Homebuyers' Credit Decisions

  Artashes Karapetyan National University of Singapore-NBER (Finance)
- 31. Salience and Surcharge: Why Are Riders Lending the Transit Authority \$150 Million More?

  Meiping Sun Columbia University (Economics)

#### Financial Knowledge

32. Predictors of Emergency Savings in South African Households: The Role of Financial Knowledge, Attitude and Behavior

Michelle Reyers – University of Pretoria (Financial Management)

33. The Mortgage Illusion

Daniel Fernandes - Catolica Lisbon School of Business and Economics (Marketing)

#### **Bankruptcy**

34. Does Electronic Gambling Cause Financial Distress? Bankruptcies after the Removal of Neighborhood Slot Machines

Barry Scholnick – University of Alberta (Business Economics)

35. How Does Consumer Bankruptcy Protection Impact Household Outcomes?

Carlos Parra – University of Texas-Austin (Finance)

# 2016 Boulder Summer Conference on Consumer Financial Decision Making May 22-24, 2016

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# PROGRAM AND ABSTRACTS

# Sunday, May 22<sup>nd</sup>

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3:00 – 4:15 PM	Keynote Panel Discussion on Emergency Savings
	Rachel Schneider (Center for Financial Services Innovation)
	Clinton Key (Pew Charitable Trusts)
	Rourke O'Brien (University of Wisconsin-Madison, Public Affairs)
4:15 – 4:30 PM	Break
4:30 – 6:30 PM	Poster Session and Reception St. Julien, Outdoor Terrace (weather permitting) (Conference registrants only, please)

#### **Biographies:**

Dan Ariely is the James B. Duke Professor of Psychology and Behavioral Economics at Duke University and a founding member of the Center for Advanced Hindsight. He does research on behavioral economics and tries to describe it in plain language. Ariely's talks on TED have been watched over 7.8 million times. He is the author of *Predictably Irrational* and *The Upside of Irrationality*, both of which became *New York Times* best sellers, as well as *The Honest Truth about Dishonesty*, and *Irrationally Yours*. In his recent work with the Common Cents Lab supported by the MetLife Foundation, he studies how to improve financial well being, using behavioral insights to design and test solutions that aim to increase the financial well-being of low to middle income Americans. You can find him at www.danariely.com.

Rachael Schneider is a Senior Vice President at CFSI. Under her leadership, CFSI produces independent, data-driven consumer and industry research and advice, including the Compass Principles, which are aspirational standards for excellence in the delivery of consumer financial services. CFSI's actionable guidance about product design and delivery helps build the robust financial services marketplace that is critical to improving consumers' financial health. Ms. Schneider is also a Principle Investigator on the U.S. Financial Diaries research study, a groundbreaking project in partnership with the Financial Access Initiative at New York University. The project collects highly detailed data about more than 200 households, including how they save, spend, borrow and plan their financial lives. Ms. Schneider credits her commitment to the potential for innovative finance to solve major social problems from her days as a VISTA Volunteer (now AmeriCorps). She holds a J.D./M.B.A. from the University of Chicago, and a B.A. from UC Berkeley.

Clinton Key is the research officer for savings and financial security at The Pew Charitable Trusts. The project conducts original research that explores when, how, and how much American households save, examines how savings are used for financial security, and evaluates the potential of programs and policies to improve the financial situation of Americans. In leading this research portfolio, Key develops and implements rigorous data collection and analysis strategies to create a better understanding of household saving behavior and the role of savings in people's lives.

Rourke O'Brien is an Assistant Professor of Public Affairs at the University of Wisconsin-Madison. His research focuses on public finance, economic mobility, population health, and household finance. Recent and ongoing projects explore: the impact of health and health policy on intergenerational economic mobility; the social determinants and social consequences of state and local tax systems; the effect of having bad credit on employment outcomes; and the social, cognitive and policy determinants of financial decision-making. His work has appeared or is forthcoming in academic outlets including the American Journal of Sociology, the Journal of Marketing Research, and Social Science & Medicine, and his popular writing has appeared in the New York Times, Los Angeles Times, and Washington Post. Rourke is co-author (with Katherine S. Newman) of Taxing the Poor published by the University of California Press in 2011. From 2012-2014 he served as a Senior Policy Advisor for Consumer Policy at the U.S. Department of the Treasury and from 2014-2015 he was a Robert Wood Johnson Foundation Health & Society Scholar at Harvard University. He received his MA and PhD from Princeton University and his BA from Harvard University.

## Monday, May 23rd

7:00 – 7:55 AM Continental Breakfast

Xanadu Ballroom Lobby (Conference registrants only, please)

7:55 – 8:00 AM Welcome. David Ikenberry, Dean, Leeds School of Business

8:00 – 9:15 AM Session 1: Coming In and Out of Bankruptcy

Discussant: Mark Cole – Hope Loan Port

Consumption and the Credit Channel Over the Business Cycle: Evidence from Bankruptcy Flags

Jialan Wang – CFPB

Tal Gross – Columbia University (Public Health)

Matthew Notowidigdo – Northwestern University (Economics)

Abstract: This paper estimates the marginal propensity to consume (MPC) out of liquidity by exploiting exogenous variation in credit card borrowing limits. Ten years after an individual declares Chapter 7 bankruptcy, the record of the bankruptcy is removed from the individual's credit report, generating an immediate and persistent increase in credit score. We document that in the two years following this "bankruptcy flag" removal, credit card borrowing limits increase by roughly \$2,200 and credit card borrowing increases by roughly \$800. That implies an MPC out of liquidity of approximately 0.37. Across the entire 2004–2011 period we study, we find a significantly higher MPC out of liquidity during the Great Recession, with the average MPC out of liquidity decreasing by 20–30 percent between 2008 and 2011 as the economy recovered. We find no evidence that the counter-cyclical variation in the average MPC is accounted for by compositional changes or by changes in the increased supply of credit following the bankruptcy flag removal. These results suggest that liquidity constraints bind more frequently during recessions.

Struggling to Bankruptcy **Katherine Porter** – UC Irvine (Law)

Robert Lawless – University of Illinois (Law)

Deborah Thorne (Idaho, Sociology)

Abstract: People file bankruptcy as a legal solution to unmanageable debts, often triggered or compounded by job, medical, or family problems. In the latest national random sample from the Consumer Bankruptcy Project, we reveal a marked, new pattern in the financially distressed population. People who file bankruptcy today struggle for years longer than in prior decades. More than one-quarter (28%) of families say they seriously struggled with their debts for more than five years, double the rate from an identical survey just six years ago. Our data show ways in which the years of struggle that precede bankruptcy are costly—both by financial and non-financial measures. The mire of debt is deeper for those who wait. They are more likely to use more desperate coping mechanisms, such as selling or pawning personal property, and they are more likely to feel a "great deal of shame" about their bankruptcies. The struggle into bankruptcy reflects a phenomenon identified in the sociological literature: people often do mentally code their problems as "legal." We

examine how people reframe their money problems as legal problems prompted by or in reaction to dunning by debt collectors and coercive legal processes. Our analysis suggests that a consumer's mental process may be a significant barrier to bankruptcy relief, just as much as traditionally identified barriers such as costs or complexity.

#### **Biographies:**

Mark Cole is an Executive Vice President and Chief Strategy Officer for Hope LoanPort. He is responsible for expanding the capabilities of Hope LoanPort's technology platform, particularly in the regulatory, technology and consumer advocacy sectors. Cole has served as a senior-level executive in the nonprofit financial counseling sector for more than 25 years. Prior to joining Hope LoanPort, he served for more than 10 years as Chief Operating Officer for CredAbility(now ClearPoint Credit Counseling), one of the nation's largest nonprofit credit counseling agencies. He has also served as President of Personal Debt Solutions, Chief Operating Officer for the National Foundation for Credit Counseling and President of Consumer Credit Counseling Service of Greater Fort Worth, Texas. Cole currently serves as board chairman of Neighborhood Nexus, a collaborative to bring better data to metro Atlanta decision-makers. He previously served as board chairman of the Better business Bureau of Metropolitan Atlanta and previously served on the board of directors for Hope LoanPort Inc.; Community Friendship, a supportive community for adults with disabling mental illness, and TechBridge, helping nonprofits use technology to serve the community. Cole holds a bachelor's degree from the University of Texas at Arlington.

**Jialan Wang** is an economist in the Office of Research at the Consumer Financial Protection Bureau, and starting in June will be an Assistant Professor of Finance at the University of Illinois at Urbana-Champaign. She holds a B.S. in mathematics from Caltech and a Ph.D. in financial economics from MIT, and has served on the faculty of The Wharton School and the Olin School of Business at Washington University in St Louis. Her recent research in household finance includes work on small dollar credit products, credit cards, and consumer bankruptcy. Her research has been published in the Quarterly Journal of Economics, the Review of Economics and Statistics, and the Journal of Economic Perspectives.

Katherine Porter is a Professor of Law at the University of California, Irvine. She specializes in commercial and consumer law, including bankruptcy, mortgage foreclosure, and credit cards. She is the author of a new consumer law textbook, *Modern Consumer Law* (2016 Wolters Kluwer/Aspen) and accompanying Teacher's Manual. She is also a co-author of the nation's leading bankruptcy textbook, *The Law of Debtors and Creditors: Text, Cases, and Problems* (7th ed. 2014) and edited a book on consumer credit, *Broke: How Debt Bankrupts the Middle Class* (2012 Stanford University Press.) Her academic research focuses on empirical studies of consumer bankruptcy and has been published in journals including the *Texas Law Review* and the *Georgetown Law Journal*. Her advocacy and service is in mortgage servicing and foreclosure prevention, and includes serving the California Attorney General as the state's monitor of the \$25 billion National Mortgage Settlement. Porter's work has garnered several awards: the InnovAction Award by the College of Law Practice Management, recognizing innovation and ingenuity in the delivery of legal services, academic recognition for the best article in the American Bankruptcy Law Journal, practice excellence by selection as one of the top 100 lawyers in California by the Daily Journal, and advocacy merit with the Champion of Consumer Rights honor by the National Association of Consumer Bankruptcy Attorneys.

9:15 – 9:30 AM **Beverage Break** (Xanandu Ballroom Lobby)

9:30 – 10:45 AM Session 2: Hidden Financial Disadvantages of the Poor

Discussant: Janneke Ratcliffe – CFPB

Frugality is Hard to Afford

Mike Palazzolo – University of Michigan (Marketing)

Yeşim Orhun – University of Michigan (Marketing)

Abstract: Households commonly utilize strategies that provide long-term savings for everyday purchases in exchange for an increase in their short-term expenditures. They buy larger packages of non-perishable goods to take advantage of bulk discounts, and accelerate their purchases to take advantage of temporary discounts. We document that low income households are less likely to utilize these strategies even though they have greater incentives to do so. Moreover, results suggest a compounding effect: the inability to buy in bulk inhibits the ability to time purchases to take advantage of sales, and the inability to accelerate purchase timing to buy on sale inhibits the ability to buy in bulk. We find that the financial losses low income households incur due to underutilization of these strategies can be as large as half of the savings they accrue by purchasing cheaper brands. We provide causal evidence that liquidity constraints inhibit the use of these money-saving strategies.

Growing Up Without Finance

Rawley Heimer – Federal Reserve Bank of Cleveland

James Brown – Iowa State (Finance)

Tony Cookson – University of Colorado-Boulder (Finance)

Abstract: A rapidly growing literature shows that consumers can be inattentive to complex or notfully-salient financial incentives. This literature typically estimates "the average mistake," and uses representative agent models to analyze the economic implications. This paper shows, theoretically and empirically, that accounting for heterogeneity in mistakes is crucial in positive and normative analysis. Focusing on consumer under reaction to not-fully-salient sales taxes, we show theoretically that 1) individual differences in under reaction generate inefficiency in the resulting allocation of the taxed good, 2) the variation of under reaction across the income distribution affects the regressivity of the tax burden, and 3) the variation of under reaction across different tax rates affects the distortions to demand resulting from tax changes. To empirically assess the importance of these issues, we implement an online shopping experiment in which 3000 consumers—matching the U.S. adult population on key demographics—purchase common household products, facing tax rates that vary in size and salience. We find that: 1) there are significant individual differences in under reaction to taxes. Accounting for this heterogeneity increases the efficiency cost of taxation estimates by at least 200%, as compared to estimates generated from a representative agent model. 2) High income earners are less likely to underreact to taxes than low income earners, and thus the financial burden of misoptimization falls disproportionately on the poor. 3) Tripling existing sales tax rates roughly doubles consumers' attention to taxes, which implies that raising taxes increases deadweight loss through an additional "debiasing channel." Our results provide new insights into

the mechanisms and determinants of boundedly rational processing of not-fully-salient incentives, and our general approach provides a framework for robust behavioral welfare analysis in other domains.

## **Biographies:**

Janneke Ratcliffe serves as Assistant Director for Financial Education in the Consumer Financial Protection Bureau. Prior to joining the Bureau in September of 2014, Ms. Ratcliffe served as Executive Director at the Center for Community Capital, at the University of North Carolina at Chapel Hill. In this role, Ms. Ratcliffe led a group of researchers in examining how people and communities utilize financial services. She was also a Senior Fellow at the Center for American Progress. Before serving at UNC, Ms. Ratcliffe spent seven years working at Self-Help Ventures Fund, one of the leading community development institutions in the United States, and prior to that, ten years at GE Capital in mortgage and mortgage insurance. Ms. Ratcliffe graduated from the University of North Carolina at Chapel Hill with a B.S. in economics and French.

Mike Palazzolo is a quantitative marketing researcher and earned his PhD from the University of Michigan's Ross School of Business. His research primarily revolves around the intertemporal trade-offs consumers make, and includes work on both consumer search (where an increase in short-term effort can improve long-term utility) and purchase timing (where strategic timing can produce long-term savings). Prior to getting his PhD, Mike earned his B.S. in Management Science from UC San Diego, spent four years working in Minor League Baseball, and earned his MBA from the UC Davis Graduate School of Management. He will be returning to the UC Davis GSM in the Fall of 2016 as an Assistant Professor of Marketing.

Rawley Heimer conducts research at the intersection of public economics and behavioral economics, using a combination of theory and experiments. Heimer studies topics such as people's (in)attention to and (mis)understanding of tax incentives, energy policy for consumers inattentive to the energy costs of durables, and policies aimed at reducing underinvestment in health.

10:45 – 11:00 AM **Beverage Break** (Xanadu Ballroom Lobby)

11:00 – 12:15 AM Session 3: Psychological Effects of Constraint and Relaxation of Constraint

Discussant: Gal Zauberman – Yale University (Marketing)

Rumination and Decision Making Among the Poor **Keith Wilcox** – Columbia University (Marketing) Gita Johar – Columbia University (Marketing) Rachel Meng – Columbia University (Marketing)

Abstract: The poor often make suboptimal financial decisions, such as overborrowing or taking on harmful loans. Research on the psychology of scarcity finds that the poor's myopic tendencies may stem from cognitive impairment imposed by the condition of poverty itself. The current work examines one source of this impairment—financial rumination—and tests the effectiveness of

different strategies for reducing ruminative thinking to improve economic decisions. Evidence from three studies suggest that the poor ruminate more on their financial concerns than the nonpoor, leading to increased present bias and a greater willingness to incur harmful debt. By inducing distraction or increasing perceived social support, the poor ruminate less in the moment, thereby becoming less myopic in their financial decisions.

The Liquid Hand-to-Mouth: Evidence from Personal Finance Management Software

Michaela Pagel – Columbia University (Finance) Arna Vardardottir – Copenhagen Business School (Economics)

Abstract: We use a very accurate panel of all individual spending, income, balances, and credit limits from a financial aggregation app and document significant payday responses of spending to the arrival of both regular and irregular income. These payday responses are clean, robust, and homogeneous for all income and spending categories throughout the income distribution. Spending responses to income are typically explained by households' capital structures: households that hold little or no liquid wealth have to consume hand-tomouth. However, we find that few individuals hold little or no liquidity and also document that liquidity holdings are much larger than predicted by state-of-the-art models explaining spending responses with liquidity constraints due to illiquid savings. Given that present liquidity constraints do not bind, we analyze whether individuals hold cash cushions to cope with future liquidity constraints. To that end, we analyze cash holding responses to income payments inspired by the corporate finance literature. However, we find that individuals' cash responses are consistent with standard models without illiquid savings and neither present nor future liquidity constraints being frequently binding. Because these models are inconsistent with payday responses, we feel that the evidence suggests the existence of households that spend heuristically and call those the "liquid hand-to-mouth."

#### **Biographies:**

Gal Zauberman is a Professor of Marketing at Yale University. He was previously the Laura and John J. Pomerantz Professor of Marketing and Professor of Psychology at The University of Pennsylvania's Wharton School. His academic background includes a B.A. with Highest Honors in Psychology and Economics from The University of North Carolina, Chapel-Hill, and a PhD in Marketing from Duke University. Professor Zauberman studies consumer behavior, time in judgment and decision making, financial decision making, and enjoyment and memory of experiences. He won numerous awards, including the William O'Dell and the Paul Green best paper awards, and the 2007 Early Career Award for Distinguished Contributions to Consumer Psychology, Society for Consumer Psychology. His research has been published in academic journals including the Journal of Consumer Research, Journal of Experimental Psychology: General, the Journal of Marketing Research, Management Science, and Psychological Science, and received international media coverage, including the New York Times, Scientific American, and others.

**Keith Wilcox** is the Barbara and Meyer Feldberg Associate Professor of Business in the marketing department at the Columbia Business School. His research examines the factors that influence consumer judgment and decision-making, with a specific focus on the role of feelings in decision-making and self-control. His other work examines the factors that motivate consumers to purchase counterfeit and genuine luxury brands. He has published articles in the *Journal of Marketing Research*, the *Journal of Consumer Research*, the *Journal of Marketing* and the *Journal of Personality and Social Psychology*.

His research has been featured in the *New York Times*, *Time Magazine*, NPR and *Psychology Today*. Keith teaches the core marketing course in the full-time MBA and executive MBA programs at the Columbia Business School. He also teaching an elective immersion seminar on luxury branding in the Columbia Business School full-time MBA program. Prior to joining Columbia Keith was at Babson College where he taught marketing strategy and consumer behavior to MBAs and undergraduates. Before entering academia, Keith spent several years as an advertising account executive in New York City. He also spent several years as a business and marketing consultant writing business plans and marketing plans for start-ups and multinational corporations.

Michaela Pagel is an Assistant Professor at Columbia Business School. She received her Ph.D. from the Economics Department at UC Berkeley and works on topics in behavioral economics and household finance. Her existing work focuses on the consumption and investment implications of non-standard preferences. More specifically, she analyzes how decision-making is affected by people's beliefs about their consumption. She tests the implications of these preferences in consumption and wealth data as well as experimentally in the laboratory. She is also interested in the asset-pricing implications of non-standard preferences and behavioral biases. Since recently, she also works with data from a financial aggregation app. She analyzes individual spending in response to income payments and whether liquidity constraints are a reasonable explanation for spending that is excessively sensitive to income. Additionally, she analyzes within-household bargaining and how an increase in female bargaining power translates into household capital structure.

12:20 – 1:45 PM **Lunch Break** – The Mediterranean Restaurant, 1002 Walnut Street (Conference registrants only, please)

2:00 – 3:15 AM Session 4: Fringe Borrowings & High Cost Alternatives by the Banking Sector

Discussant: Alex Horowitz- Pew Charitable Trusts

Tough Times Borrowing: Effects of Fringe Lending Regulation on Credit Standing, Search and Access

Roman Galperin – Johns Hopkins University (Management) Kaili Mauricio – Federal Reserve Bank of Boston

Abstract: Poor access to credit has long been theorized to contribute to poverty and economic inequality. However, costly fringe credit products like payday loans may be even more harmful. Critics call for strict regulation of such products, while the empirical evidence on the effects of fringe borrowing is mixed. We use data from a credit bureau on a national sample of individuals in the U.S. military households to assess how a federal regulation of fringe lending (the Military Lending Act, or MLA) affected credit standing, search, and access for likely fringe borrowers. Using variation across states in access to fringe loans prior to the MLA, we estimate difference-in-differences models and find no significant long-term effect of the law on military borrowers' credit standing. However, credit access, measured as cumulative limit on credit cards, increased by 17 to 25% while search for new credit intensified during spells of severe credit constraint after the MLA. Our results indicate substitution of fringe products with mainstream credit and reconcile some of the

contradictory prior findings, by suggesting a strategic but myopic borrower, whose set of salient credit sources can be altered by regulation.

Does Sustained use of Overdraft and Deposit Advance Lead to Spiraling Fees?

**Sergei Koulayev** – CFPB Charles Romeo – CFPB

Abstract: The availability of high-cost short-term lending products remains a controversial issue among policymakers, industry and consumer groups. By and large, there are two sides to the debate. One argues that consumer use of high cost credit is driven by liquidity shocks, and therefore such products improve welfare by helping consumers overcome temporary obstacles. The other side of the debate focuses on inherent consumer qualities, such as inattention, self-control problems, poor budgeting as reasons behind repeated use of high-cost credit. The outcome of the debate matters for the right policy choice: should we restrict access to "save" consumers from themselves, or should we focus on reducing the cost of high-cost credit while keeping it available? In this paper, we examine this question in the context of high-cost short-term products offered by the banking sector: overdraft and deposit advance products (DAP). We use transaction level data from a random sample of over 100,000 checking accounts from a single large bank, spanning 18 months. We find that sustained use of overdraft and DAP does not lead to spiraling fees. Instead, the association between sustained use in the past and higher fees today found in overdraft is a result of selection rather than a causal effect. In other words, spiraling overdraft fees are a result of idiosyncratic differences among consumers, rather than product attributes such as high cost. Regarding DAP, we do not find evidence that it leads to either spiraling fees or higher charge-off rates; we conclude that the regulator scrutiny of this product was unwarranted.

#### **Biographies:**

Alex Horowitz is the senior research officer for The Pew Charitable Trusts' small-dollar loans project, which studies the needs, experiences, and motivations of borrowers of payday, auto title, and other small-dollar loan products. Horowitz manages a series of surveys, experiments, and analyses designed to identify which features of small-credit products work well and which work poorly and to examine the impact of market practices and potential regulations. The studies have been featured in hundreds of media stories and are cited frequently by federal, state, and local policymakers. Before joining Pew, Horowitz conducted strategic opinion research at Hart Research, a polling firm, for clients that included Fortune 500 companies, media outlets, and national nonprofit organizations. He previously worked in media relations, baseball information, and communications for the Florida Marlins and Cincinnati Reds. Horowitz holds a bachelor's degree in sociology from Harvard University.

Roman Galperin, PhD (MIT Sloan School of Management) is an Assistant Professor of Management at Johns Hopkins Carey Business School and a Visiting Scholar at the Federal Reserve Bank of Boston. Professor Galperin's research focuses on markets with information asymmetries and the role of the state. He studies this topic in the empirical contexts of medical services, accounting services, and consumer credit markets. Professor Galperin's current research spans a wide range of empirical questions and settings—from effects of fringe credit regulation on financial health of borrowers in the U.S. military, to effects of occupational licensing on career and entrepreneurship decisions of tax preparers. Prior to joining the faculty at Johns Hopkins, professor

Galperin was an NSF-ASA Postdoctoral Fellow at Cornell University and an Edward J. Safra Network Fellow at Harvard University.

**Sergei Koulayev** is an economist at Consumer Financial Protection Bureau. He received his PhD in economics from Columbia University in 2010. His policy interests include: mortgage markets, remittances. Academic areas are: industrial organization, consumer search, and consumer finance in general.

3:15 – 3:30 PM **Beverage/Snack Break** (Xanadu Ballroom Lobby)

3:30-4:45 PM Session 5: Improving Credit Card Repayments

Discussant: Stefan Hunt-Financial Conduct Authority, U.K.

The Influence of Goal Setting on Credit Card Payment Decisions **Daniel Bartels** – University of Chicago (Marketing)

Abigail Sussman – University of Chicago (Marketing)

Abstract: Anchors and reference points differ in important ways. Most notably, reference points serve as targets, with motivational properties, whereas anchors act as neutral starting points for subsequent judgments. People will exert extra effort to meet or exceed a reference point, aiming to shift from a value below the reference point to one above it. In contrast, although people will shift their judgment in the direction of the anchor, they are unlikely to move their judgment from one side of the anchor to the other. This distinction can lead to meaningful differences in interpretation and generalization of results. Nonetheless, academics often use these terms interchangeably. One area where these differences may be particularly critical is in the domain of personal finance and specifically, choices of credit card payment amounts in response to values appearing on credit card statements. For example, research in psychology has shown that presenting minimum payments on credit card statements can actually reduce the amount people pay toward their bill (e.g., Stewart, 2009). These studies have either been agnostic about whether these minimum values serve as anchors or as reference points or have described them as anchors. Through several experiments and examination of a large credit card data set, we investigate this difference and find that values on credit card statements can serve as motivating target values that can be effective at increasing monthly payments when constructed wisely. Furthermore, we find that credit card users are able to select effective goals for themselves. We use this as a case study for an exploration of the distinction between anchors and reference points.

The Effects of Interest Rate Changes and Add-On Fee Regulation on Consumer Behavior in the U.S. Credit Card Market

Alexi Alexandrov – CFPB

Ozlem Bedre-Defolie – ESMT (Economics)

Daniel Grodzicki – Penn State University (Economics)

Abstract: We estimate the effects of changes in interest rate and late payment fee on consumers' credit card purchase activity, balances, and propensity to pay late. We find that consumers are responsive to interest rates as well as to the late payment fee in all three dimensions of usage. Our estimates show that a policy lowering late payment fees (keeping everything else equal) decreases issuers' revenue by significantly less than previously believed: although lowering fees directly reduces revenue from late payments, it also increases consumers' demand for purchases and balances. We then show that a hypothetical one percentage point rise in the federal funds rate lowers credit card balances by about 9 percent while keeping purchasing behavior virtually unchanged.

#### **Biographies:**

Stefan Hunt is the Head of Behavioural Economics and Data Science, a unit he founded, at the UK's Financial Conduct Authority. The team supports the policy, competition, supervisory and enforcement functions and is responsible for the FCA's pioneering behavioural work. Stefan has a PhD from Harvard University and a master's from London School of Economics, both in economics, and bachelor's from Cambridge University in mathematics and experimental psychology. He was previously a strategy consultant for retail financial services in the UK and throughout Asia. He has co-authored numerous publications, including a framework for applying behavioural insights, the results of randomised controlled trials to test policy, and cutting-edge econometric analysis of large data sets. He recently designed and implemented price regulation for payday loans, the first time a usury law has been set through rigorous empirical assessment.

**Daniel Bartels** is an Assistant Professor who teaches Consumer Behavior at the University of Chicago Booth School Of Business. Prior to Chicago, he taught Behavioral Economics and Decision Making at Columbia Business School, completed his post-doctoral training at the Booth School of Business, and earned a Ph.D. in Cognitive Psychology from Northwestern University. His interests include judgment and decision-making, consumer behavior, moral psychology, and the psychology of concepts and categories. Bartels' work has been published in *Cognition*, *Journal of Experimental Psychology: General, Psychological Science*, and the *Journal of Consumer Research*.

Alexi Alexandrov is a Senior Economist at the U.S. Consumer Financial Protection Bureau. Alexei works primarily on rulemakings, and occasionally on white papers and reports to Congress, focusing on the residential mortgage market and other consumer financial markets. Alexei's research is in the areas of consumer finance, industrial organization, antitrust law, marketing, and strategy, with publications in *Management Science*, *Marketing Science*, and various industrial organization and antitrust law journals. Alexei's current research is primarily in residential mortgages, credit cards, and student loans. Prior to the Consumer Financial Protection Bureau, Alexei was an Assistant Professor of Economics and Management at the University of Rochester's business school, where he won numerous MBA teaching awards. Alexei earned his Ph.D. in 2007 from Northwestern University's Kellogg School of Management in Managerial Economics and Strategy.

5:00 – 7:00 PM **Reception** – St. Julien Outdoor Terrace (Weather Permitting) Partners and Spouses welcome

## Tuesday, May 24th

7:00 – 8:00 AM Continental Breakfast

Xanadu Ballroom Lobby (Conference Registrants only, please)

8:00 – 9:15 AM Session 6: Financial Know-How and Financial Capability

Discussant: Billy Hensley – National Endowment for Financial Literacy

Toward a Framework of Understanding Financial Fragility: Conceptualizing and Documenting the Relationships Between Psychological Factors and Emergency Reserves

Stephen Spiller – UCLA (Marketing)
Daniel Bartels – UCLA (Marketing)
Jonathan Westfall – Delta State University (Psychology)

Abstract: One in four Americans have no emergency savings, and half cannot come up with \$2,000 within 30 days if an emergency arose. Why are so many people dangerously unprepared for a personal financial emergency? Here, we examine the challenges of building emergency savings, including: considering the need to save for an unexpected expense, assessing the likelihood of such an expense, caring out one's future well-being, having enough income to build a buffer, and having the resolve to implement the plan. We examine psychological correlates of financial fragility in multi-wave study including a survey of cash-flow factors, emergency savings, and relevant psychological constructs, risk-taking tasks, and budgeting games assessing the benefits of foresight into future shocks. People's financial knowledge, caring about their future selves, and impulsivity predict access to emergency reserves, as does deliberation time for consumption decisions after experiencing a negative shock.

The ABCs of Financial Education: Experimental Evidence on Attitudes, Behavior, and Cognitive Biases **Bilal Zia** – World Bank

Shawn Cole – Harvard University (Finance)

Fenella Carpena – UC Berkeley (Economics)

Jeremy Shapiro – Princeton University (Economics)

Abstract: This paper uses a large-scale field experiment in India to study attitudinal, behavioral, and cognitive constraints that stymie the link between financial education and financial outcomes. The study complements financial education with (i) participant motivation through pay for performance on a knowledge test, (ii) behavioral nudges through financial goal setting, and (iii) intensity of treatment through personalized financial counseling. The analysis finds no impact of pay for performance but significant effects of both goal-setting and counseling on real financial outcomes. These results identify important complements to financial education that can bridge the gap between financial knowledge and behavior change.

#### **Biographies:**

**Billy Hensley** is the Senior Director of Education for the National Endowment for Financial Education® (NEFE) where he directs the grant-making, research, college, web and consumer

education programs for the foundation. His primary research interests are financial education, teacher professional development and assessment, the sociocultural influences on behavioral choices, and curriculum design. Prior to joining NEFE, he was a Research Fellow at the University of Cincinnati, and has held positions at KnowledgeWorks Foundation, the Ohio College Access Network, and Union College. Hensley is the recipient of the Rising Star Alumni Award from Union College, where he earned a BS and MA, received the Outstanding Doctoral Student of the Year Award in Educational Studies from the University of Cincinnati where he earned a PhD, and has published in several educational research journals. In addition to his work at NEFE, Billy is on the adjunct faculty with the College of Education and Human Development at the University of Louisville and served on the national evaluation advisory board for After-School All-Stars.

**Stephen Spiller** is an Assistant Professor of Marketing at the UCLA Anderson School of Management. His research focuses on how consumers represent their decisions. This includes understanding how and how much consumers plan for the future, how consumers incorporate those future plans into their current decisions, and what alternatives outside the salient decision environment consumers spontaneously incorporate into their decision processes. Spiller received his PhD in business administration in 2011 from Duke University's Fuqua School of Business and his BA in psychology and economics in 2006 from the University of Virginia. His research has been published in *Journal of Consumer Research*, *Journal of Marketing Research*, and *Psychological Science*.

Bilal Zia is a Senior Economist in the Finance and Private Sector Development Team of the Development Research Group at the World Bank in Washington DC. I joined in July 2006 after completing a Ph.D. in Economics from the Massachusetts Institute of Technology. Zia's research is focused on financial development at the household, firm and bank levels, and her work has appeared in top academic journals such as the Journal of Finance, Journal of Financial Economics, American Economic Journal: Applied Economics, and Journal of Development Economics. Zia uses both experimental and non-experimental methods and some of her recent work includes rigorous impact evaluations of financial education programs, testing innovative methods to improve financial access for households and firms, and applying insights from behavioral economics to development finance.

9:15 – 9:30 AM **Beverage Break** (Xanadu Ballroom Lobby)

9:30 – 10:45 AM Session 7: It's a Family Affair: Family Influences on Financial Behavior

Discussant: Joanne Hsu – Federal Reserve Board

On a Need-to-Know Basis: Divergent Trajectories of Financial Expertise in Couples and Effects on Independent Search and Decision Making **Adrian Ward** – University of Texas-Austin John Lynch – University of Colorado-Boulder

Abstract: Consumers, on average, possess low levels of financial literacy, and financial education interventions aimed at repairing these deficits produce miniscule results (Fernandes, Lynch, and Netemeyer, 2014). In contrast to prior work that overwhelmingly studies financial literacy and

financial behaviors of individuals, we offer a new perspective on these problems by examining individual-level financial literacy in the context of long-term dyadic relationships. Specifically, we propose that many apparent deficits in literacy and learning may be caused by a cognitively efficient distribution of responsibility for knowledge and decision-making in different domains between relationship partners. We provide evidence that new relationship partners adopt specialized domains of responsibility quickly and intuitively, often without regard for individual differences in ability (pilot, study 1); as a consequence, relationship partners with more financial knowledge often do not receive more financial responsibility (studies 3, 5, 6). However, with longer relationships, partners initially assigned more or less responsibility for financial matters increasingly diverge in their financial literacy. The more responsible "specialist" partners gain financial literacy with relationship length; the less responsible "non-specialists" actually decline (studies 3, 5, 6). This ever-growing gap in financial literacy is generally unrecognized by consumers (studies 2, 4), despite being linked to corresponding differences in both financial decision-making (studies 5, 6) and financial information search (study 6). These studies suggest that offloading responsibility to a partner may eliminate the "need to know" in the present, while simultaneously creating barriers to developing expertise if and when it is needed in the future.

> Intergenerational Linkages in Household Credit **Andra Ghent** – University of Wisconsin-Madison (Economics) Marianna Kudlyak – Federal Reserve Bank of Richmond

Abstract: We document economically important correlations between children's future credit outcomes and their parents' credit risk scores, default, and the extent of credit constraints — intergenerational linkages in household credit. Using observations on siblings, we find that there is no correlation between parental and child credit attributes after controlling for household fixed effects suggesting that transitory shocks to parental credit conditions do not differentially affect children. The linkages are stronger in cities with lower intergenerational income mobility, implying that common factors drive both. Finally, existing measures of state-level educational policy interventions appear to have limited effects on the strength of intergenerational linkages.

#### **Biographies:**

Joanne Hsu is a Senior Economist in the Division of Research and Statistics at the Federal Reserve Board of Governors. Her research focuses on household financial decision making, with projects on how government policies influence household experiences with debt, and financial sophistication and financial decision making within the family. At the Board, she is part of the team responsible for administering and disseminating the Survey of Consumer Finances. She completed her PhD in economics at the University of Michigan and her AB in economics and international relations from Brown University. She was also a member of the research team of the Cognitive Economics Project, a multidisciplinary study of older Americans that investigates how cognitive and subjective factors relate to decisions preparing for and sustaining well-being in retirement.

Adrian Ward is an assistant professor in the marketing department of the McCombs School of Business, the University of Texas at Austin. Prior to joining UT, he spent two years as a senior research associate (post-doc) in the Center for Research on Consumer Financial Decision Making at the University of Colorado, Boulder. He received his PhD in psychology from Harvard University. Professor Ward's work explores attention, knowledge, and decision-making "in context." His

doctoral dissertation on becoming "One with the 'Cloud" examines the causes and consequences of offloading responsibility for memory to the Internet, and his work with the CRCFDM focuses on the implications of offloading responsibility for financial expertise to long-term relationship partners "On a Need-to-Know Basis." Additional published and ongoing research explores moral perception and decision-making ("Paying it Forward"), consumer interactions with new technologies, and consumer financial decision-making. His research has been published in journals including Psychological Science, Journal of Experimental Psychology: General, and Psychological Inquiry, and covered by popular press outlets including The New York Times, New Statesman, Scientific American, The Huffington Post, and Education Week. He writes for Scientific American in his (increasingly rare) spare time, and penned the magazine's most read story of 2012.

Andra Ghent is the Lorin and Marjorie Tiefenthaler Professor of Real Estate in the Department of Real Estate and Urban Land Economics at the University of Wisconsin - Madison. Her current research interests are real estate finance, consumer finance, and financial intermediation. Her research has been published in journals such as the Journal of Urban Economics, Management Science, Real Estate Economics, and the Review of Financial Studies. Her research has been cited in US congressional testimony and by several media outlets such as The New York Times, The Wall Street Journal, The Washington Post, Forbes, and Bloomberg. Prior to her position at the University of Wisconsin, Professor Ghent held positions with ASU, Baruch College, JPMorgan, the Federal Reserve Board of Governors, and the Bank of Canada. She holds a Ph.D. from the University of California, San Diego, an M.A. from the University of Toronto, and a B.A. (Honors) from the University of British Columbia.

10:45 – 11:00 AM **Beverage Break** (Xanadu Ballroom Lobby)

11:00 – 12:15 AM Session 8: Nudging to Improve Retirement Outcomes

Discussant: **Susan Thorp** – University of Sydney (Finance)

Checklists as Selective Choice Architecture

Melissa Knoll – CFPB

Kirstin Appelt – UBC (Marketing)

Eric Johnson – Columbia University (Marketing); CFPB

Jonathan Westfall – Delta State University (Psychology)

Abstract: We introduce a new choice architecture tool, preference checklists, which are both effective and selective—they help decision-makers with an important decision and provide greater customization than typical nudges. Preference checklists are lists of choice-relevant items decision-makers might want to consider, but often do not. Because items are clustered into lists supporting one choice option or another, query theory suggests that presentation order will affect consumers' choices. In three studies, we explore the efficacy of preference checklists through their impact on older Americans' preferred Social Security retirement benefit claiming age. Most Americans should claim benefits later to avoid a financial mistake that reduces their monthly and lifetime benefits. However, optimal claiming age depends upon many factors, especially expected longevity. Thus, interventions should act selectively: delaying claiming age only for those who should delay. Study 1 finds that checklists work; later-first checklists (i.e., checklists presenting reasons to claim benefits later before reasons to claim early) significantly delay preferred claiming age. Study 2 investigates the process mechanism: changing the order of checklist items changes their accessibility and, when the

pro-later list appears first, this encourages delayed claiming. Study 3 compares checklists to a default at the latest claiming age. Using a standard set of questions, we estimate longevity to, in turn, estimate optimal claiming age. The later-first checklist significantly delays claiming relative to the control and default conditions. Additionally, the default nudges all participants, whereas the later-first checklist shows selectivity by reducing the average claiming "error".

Who is Easier to Nudge

John Beshears – Harvard University (Management)

James Choi – Yale University (Finance)

David Laibson – Harvard University (Economics)

Brigitte Madrian – Harvard University (Public Policy)

Sean Yixiang Wang – NBER

Abstract: We study heterogeneity in responsiveness to choice architecture, focusing on the propensity of low-income versus high-income employees to opt out of the default contribution rate in 401(k) retirement savings plans. We develop a statistical model to distinguish between two underlying sources of heterogeneity: low-income employees may be more likely to remain at the default because (i) it is similar to the target contribution rates that they would have selected for themselves anyway or (ii) they are simply slower to opt out of the default, controlling for the target contribution rates that they would select upon opting out. Applying the model to compare below-median-income and above-median-income employees at ten large companies, we estimate that the second source of heterogeneity accounts for two-thirds of the 10 percentage point difference in the probability of remaining at the default after two years of tenure, conditional on having a non-default target contribution rate. We also study two firms that changed the default, and we find that low-income employees are more likely to respond to the change in the default by switching their target contribution rates to correspond with the new default.

#### **Biographies:**

Susan Thorp is a Professor of Finance at the University of Sydney. Her research focuses on household finance, especially consumer financial decision making and pensions. Professor Thorp has published over thirty articles in leading finance and economics journals. She is a founding Director of the Superannuation Consumers' Centre, a non-profit research and advocacy body aiming to improve retirement outcomes for Australian consumers, and a member of the Steering Committee of the Melbourne Mercer Global Pensions Index, an annually compiled internationally recognised index of pension system quality. She is also a regular contributor to pension policy discussions and is a member of the OECD/INFE Research Committee. Professor Thorp gained her BEc (Hons) from the University of Sydney, and her PhD from the University of New South Wales.

Melissa Knoll is a Research Psychologist in the Consumer Financial Protection Bureau's Office of Research. Dr. Knoll studies consumer decision-making, household financial behavior, determinants of financial well-being, and markets for consumer financial products and services. Her research supports policy development, regulations, and consumer education and engagement. Prior to working at the CFPB, Dr. Knoll was a Social Science Research Analyst in the Social Security Administration's Office of Retirement Policy, where she conducted research on the behavioral and psychological aspects of retirement-related decisions. Dr. Knoll received her B.A. in Spanish and Psychology from Rutgers, The State University of New Jersey, and her M.A. and Ph.D. in

Quantitative Psychology and Judgment and Decision-Making from The Ohio State University. She has been with the CFPB since 2013.

John Beshears is an assistant professor of business administration in the Negotiation, Organizations & Markets Unit at Harvard Business School. He is also a faculty research fellow at the National Bureau of Economic Research. Before joining HBS, he was an assistant professor of finance at the Stanford Graduate School of Business. Professor Beshears's primary research area is behavioral economics, the field that combines insights from psychology and economics to explore individual decision-making and market outcomes. He focuses on understanding how the financial decisions of households and firms are influenced by the institutional environment in which choices are made. In recent work, he has studied enrollment and portfolio decisions in retirement savings plans, health-care choices, and the performance of corporate alliances among oil and gas firms. The National Institutes of Health, Social Security Administration, FINRA Investor Education Foundation, Russell Sage Foundation, TIAA Institute, and National Science Foundation have supported Professor Beshears's research. His work has been published in journals including the Journal of Finance, Journal of Financial Economics, Journal of Public Economics, Journal of Economic Behavior & Organization, and Journal of Health Economics; it has also been featured in The Economist, The Wall Street Journal, Business Week, and Time. After earning his Ph.D. in business economics at HBS, Professor Beshears was a postdoctoral fellow at the National Bureau of Economic Research. He received an AB in economics from Harvard University.

12:20 – 1:45 PM **Lunch Break** – The Mediterranean Restaurant, 1002 Walnut Street (Conference registrants only, please)

2:00 – 3:15 PM Session 9: Causes and Consequences of Consumer Susceptibility to Financial Dishonesty

Discussant: **Leslie John** – Harvard Business School (Negotiations, Organizations, and Markets

Scam to Decline or Decline to Be Scammed: A Model of Elder Fraud **Terrance Odean** – UC Berkeley (Finance) Simon Gervais – Duke University (Finance)

Abstract: Cognitive decline together with accumulated wealth make seniors increasingly vulnerable to financial fraud as well as to self-inflicted financial mistakes. Over 50% of Americans in their 80s and over 75% of those in their 90s, suffer from dementia or cognitive decline. People over 65 are more likely to be targeted by scams and more likely to lose money if targeted. Annual financial losses from financial exploitation of older Americans is estimated at \$2.9 billion. Fraud is growing. Fraud complaints filed with the FTC Consumer Sentinal Network—including non-financial fraud and victims of all ages—more than doubled between 2007 and 2012. We create a model populated by consumers and sellers of financial products. Some financial products are legitimate, but not suitable for all consumers; some are outright scams. Consumers with good cognitive function are able to identify suitable products. Consumers suffering from cognitive decline are unable to do so and may choose inappropriate products or fall for scams. When faced with an offer for a financial product, consumers can choose whether or not to purchase it and how much of it to buy. Prior to this, namely before they know whether they will suffer from cognitive decline, consumers can

protect themselves against bad decisions by purchasing insurance that constrains their subsequent choices (e.g., buying an income annuity). Sellers of financial products choose whether or not to pay a cost to enter the market. Their ability to reach consumers depends upon the effectiveness of current search technology (e.g., online phishing) and upon how many other sellers are competing. Sellers of financial products collect a fee for the sales they make. This fee can be thought of as a low-margin commission for legitimate products and as pure theft for scams. In equilibrium, more consumers insure against cognitive decline when the cost of doing so is low, risk aversion is high, the probability of cognitive decline is high, the probability of being offered a suitable product is low, the search costs of sellers are low, and many sellers enter the market. More sellers enter the market when search costs are low, profit margins are high, the probability of cognitive decline is high, consumer risk aversion is low and insurance costs are high. When a higher fraction of consumers insure, fewer sellers enter the market. Thus when the probability of being offered an unsuitable product is high, a consumer who insures provides a positive externality to other consumers. Since consumers ignore this externality in their individual decisions, in equilibrium they purchase less than the socially optimal amount of insurance.

Out of Sight, Out of Mind: Consumer Reactions to News on Data Breaches and Identity Theft

Vyacheslav Mikhed – Federal Reserve Bank of Philadelphia

Michael Vogan – Moody's Analytics

Abstract: We use the 2012 South Carolina Department of Revenue data breach as a natural experiment to study how data breaches and news coverage about them affect consumers' take-up of fraud protections. We find that consumers directly affected by the breach acquired fraud protections immediately after the breach. The response of consumers exposed to the news about the breach only, was negligible. Among consumers directly affected by the data breach, the incremental effect of news was small. We conclude that in the absence of their direct exposure, consumers did not revise their beliefs about future expected losses associated with data breaches.

#### **Biographies:**

Leslie John is an assistant professor of business administration in the Negotiations, Organizations, and Markets unit. She has a Ph.D. in behavioral decision research from Carnegie Mellon University. Her research centers around the seemingly paradoxical and sometimes self-destructive decisions that people make, especially as they pertain to two critically important domains: online consumer privacy and health. To explore these topics, she uses laboratory and field-based methods in a complementary and iterative fashion: field experiments (in collaboration with companies) document important real-world phenomena, and laboratory experiments nail down the psychological processes underlying these phenomena. Her work has been published in academic journals including the Proceedings of the National Academy of Sciences, Psychological Science, Journal of Marketing Research and The Journal of the American Medical Association. It has also received media attention from outlets such as The New York Times, Financial Times, The Wall Street Journal, and Time magazine.

**Terrance Odean** is the Rudd Family Foundation Professor and Chair of the Finance Group at the Haas School of Business at the University of California, Berkeley. He is a member of the *Journal of Investment Consulting* editorial advisory board, of the Russell Sage Behavioral Economics Roundtable, of the WU Gutmann Center Academic Advisory Board at the Vienna University of Economics and

Business and is a *Wall Street Journal* Expert Panelist. He has been an editor and an associate editor of the *Review of Financial Studies*, an associate editor of the *Journal of Finance*, a co-editor of a special issue of *Management Science*, an associate editor at the *Journal of Behavioral* Finance, a director of UC Berkeley's Experimental Social Science Laboratory, a member of the Russell Investments Academic Advisory Board, a visiting professor at the University of Stavanger, Norway, and the Willis H. Booth Professor of Finance and Banking. As an undergraduate at Berkeley, Odean studied Judgment and Decision Making with the 2002 Nobel Laureate in Economics, Daniel Kahneman. This led to his current research focus on how psychologically motivated decisions affect investor welfare and securities prices.

**Vyacheslav Mikhed** is a Senior Industry Specialist at the Payment Cards Center of the Federal Reserve Bank of Philadelphia, which he joined in July 2013. Slava's research interests lie in the areas of household finance, consumer credit, personal bankruptcy, mortgage foreclosure, and real estate economics. His current research explores the impacts on personal bankruptcy of income shocks, income inequality, and ease of access to the bankruptcy system. He is also examining the effect of identity theft and data breaches on consumer behavior. His previous work, exploring US house price bubbles, has been published in the Journal of Housing Economics and the Journal of Real Estate Finance and Economics.

3:15 – 3:30PM **Beverage/Snack Break** (Xanadu Ballroom Lobby)

3:30 – 4:45PM Session 10: Information Salience and Financial Decisions

Discussant: **Milica Mormann** – University of Miami (Finance and Marketing)

Attention Variation and Welfare: Theory and Evidence from a Tax Salience Experiment

**Dmitry Taubinsky –** University of California-Berkeley (Economics) Alex Rees-Jones – Wharton (Operations Research)

Abstract: A rapidly growing literature shows that consumers can be inattentive to complex or notfully-salient

financial incentives. This literature typically estimates "the average mistake," and uses representative agent models to analyze the economic implications. This paper shows, theoretically and empirically, that accounting for heterogeneity in mistakes is crucial in positive and normative analysis. Focusing on consumer underreaction to not-fully-salient sales taxes, we show theoretically that 1) individual differences in underreaction generate inefficiency in the resulting allocation of the taxed good, 2) the variation of underreaction across the income distribution affects the regressivity of the tax burden, and 3) the variation of underreaction across different tax rates affects the distortions to demand resulting from tax changes. To empirically assess the importance of these issues, we implement an online shopping experiment in which 3000 consumers—matching the U.S. adult population on key demographics—purchase common household products, facing tax rates that vary in size and salience. We find that: 1) there are significant individual differences in underreaction to taxes. Accounting for this heterogeneity increases the efficiency cost of taxation estimates by at least 200%, as compared to estimates generated from a representative agent model. 2) High income earners are less likely to underreact to taxes than low income earners, and thus the financial burden of misoptimization falls disproportionately on the poor. 3) Tripling existing sales tax rates roughly

doubles consumers' attention to taxes, which implies that raising taxes increases deadweight loss through an additional "debiasing channel." Our results provide new insights into the mechanisms and determinants of boundedly rational processing of not-fully-salient incentives, and our general approach provides a framework for robust behavioral welfare analysis in other domains.

Does Salient Financial Information Affect Academic Performance and Borrowing Behavior Among College Students?

Carly Urban – Montana State University (Economics)

Maximilian Schmeiser – Federal Reserve Board

Christina Stoddard – Montana State University (Economics)

Abstract: More students than ever borrow to finance post-secondary education. However, students receive little information when choosing student loan amounts. This paper exploits a natural experiment to understand how information can change student behavior. We study a large public university where students above a given debt threshold received letters with information about their student loan debt, while students below the threshold did not. Using a difference-in-difference strategy and administrative data on individual-level academic records and borrowing, the intervention modestly reduced borrowing in the subsequent semester, but increased attention to academics: credits completed and GPAs increased in the subsequent semester.

#### **Biographies:**

Milica Mormann's research interests include judgment and decision making, behavioral economics, and neuroeconomics. She explores how people allocate their attention in today's cluttered environment and how this influences their subsequent decisions. Her latest experimental work examines the role of attention and emotions in financial judgments, and their effects on downstream financial behaviors. Mormann's research employs behavioral experiments, eye-tracking, and facial expression analysis. She teaches courses on judgment and decision making, research methods, and neuroscience for business and economics. She is Assistant Research Professor at the University of Miami School of Business. Previously, Dr. Mormann was Acting Assistant Professor of Marketing at Stanford's Graduate School of Business and has completed a postdoctoral fellowship in Neuroeconomics at Caltech. She holds a Ph.D. in Marketing from FAU, and an MBA from Elon. Dr. Mormann is a content consultant for Miami Science Museum's Brain & Decision Making gallery, which seeks to make key scientific findings from JDM and behavioral economics accessible to the general public.

**Dmitry Taubinsky** conducts research at the intersection of public economics and behavioral economics, using a combination of theory and experiments. Taubinsky studies topics such as people's (in)attention to and (mis)understanding of tax incentives, energy policy for consumers inattentive to the energy costs of durables, and policies aimed at reducing underinvestment in health.

Carly Urban is an Assistant Professor of Economics in the Department of Agricultural Economics and Economics at Montana State University. She holds a Ph.D. in Economics from the University of Wisconsin-Madison and a B.A. in Economics and International Affairs from the George Washington University. Her research focuses on the policy analysis of financial interventions. She has written on the effects of regulatory oversight, mandatory mediation, foreclosure counseling, and moratoria on foreclosures. She also works extensively in financial education, where she studies the effects of financial education in the workplace and in high school on credit behaviors. The FINRA

Investor Education Foundation has funded her research on the heterogeneity in high school personal finance education mandates. In this research, she documents the different types of personal finance and economics requirements in high school across all states over time. Her research has been published in top economics journals including the Economic Journal, the Journal of Human Resources, and the Journal of Economics, Behavior, and Organization. Her research has also appeared in interdisciplinary journals of policy interest, such as the Journal of Consumer Affairs and the American Journal of Political Science. Urban is an affiliate of the Center for Financial Security at the University of Wisconsin-Madison, and has been a Visiting Scholar at the Federal Reserve Board.

4:45 – 5:00PM Closing Remarks

Speaker: **Terry Odean –** University of California-Berkeley (Finance)

#### Biography:

Terry Odean is the Rudd Family Foundation Professor and Chair of the Finance Group at the Haas School of Business at the University of California, Berkeley. He is a member of the *Journal of Investment Consulting* editorial advisory board, of the Russell Sage Behavioral Economics Roundtable, of the WU Gutmann Center Academic Advisory Board at the Vienna University of Economics and Business and is a *Wall Street Journal* Expert Panelist. He has been an editor and an associate editor of the *Review of Financial Studies*, an associate editor of the *Journal of Finance*, a co-editor of a special issue of *Management Science*, an associate editor at the *Journal of Behavioral* Finance, a director of UC Berkeley's Experimental Social Science Laboratory, a member of the Russell Investments Academic Advisory Board, a visiting professor at the University of Stavanger, Norway, and the Willis H. Booth Professor of Finance and Banking. As an undergraduate at Berkeley, Odean studied Judgment and Decision Making with the 2002 Nobel Laureate in Economics, Daniel Kahneman. This led to his current research focus on how psychologically motivated decisions affect investor welfare and securities prices.

## Sunday May 22 Poster Session Biographies (alphabetical)

Hazel Bateman is a Professor of Economics and Head of the School of Risk and Actuarial Studies at the UNSW Australia and an Associate Investigator with the ARC Centre of Excellence in Population Ageing Research (CEPAR). Hazel has research interests in private and public provision for retirement and is the author of over 100 publications on aspects of the economics and finance of public and private pensions. Her current research interests include behavioural retirement finance, financial literacy and financial advice, and the taxation and regulation of pension funds. Hazel has been a consultant on retirement income issues to a range of Australian and international organisations, most recently China's Social Insurance Administration and the Korean Institute for Health and Social Affairs (KIHASA). Prior to joining UNSW Australia, Hazel worked as an economist with the Australian Treasury.

James Ming Chen, an attorney and professor of law with a quarter-century of experience in the law of regulated industries, James Ming Chen holds the Justin Smith Morrill Chair in Law at Michigan State University. His scholarship focuses on economics, finance, and regulatory policy. He is of counsel to the Technology Law Group of Washington, D.C. Professor Chen is an elected member of the American Law Institute and has served since 2010 as a public member of the Administrative Conference of the United States. He edits Palgrave Macmillan's series, *Quantitative Perspectives on Behavioral Economics and Finance*, and is the author of the first two volumes in that series, *Finance and the Behavioral Prospect: Risk, Exuberance, and Abnormal Markets* and *Postmodern Portfolio Theory: Navigating Abnormal Markets and Investor Behavior.* 

Anna Custers is a Doctoral Candidate in Management Research at the Saïd Business School, University of Oxford. The central theme in her work is consumer financial decision making by low-income households. In her PhD research she explores debt management strategies by over-indebted households. She focuses on the behavioral motivations for conflict avoidance in financial management. Her other research projects include experimental studies on (barriers to) seeking debt advice, normative judgments in debt management, and measurement and data quality issues.

Shaun Davies is an Assistant Professor of Finance at the Leeds School of Business, University of Colorado, Boulder. Dr. Davies received both a B.S. in Applied Mathematics and a B.A. in Economics from the University of Colorado, Boulder in 2005, and an M.A. in Economics from the University of California, Los Angeles in 2010, as well as a Ph.D. from Anderson's Graduate School of Management, University of California, Los Angeles in 2013. Dr. Davies is also a CFA charterholder. Dr. Davies's research agenda features applications of contract theory and game theory to early-venture financing and delegated asset management. Recent research examines the financing efficiency of securities-based crowdfunding; in particular, how well can crowdfunding perform relative to other forms of early-venture financing? And more importantly, how can crowdfunding platforms be designed to protect everyday investors?

Benedict Dellaert is a professor of marketing at the Erasmus School of Economics. His focus in research and education is on consumer decision-making and (online) consumer-firm interaction, with applications in financial services, among others. Benedict is currently co-director of the Erasmus Centre for Marketing and Innovation (ECMI), a research theme coordinator at the Network for Studies on Pensions, Aging and Retirement (Netspar), a fellow of the Erasmus Research Institute of Management (ERIM), and a research fellow at the Tinbergen Institute. He is a

visiting professor at the UCL School of Management, London, UK. His former positions include posts at the University of Sydney in Australia, Tilburg University in the Netherlands, and Maastricht University in the Netherlands. He holds a PhD from the Eindhoven University of Technology. His research has appeared in journals such as the Journal of Marketing, Journal of Marketing Research, Marketing Science, and Information Systems Research.

Wiebke Eberhardt is a PhD candidate at the department of Finance, and the department of Marketing and Supply Chain Management at Maastricht University. Besides that, she is a visiting researcher at Leeds University Business School Centre for Decision Research in the U.K, junior research fellow at Network for Studies on Pensions, Aging and Retirement (Netspar), and member of the Marketing-Finance research lab. Her research is in the area of financial services, and focused on the influence of marketing interventions on financial decision-making concerning pensions and retirement. Specifically, she examines the possibilities to adapt pension communication to heterogeneous characteristics and needs of individual pension plan participants. Her research has been presented at various conferences such as the 2015 IBM Frontiers in Services, 2014 ICPM Discussion Forum, and 2014 Research in Behavioural Finance Conference.

**Barbara Fasolo** is Associate Professor of Behavioural Science at the London School of Economics and Political Science (LSE) and Head of the LSE Behavioural Research Lab. She graduated in 2002 from CU-Boulder, after many nice hikes, and experiments on online choice with Prof Gary McClelland. She continues to study tough decisions dominated by conflicting objectives, abundance of choice and uncertainty across a range of domains and decision makers. Her focus is on the effects of different types of choice architectures on decision making processes, and long term outcomes. With Zoe Rahwan she investigates the triggers of (dis)honesty among regulators and regulated in a project that brings us together to Boulder.

**Daniel Fernandes** is an Assistant Professor of Marketing at Católica Lisbon School of Business and Economics, Universidade Católica Portuguesa. In 2013, he obtained a PhD in Marketing at Erasmus University. Daniel's research interest centers on consumers' memory, planning, financial decisions, and goals. In the financial domain, he investigates the role of financial knowledge on financial decision-making and the factors that explain this relationship. Outside of the financial domain, Daniel studies why consumers often forget to buy the products they need to buy and when reminders help consumers to complete their tasks. He was a visiting research scholar at the Leeds School of Business, University of Colorado-Boulder, in 2010, leading to his 2014 paper on effects of financial literacy and financial education on financial behavior.

Jose Fillat is a Senior Financial Economist at the Federal Reserve Bank of Boston. Jose joined the Boston Fed's RPA (Risk and Policy Analysis) on 2008. His research is focused on banking, asset pricing, portfolio choice, and international trade, and has been published in the QJE, RFS, and JIE. On the policy side, Jose has been involved in Basel II. Since 2009 has participated in the Dodd Frank Act Stress Testing in various roles: model validation, model development, and macroeconomic scenario analysis and also led internal training sessions on stress test modeling techniques. Jose is also Adjunct Professor at Boston College's Masters in Applied Economics, where he teaches banking, and serves as a member of the Advisory Board. Jose earned a B.A. and M.Sc. in Economics from Universitat Pompeu Fabra in Barcelona, and he obtained a Ph.D. in Economics from the University of Chicago in 2008.

Daniel Grodzicki is an Assistant Professor in Economics at The Pennsylvania State University. After completing his doctoral work, he spent one year as a Post-Doctoral fellow at the Consumer Financial Protection Bureau. Previously he has held positions at CFPB and the Federal Reserve Board of Governors. His research interests lie on the intersection of Consumer Finance an Industrial organization. He has worked on a range of topics including how credit card lenders offer and price their products to consumers, the importance of social networks for consumer borrowing decisions, and the impact of public insurance programs on household financial decision making. Grodzicki earned undergraduate and graduate degrees in music from the Juilliard School in New York. He holds a BA in Economics from the University of Cambridge (UK) and an MA and PhD in Economics from Stanford University. He lives in State College, Pennsylvania.

**Chuck Howard** holds a BA in International Economics and Finance from Ryerson University, and he is currently pursuing his PhD in the Marketing and Behavioural Science Division at the University of British Columbia. Chuck's research focuses on consumer financial well-being and moral judgment and decision making. When Chuck is not conducting research he can be found cheering on his beloved Toronto Blue Jays.

**John Hsu,** MD, MBA, MSCE is the director of the Program for Clinical Economics and Policy Analysis within the Mongan Institute, Massachusetts General Hospital. He also is an associate professor of medicine and of health policy in the Departments of Medicine and of Health Care Policy, Harvard Medical School. He studies innovations in health care financing and delivery, and their effects on medical quality and efficiency. His current work focuses on the interplay between benefit design and delivery system integration.

Ania Jaroszewicz is a PhD candidate in Behavioral Decision Research at Carnegie Mellon University. She received her BAs in Economics and Psychology from the University of California, Berkeley, and holds a graduate certificate in Statistics from The George Washington University. Before coming to Carnegie Mellon, Jaroszewicz worked for the White House Council on Environmental Quality on energy policy and for the Federal Trade Commission on consumer protection issues. Her research focuses on decision-making in poverty, and in particular, using behavioral insights to inform and improve consumer protection and poverty-alleviation policies. Jaroszewicz is a 2016 recipient of the Paul and Daisy Soros Fellowship for New Americans. She is also an outdoor enthusiast, aspiring cyclist, and avid dancer.

Artashes Karapetyan is currently a junior faculty at BI Norwegian Business School (Dept. of Finance). Karapentyan earned his Ph.D. at the University of Zurich in 2010, and MSc at Universitat Pompeu Fabra in Barcelona in 2006. During his PhD he spent 1,5 years as a visiting scholar at Harvard University. His main areas of research are financial intermediation and household finance, both theoretical and empirical. He works with Norwegian administrative data on individuals' financials, as well as credit registry datasets from Hungary, Portugal and Norway. Karapetyan has published some of his works (Review of Finance-2 papers, JBF), and presented in numerous conferences (NBER, FIRS, WFA, European Finance Association, EEA).

**Joonkyung Kim** is a Ph. D. student at the Rotman School of Management, University of Toronto. She received her Bachelor's and Master's degree in business administration from the Seoul National University. She is interested in financial decision making, advice taking, and art evaluation.

Thomas Langer is a full professor of Finance at the University of Muenster (Germany) since 2004. He studied mathematics and computer sciences at the University of Kiel and received his PhD (1998) as well as his habilitation (2004) in business administration from the University of Mannheim. His habilitation thesis dealt with "Behavioral Aspects of Individual Retirement Savings Decisions". His current research is in the field of experimental and behavioral finance with a strong emphasis on decision-making in the context of retirement provisions. From 2007 to 2010, he was Academic Director of the DIA (German Institute for Retirement Provisions). He was a visiting scholar at Duke's Fuqua School of Business (2000/2001) and at CalTech (2008/2009) and is a coauthor of the textbook "Rational Decision Making".

Meng Li is an Assistant Professor at the Department of Health and Behavioral Sciences, University of Colorado Denver. She utilizes theories and findings from behavioral economics to promote health and wellbeing as well as to impact organizational and societal policy. One theme of her research examines people's preferences on resource allocation, including health resources (scarce vaccines and transplant organs), money (public and private money), and time (in work life balance). Another theme of her research explores nudges to optimal behavior, including compliance to safety guidelines at work, preventative health behavior, and environmental conservatism. She has successfully used default to promote vaccination and healthy eating, the decoy effect to promote hand sanitation among food workers, and price transparency and savings framing to increase the appeal of flu vaccines. Her work had been features in top journals such as JAMA, Psych Science, OBHDP, and Lancet.

Milica Mormann's research interests include judgment and decision making, behavioral economics, and neuroeconomics. She explores how people allocate their attention in today's cluttered environment and how this influences their subsequent decisions. Her latest experimental work examines the role of attention and emotions in financial judgments, and their effects on downstream financial behaviors. Mormann's research employs behavioral experiments, eye-tracking, and facial expression analysis. She is Assistant Research Professor at the University of Miami School of Business. Previously, Dr. Mormann was Acting Assistant Professor of Marketing at Stanford's Graduate School of Business and has completed a postdoctoral fellowship in Neuroeconomics at Caltech. She holds a Ph.D. in Marketing from FAU, and an MBA from Elon. Dr. Mormann is a content consultant for Miami Science Museum's Brain & Decision Making gallery, which seeks to make key scientific findings from JDM and behavioral economics accessible to the general public.

**Sarah Newcomb** is a behavioral economist at Morningstar where she works to integrate behavioral science into financial management applications. Her research explores how aspects of psychology such as time perception, psychological distance, and social identity affect personal financial management. Through speaking, writing, and product development, Sarah works to make insights from academic research accessible to everyone. Dr. Newcomb holds a PhD in behavioral economics, a master's degree in financial economics, and a master's certification in personal financial planning. She is the author of LOADED: Money, Psychology, and how to get ahead without leaving your values behind. (Wiley, 2016). She lives with her daughter in Washington, DC.

**Carlos Parra** is a Ph.D. Candidate in Finance at the University of Texas at Austin, McCombs School of Business. His primary research interests are in corporate finance, household finance, and financial intermediation. Currently he is working on projects related to the effect of consumer bankruptcy on household behavior, the relationship between deposit shocks and credit supply, and

borrower behavior in credit markets. Prior to his doctoral studies, Carlos received a MBA and MS in finance from IESA (Venezuela).

**Zoe Rahwan** is a Research Associate at the London School of Economics and Political Science (LSE). She explores behaviour driven by professional identity, running field experiments with financial institutions and regulators in various countries. Previously, she was the economist of the Dubai Financial Services Authority, where she provided economic and behavioral-economic advice on policy-making, undertook macroeconomic analysis and developed risk management tools. Her prior experience spans central banking, commercial banking, and government. Zoe recently completed a Masters in Science (Executive Behavioural Science) at LSE. Her first degree is a B.Comm (Honours in Economics) from the University of Melbourne.

Alex Rees-Jones is an assistant professor of Operations, Information, and Decisions at the University of Pennsylvania's Wharton School. His recent research has focused on understanding the psychological forces shaping behavioral response to taxes and tax incentives, and how models of these psychological processes might be used to influence policy design. Before joining Wharton, Rees-Jones was a postdoctoral fellow at the National Bureau of Economic Research. He completed his BA and PhD in economics at Cornell University.

Nicholas Reinholtz is an assistant professor of marketing at the University of Colorado Boulder and the Center for Research on Consumer Financial Decision Making, where he was previously a post-doctoral research associate. He has undergraduate degrees from Virginia Tech (mechanical engineering and political science) and a doctoral degree in marketing from Columbia University. Nicholas studies the psychology of judgment and decision making with a focus on consumer and financial contexts. Previous and ongoing work covers topics such as consumer search, customer retention, diversification, mental accounting, memory, and mind wandering. Nicholas's work has been published in the *Journal of Consumer Research* and *Motivation Science*. He has a wife and daughter, loves basketball and coffee, and prefers to use Oxford commas.

Michelle Reyers is a senior lecturer in the Department of Financial Management at the University of Pretoria in South Africa, where she teaches courses focused on investment and portfolio management as well as behavioural finance. She received her PhD in Financial Management Sciences from the University of Pretoria in 2014. Her research focus area is behavioural finance and its relationship to consumer financial decision making, with a specific focus on decisions related to retirement. She has presented her research at a number of conferences and her work has been published in the Journal of Economic Psychology. She is a CFA® Charterholder and, prior to her academic career, she spent 10 years working in the South African banking industry. Her previous academic qualifications, all completed at the University of Pretoria, include an undergraduate degree in Law, an honours degree in Financial Management and a Masters degree in Financial Management Sciences.

Charles Romeo is a Senior Economist at CFPB in the Office of Research. Romeo has been at CFPB for 3 years now and is slowly becoming steeped in consumer finance and behavioral thinking, which is all new to him. He had been in the economics profession for roughly 20 years, having spent time in the Antitrust Division and as a professor at Rutgers University before arriving at his present destination, and he had not being exposed to either consumer finance issues or behavioral economics prior to his arrival there. His current research is in the areas of small dollar loans and

debt collection. Both research focuses grew out of connections with rulemaking work. His prior research was in industrial organization with one focus on media markets and another on demand estimation and merger analysis. That work grew out of merger cases.

Jacob Hale Russell is lecturer in law and teaching fellow in corporate governance and practice at Stanford Law School. In July, he will join Rutgers Law School as an assistant professor of law. His research focuses on corporate governance; consumer protection; mutual funds and the retirement industry; and financial regulation. At Stanford, he is responsible for all aspects of the school's corporate governance advanced degree program, including student advising and teaching classes on contract law and on corporate governance. Jacob received his J.D. from Stanford Law School, his master's degree in political science from M.I.T., and his bachelor's degree from Harvard. Prior to law school, he was a staff reporter for *The Wall Street Journal* in New York. After law school, he was an associate in the financial services practice at Goodwin Procter in Boston.

Larry Santucci joined the Payment Cards Center at the Federal Reserve Bank of Philadelphia in December 2013. His research interests include credit card regulation, credit limit setting, and entry-level credit products, including student and secured credit cards. Before joining the Bank, Santucci spent eight years in consumer lending, with a focus on data, analytics, risk, and business strategy. Most recently, he was a credit card product manager at SunTrust Bank. His consumer lending experience includes storefront and online payday loans, gold pawn, unsecured installment loans, merchant cash advance, consumer and business credit cards, and residential mortgages. He also served as a research assistant at the Federal Reserve Bank of Richmond. Santucci has a master's degree in economics from Pennsylvania State University and a bachelor's degree in economics and business administration from Ursinus College.

**Nic Schaub** is an assistant professor of finance at the Swiss Institute of Banking and Finance at the University of St. Gallen, Switzerland. His research interests are in behavioral finance, household finance, and alternative investments. He received his Ph.D. in finance from the University of Mannheim, Germany.

Barry Scholnick is the Alex Hamilton Professor of Business and a Winspear Senior Faculty Fellow at the University of Alberta, School of Business. He received his PhD in Economics at the University of Cambridge. His research interests include Household Finance and International Business. His research has been published in journals such as the Review of Economics and Statistics, Journal of International Business Studies, the Journal of Business, and the Journal of Money, Credit and Banking. He was formerly on the editorial board of the Journal of Banking and Finance. He is a multiple winner of teaching awards at the MBA, EMBA and B.Com levels. He is currently the Director of the MBA Specialization in International Business at the University of Alberta, School of Business.

Scott Schuh is Director of the Consumer Payments Research Center (CPRC) and a Senior Economist and Policy Advisor in the Research Department of the Federal Reserve Bank of Boston. He joined the Bank in 1997 after serving as an economist at the Board of Governors of the Federal Reserve System since 1991. Schuh also worked for President Reagan's Council of Economic Advisers, the U.S. Congressional Budget Office, and the U.S. Census Bureau. He currently teaches at Boston University, and has taught at Boston College and Johns Hopkins University. Schuh's current research focuses on consumer choices pertaining to money, payments, and banking, and on leading

the CPRC to produce the annual Survey of Consumer Payment Choice and a new Diary of Consumer Payment Choice. His earlier research is in macroeconomics, labor economics, and international economics. A distinctive feature of Schuh's research agenda has been a focus on the microeconomic foundations of macroeconomic fluctuations and growth. He co-authored two books, including the award-winning Job Creation and Job Destruction (1995), and has published articles in journals such as the Journal of Monetary Economics; International Economic Review; Journal of Money, Credit, and Banking; Review of Economic Dynamics; and Journal of International Economics. Schuh earned a B.A. in economics and journalism from California State University, Sacramento in 1985, and a Ph.D. and M.A. in economics from Johns Hopkins University in 1992.

Victor Stango's research focuses on household financial decision-making and retail banking, and seeks to inform sound consumer financial protection policy. His research has appeared in the American Economic Review, The Journal of Finance, The Review of Financial Studies and other leading academic journals. Stango is an Associate Editor of The International Journal of Industrial Organization. Professor Stango's work has been featured in the Wall Street Journal, The New York Times, The New Yorker, Business Week, Newsweek and virtually every major online new source. He has appeared on "Good Morning America," Fox News, CNBC, Bloomberg and many other news programs to discuss his work and provide expert commentary. Prior to joining the Graduate School of Management in 2008, Stango gained experience at the Tuck School of Business at Dartmouth College, the Federal Reserve Banks of Chicago and New York, and other academic institutions.

Meiping Sun is a Ph.D. candidate in economics at Columbia University in the City of New York, where she currently has a master's degree in Economics. She is an applied microeconomist with interests in public and health economics. Meiping's research spans a broad range of topics, including changes in riders' behavior after the New York City Metropolitan Transportation Authority (MTA) introduced a \$1 surcharge on new transit card purchases, the impact of local liquor sales restriction on birth outcomes and multiple types of crime in Texas, and deleterious effect of rural household registration status (hukou) on health among rural-to-urban migrants in China.

**Susan Thorp** is Professor of Finance at the University of Sydney. Her research focuses on household finance, especially consumer financial decision making and pensions. Professor Thorp has published over thirty articles in leading finance and economics journals. She is a founding Director of the Superannuation Consumers' Centre, a non-profit research and advocacy body aiming to improve retirement outcomes for Australian consumers, and a member of the Steering Committee of the Melbourne Mercer Global Pensions Index, an annually compiled internationally recognised index of pension system quality. She is also a regular contributor to pension policy discussions and is a member of the OECD/INFE Research Committee. Professor Thorp gained her BEc (Hons) from the University of Sydney, and her PhD from the University of New South Wales.

Nancy Wong is Professor of Consumer Science and the faculty director of the Kohl's Center for Retailing Excellence at the School of Human Ecology, University of Wisconsin-Madison. She also holds an affiliated appointment at the Marketing Department, School of Business. She received her Ph.D. in Business Administration and a M.A. in Social Psychology from the University of Michigan. She also received her M.B.A. from University of California-Los Angeles and her B.B.A. from York University, Canada. Her research has focused on the influence of culture in consumption decisions, affective responses, and consumption values such as materialism. In addition to exploring methodological issues in cross-cultural research, she also conducts research on consumer decisions in healthcare, personal finance and sustainable consumption. Her research has been published in

Journal of Consumer Research, Journal of Consumer Psychology, International Journal of Research in Marketing, Psychological Methods, Cognition and Emotion.

**Haewon Yoon** is a postdoctoral fellow at Carroll School of Management, Boston College. The primary focus of his research is intertemporal choice. Previous projects examined theoretical issues in discount rate measurements and hyperbolic discounting models. The current work involves financial decision making on college choice and extreme financial impulsivity among young professional athletes. He worked as a postdoctoral fellow at the School of Management at Boston University working with Carey Morewedge. Haewon Yoon received his PhD from Rutgers (Medical decision making Lab; Gretchen Chapman).

#### **Conference Co-Chairs**

**Donald R. Lichtenstein** is Professor of Marketing at the University of Colorado Boulder. He conceived of the idea for the Boulder Summer Conference on Consumer Financial Decision Making, and has Co-Chaired the conference since its inception in 2010. He received his undergraduate degree at the University of Alabama (1978) and his Ph.D. at the University of South Carolina (1984). His research interests lie primarily in the areas of consumer processing of price and sales promotion information. Much of his research has focused on consumer processing of reference price advertisements, consumer price-quality perceptions, influences on consumer price acceptability, and consumer perceptions and response to alternative sale promotion techniques. More recently, he has done research regarding corporate social responsibility, consumer-company identification, and consumer processing of nutritional information. Prior to the University of Colorado in 1988, he was an assistant at Louisiana State University (1984-1988). In addition to his current administrative position as marketing division chair, he has also served as Associate Dean of Faculty and Academic Programs (1998-2001). He is the recipient of the 2004 Fordham Life-time Achievement Award in Behavioral Pricing Research. His work has appeared in journals such as the *Journal of Consumer* Research, the Journal of Marketing Research, The Journal of Marketing, and Marketing Science. Professor Lichtenstein currently serves on the editorial review board of the *Journal of Consumer Research* and the Journal of Marketing.

John G. Lynch, Jr. is the Ted Andersen Professor of Free Enterprise at the Leeds School of Business, University of Colorado Boulder, and the Director of the Center for Research on Consumer Financial Decision Making. Lynch received his BA in economics, his MA in psychology, and his Ph.D. in psychology, all from the University of Illinois at Urbana-Champaign. He was a member of the faculty at University of Florida from 1979-1996, where he was Graduate Research Professor. From 1996-2009 he was the Roy J. Bostock Professor of Marketing at the Fuqua School of Business at Duke University. His research focuses on consumer decision-making — particularly consumer financial decision-making — and validity issues in research methodology. Lynch is a 2010 Fellow of the Association for Consumer Research, a Fellow of the American Psychological Association, and a Fellow of the Society for Consumer Psychology. Five of his papers have been honored as outstanding article of the year; he has been honored three times by the *Journal of Consumer* Research, once by the Journal of Marketing Research and once by the Journal of Marketing. He is a member of the editorial boards of Journal of Consumer Research, Journal of Consumer Psychology, and Journal of Marketing. Lynch is past president of the Association for Consumer Research, past associate editor for the Journal of Consumer Research and past associate editor and co-editor for the Journal of Consumer Psychology.