Proposal for NBER Household Finance Research Grant 2014

Sumit Agarwal and Wenlan Qian, National University of Singapore

In this research proposal we intend to use detailed transaction-level data of a representative sample of consumers in Singapore to investigate how households' spending and saving decisions respond to different shocks and incentives. One particular focus of this research agenda is on the role of behavioral factors in explaining their decisions, which will bear important policy design implications. Our research proposal comprises of the following three projects.

Project 1: Consumption and Debt Response to Early Pension Savings Access Option

Many countries rely on pension savings to meet individuals' retirement needs. A key question that arises is whether individuals should be allowed easy access to pension savings. On the one hand, easier access may make pension savings more flexible and attractive, generating more saving overall and higher retirement income. On the other hand, there is concern that access to one's pension savings can result in excessive present consumption at the expense of future retirement security (Beshears, Choi, Laibson, and Madrian 2008). The question becomes more pertinent as more countries are discussing or implementing such early access options. In the United States, for example, the early access to pension savings takes a particular form of 401(k) loan, with which almost half of the eligible households have withdrawn their pension savings to potentially fund current consumption (Beshears, Choi, Laibson, and Madrian, 2011). More recently, the UK government announced in the 2014 Budget a nation-wide policy change that allows a more flexible early access to the defined contribution pension.

Despite the importance of this issue for policy formulation, the evidence remains limited on the reasons for pension saving withdrawal and the usage of these funds. In the U.S. context, a number of studies theoretically and empirically explore the decision to use 401(k) loans and provide empirical evidence showing that demographics (Beshears et al., 2011) and liquidity constraints (Lu, Mitchell, Utkus, and Young, 2014) are important determinants of the withdrawal decision. Nevertheless, due to data constraints, these studies are unable to examine what consumers actually do with these loans. Therefore, a more comprehensive understanding of the actual behavior of early withdrawing individuals is needed in order to assess the impact of early pension savings access.

In this project, we will exploit an administrative regulation in Singapore that allows individuals to cash out a fraction of their pension savings at age 55. This natural experiment raises some interesting economic questions that are important inputs into understanding how aging consumers make financial decisions. First, do consumers take advantage of the early access option and withdraw from their pension savings? Second, how does it affect the consumption and savings decision of these aging consumers? For example, are the consumption decisions, conditional on withdrawal, consistent with variants of the life-cycle/permanent income hypothesis model (i.e. liquidity constraints and buffer stock models)? In addition, do aging consumers make the right savings decisions? Do they withdraw the pension savings and invest (unconsumed) savings in investment vehicles with higher rates of return? Our empirical strategy exploits monthly individual level financial data and the fact that the withdrawal age is birthdate-specific. Therefore, among individuals who are essentially of the same age (55), this creates plausibly random variation in the timing of the pension savings withdrawal providing causal interpretation of access to pension savings on individuals' consumption and savings decisions.

The preliminary findings are as as follows. First, we find that, on average, as individuals became eligible to cash out a fraction of their retirement savings, their bank balances rose by about SG\$15,000 (approximately 2.5 times that of average monthly income in our sample) one month after turning 55. Cumulative card spending (credit card + debit card) rose by about \$600 twelve months after turning 55. Most of the spending response was driven by an increase in debit card spending and increased spending of low-liquidity consumers. We find little evidence that high-liquidity consumers

changed their spending patterns in response to the increase in disposable income. Both groups of consumers used the increase in disposable income to pay down credit card debt – on average, debt was about \$500 lower in the twelve months after an individual turned 55. On average, bank account balances declined by about one third after twelve months, with the balance remaining significantly higher (SG\$10,000) even at the end of our sample period (accruing at a max of 0.1% annual interest rate). Lastly, although there is a role of liquidity constraints for the withdrawal decision, consumers' demographics, especially those related to their financial literacy and sophistication appear to be important in understanding consumers' withdrawal decisions.

Project 2: Sale of the Year and Consumer Spending Responses

The second project aims to study the extent to which consumer spending responds to the annual nation-wide sale promotion in Singapore. Every year in June and July there is a nation-wide 8-week sale event for shopping in all categories in Singapore (a.k.a. the Great Singapore Sale). Using detailed transactional-level data of consumer credit card and debit card spending, we study whether and how spending responds to this salient sale event. Empirically, we employ difference-in-difference methodology to identify the response of shopping expenses (relative to the change in spending in non-discretionary non-shopping expenses (e.g., utility, education)).

The current setting is particularly appealing to study the question for the following reasons. First, given the lack of weather variation in Singapore, the identified spending response is free of confounding factors such as seasonal demand variation (e.g., increase in demand for seasonal clothing). Second, the extended sale period (8 weeks) allows us to study the dynamics of consumer spending response, and specifically whether the spending response is persistent or short-lived. Lastly, the richness of our consumer spending data (with information available at the daily transaction level) allows a comprehensive investigation of either inter-temporal or cross-category substitution in consumption. The preliminary finding is that consumers increase their spending in response to the sale event, using various metrics including daily spending amount, the number of daily credit card transactions, and the number of daily shoppers. Moreover, the spending response appears to exhibit a U-shaped pattern: it primarily concentrates in days immediately after the start and immediately before the end of the 8-week sale event.

Project 3: The Peer Effect on Consumption

The third project studies the peer effect on consumption. To circumvent the "reflection problem" in peer effect studies (Manski, 1993), we employ the identification strategy based on exogenous changes in income of neighbors. The negative income shock we analyze is the court cases and car accidents to the neighbors in the building. In our setting the negative shock is idiosyncratic to a single household in the building and does not have any systemic characteristics that will impact the rest of the building occupants. So, our thought experiment is to study the spending behaviour of the neighbors. They could change their spending pattern due to two main reasons – observational learning or social interactions. In other words, the negative shock lowers the conspicuous consumption of the treated household and so the neighbors through observational learning do not have to indulge in status competition and also reduce their spending. Alternatively, the neighbors have social interaction on a regular basis -- go to dinners, vacations, and movies. But, now the treated neighbour cannot afford to take vacations and so this also reduces the spending of the untreated neighbour.

Our analysis is based on difference-in-differences identification by exploiting two buildings — one which has a neighbor with a negative shock and the building nearby that did not have any shock. In addition to being able to identify the causal impact of the negative income shock to the neighbor on consumption, richness of our data also allows us to study the response in the credit card spending, debit card spending, change in credit card debt, and change in banking transaction behavior in a period of 10 months after the negative shock, which help us understand different channels of the consumption response.

Itemized Budget Proposal

RA: \$5000

Justification: need research assistance to manually collect data in the three proposed projects

- 1. Collect information on the distance of Singaporean consumers in our sample (to identify control consumers in the peer effect project for example)
- 2. Collect institutional background information regarding the pension system
- 3. Collect information (category by category, store by store) of the Great Singapore Sale in Singapore

<u>Travel:</u> \$10000

Justification: the proposed travel budget covers about 3 trips (as the applicants are located outside the US.) to attend conferences, seminars and workshops in the US.

Wenlan Qian

Assistant Professor of Finance

NUS Business School

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Website: https://sites.google.com/site/wenlanqian/

RESEARCH INTEREST

Household finance; Empirical asset pricing; Real estate

ACADEMIC APPOINTMENT

Assistant Professor of Finance, NUS Business School, National University of Singapore (NUS), 2008-Affiliated Researcher, Institute of Real Estate Studies, Risk Management Institute, NUS

EDUCATION

Ph.D., Business Administration, University of California at Berkeley, 2008 MA, Demography, University of California Berkeley, 2001 BA, Economics (with honors), Shanghai International Studies University, 1998

PUBLICATIONS

- 1. Short-term speculators and price overreaction in the housing market, 2013, with Yuming Fu, forthcoming, Real Estate Economics
- 2. Why do sellers hold out in the down market? An option-based explanation, 2013, *Real Estate Economics*, 41(2), 384-417
- 3. Short term buyers and housing market dynamics, 2012, with Robert Edelstein, forthcoming, *Journal of Real Estate Economics and Finance*

Best Paper Award, AREUEA/AsRES Conference, 2009

4. How do institutional factors influence international real estate returns? 2011, with Robert Edelstein and Desmond Tsang, *Journal of Real Estate Finance and Economics*, 43(1): 130-151.

WORKING PAPERS

Household Finance

- Consumption and debt response to unanticipated income shocks: evidence from a natural experiment in Singapore, February 2014, 2nd round, American Economic Review, joint with Sumit Agarwal Grant award from NBER Household Finance Group/Sloan Foundation, 2013
- 6. Access to home equity and consumption: evidence from a policy experiment, April 2014, *joint with Sumit Agarwal*
- 7. Cross-border shopping: do consumers respond to taxes or prices?, November 2013, *joint with Sumit Agarwal, Teck Ho, and Souphala Chomsisengphet*

Empirical Asset Pricing

- 8. How constraining are limits-to-arbitrage? May 2014, *Joint with Alexander Ljungqvist*, NBER Working Paper Series No. 19834
 - Best Paper Award in Asset Pricing, SFS Cavalcade, 2014
- 9. Competition of the informed: Does the presence of short sellers affect insider selling? February 2014, *joint with Massimo Massa, Weibiao Xu, and Hong Zhang*
- 10. Smart institutions: the sell side of it? May 2013, revision requested at Financial Management
- 11. The pricing implication of the equity lending market: Short interest return predictability revisited, September 2011, joint with Zsuzsa R. Huszar

Real Estate Finance

12. Speculative investors and transaction tax in the housing market, January 2014, *joint with Yuming Fu and Bernard Yeung*, NBER Working Paper Series No. 19400

Best paper award, first prize, Global Chinese Real Estate Congress, 2012 IMAS-CAMRI Applied Finance Research Grant, 2011

- 13. The hidden peril: the role of the condominium loan market in the recent financial crisis, March 2014, *joint with Sumit Agarwal, Yongheng Deng and Chenxi Luo*
- 14. Illiquidity and asset prices in a search-intensive market, January 2013, *joint with Peng Liu* Real Estate Research Institute Research Grant, 2012

WORK-IN-PROGRESS

Consumption and debt response to the early pension savings access option, joint with Sumit Agarwal and Jessica Pan

HONORS & AWARDS

Best Paper Award in Asset Pricing, SFS Cavalcade, 2014

NBER Household Finance Group/Sloan Foundation Research Grant, NBER, US\$16,000, 2013

Best Paper Award (first prize), "Transaction Tax and Speculators", Global Chinese Real Estate Congress (GCREC) annual conference, 2012

Real Estate Research Institute Research Grant, "Illiquidity and asset pricing implications in commercial real estate", 2012, US\$ 10,000

IMAS-CAMRI Applied Finance Research Grant, "Speculators and the Housing Market in Singapore", 2011, S\$15,000

Best Paper Award, "Short-term Buyers and Housing Market Dynamics", AREUEA/AsRES Conference, 2009

FRC Tier 1 Research Grant, Ministry of Education, Singapore, "The impact of fiscal policy, housing wealth, liquidity constraints and consumer sentiment on consumption in Singapore", 2012-2015, \$\$86,100

FRC Tier 1 Research Grant, Ministry of Education, Singapore, "Investor sophistication and market efficiency", 2010-2013, S\$44,400

Start-up Research Fund, NUS Business School, 2008-2011, S\$40,000

Fisher Center Fellowship, 2003-2008

Crawford Doctoral Research Fellowship, 2004-2006

Hewlett Foundation Fellowship, 2002-2003

Society of Women Geographers National Fellowship, 2001

INVITED CONFERENCE AND SEMINAR PRESENTATIONS

(Including scheduled, * coauthor presentation)

EFA, Lugano; FIRS Conference, Quebec City; ABFER, Singapore; SFS Cavalcade, Georgetown; NBER Behavioral Finance, Spring Meeting, Chicago*; AEA, Philadelphia; AFA, Philadelphia; CICF (x2), Chengdu; AsFA, Bali*; Federal Reserve Bank of San Francisco; Federal Reserve Bank of Chicago; Shanghai Advanced Institute of Finance (SAIF); Vienna Graduate School of Finance*; HBS*; NYU Stern*; Notre Dame*; Hong Kong University of Science and Technology; Hong Kong University; City University of Hong Kong; Singapore Management University; National University of Singapore

Discussion: WFA; CICF; ABFER, AREUEA-ASSA

2013 European Conference on Household Finance, Rome; NBER, 24th EASE meeting, Wellington; Asian Bureau of Financial and Economic Research (ABFER, x2), Singapore; IRES symposium, Singapore; CICF, Shanghai; 7th Singapore International Conference on Finance (SICF); Econometric Society Asian Meeting, Singapore; International AREUEA/AsRES conference, Kyoto*, Hong Kong institute of monetary research (HKIMR) Summer Workshop; Oxford University*, Johns Hopkins University*; World Bank*; National University of Singapore; Nanyang Technological University

<u>Discussion:</u> Singapore Scholar Symposium; CICF; HKIMR Summer Workshop; SMU-SUFE Summer Research Conference; NBER EASE; ABFER; AREUEA-ASSA

AREUEA-ASSA, Chicago (x2); CICF (x2); Global Chinese Real Estate Congress, Macau; IRES symposium on Asia Growth and Urban Economy, Singapore; 6th Singapore International Finance Conference JFW; Finance Down Under conference, Melbourne; RERI, Chicago*; ARES, Florida*; University of Florida; University of Cincinnati; National University of Singapore; IRES

Discussion: CICF; AREUEA-ASSA; FSU-UF Critical Issues Symposium; IRES symposium

2011 CICF, Wuhan; IRES Real Estate Symposium, Singapore; International AREUEA/AsRES conference, Jeju*, Asian Pacific Real Estate Real Estate Symposium, Adelaide; Maastricht-NUS-MIT symposium, Maastricht; National University of Singapore

Discussion: CICF; International AREUEA; APRER Real Estate Symposium

2010 AREUEA-ASSA, Atlanta*; Pre-WFA Summer Real Estate Symposium, Victoria; AsFA, HK; 4th Singapore International Finance Conference JFW; FMA, NYC; Haas School of Business, Berkeley*; Massey University*; National University of Singapore

Discussion: FMA; AsFA; IRES symposium

2009 AREUEA-ASSA, San Francisco; International AREUEA/AsRES Conference, Los Angeles; Global Chinese Real Estate Congress, Beijing

<u>Discussion:</u> Third Singapore International Finance Conference; APRER Real Estate Symposium; MIT Maastricht NUS Real Estate Symposium

2008 AsRES, Shanghai; DePaul University; Rice University; Concordia University; National University of Singapore; Moody's KMV; BGI

Discussion: APRER Real Estate Symposium

TEACHING EXPERIENCE

Instructor, Fin3102, Undergraduate Investment Analysis and Portfolio Management, NUS Business School, National University of Singapore, 2009-2013

Instructor, BFA 6002, PhD Finance Theory, NUS Business School, National University of Singapore, 2011-2013

PROFESIONAL AFFILIATION AND ACTIVITIES

Member

AFA, WFA, AREUEA

Ad Hoc Referee Financial Review; Journal of Economic Behavior and Organization; Journal of Financial Services Research; Journal of Housing Economics; Journal of Real Estate Finance and Economics; Journal of Urban Economics; Real Estate Economics; Regional Science and Urban Economics; Pacific-Basin Finance Journal

Organization of Sessions and Organizing Committee

2014 AEA session "Consumption and Debt Response to

Income Shocks"

China International Conference in Finance (CICF), 2014

NUS IRES Real Estate Symposium, 2011

International Real Estate Conference of AREUEA/AsRES, 2009

Review SFS cavalcade conference, 2011

Committee 4th and 5th Singapore International Finance Conference, 2010, 2011

Asian Finance Association (AsFA) Annual Meeting, 2010-2014

International Banking, Economics and Finance Association (IBEFA) summer meeting,

2014

NUS Risk Management Conference, 2010, 2012, 2013, 2014

Grant Reviewer Risk Management Institute Research Grant, NUS, 2010

Hong Kong Research Grants Council, 2010

Media Coverage Barrons, March 2014; Bloomberg; March 2014; VoxEU, November 2013; Strait

Times, June 2013

SUMIT AGARWAL

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EMPLOYMENT

Professional Positions

Dean's Chair Associate Professor of Finance and Real Estate, NUS	2013 - 2015	
Research Director, Center for Asset Management Research and Investments, NUS 2012 - Present		
Senior Financial Economist, Federal Reserve Bank of Chicago	2008 - 2012	
Financial Economist, Federal Reserve Bank of Chicago	2006 - 2008	
SVP, Credit Risk Management Executive, Bank of America	2004 - 2006	
VP, Financial Economist, Bank of America	2000 - 2004	
Senior Analyst, Health Products Research	1999 - 2000	

Visiting and Consulting

visiting and Consulting	
Research Associate, Institute for Real Estate Studies, NUS	2012 - Present
Research Associate, Risk Management Institute, NUS	2012 - Present
Research Associate, Center for Quantitative Finance, NUS	2012 - Present
Visiting Scholar, Office of the Comptroller of the Currency	Sept 2012
Visiting Scholar, Federal Reserve Bank of Philadelphia	Nov 2011
Visiting Scholar, De Nederlandsche Bank, Amsterdam	Sept 2011
Visiting Associate Professor of Finance, Indian School of Business	2008 - 2010
Visiting Scholar, Riksbank, Sweden	Sept 2009
Fellow, Federal Deposit Insurance Corporation	2008
Consultant, World Bank-IFC	2008
Adjunct Assistant Professor, Finance Department, DePaul University	2007
Fellow, Federal Deposit Insurance Corporation	2006

EDUCATION

Ph.D., Economics, University of Wisconsin - Milwaukee	1995 - 1999
M.A., Economics, University of Wisconsin - Milwaukee	1993 - 1995
B.Sc. , Computer Science, University of Wisconsin - Milwaukee	1989 - 1993

RESEARCH

Interest

Financial Institutions; Household Finance; Behavioral Economics; Law and Economics; Financial Education and Counseling; Real Estate Finance; International Finance; Financial Regulation

Citation Count, Paper Downloads, Author Rank

Over 1470 citations in published and working papers (Source: Google Scholar, Dec. 2012) Over 17,300 downloads of my papers (Source: SSRN, Dec. 2012)

Author rank 610 out of 200,000 as measured by number of downloads (Source: SSRN, Dec. 2012)

Publications and Forthcoming Papers (Selected)

- 1. "Optimal Mortgage Refinancing: A Closed Form Solution" (with Driscoll, J., and D. Laibson), NBER Working Paper #13487, forthcoming, *Journal of Money, Credit and Banking*
- 2. "Cognitive Ability and Financial Decision Making" (with Mazumder, B), forthcoming, *American Economic Journal: Applied Economics*, 2013, Vol. 5(1)

- 3. "Consumption and Debt Response to Minimum Wage Hikes" (with Aaronson, D., and E. French), *American Economic Review*, 2012, Vol. 102(7), Pp. 3111-39 (Lead Article)
- 4. "Adverse Selection in Mortgage Securitization" (with Chang, Y. and A. Yavas), forthcoming, *Journal of Financial Economics*, 2012, Vol. 105(3), Pp.640-660
- 5. "The Role of Securitization in Mortgages Renegotiation" (with Amromin, G., I. Ben-David, S. Chomsisengphet and D. Evanoff), *Journal of Financial Economics*, 2011, Vol. 102(3), Pp.559-578
- 6. "The Term Structure of Lease Rates with Endogenous Default Triggers and Tenant Capital Structure: Theory and Evidence" (with Ambrose, B., H. Huang, and Y. Yildirim), *Journal of Financial and Quantitative Analysis*, 2011, Vol.46(2), Pp. 553-584
- 7. "The Role of Soft Information in Dynamic Contract Settings: Evidence from the Home Equity Market" (with Ambrose, B., S. Chomsisengphet, and C. Liu), *Journal of Money, Credit and Banking*, 2011, Vol. 43(4), Pp. 633-655
- 8. "Distance and Private Information in Lending" (with Hauswald, R), *Review of Financial Studies*, 2010, Vol. 23(7), Pp. 2757-2788
- 9. "The Importance of Adverse Selection in the Credit Card Market: Evidence from Randomized Trials of Credit Card Solicitations" (with Chomsisengphet, S., and C. Liu), *Journal of Money, Credit and Banking*, 2010, Vol. 42(4), Pp. 743-754
- 10. "Learning to Cope: Voluntary Financial Education Programs and the Housing Crisis" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff), *American Economic Review Papers and Proceeding*, 2010, Vol. 100(2), Pp. 495-500
- 11. "The Age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation" (with Driscoll, J., X. Gabaix, and D. Laibson), NBER Working Paper #1319, *Brookings Papers on Economic Activity*, 2009, Vol. Fall, Pp. 51-117
- 12. "Payday Loans and Credit Cards: New Liquidity and Credit Scoring Puzzles?" (with Skiba, P., and J. Tobacman), NBER Working Paper #14659, *American Economic Review Papers and Proceeding*, 2009, Vol. 99(2), Pp. 412-417
- 13. "Reaction of Consumer Spending and Debt to Tax Rebates Evidence from Consumer Credit Data" (with Liu, C., and N. Souleles), NBER Working Paper #13694, *Journal of Political Economy*, 2007, Vol. 115(6), Pp. 986-1019
- 14. "An Empirical Analysis of Home Equity Loan and Line Performance" (with Ambrose, B., S. Chomsisengphet, and C. Liu), *Journal of Financial Intermediation*, 2006, Vol. 15(4), Pp. 444-469
- 15. "Credit Quality and Credit Commitment" (with Ambrose, B., and C. Liu), *Journal of Money, Credit and Banking*, 2006, Vol. 38(1), Pp., 1-22 (Lead article)

Working Papers

- 1. "Do Consumers Choose the Right Credit Contracts?" (with Chomsisengphet, S., C. Liu, and N. Souleles), revise and resubmit at *Review of Financial Studies*
- 2. "Did Predatory Lending Precipitate the Financial Crisis?" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff), revise and resubmit at *Journal of Financial Economics*
- 3. "Learning in the Credit Card Market" (with Driscoll, J., X. Gabaix, and D. Laibson), NBER Working Paper #13822, revise and resubmit 3rd round, *American Economic Review*
- 4. "Inconsistent Regulators: Evidence from Banking" (with Lucca, D., A. Seru and F. Trebbi), NBER Working Paper #17736, reject and resubmit at *Quarterly Journal of Economics*
- 5. "Policy Intervention in Debt Renegotiation: Evidence from Home Affordability Modification Program" (with Amromin, G., I. Ben-David, S. Chomsisengphet, A. Seru and T. Piskorski), reject and resubmit at *Quarterly Journal of Economics*
- 6. "Market Bases Loss Mitigation Outcome for Troubles Mortgages during the Financial Crisis" (with Amromin, G., I. Ben-David, S. Chomsisengphet and D. Evanoff), reject and resubmit at *Review of Financial Studies*
- 7. "The Effects of Financial Education on Household Financial Decision Making: Evidence from a Natural Experiment of Mortgage Advice" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff)
- 8. "The Choice Between Arm's-Length and Inside Debt" (with Hauswald, R)

- 9. "Relationship Lending: Evidence from the Consumer Credit Market" (with Chomsisengphet, S., C. Liu, and N. Souleles)
- 10. "The Effects of Loan Officers' Compensation on Loan Approval and Performance: Direct Evidence from a Corporate Experiment" (with Ben-David, I)
- 11. "New Loans, Existing Lines of Credit and Repayment" (with Nakamura, E., E. Ravina, and J. Steinsson)
- 12. "The Politics of Mortgage Foreclosures" (with Amromin, G., I. Ben-David, and S. Dinc)
- 13. "Timing to the Statement: Understanding Fluctuations in Consumer Credit Use" (with Bubna, A., and M. Lipscomb)
- 14. "Why do Borrowers Make Mortgage Refinancing Mistakes?" (with Rosen, R., and V. Yao)
- 15. "Do Second Liens Holdup First Lien Holders' Modifications?" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and Y. Zhang)
- 16. "Collateral Valuation and Institutional Pressures: Evidence from the Residential Real-Estate Market" (with Ben-David, Z., and V. Yao)
- 17. "The Hidden Perils: The Role of the Condominium Market in the Current Financial Crisis?" (with Deng Y., X. Luo, and W. Qian)
- 18. "Do Lenders Steer Borrowers to High Risk Mortgage Products" (with Evanoff, D)
- 19. "Consumption Response to State Sales Tax Holidays" (with McGranahan, L)
- 20. "How much did CRA impact bank lending standards?" (with Benmelech, E., N. Bergman, A. Seru)
- 21. "In Mood for a Loan: Causal effect of Sentiment on Credit Origination" (with Duchin R., and D. Susuria)

Grants/Awards/Lectures

- 1. Red Rock Finance Conference, Best Paper Award September 2012 "Inconsistent Regulators: Evidence from Banking" (with Lucca, D., A. Seru and F. Trebbi)
- 2. Excellence in Refereeing Award 2011/2012 American Economic Review June 2012
- 3. NUS Research Grand February 2012 "Consumer Behavior in Financial Markets" 2012-2015 (Singapore \$60,000)
- 4. Russell Sage Foundation Grant November 2011 "The Great Recession and Fringe Banking" (with Mazumder, B. and T. Gross) 2011-2014 (\$150000)
- 5. Networks Financial Institute Competition, Best Paper Award
 "The Effects of Financial Education on Household Financial Decision Making: Evidence from a Natural Experiment of Mortgage Advice" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff) (\$ 2,500)
- 6. TIAA-CREF Paul A. Samuelson Award

 "The Age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation" (with Driscoll, J., X. Gabaix, and D. Laibson) (\$2000)
- 7. Terker Family Prizes in Investment Research Award, Wharton January 2009 "Reaction of Consumer Spending and Debt to Tax Rebates Evidence from Consumer Credit Data" (with Liu, C., and N. Souleles) (\$5,000)
- 8. Wageninger University, Netherlands December 2008 Keynote address on "Financial capability and household financial management" at a colloquium organized by the International Association for Research in Economic Psychology
- 9. Paolo Baffi Centre on Central Banking and Financial Regulation Grant May 2008 "The Effects of Financial Education on Household Financial Decision Making: Evidence from a Natural Experiment of Mortgage Advice" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff) (Euro 6,000)

PROFESSIONAL SERVICES

Invited Seminar and Conference Presentations

2012 -Financial Services Authority, Behavioral Economics Forum, London, UK TAU Finance Conference, Tel Aviv University, Israel CEPR-ECB RoF Conference on Small Business Finance, Frankfurt, Germany

Singapore Scholars Symposium, Singapore

National University of Singapore, Singapore

Georgetown University, Washington DC

The World Bank, Washington DC

Office of the Comptroller of the Currency, Washington DC

Civil Services College, Behavioral Economics Forum, Singapore

Summer Research Conference in Finance, ISB, Hyderabad, India

Microeconometric Network Meeting, Copenhagen, Denmark

Symposium on Household Finance, HKUST, Hong Kong

Institute for Real Estate Studies, NUS, Singapore

Haas School of Business, University of California Berkeley

2011 - Whitman School of Management, Syracuse University

Association of Consumer Research, St. Louis

De Nederlandsche Bank, Research Department, Amsterdam, Netherland

Household Decisionmaking Conference, Aspen

Western Economics Association Meeting, San Diego

Boulder Summer Conference on Consumer Financial Decision Making, Boulder

Federal Reserve Bank of Cleveland

Office of the Comptroller of the Currency, DC

Federal Reserve Bank of New York

National University of Singapore, Singapore

Regulating Financial Intermediaries: Challenges and Constraints Conference, LSE, UK

Center for the Economic Analysis of Risk Conference, Denver

2010 -Law and Economics Colloquium, Northwestern University

Financial Literacy around the World Conference, Turin, Italy

Department of Finance, Washington University

Center for Financial Studies Conference on Household Finance, Athens, Greece

System Applied Micro Conference, Federal Reserve Bank of Boston

46th Bank Structure and Competition Conference, Federal Reserve Bank of Chicago

Family Financial Security: Implications for Policy and Practice Symposium, UW-Madison

Psychology and Banking Symposium, University of Missouri

Department of Finance, University of Maryland

Indian School of Business, Hyderabad, India

Department of Finance, DePaul University

American Economic Association, Atlanta

2009 -CEPR-ECB-UA Conference on Competition in Banking Markets, Antwerp, Belgium

Department of Economics, UW-Milwaukee

International Monetary Fund

Department of Finance, Pennsylvania State University

Riksbank, Stockholm, Sweden

Research Institute of Industrial Economics, Stockholm, Sweden

Department of Finance, University of Minnesota

Federal Reserve Bank of Boston

Summer Research Conference in Finance, ISB, Hyderabad, India

European Financial Management Association, Milan, Italy

Conference on Behavioral Macroeconomics, Australian National University, Australia

Department of Finance, University of Oklahoma

Department of Economics, Ohio State University

Federal Reserve Bank of Atlanta

Columbia Business School, Columbia University

American Economic Association, San Francisco

Session Chair(C)/Discussant(D)

2013- American Economic Association (D)

AREUEA Meetings (D, C)

2012 - AREUEA Mid Year Conference, Singapore (D)

Summer Research Conference in Finance, ISB, Hyderabad, India (D)

Symposium on Household Finance, HKUST, Hong Kong (C)

Allied Social Sciences Association Meeting (D)

2011 -NBER Conference on Improving the Measurement of Consumer Expenditures (C, D)

5th Singapore International Conference in Finance (D)

Day Ahead Conference of the Federal Reserve System, Denver (D)

American Economic Association, Denver (C)

2010 -Conference on Financial Economics and Accounting, University of Maryland (D)

46th Bank Structure and Competition Conference, Federal Reserve Bank of Chicago (C)

American Economic Association (D, C)

2009 -System Financial Structure and Regulation Conference (D)

Summer Research Conference in Finance, ISB, Hyderabad, India (D)

European Financial Management Association, Milan, Italy (C, D)

AERUEA Mid-year Meetings (D)

Financial Intermediation Research Society Conference, Prague, Czech Republic (D)

System Applied Micro Conference, Federal Reserve Bank of Kansas City (D)

CAF-FIC-SIFR Emerging Financial Markets Conference (D)

American Economic Association (C)

AREUEA Meetings (D)

Organization of Sessions and Program Committees

Organizing Committee, Behavioral Economics Summer Camp at NUS, 2013

Singapore International Conference in Finance, paper reviewer, 2012; and program committee. 2013

FIRS annual conference, program committee, 2011, 2012, 2013

RFS Cavalcade Conference, paper reviewer, 2012

AEA session "Mortgage Markets and Policy Response" 2012

Bank Structure Conference, program committee, 2007, 2008, 2009, 2010, 2011, 2012

AREUEA conference, program committee, 2010, 2012

MEA annual conference, program committee, 2010

Chicago Fed and FDIC, Future of Housing Finance conference, program committee, 2010

AEA session "Consumption and Credit" 2010

AEA session "Cognitive Abilities and Financial Decision Making" 2010

FMA conference, program committee, 2009

CAF-FIC-SIFR, Emerging Financial Markets Conference, program committee, 2009

Best Paper Award Nomination Committee, Summer Research Conference in Finance at ISB, 2008

AEA session "Household Finance: Mortgage Choice, Persuasion, and Life Cycle Housing" 2008

MEA session "Consumer Finance: Home Equity Lending" 2006

Referee (Journals)

American Economic Review

American Economic Journal - Applied Economics

American Economic Journal - Macro

Econometrica

Journal of Finance

Journal of Financial Intermediation

Journal of Money, Credit and Banking

Journal of Political Economy

Journal of Public Economics

Quarterly Journal of Economics

Review of Economics and Statistics

Review of Economic Studies

Review of Financial Studies

Referee (Grant Application) National Science Foundation Social Science and Humanities Research Counsel of Canada