

Research Proposal to NBER Household Finance Working Group  
**The Plastic Money Trap: Does using Cards for Purchases Result in Overspending?**

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**Principal Investigators:**

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Sumit Agarwal  
Vice-Dean of Research and the PhD program,  
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**Project Summary:**

This paper seeks to investigate the implications of consumer's choice between alternate means of payment (cash vs cards) on spending behavior. In particular, the literature on use of credit card usage by consumers argues that credit cards may results in self-control issues resulting in overspending. Much of this reasoning is based on the debt accumulated by credit card users. However, it is difficult to draw causal inference from this research as the decision to obtain a credit card is endogenous. In particular, consumers with credit cards are likely to be those who expect to earn higher permanent income (Permanent Income Hypothesis). Thus, the accumulated debt on credit cards may simply be driven by the need for consumption smoothing.

Alternatively, it is possible that households rely on mental-accounting heuristics for their saving and consumption decisions. Cash purchases by the virtue of their physical nature draw the consumer's attention to expenditures and are limited by the cash on hand. In contrast, expenditures on card are only constrained by the credit limit, which is likely to be higher than cash in hand. Prior literature on consumer psychology highlights consumption decisions are determined by the size of the resource account cognitively accessible at the time of judgment (Morewedge et al (2007)). In other words consumers using cash to purchase an item may perceive the cost to be relatively high as they compare the cost to resources available in the wallet. In contrast, while using debit cards (credit cards) they are likely to compare costs relative to their account balance (credit limit), thus perceiving the cost to be relatively low. Along similar lines, Thaler (1999) argues that cards cause overspending because they delink the purchase decision from actual payment (which comes later), thus making the payment less salient. Consistent with this idea, Soman (1997) finds that students leaving the campus bookstore were much more accurate in remembering the amount of their purchases if they paid by cash rather than by credit card. As he says, 'Payment by credit card thus reduces the salience and vividness of the outflows, making them harder to recall than payments by cash or check which leave a stronger memory trace' . This is termed as "accessible account effect" and predicts that consumers are likely to over spend when they use cards for purchases.

However, the extant literature on mental accounting and its implications for cash vs card purchases has primarily based its conclusions on experimental studies. This is at least in part driven by lack of granular data on individual consumption and checking account. More importantly, it is difficult to find a suitable experiment for causal inference. The ideal experiment would randomly allocate debit cards to a group of individuals with no prior access to such cards and then compare the consumption decisions of those given a debit card (treatment group) with those who were not (control group). In the absence of such an ideal, the literature has relied on analyzing credit card debt levels as proxy for overspending. However, as discussed credit card usage to infer mental accounting mistakes driven overspending is plagued by endogeneity concerns. In particular, consumption smoothing may account for most of the accumulated debt on credit cards.

Our data and experimental setup allows us to provide first large sample causal evidence of mental accounting heuristics on individual consumption decisions.

First, we have unique data on debit card withdrawals and point of sales transactions (POS) by account holders of one of the largest banks in India. This allows us to distinguish mental accounting hypothesis from consumption smoothing hypothesis. In particular, to the extent that credit card usage may be driven by preferences of individuals to smooth consumption, we only focus on debit card transactions in our tests.

Second, to mimic the experimental ideal, we exploit regional variation in ATM penetration as a source of exogenous variation in the likelihood of cash withdrawals. Specifically, our empirical strategy relies on comparing consumption expenditures of account holders residing in areas with high ATM penetration (treatment group) with observationally similar individuals residing in areas with low ATM penetration. The identification assumption is that the transaction cost of withdrawing cash is higher for individuals residing in areas with low penetration, as they will have to travel longer distances to reach an ATM. Thus, such individuals are more likely to rely on direct point of sales debit card transactions for their consumption needs.

To further strengthen the causal interpretation of our analysis, we exploit regulations that govern cash withdrawals at point of sales. In particular, in July 2009, the Reserve Bank of India for the first time enabled cash withdrawal at point-of-sale (POS) for debit cards. As on May 31, 2009, number of ATMs and POS terminals in the country stood at 44,857 and 4,70,237 respectively. This lowered the transaction costs of withdrawing cash. However, the cash withdrawal limit was capped at Rs 1000. To withdraw cash, an individual now need only travel to the nearest POS rather than the nearest ATM. Subsequently, RBI raised this limit to Rs 2000 in August 2015, for some cities (Tier 3 and Tier 4) while leaving it unchanged for other cities.

This allows for a difference-in-differences identification strategy. Since, the transaction cost for withdrawing cash is likely to be higher in areas with low ATM penetration, we expect this policy to be particularly important in such regions. In other words, the increase in POS cash withdrawal limit relaxes the constraint on cash withdrawals. This relaxation in constraints is only going to affect individuals for whom the constraint was binding in the first place. We expect that the constraint on cash withdrawals is not going to be binding in regions with high ATM penetration as the transaction cost of travelling to an ATM for the purpose of cash withdrawals is already low in these regions. Consequently, the increase in POS limits should not matter in such areas. We can then compare the consumption behavior of individuals residing in high ATM penetration regions relative to those residing in low penetration regions before and after the change

in the POS cash withdrawal limits to analyze whether the usage of debit cards for consumption expenditures results in over spending.

In summary, our study seeks to provide first large sample causal evidence of the use of mental accounting heuristics in the consumer choice over payment methods and its implications for individual spending behavior.

#### Itemized Budget

Data Acquisition and Cleaning - \$6000

Conference and Collaborative Travels: \$8000

Travel to the Household Finance Working Group Meeting - \$4000

# Shashwat Alok

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## CONTACT INFORMATION

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## EDUCATION

**Olin Business School**, Washington University in St. Louis, USA

Ph.D. in Finance, May 2013

M.S., Business Administration, May 2012

**Manipal University**, Manipal, India

B.E., Computer Science and Engineering, May 2008

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## RESEARCH INTERESTS

Politics and Finance, Labor and Finance, Household Finance, Corporate Governance and Financial Intermediation.

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## HONORS AND AWARDS

Hubert C. Moog Scholar for Academic Excellence, Washington University in St. Louis (2012)

Doctoral Fellowship, Washington University in St. Louis, 2008 - 2013

Ranked 3rd in the Department of Computer Science and Engineering, Manipal University, 2008

Merit Rank Holder, National Maths Olympiad, India, 1998

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## TEACHING EXPERIENCE

Advance Corporate Finance (Fall 2013, ISB)

Corporate Finance Core I and II (Fall 2014, ISB)

Corporate Finance Core II (Fall 2015, ISB)

### Teaching assistant

Investment Praxis (UG) (Ohad Kadan, Spring 2010)

Integrated Value Creation: The Wholomics Approach (MBA)(Anjan Thakor, Fall 2010)

Numerical Methods & Optimization in Finance (MSF) (Phil Dybvig, Fall 2010)

Creating Exceptional Value: Performance w/o Compromise (MBA) (Anjan Thakor, Fall 2011 )

Information Economics & Corporate Finance Theory (PhD )(Anjan Thakor, Spring 2012)

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## RESEARCH

### Working papers under Review

- **“Politics, State Ownership, and Corporate Investments.”**, joint with Meghana Ayyagari (Under Review at Review of Financial Studies)

- **“Managerial Compensation in Multi-Division firms.”**, joint with Radha Gopalan (Resubmitted for 2nd Round review at Management Science)

#### Completed Working papers

- **“Stock price informativeness and the mix of long-term and short-term pay”**, joint with Felipe Cortes and Radha Gopalan
- **“Employee Property Rights and Innovation”**, joint with Krihnamurthy Subramanian
- **“Saliency Bias in Mutual Fund Portfolios and its Implications for Stock Price Efficiency: Evidence from a Natural Experiment”**, joint with Nitin Kumar

#### Work in progress

- **“Household balance sheets and regional economic outcomes”**
- **“Creditor Rights and Labor: Evidence from a Natural Experiment”**
- **“Related Party Transactions and Expropriation of Minority Shareholders”**
- **“Management’s Bargaining Power, Corporate Governance and Ex-Post Efficiency of Bankruptcy Resolution.”**, joint with Felipe Cortes

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#### ACADEMIC PRESENTATIONS:

##### **“Politics, State Ownership, and Corporate Investments.”**

- 6th Emerging Markets Finance Conference, December 2015
- AFA Annual Meetings, January 2014
- University of Florida, October 2013 (Presented by Co-author)
- 26th Australasian Finance and Banking Conference, December 2013
- Brown Bag, Olin Business School, September 2012
- Research in Finance Seminar, Olin Business School, September 2012
- 7th Annual Economics Graduate Student Conference, Washington University in St. Louis, October 2012
- PhD Poster Session, 9th Annual Conference on Corporate Finance, Washington University in St. Louis, November 2012

##### **“Managerial Compensation in Multi-Division firms.”**

- CAF Annual Conference, July 2014
- Vanderbilt-Auckland-ISB Law and Finance Conference, June 2014
- EFA Annual Meetings, August 2013
- Summer Research Camp, July 2013
- Sam M. Walton College of Business, University of Arkansas, April 2012 (Presented by Co-author)
- College of Business Administration, University of Missouri St. Louis, April 2012
- Olin Brown Bag, November 2011

##### **“Saliency Bias in Mutual Fund Portfolios and its Implications for Stock Price Efficiency: Evidence from a Natural Experiment”**

- 4th Luxembourg Asset Management Summit, October 2015
- NFA annual meetings, September 2015 (Presented by Co-author)
- ISB Brown Bag, May 2015
- Summer Research Camp (ISB), July 2014

##### **“Employee Property Rights and Innovation”**

- Summer Research Camp (ISB), July 2015
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OTHER ACADEMIC  
ACTIVITIES:

**Ad-Hoc Reviewer**

Management Science, Journal of Financial and Quantitative Analysis, Real Estate Economics

- External Committee Member (Thesis Review) for Masters in Finance (Research) student at UNSW, Australia.

**Discussant**

- CAF Annual Conference, July 2015
  - The Financial Intermediation Research Society (FIRS) Conference, May 2015
  - 4th International Conference on Corporate Governance in Emerging Markets, August 2013
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PROGRAMMING  
SKILLS:

Developed text processing script using python to automatically collect data from large pdf and text files.

- Used it to collect electoral data from pdf files (election commission of India) into CSV format.
  - Can also be used to collect data from 10-K statements, Proxy statements etc in Edgar.
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MEDIA ARTICLES

- “PSUs: Prudent Investors or Political Pawns?,” The Economic Times (May 3, 2014).
- “Drop in Trade deficit: Much ado about something?,” IBN Live (October 3, 2014).

**SUMIT AGARWAL**  
 BIZ1-07-69, Mochtar Raidy Building  
 15 Kent Ridge Drive, Singapore, 119245  
 +65 6516 5316 (O), [bizagarw@nus.edu.sg](mailto:bizagarw@nus.edu.sg)  
[www.ushakrisna.com](http://www.ushakrisna.com)

**EMPLOYMENT**

**Professional Positions**

National University of Singapore	
Vice-Dean of Research and PhD Program, School of Business	2015-Present
Low Tuck Kwong Professor	2014-Present
Professor of Finance, School of Business	2014-Present
Professor of Economics, School of Arts and Social Science	2014-Present
Professor of Real Estate, School of Design and Environment	2014-Present
Deputy Head (Research), Department of Real Estate	2013 - 2015
Research Director, Center for Asset Management Research and Investments	2012 - 2015
Dean's Chair Professor	2013 - 2014
Associate Professor of Economics (courtesy), School of Arts and Social Science	2012 - 2013
Associate Professor of Finance, School of Business	2012 - 2013
Associate Professor of Real Estate, School of Design and Environment	2012 - 2013
Federal Reserve Bank of Chicago	
Senior Financial Economist, Research Department	2008 - 2012
Financial Economist, Research Department	2006 - 2008
Bank of America	
Senior Vice President, Credit Risk Management Executive	2004 - 2006
Vice President, Financial Economist	2000 - 2004
Senior Analyst, Health Products Research	1999 - 2000

**Consultancy, Visiting and Other Positions**

Consultant, Bank for International Settlement, Switzerland	2015-2016
Consultant, Monetary Authority of Singapore, Singapore	2015-2016
Distinguished Senior Visitor of the Research Center SAFE, Goethe University	Sept 2015
Consultant, Inter-American Development Bank, Washington DC	July 2015
Consultant, Korean Development Institute, Korea	July 2015
Consultant, Financial Conduct Authority, London, UK	2014-2015
Senior Fellow, Asian Bureau of Finance and Economic Research	2014-Present
Academic Fellow, Center for Advanced Finance Research and Learning	2014-Present
Research Associate, Center for Behavioral Economics, NUS	2012-Present
Research Associate, Risk Management Institute, NUS	2012-Present
Research Associate, Center for Quantitative Finance, NUS	2012-Present
Research Associate, Institute for Real Estate Studies, NUS	2012-Present
Visiting Scholar of Finance, Georgetown University	Sept-Dec 2013
Visiting Scholar, The World Bank	Sept-Dec 2013
Visiting Associate Professor of Finance, Indian School of Business	2008 - 2012
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 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
Adjunct Assistant Professor, Finance Department, George Washington University	2005
Instructor, Economics Department, University of Wisconsin - Milwaukee	1995 - 1998
Consultant, Bank of Uganda, Kampala, Uganda	1995

### Editorial Positions

<a href="#">Editor</a> , <i>Real Estate Economics</i>	2015 - Present
<a href="#">Associate Editor</a> , <i>Management Science</i> (Finance Department)	2014 - Present
<a href="#">Associate Editor</a> , <i>Journal of Financial Services Research</i>	2014 - Present

### EDUCATION

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

### RESEARCH

#### Interest

Financial Institutions: Credit Cards, CAMELS, CRA, Pay Day Loans, Financial Regulation, Credit Scoring, Card Act, Small Business Lending, Ratings, Obama Care and Real Effects, Monetary Policy and Credit Channel

Political Economy: Dodd-Frank Act and Foreclosures, Credit Card lending and Corruption in China, Insider Trading in Singapore, Election Cycle and Bank Lending in Mexico, ATM and Corruption in Turkey

Household Finance: Consumption, Savings, Retirement Decisions, Labor Supply, Financial Literacy, Financial Education, Aging, Cognitive, Gender Roles

Behavioral Economics: Taxi Drivers, Learning, Cognitive Ability, Social Capital, Peer Effects, Superstition of Dragon Babies, Lucky Numbers, Hungary Ghost Month and Housing, Mood and Spending, Gender and Lending

Real Estate and Urban Economics: Securitization, Sub Prime Markets, HAMP, HARP, Loan Mods, Mortgage Refinancing, Default and Prepayment, Real Estate Agents, Appraisers, Points

Urban Economics: Environment and Energy, Electricity, Water, Public Transport, Congestion Pricing

#### Impact

Over 400 citations in published papers (Source: Web of Science, January, 2016)

Over 3700 citations in published and working papers (Source: Google Scholar, January, 2016)

Over 32,000 downloads of my papers (Source: SSRN, January, 2016)

#### Blogs

I have started a blog on household financial decision making called *Smart Finance!* I intend to regularly have blog posts about my research and that of others as it related to household decision making. <http://thinkbusiness.nus.edu.sg/smart-finance>

#### Book

1. [Household Credit Usage: Personal Debt and Mortgages](#), (with Ambrose, B), Palgrave-Macmillan Publishing, October, 2007 (edited volume)



### Publications and Forthcoming Papers

2. "[Access to Home Equity and Consumption: Evidence from a Policy Experiment](#)" (with Qian, W), forthcoming *Review of Economics and Statistics*
3. "[Systematic Mistakes of Borrowers in the Mortgage Markets](#)" (with Ben-David, Z., and V. Yao), forthcoming *Journal of Finance Economics*
4. "[Golf Buddies and Board Diversity](#)" (Qian, W., D. Reeb and S. Tien-Foo), forthcoming *American Economic Review – Papers and Proceedings*
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), forthcoming *Journal of Political Economy*
6. "[Rushing into the American Dream? House Prices Growth and the Timing of Homeownership](#)" (with Hu, L., and X. Huang), forthcoming *Review of Finance*
7. "[The Hidden Perils: The Role of the Condominium Market in the Current Financial Crisis?](#)" (with Deng Y., X. Luo, and W. Qian), forthcoming *Review of Finance*
8. "[Why do Borrowers Make Mortgage Refinancing Mistakes?](#)" (with Rosen, R., and V. Yao), forthcoming *Management Science*
9. "[The Information Value of Credit Rating Action Reports: A Textual Analysis](#)" (with Chen, V., and W. Zhang), forthcoming *Management Science*
10. "[Collateral Pledge, Sunk-Cost Fallacy, and Mortgage Default](#)" (with Green, R., and V. Yao), forthcoming *Journal of Financial Intermediation*
11. "[Adverse Selection in Lending: Evidence from Home Equity Cash Out Behavior](#)" (with Chomsisengphet, S. and C. Liu), forthcoming *Journal of Financial Services Research*
12. "[Impact of Electronic Road Pricing \(ERP\) charges on Real Estate Prices in Singapore](#)", (with Mo Koo, K., and S. Tien-foo), forthcoming *Journal of Urban Economics*
13. "[The Subprime Virus](#)" (with Ambrose, B. and Y. Yildirim), *Real Estate Economics*, 2015, Vol. 43(4), Pp. 891-915
14. "[Financial Literacy and Financial Planning: Evidence from India](#)" (with Amromin, G., I. Ben-David, S. Chomsisengphet and D. Evanoff), *Journal of Housing Economics*, 2015, Vol 27, Pp. 4-21
15. "[Do Consumers Choose the Right Credit Contracts?](#)" (with Chomsisengphet, S., C. Liu, and N. Souleles), *Review of Corporate Financial Studies*, 2015, Vol 4(2), Pp. 239-257
16. "[The Composition Effect of Consumption Around Retirement: Evidence from Singapore](#)" (with Pan, J., and W. Qian), *American Economic Review – Papers and Proceedings*, 2015, Vol. 105(5), Pp. 426-431
17. "[Collateral Valuation and Institutional Pressures: Evidence from the Residential Real-Estate Market](#)" (with Ben-David, Z., and V. Yao), *Management Science*, 2015, Vol. 61(9), Pp.2220-2240
18. "[Regulating Consumer Financial Products: Evidence from the Card Act](#)" (with, Chomsisengphet, S., N. Mahoney and J. Stroebel), *Quarterly Journal of Economics*, 2015, Vol. 130(1), Pp. 111-164
19. "[Consumption and Debt Response to Unanticipated Income Shocks: Evidence from a Natural Experiment in Singapore](#)" (with Qian, W), *American Economic Review*, 2014, Vol. 104(12), Pp. 4205-4230
20. "[A Simple Framework for Estimating Consumers Benefits from Regulating Hidden Fees](#)" (with, Chomsisengphet, S., N. Mahoney and J. Stroebel), *Journal of Legal Studies*, 2014, Vol. 43(S2), Pp. 239-252
21. "[Predatory Lending and the Subprime Crisis?](#)" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff), *Journal of Financial Economics*, 2014, Vol. 113(1), Pp. 29-52

22. "[Inconsistent Regulators: Evidence from Banking](#)" (with Lucca, D., A. Seru and F. Trebbi), *Quarterly Journal of Economics*, 2014, Vol. 129(2), Pp.889-938
23. "[Optimal Mortgage Refinancing: A Closed Form Solution](#)" (with Driscoll, J., and D. Laibson), *Journal of Money, Credit and Banking*, 2013, Vol. 45(4), Pp. 591-622
24. "[Cognitive Ability and Financial Decision Making](#)" (with Mazumder, B), *American Economic Journal: Applied Economics*, 2013, Vol. 5(1), Pp. 193-207
25. "[Consumption and Debt Response to Minimum Wage Increases](#)" (with Aaronson, D., and E. French), *American Economic Review*, 2012, Vol. 102(7), Pp. 3111-39 (Lead Article)
26. "[Adverse Selection in Mortgage Securitization](#)" (with Chang, Y. and A. Yavas), *Journal of Financial Economics*, 2012, Vol. 105(3), Pp.640-660
27. "[Thy Neighbor's Mortgage: Does Living in a Subprime Neighborhood Affect Once Probability of Default](#)" (with Ambrose, B., S. Chomsisengphet, and A. Sanders), *Real Estate Economics*, 2012, Vol. 40(1), Pp. 1-22 (Lead article)
28. "[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
29. "[Does Social Capital Impact Household Default and Bankruptcy Behavior?](#)" (with Chomsisengphet, S and C. Liu), *Journal of Economic Psychology*, 2011, Vol. 32, Pp. 632-650
30. "[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
31. "[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
32. "[Internal Capital Allocation in a Diversified Firm: Evidence from the Annual Capital Expenditure Survey](#)" (with Chiu, I., X. Souphom, and G. Yamashiro), *Quarterly Review of Economics and Finance*, 2011, Vol. (51), Pp. 162-172
33. "[The Brokerage Firm Effect in Herding: Evidence from Indonesia](#)" (with Chiu, I., Liu, C., and G. Rhee), *Journal of Financial Research*, 2011, Vol. 34(3), Pp. 461-479
34. "[Distance and Private Information in Lending](#)" (with Hauswald, R), *Review of Financial Studies*, 2010, Vol. 23(7), Pp. 2757-2788
35. "[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
36. "[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 Proceedings*, 2010, Vol. 100(2), Pp. 495-500
37. "[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
38. "[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 Proceedings*, 2009, Vol. 99(2), Pp. 412-417
39. "[Bankruptcy Exemption Laws and the Market for Mortgages](#)" (with Chomsisengphet, S), *Cityscape*, 2009, Vol. 11(1), Pp. 101-112
40. "[Why do Foreign Investors Under-Perform Domestic Investors in Trading Activities? Evidence from Indonesia](#)" (with Faircloth, S., C. Liu, and G. Rhee), *Journal of Financial Markets*, 2009, Vol. 12, Pp. 32-53

41. "[Investor Demand for Initial Public Offerings and Aftermarket Performance of These Firms: Evidence from the Hong Kong Stock Market](#)" (with Liu, C., and G. Rhee), *Journal of International Financial Markets, Institutions, and Money*, 2008, Vol. 18, Pp. 176-190
42. "[Do Forbearance Plans Help Mitigate Credit Card Losses?](#)" (with Chomsisengphet, S., and L. Mielnicki), *Journal of Family and Economic Issues*, 2008, Vol. 29(2), Pp. 191-209 (Lead article)
43. "[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
44. "Earnings Management Behavior Under Different Economic Environments: Evidence from Japanese Banks" (with Chomsisengphet, S., C. Liu, and G. Rhee), *International Review of Economics and Finance*, 2007, Vol. 16(3), Pp. 429-443
45. "Where Does Price Discovery Occur for Stocks Traded in Multiple Markets? Evidence from Hong Kong and London" (with Liu, C., and G. Rhee), *Journal of International Money and Finance*, 2007, Vol. 26, Pp. 46-63
46. "The Impact of Homeowners' Housing Wealth Misestimation on Consumption and Saving Decisions" *Real Estate Economics*, 2007, Vol. 35(2), Pp.135-154 (Lead article)
47. "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
48. "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)
49. "The Impact of the 2001 Financial Crisis and the Economic Policy Responses on the Argentine Mortgage Market" (with Chomsisengphet, S., and O. Hassler), *Journal of Housing Economics*, 2005, Vol. 14(3), Pp. 242-270
50. "Impact of State Exemption Laws on Small Business Bankruptcy Decision" (with Chomsisengphet, S., C. Liu, and L. Mielnicki), *Southern Economic Journal*, 2005, Vol. 71(3), Pp. 620-635
51. "Telecommunication and Economic Growth: A Panel Data Approach" (with Dutta, A), *Applied Economics*, 2004, Vol. 36(15), Pp. 1649-1654
52. "Financial Markets and Financing Choices of Firms: Evidence from Developing Countries" (with Mohtadi, H), *Global Finance Journal*, 2004, Vol. 15(1), Pp. 57-70
53. "Mortgages, Minorities, and Discrimination: A Bank-Specific Analysis" (with Li, S., and L. Mielnicki), *Housing Studies*, 2003, Vol. 18(3), Pp. 303-311
54. "Exemption Laws and Consumer Delinquency and Bankruptcy Behavior: An Empirical Analysis of Credit Card Data" (with Liu, C., and L. Mielnicki), *Quarterly Review of Economics and Finance*, 2003, Vol. 43(2), Pp. 273-289
55. "Determinants of Credit Card Delinquency and Bankruptcy: Macroeconomic Factors" (with Liu, C), *Journal of Economics and Finance*, 2003, Vol. 27, Pp. 75-84

#### **Policy Publications**

56. "Fringe Banking During The Great Recession" (with Mazumder, B., and T. Gross), forthcoming, Federal Reserve Bank of Chicago *Economic Perspective*
57. "Homebuilder, Affiliated Financing Arms and the Current Mortgage Crisis" (with Amromin, G., C. Gartenberg, A. Paulson, and S. Villupuram), Federal Reserve Bank of Chicago *Economic Perspective*, Q2 2014, Pp. 39-51
58. "The Asset-Backed Securities Market, the Crisis, and TALF" (with Burette, J. and C. DeNardi), Federal Reserve Bank of Chicago *Profitwise*, 2011
59. "Loan Commitments and Private Firms" (with Chomsisengphet, S., and J. Driscoll), Federal Reserve Bank of Chicago *Economic Perspective*, Q2 2011, Pp. 71-79

60. "Determinants of Loan Modifications and Their Success." (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff) in the 46<sup>th</sup> Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, May 2010
61. "Why aren't Banks Lending More? The Role of Commercial Real Estate" (with Genay, H., and R. McMenamin), *Chicago Fed Letter*, #281, December 2010
62. "TARP, Credit Crisis, and the Securities Markets" (with Burette, J., C. Cun, and C. DeNardi), Federal Reserve Bank of Chicago *Economic Perspective*, Q4 2010, Pp. 101-115
63. "Rescuing Asset-backed Securities Markets" (with DeNardi, C., and C. Cun), *Chicago Fed Letter*, #270, January 2010
64. "Do Financial Counseling Mandates Improve Mortgage Choice and Performance?" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff) in the 45<sup>th</sup> Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, May 2009
65. "Determinants of Automobile Prepayment and Default" (with Ambrose, B., and S. Chomsisengphet), Federal Reserve Bank of Chicago *Economic Perspective*, Q3 2008, Pp.17-28
66. "Comparing the Prime and Subprime Mortgage Markets" (with Ho, C), *Chicago Fed Letter*, #241, August 2007
67. "Distance and Lending Decisions," (with Hauswald, R) in the Proceedings of the 43<sup>rd</sup> Proceeding of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, May 2007

#### **Book Chapters and Other Publications**

68. "Market Bases Loss Mitigation Outcome for Troubles Mortgages during the Financial Crisis" (with Amromin, G., I. Ben-David, S. Chomsisengphet and D. Evanoff), June 2016, forthcoming
69. "Does it Pay to Read Your Junk Mail: Evidence on the Effect of Persuasion on Financial Decisions" (with Ambrose, B), in Kathryn Zeiler and Joshua Teitelbaum (eds.), *Research Handbook on Behavioral Law and Economics*, April 2014, forthcoming
70. "Financial Counseling, Financial Literacy, and Household Decision Making" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and D. Evanoff) in Mitchell, O., and A. Lusardi (eds.), *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*, Oxford University Press, October 2011, Pp. 181-205
71. "Consumer Behavior in Financial Markets: Financial Crisis and Policy Implication," *ISB Insight*, 2010, Vol. Summer 2010, Pp. 16-19
72. "What is the Age of Reason?" (with Driscoll, J., X. Gabaix, and D. Laibson), *Center for Retirement Research - Issue in Brief*, 2010, Vol. 10-12, Pp. 1-8
73. "Consumer Bankruptcy: Theory, Empirical Evidence, and Lessons for China" People's Bank of China and World Bank – IFC, Fall 2008
74. "Determinants of Small Business Default" (with Chomsisengphet, S., and C. Liu) in Christodoulakis, G., and S. Satchell (eds.), *The Analytics of Risk Model Validation*, Palgrave-Macmillan Publishing, December 2007, Pp. 1-12
75. "Information Asymmetry and the Automobile Loan Market" (with Ambrose, B., and S. Chomsisengphet) in Agarwal, S., and B. Ambrose, (eds.), *Household Credit Usage: Personal Debt and Mortgages*, Palgrave-Macmillan Publishing, October, 2007, Pp. 93-116
76. "Liberalization of Equity Markets, Capital Structure and Growth: Progress, Lessons and Challenges in Developing Countries" in Banerjee, P., and F. Richter (eds.), *Economic Institutions in India: Sustainability Under Liberalization and Globalization*, Palgrave-Macmillan Publishing, 2002, Pp. 99-120
77. "Stock Market Development and Economic Growth: Preliminary Evidence from African Countries," *Journal of Sustainable Development in Africa*, Spring 2001
78. "Assessing Real Sector Response to Stabilization and Structural Adjustment Program in Uganda: The Case of the Manufacturing Sector" *Journal of Sustainable Development in Africa*, Fall 2000

## Working Papers

1. “Did the Community Reinvestment Act lead to risky lending?” (with Benmelech, E., N. Bergman, A. Seru), revise and resubmit at *Journal of Political Economy*
2. “Do Lenders Steer Borrowers to High Risk Mortgage Products” (with Evanoff, D), revise and resubmit at *Journal of Finance*
3. “Loan Prospecting and the Loss of Soft Information” (with Ben-David, I), revise and resubmit at *Journal of Finance*
4. “Consumption Response to State Sales Tax Holidays” (with Marvell, N., and L. McGranahan), revise and resubmit at *American Economic Journal – Policy*
5. “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), revise and resubmit at *American Economic Journal – Policy*
6. “The Politics of Mortgage Foreclosures” (with Amromin, G., I. Ben-David, and S. Dinc), reject and resubmit at *Journal of Finance*
7. “Superstition in housing markets: Do lucky housing numbers really bring good luck?” (with Jia, H., H. Liu, I. Png, S. Tien Foo and W. Wong), reject and resubmit at *Management Science*
8. “Do Second Liens Holdup First Lien Holders’ Modifications?” (with Amromin, G., I. Ben-David, S. Chomsisengphet, and Y. Zhang), revise and resubmit at *Management Science*
9. “Gender and Household Financial Decision: Evidence from Personal Bankruptcy” (with Jia, H., T. Sing, and J. Zhang), revise and resubmit at *Review of Finance*
10. “The Choice Between Arm's-Length and Inside Debt” (with Hauswald, R)
11. “Relationship Lending: Evidence from the Consumer Credit Market” (with Chomsisengphet, S., C. Liu, and N. Souleles)
12. “Information and Authority” (with Hauswald, R)
13. “Competition in the Mortgage Market: Evidence from the Home Affordable Refinance Program” (with Amromin, G., S. Chomsisengphet, T., Piskorski, A. Seru, and V. Yao)
14. “Age of Decision: Consumption and Debt Response to Retirement Savings Cash Out” (with Pan, J., and W. Qian)
15. “The Limits of Regulation: Appraisal Bias in the Mortgage Market” (with Ambrose, B., and V. Yao)
16. “Disguised Corruption: Evidence from Consumer Credit in China” (with Qian, W., A. Seru, and J. Zhang)
17. “Political Insider Trading: Evidence from Real Estate Markets in Singapore” (with Seru, A., T. Sing, and J. Zhang)
18. “Household Credit During the Great Recession” (with, Chomsisengphet, S., N. Mahoney and J. Stroebe)
19. “The Political Economy of Bank Lending: Evidence from Mexico” (with M. Bernardo, C. Ruiz, and J. Zhang)
20. “Consumption Response to Credit Tightening Policy: Evidence from Turkey” (with Muris Hadzic and Yildiray Yildirim)
21. “The impact of housing credit on personal bankruptcy” (with C. Song)
22. “The Information Value of Sovereign Credit Rating Reports” (with Chen, V., J. Sim, and W. Zhang)
23. “Strategic Information Disclosure and Bank Lending” (with Chomsisengphet, S., and Q. Wang)
24. “Is Secured Lending Secured?” (with Chomsisengphet, S., and Q. Wang)

## Grants/Awards/Lectures

1. NUS FRC Tier 1 Research Grant, Ministry of Education

Sep 2015

- “Strategic Information Disclosures, Agency Problems and Small Business Lending” (with Wang, Q) 2015-2016, (Singapore \$21,000)
2. SAFE, Goethe University, Frankfurt, Germany Sep 2015  
Keynote address on, “Detecting corruption through the banking channel” at the House of Finance
  3. Inter-American Development Bank, Santiago, Chile July 2015  
Keynote address on, “Credit and Debt markets in South America” at the Annual conference of finance regulators
  4. National University of Singapore March 2015  
Keynote address on “[Urbanization and Aging in Singapore](#)”
  5. NUS FRC Tier 1 Masim Mas Research Grant, Ministry of Education March 2015  
“Behavioral Interventions into Water and Energy Consumption” (with Tien-Foo, S) 2015-2016, (Singapore \$36,072)
  6. Australian National University Dec 2014  
Keynote address on, “Corruption and Insider Trading in Banking and Real Estate Markets” at the ANU Summer Camp
  7. HHS Seed Funding, NUS Oct 2014  
“Role of Relationship, Aging, Cognitive Abilities, and Housing on Consumer Behavior: Evidence from Credit Registry Data from Finland” 2014-2017, (Singapore \$40,000)
  8. NUS FRC Tier 1 Research Grant, Ministry of Education July 2014  
“Real time information and water conservation” (with Tien-Foo, S) 2014-2017, (Singapore \$105,750)
  9. Faculty Outstanding Researcher Award, NUS (Singapore \$1,000) Dec 2013
  10. NUS FRC Tier 1 Research Grant, Ministry of Education May 2013  
“Behavioral Studies in Real Estate: Weather Effects, Energy Consumption and Housing Choice” (with Tien-Foo, S) 2013-2016, (Singapore \$50,500)
  11. NBER Household Finance Group/Sloan Foundation Research Grant February 2013  
“Consumer Behavior in Financial Markets in Singapore,” (with Qian, W) 2013, (\$16,000)
  12. NUS FRC Tier 1 Research Grant, Ministry of Education October 2012  
“The impact of fiscal policy, housing wealth, liquidity constraints and consumer sentiment on consumption in Singapore,” (with Qian, W) 2012-2015, (Singapore \$86,100)
  13. Red Rock Finance Conference, Best Paper Award September 2012  
“Inconsistent Regulators: Evidence from Banking” (with Lucca, D., A. Seru and F. Trebbi)
  14. Excellence in Refereeing Award 2011/2012 – *American Economic Review* June 2012
  15. NUS Research Grant February 2012  
“Consumer Behavior in Financial Markets” 2012-2015 (Singapore \$60,000)
  16. Russell Sage Foundation Grant November 2011  
“The Great Recession and Fringe Banking” (with Mazumder, B. and T. Gross) 2011-2014 (\$150,463)
  17. Networks Financial Institute Competition, Best Paper Award January 2011  
“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)
  18. TIAA-CREF Paul A. Samuelson Award January 2011  
“The Age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation” (with Driscoll, J., X. Gabaix, and D. Laibson) (\$2000)
  19. Terker Family Prizes in Investment Research Award, Wharton School of Business January 2009  
“Reaction of Consumer Spending and Debt to Tax Rebates - Evidence from Consumer Credit Data” (with Liu, C., and N. Souleles) (\$5,000)
  20. Wageningen 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
21. 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)
  22. Center for Financial Research Grant, Federal Deposit Insurance Corporation April 2008  
 “Evaluating the Effectiveness of Voluntary Financial Education: INHP Counseling Program” (with Amromin, G., D. Evanoff, and I. Ben-David) (\$10,000)
  23. Glucksman Institute Research Award, New York University February 2008  
 “The Age of Reason: Financial Decisions over the Lifecycle” (with Driscoll, J., X. Gabaix, and D. Laibson) (\$2,500)
  24. Consumer Financial Education and Research Grant, TCAI, University of Arizona October 2007  
 “Does Social Capital Impact Household Default and Bankruptcy Behavior” (with Chomsisengphet, S and C. Liu) (\$5,000)
  25. Center for Financial Research Grant, Federal Deposit Insurance Corporation March 2006  
 “Distance and Information Asymmetries in Lending” (with Hauswald, R) (\$10,000)
  26. Center for Financial Research Grant, Federal Deposit Insurance Corporation March 2006  
 “Screening for Moral Hazard and Adverse Selection: Evidence from the Home Equity Market” (with Ambrose, B., S. Chomsisengphet, and C. Liu) (\$10,000)
  27. Phi Kappa Phi, National Honor Society May 1998
  28. J. Walter Elliot Award for Excellence in Macroeconomics - UWM March 1995
  29. University of Geissen, Exchange Program, Germany Summer 1995

## **PROFESSIONAL SERVICES**

### **Invited Seminar, Conferences, and Presentations**

- 2016 -Georgetown University, Washington DC  
 City University of Hong Kong, Hong Kong  
 American Economics Association, San Francisco
- 2015 -Financial Inclusion in Asia, Papua New Guinea  
 Society of Economic Dynamics Conference, Warsaw, Poland  
 Finance Department, Hong Kong University, Hong Kong  
 Household Debt in Asia, BIS Conference, Hong Kong  
 Household Finance Conference, KDI, South Korea  
 Household Debt in Latin America, IADB, Santiago, Chile  
 Financial Conduct Authority, London, UK  
 Finance Department, Baruch College  
 Finance Department, University of Virginia  
 Finance Department, Columbia University  
 Annual Community in Review Conference, Keynote Speech, Singapore
- 2014 -IDA, Tel-Aviv, Israel  
 Vienna Graduate School of Finance, Vienna, Austria  
 Australian National University, Canberra, Australia  
 Indian School of Business, Hyderabad, India  
 Chulalongkorn University, Bangkok, Thailand  
 CEPR Summer Conference in Corporate Finance, Gerzensee, Switzerland  
 Finance Department, Singapore Management University
- 2013 -Carey School of Business, Johns Hopkins University, Baltimore, MD  
 Mason School of Business, The College of William and Mary, Williamsburg, VA

Congressional Policy Briefing on Housing Finance, Capital Hill, Washington, DC  
 Federal Deposit Insurance Corporation, Arlington, VA  
 AIM Investment Conference on Institutional Investment, Austin, TX  
 The World Bank, Washington DC  
 Finance Department, University of Wisconsin  
 Finance Department, University of Maryland  
 Finance Department, Oxford University, Oxford, UK  
 Finance Department, University of Illinois  
 Economics Department, Johns Hopkins University, Baltimore  
 Darden School of Business, University of Virginia  
 Finance Department, Kansas University  
 Consumer Financial Protection Bureau  
 NBER Conference on Improving the Measurement of Household Spending, Boston  
 Western Finance Association Meetings, Lake Tahoe  
 Risk Conference, Australian National University, Sydney, Australia  
 Financial Conduct Authority, London, UK  
 Asian Bureau of Finance and Economics Research, Singapore  
 Stockholm School of Economics, Liabilities and Credit Risk Conference, Stockholm, Sweden  
 Nanyang Technology University, Singapore  
 National University of Singapore, Singapore  
 Western Economics Association International Conference, Tokyo, Japan  
 Finance Down Under Conference, University of Melbourne, Australia  
 Delhi School of Economics, New Delhi, India  
 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  
 Microeconomic 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  
 46<sup>th</sup> 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 Economics 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
- 2008 -European Commission Conference on Behavioral Economics and Consumer Policy, Brussels  
 Keynote address - Conference on the Global Financial Crisis, Delhi, India  
 Keynote address - Indo American Chamber of Commerce on the Financial Crisis, India  
 Keynote address - JNT University on the Financial Crisis, Hyderabad, India  
 Deloitte panel discussion on the Financial Crisis, Hyderabad, India  
 ISB Symposium on the Financial Crisis, Hyderabad, India  
 Nanyang Technological University, Singapore  
 ECB-CFS Conference on Household Finance and Consumption, Frankfurt, Germany  
 Northern Illinois University Symposium on Sub Prime Mortgage Market  
 NASABA Annual Conference, Sub Prime Mortgage Market, Chicago  
 Western Finance Association, Waikoloa, Hawaii  
 Financial Intermediation Research Society, Anchorage, Alaska  
 Federal Trade Commission Conference on Consumer Information and the Mortgage Market  
 International Symposium on Retail Banking and Consumer Insolvency, Beijing, China  
 Federal Reserve Bank of Chicago  
 NREF Conference on Sub-Prime Market and the Economy, Chicago  
 University of Minnesota - Department of Applied Economics  
 Federal Reserve Bank of San Francisco  
 Midwest Economic Association, Chicago  
 Fourth European Symposium on Economics and Psychology, Amsterdam, Holland  
 American Economic Association, New Orleans

- 2007 -Indian School of Business, Hyderabad, India  
 Twenty-Ninth Annual APPAM Research Conference, Washington, DC  
 University of Wisconsin - Milwaukee  
 Seven Rivers Region Economic Conference  
 Federal Reserve Bank of Chicago  
 Summer Research Conference in Finance, ISB, Hyderabad, India  
 Behavioral Approaches to Consumption, Credit, and Asset Allocation, Florence, Italy  
 Household Finance and Housing Wealth Conference, Madrid, Spain  
 Chicago Area Community Conference on International Trade  
 Small Business Bankers Conference  
 American Real Estate and Urban Economics Association (Annual), Chicago
- 2006 -Federal Deposit Insurance Corporation  
 University of Nevada – Reno  
 Board of Directors of the Federal Reserve Bank of Chicago  
 A .G. Edwards’ Community Bank Mini - Conference  
 National Council of Applied Economic Research, Delhi, India  
 Midwest Economic Association  
 Washington Area Finance Association  
 Federal Reserve Bank of Chicago  
 American University  
 Towson University  
 American Real Estate and Urban Economics Association (Annual), Boston
- 2005 -Financial Management Association  
 American Real Estate and Urban Economics Association (Midyear)  
 Washington Area Finance Association  
 Midwest Economic Association  
 Singapore Management University  
 National University of Singapore
- 2004 -Fannie Mae  
 Midwest Economic Association  
 Asian Real Estate Society, Delhi, India
- 2003 -Bank One  
 University of Wisconsin - Milwaukee
- 2002 -Credit Card Conference (Thomson Financial)  
 Global Finance Association, Beijing, China
- 2001 -Southern Economic Association

**Session Chair(C)/Discussant(D)**

- 2016 -American Finance Association, San Francisco (D)  
 Econometric Society Meetings, San Francisco (C)
- 2015 -European Household Finance Conference, Frankfurt, Germany (D)  
 American Finance Association, Boston (D)  
 IRES Annual Symposium, Singapore (C)  
 ABFER Annual Conference, Singapore (D)
- 2014 -China International Conference in Finance (C, D)  
 American Economics Association, Philadelphia (C)

- American Finance Association, Philadelphia (D)
- 2013 -European Household Finance Conference, Rome, Italy (D)  
Western Economics Association International Conference, Tokyo, Japan (D)  
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 Economics Association, Denver (C)
- 2010 -Conference on Financial Economics and Accounting, University of Maryland (D)  
46<sup>th</sup> Bank Structure and Competition Conference, Federal Reserve Bank of Chicago (C)  
American Economics 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 Economics Association (C)  
AREUEA Meetings (D)
- 2008 -Summer Research Conference in Finance, ISB, Hyderabad, India (D)  
Financial Intermediation Research Society Conference, Anchorage, Alaska (D)  
44<sup>th</sup> Bank Structure and Competition Conference, Federal Reserve Bank of Chicago (C)  
Midwest Economics Association (D)  
Fourth European Symposium on Economics and Psychology, Amsterdam, Netherlands (C)
- 2007 -Financial Management Association (D)  
Summer Research Conference in Finance, ISB, Hyderabad, India (D)  
Behavioral Approaches to Consumption, Credit, and Asset Allocation, Florence, Italy (D)
- 2006 -Midwest Economics Association (C, D)
- 2005 -Financial Management Association (D)  
Midwest Economics Association (C, D)
- 2004 -Midwest Economics Association (D)  
Wharton Financial Institution Center (D)
- 2002 -Global Finance Association, Beijing, China (D)
- 2001 -Southern Economics Association (D)

### **Organization of Sessions and Program Committees**

- European Finance Association Conference, program committee, 2015, 2016
- IBEF Conference, program committee, 2014, 2015
- FIRS Annual Conference, program committee, 2011, 2012, 2013, 2015
- AREUEA Conference, program committee, 2010, 2012, 2013, 2015
- CICF Conference, Shenzhen China, Session Chair, 2015
- Finance Down Under Conference, Australia, program committee, 2015
- CEPR/European Banking Center, 6th Financial Stability Conference, program committee, 2014

CAF, Finance Conference, program committee, 2014  
NSE/IFMR Grant Committee, panel member, 2014  
AEA/AREUEA session “Role of Regulation in Real Estate Markets” 2014  
FSU/OCC Conference, program committee, 2014  
Pre-WFA Real Estate Conference, program committee, 2013  
Behavioral Economics Summer Camp at NUS, organizing committee, 2013  
NUS-IRES 4<sup>th</sup> Annual Research Symposium, program committee, 2013  
Singapore International Conference in Finance, paper reviewer, 2012; program committee, 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  
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 Journal - Applied Economics  
American Economic Journal - Macro  
American Economic Journal - Policy  
American Economic Review  
Contemporary Economic Policy  
Econometrica  
Economic Inquiry  
Economic Journal  
Housing Studies  
International Economic Journal  
International Journal of Financial Services Management  
Journal of Banking and Finance  
Journal of Consumer Affairs  
Journal of Economics and Business  
Journal of Emerging Market Finance  
Journal of Empirical Finance  
Journal of Empirical Legal Studies  
Journal of European Economic Association  
Journal of Experimental Psychology  
Journal of Finance  
Journal of Financial Economics  
Journal of Financial Intermediation  
Journal of Financial Research  
Journal of Financial Services Research  
Journal of Housing Economics  
Journal of International Business Studies  
Journal of Legal Studies

Journal of Marketing Research  
Journal of Monetary Economics  
Journal of Money, Credit and Banking  
Journal of Political Economy  
Journal of Public Economics  
Journal of Real Estate Finance and Economics  
Journal of Urban Economics  
Management Science  
Pacific Basin Finance Journal  
Quarterly Journal of Economics  
Quarterly Review of Economics and Finance  
Real Estate Economics  
Review of Economics and Statistics  
Review of Economic Studies  
Review of Finance  
Review of Financial Studies  
Review of Industrial Organization  
Scandinavian Journal of Economics  
Southern Economic Journal

**Referee (Grant Application)**

National Science Foundation  
Social Science and Humanities Research Counsel of Canada

**MEDIA**

**Op-Ed**

1. "[Bank pass-through of credit expansions and household borrowing](#)" (with Chomsisengphet, S., N. Mahoney, J. Stroebel) *Vox*, January 9<sup>th</sup>, 2016
2. "[Pick a card, any card: Cloaked corruption in China](#)" (with Qian, W., and J. Zhang), *Straits Times*, January 6<sup>th</sup>, 2016
3. "[How school proximity affects house prices in Singapore](#)" (with Tien Foo, S), *Straits Times*, December 17<sup>th</sup>, 2015
4. "[The information advantage of Singapore's real estate agents](#)" *Straits Times*, October 15<sup>th</sup>, 2015
5. "[Home Affordable Refinance Program: Impact on Borrowers](#)" (with Amromin, G., S., Chomsisengphet, T. Piskorski, A., Seru, V. Yao), *Vox*, October 1<sup>st</sup>, 2015
6. "[The 'Hungry Ghost month' effect on housing](#)" (with Tien Foo, S), *Straits Times*, September 2<sup>nd</sup>, 2015
7. "[The impact of housing credit on personal bankruptcy](#)" (with Song, C) *Straits Times*, July 4<sup>th</sup> 2015
8. "[CPF reform: Nudge people to make optimal choices](#)" *Straits Times*, February 7<sup>th</sup> 2015
9. "[Is Uber taking us for a ride?](#)" *Today*, December 22<sup>th</sup> 2014
10. "[The 'lucky 8' premium in housing unit prices](#)" *Straits Times*, September 19<sup>th</sup> 2014
11. "[Singaporeans' puzzling behavior at age 55](#)" (with Pan, J., and W. Qian), *Straits Times*, September 11<sup>th</sup>, 2014
12. "[Govt rebates: Spend or save?](#)" *Straits Times*, June 6<sup>th</sup>, 2013
13. "[The rise and rise of shoebox units](#)" (with Deng, Y., and S. Tien Foo), *Straits Times*, September 12<sup>th</sup>, 2012

**TV Appearance (Selected)**

1. *Channel News Asia, Common Cents* show to discuss, "[Managing your Credit Card](#)" April 30<sup>th</sup>, 2015
2. *Channel News Asia, Business Singapore* show to discuss, "[Technology helps banks engage clients beyond physical branch](#)" March 4<sup>th</sup>, 2015
3. *Channel News Asia, Business Singapore* show to discuss, "[CEA to recognize outstanding property agencies with new scheme](#)" February 18<sup>th</sup>, 2015
4. *Channel News Asia, Business Singapore* show to discuss, "[S&P pays US\\$1.4b in settlements](#)" February 6<sup>th</sup>, 2015
5. *Channel News Asia, Business Singapore* show to discuss, "[Singapore's home mortgage rates continue to rise](#)" February 2<sup>nd</sup>, 2015
6. *Channel News Asia, Business Singapore* show to discuss, "[Uber aims for \\$40 Billion Valuation](#)," November 27<sup>th</sup>, 2014
7. *Channel News Asia, Business Singapore* show to discuss, "[Bitcoins Boom or Bust](#)," September 14<sup>th</sup>, 2014
8. *BBC, Asia Business Report* to discuss, "[What does Jackson Hole mean for Asia's businesses](#)", August 25<sup>th</sup>, 2014
9. *Channel News Asia, Business Singapore* show to discuss, "[Bit Coins in Singapore](#)," July 26<sup>th</sup>, 2014
10. *BBC, Asia Business Report* to discuss, "[Asian Workers Rights](#)", May 1<sup>st</sup>, 2014
11. *NHK, Singapore Bureau* show to discuss, "The future of Bit Coins," April 17<sup>th</sup>, 2014
12. *BBC, Asia Business Report* to discuss, "[Australia Eyes Insider Trading Crackdown](#)", July 12<sup>th</sup>, 2013
13. *Channel News Asia, Business Singapore* show to discuss, "[MAS Reportedly in Discussions to Discontinue SIBOR](#)" February 18<sup>th</sup>, 2013
14. *CNBC, Squawk Box* to discuss, "[Rigging Currency Rates in Singapore](#)," February 6<sup>th</sup>, 2013
15. *Channel News Asia, Evening News* to discuss, "[Regional banks see jump in merger and acquisition activities](#)", November 2<sup>nd</sup>, 2012
16. *Channel News Asia, Bridging Asia* show to debate, "Should Happiness be a National Target?" October 30<sup>th</sup>, 2012
17. *BBC, Asia Business Report* to discuss, "HSBC Apologizes Over Claims it Aided Money-Laundering", July 19<sup>th</sup>, 2012
18. *BBC, Radio* to discuss, "Banking Troubles -- HSBC Money Laundering and Barclays LIBOR Scandal" July 18<sup>th</sup>, 2012
19. *BBC, Asia Business Report* to discuss, "JP Morgan Loss: Bank Risks 'Different Asia'", May 15, 2012
20. *NewsX, Fineprint* to discuss, "\$700 Billion Bailout Package", September 28, 2008

#### **Citation (Selected)**

1. "[Backdoor bribes? Banks offer special credit lines to Chinese bureaucrats](#)" *Forbes*, January 7<sup>th</sup> 2016
2. "[All Credit to Them](#)", *The Economist*, September 26, 2015
3. Siau Ming En, "[Study what makes people tick to effect change, says NUS prof](#)," *Today*, March 20, 2015
4. Manju Dalal and Liantng Tu, "DBS Chief Warns of Basel Fallout" *IFRAsia*, October 4, 2014
5. Grace Chua, "Construction ups home energy" *The Straits Times*, January 27, 2014
6. Floyd Norris, "Card Act Cleaned up Credit Cards' Hidden Costs" *New York Times*, November 7, 2013
7. Zack Fox, "New study estimates the effect of predatory-lending law" *SNL Financial*, October 29, 2013

8. Matthew Yglesias, "The CARD Act has Saved Billions" *Slate*, October 9, 2013
9. Cass Sunstein, "How Changing a Forum Can Change Peoples Lives" *Bloomberg*, October 8, 2013
10. Fred O Williams, "CARD Act Cut Fees \$20 Billion" *Fox Business Report*, October 3, 2013
11. "[What went wrong?](#)" *The Economist*, August 13, 2013
12. E. Thomas McClanahan, "Yes, the Community Reinvestment Act encouraged banks to make risky loans" *Midwest Voices*, December 27, 2012
13. Raghuram Rajan, "Did bankers create the crisis?" *Live Mint*, December 23, 2012
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## TEACHING

### Regular Courses

Research Methods in Applied Econometrics, PhD, National University of Singapore	Spring, 2016
Research Methods in Applied Econometrics, PhD, National University of Singapore	Spring, 2015
Risk Management, BBA elective, National University of Singapore	Spring, 2013, 2014
Real Estate Finance, PhD, National University of Singapore	Spring, 2013



Financial Institutions, MBA elective, National University of Singapore	Spring, 2012
Financial Institutions, MBA elective, Indian School of Business	Term 5 2008, Term 8 2010
Behavioral Finance, MBA elective, Indian School of Business	Term 5 2009
Corporate Financial, MBA core course, DePaul University	Fall 2007
Financial Management, MBA core course, George Washington University	Summer 2005
Cases in Financial Management, MBA elective, George Washington University	Spring 2005

### Evaluations

Risk Management, NUS (BBA elective)	Rating 4.4/5	2014
Risk Management, NUS (BBA elective)	Rating 4.2/5	2013
Financial Institutions, NUS (MBA elective)	Rating 4.7/5	2012
Research Methods in Applied Econometrics (PhD requirement)	Rating	2015
Research Methods in Applied Econometrics (PhD requirement)	Rating	2015
Real Estate Finance, NUS (PhD elective)	Rating	2013

### Student Comments (Some examples)

Strengths –

- The teacher is a very experienced and knowledgeable industry expert who can bring a lot of value-add to the finance department of NUS MBA. The teacher is also very approachable and very willing to help out his students. Not many professors give out their phone numbers to their students. I am especially grateful to his guidance and encouragement to my team.
- Prof has very a lot of experiences of working as a regulator and a investment banker, so he is able to bring out experiences of both sides during the class. He gave us perspectives that can be directly applied to the real world.
- Real industry experiences. Insider experience, true stories telling. Approachable, very friendly to student. Inspire students to think and understand make comprehensive theories into understandable examples. Workload of this module is not heavy kept my interest to learn.

Improvements –

- Maybe prof should contain more Asian perspectives.
- Improvements will be in terms of the module structure and scope, and not to the teacher.
- Slides of the lectures especially in the second half of the semester provide some quantitative examples, calculations for illustrations as well.

Nomination for the Best Teacher Award –

- A refreshing teaching style that embodies the spirit of business school by grooming a new batch of outspoken students who are able to critically think on their feet. There is a sense of kinship with the class uncommon in other modules, aided both by the conversational style teaching, and that of after class interaction. Despite making the class more engaging through personal anecdotes and other real life experiences, the concepts presented are clearly articulated and easily understandable, especially when peer learning is factored in. Overall, an interesting and interactive module that serves as a good foundation for understanding crisis and basic risk concepts without being overwhelmed.

### Executive Education Courses

Fiscal Policy and Political Economy Winter School, Mumbai, RBI-IGIRD Program	2015
Financial Inclusion, Mumbai, ALFI Program	2015

Consumption Response to Macro Policy, Singapore, ALFI Program	2015
Financial Crisis and Asian Economies, CKGSB Program	2015
Risk Management, Sumitomo	2013
Behavioral Finance, Banking Industry	2013
Financial Intermediation, Insurance Industry	2012
Merger and Acquisitions, Sumitomo	2012

### **Mini Courses**

SAFE Research Center, Goethe University	Sep 2015
One week course on consumption, household finance, and real estate markets to the Phd students	
Croatian Bankers Association, Zagreb, Croatia	Sep 2006
Two day follow up course to the Croatian Bankers Association on credit risk modeling and measurement, model validation, and Basel II	
Croatia National Bank and Croatian Bankers Association, Zagreb, Croatia	Oct 2005
One week course to the supervision department of the Croatian National Bank and Croatian Bankers Association on credit risk modeling and measurement, model validation, and Basel II	
Indian Bankers Association and ICICI Bank, Bombay, India	May 2005
One day course to senior management of various Indian banks on Basel II and Credit Risk Measurement	

### **SERVICE NUS**

#### **University Services**

University Research Committee Expert Panel (Business and Social Science Cluster)	2014-Present
Faculty Promotion and Tenure Committee (School of Public Policy)	2015-Present
Faculty Promotion and Tenure Committee (School of Business)	2014-Present
Faculty Promotion and Tenure Committee (School of Design and Environment)	2014-Present
Member, Department Recruitment Committee (Economics Department)	2013-Present
Chair and Member, Department Recruitment Committee (Finance Department)	2012-Present
Chair, Department Recruitment Committee (Real Estate Department)	2012-Present
Faculty Research Committee (School of Business)	2012-Present
Faculty Research Committee (School of Design and Environment)	2012-Present
Department Promotion and Tenure Committee (Real Estate)	2012-2014
Department Promotion and Tenure Committee (Finance)	2012-2014

#### **Ph. D. Student Supervisor**

Mahnaaz Sultan (Real Estate)	Expected 2017
Zoe Zhang (Real Estate)	Expected 2017
Xin Zou (Finance)	Expected 2017
Mandy Zhang (Finance)	Expected 2017
Yinqi Zhang (Real Estate)	Expected 2016
Jian Zhang (Finance)	Expected 2016
Kang Mo Koo (Real Estate)	Expected 2016
Dulani Jayasuryia (Finance)	Expected 2015

#### **Ph.D. Committee Member**

Chenxi Luo (Real Estate)	2015
Yunglin Wang (Real Estate)	2015
Yupeng Lin (Finance)	2014
Maggie Wu (Finance)	2014

He Jia (Real Estate)

2014

**Others**

Field Service Project Supervisor (four students)

2012-2013

Undergraduate Honors Thesis Supervisor (three students)

2012-2013

Undergraduate Honors Thesis Supervisor (four students)

2013-2014

Undergraduate Honors Thesis Supervisor (four student)

2014-2015

**REFERENCES**

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