Proposal for NBER Household Finance Research Grant 2016

Disclosure and Retail Investor Protection in Singapore

Sumit Agarwal and Jian Zhang, National University of Singapore

The recent financial crisis has placed renewed focus on the protection of retail investors who have been shown to make serious investment mistakes by deviating from the prescriptions of normative finance. One important remedy to resolve these investment mistakes is the financial advice provided by the professionals. However, agency conflict exists that information asymmetry between investors and advisors can provide camouflage to advisors who provide biased advice in their own interests but to the detriment of their clients. Even unbiased financial advice is hardly followed by retail investors and fails to steer investors toward efficient portfolio (e.g. Bhattacharya et al., 2012).

In this proposal, we focus on an alternative solution, mandatory disclosure¹, and attempt to answer a very important public policy question: Can retail investor really benefit from the improved financial product disclosure? Specifically, how effective are these disclosure requirements in helping retail investors assess investment products and facilitating the comparison across products to make more informed financial decision? What are the most effective presentation mode? How does the effectiveness vary with different types of investment products and which type of retail investor can benefit more?

We will implement a large-scale randomized controlled trial (RCT) for the retail investors in Singapore. Our filed experiment introduces random variation in access to different forms of disclosure and monitors the impact on retail investor's financial decision making. It is outlined as follows:

- 1. We will first select a random sample of retail investors in Singapore through Random Digit Dialing and administer a Baseline Survey to collect the information about demographics and past investment experiences. In addition, quiz questions to test risk tolerance and financial literacy will be asked for the randomization and balance test later.
- 2. Then we randomly assign qualified respondents (retail investors) to five equally sized groups. The randomization will be stratified by variables such as age, income and financial literacy. A control group receives financial product brochure with no required disclosure while the products offered to respondents in other four groups is presented in the form that corresponds to the four regimes of interest. Specifically, the treatment groups include "Risk rating", "Complexity Rating", "Risk & Complexity Rating" and "historical price volatility only". Previous literature has highlighted an important condition for an effective disclosure to be effective and easy to understand: the disclosure needs to be adapted to how consumers actually use information to make decision (Campbell et al., 2011). For example, one reason for the ineffectiveness of Truth-in-Lending Act (TILA) is that it requires

¹ While a large body of literature investigates the effect of credit card information disclosure following the Truth in Lending Act in 1968 and Credit CARD Act of 2009, few studies examine this question in the context of retail investor protection.

the cost of credits to reported in the form of annual percentage rates, which actually fits the natural habits of mind for economists or lawyers more than consumers. Therefore, we formulate the required disclosure (treatment) to reflect this issue: the first three groups are more salient to the retail investors while the last group follows the similar manner as TILA-style requirement.

3. Respondents who were interviewed in the Phrase One Baseline Survey are invited to participate the Phase Three Endline Survey. They are offered the option to finish the survey either through online questionnaire (e.g. Computer-assisted web interviewing) or via self-completed offline mail. In the first part of the survey, each respondent will be presented with the financial product without the required disclosure. Then they will be directed to questionnaires which include (1) Rate your understanding of the complexity and risk of this financial product (0-100); (2) Would you make investment in this financial product? (3) Do you need more information before making the decision to invest? If yes, please specify. In Part 2, each respondent faces the same financial product which now contains the corresponding disclosure framework and presentation mode based on the RCT design in Phase Two. The same set of questionnaires will be presented shortly to collect the information about decision making. The survey ends with quiz questions on financial literacy and risk tolerance, similar to the baseline survey.

Itemized Budget Proposal

Manpower and Operating Expense: \$12,000

Justification:

- 1. Need research assistance to manually conduct the two survey as described above to collect data including
 - a. Key demographical variables, past investment experience, risk tolerance and financial literacy
 - b. Questionnaires on investor's financial decision making
- 2. Token of appreciation for survey participation
- 3. Expenses on online questionnaire and offline-mail in the stage 2 survey

Travel: \$6,000

Justification: the proposed travel budget covers about 2 trips (as the applicants are located outside the US.) to attend conferences, seminars and workshops in the US.

References

- 1. Campbell, John Y., Howell E. Jackson, Brigitte C. Madrian, and Peter Tufano. 2011. "Consumer Financial Protection." *Journal of Economic Perspectives*, 25(1): 91-114.
- 2. Bhattacharya, U., Hackethal A., Kaesler S., Loos B., and S. Meyer. 2012. "Is Unbiased Financial Advice to Retail Investors Sufficient? Answers from a Large Field Study". *Review of Financial Studies* 25, 975-1032

Jian ZHANG

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RESEARCH INTERESTS EDUCATION Banking and Financial Institutions, Political Economy, Household Finance, Corporate Finance

National University of Singapore

2011 to present

Ph.D. in Finance (Expected July 2016)

City University of Hong Kong

2010 to 2011

M.A. in Applied Economics (Ranked 1st in the program)

University of Science and Technology of China

2006 to 2010

B.Eng. in Electrical Engineering (Ranked 4th out of 129)

WORKING PAPERS

- 1. "The Political Economy of Bank Lending: Evidence from an Emerging Market", (with Sumit Agarwal, Bernardo Morais and Caludia Ruiz)
- 2. "Gender Gap in Bankruptcy Risk: Evidence from Singapore", (with Sumit Agarwal, Jia He and Tien Foo Sing)
 - -Revise & Resubmit, Review of Finance
- 3. "Investing in Lower Trust Countries: Trust in the Global Mutual Fund Industry", (with Massimo Massa, Chengwei Wang and Hong Zhang)
 - -2016 AFA (Scheduled); 2015 AsianFA (Best Paper in Banking and Financial Institutions)
- 4. "Disguised Corruption: Evidence from Consumer Credit in China", (with Sumit Agarwal, Wenlan Qian and Amit Seru)
 - -2015 China International Conference in Finance (CICF); 2014 Singapore Scholar Symposium; 2015 Fourth Symposium on Emerging Markets: China and Beyond, Columbia University, co-sponsored by Review of Finance Studies; 2015 Asian Bureau of Finance and Economic Research (ABFER) 3rd Annual Conference; 2015 CEIBS Finance Conference
- 5. "Information Leakage and Insider Trading in the Housing Market", (with Sumit Agarwal, Tomasz Piskorski, Amit Seru and Tien Foo Sing)
- 6. "Who Bears the Pen? Relative Income and Gender Gap in Mortgage Signing Order", (with Sumit Agarwal, Richard Green, Eric Rosenblatt and Vincent Yao)
- 7. "The Value of Personal Guarantee: Evidence from Peer-to-Peer Lending", (with Sumit Agarwal, Yan Li and Chunlin Liu)
- 8. "Trade Credit as an Agency Problem", (with Wenlan Qian, David Reeb and Jing Xie)
- 9. "Stock Liquidity and Dividend Policy: Evidence from a Natural Experiment", (with Roni Michaely and Meijun Qian)

POLICY PUBLICATION

1. "Credit Card Market Study: Perspectives from Consumers", (with Sumit Agarwal), Financial Conduct Authority, United Kingdom, MS 14/6.2, November 2015

Awards and Honors	American Finance Association (AFA) Student Best Paper Award in Banking and Financial President's Graduate Fellowship, National Utorial Gregory Chow Distinguished Graduate Fellowship Graduation Thesis with First Honor, Universal Outstanding Undergraduate Research Project National Scholarship, Ministry of Education, National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry of District Control of Project National Endeavor Scholarship, Ministry Of District Control of Project Control of Project National Endeavor Scholarship, Ministry Of District Control of Project National Endeavor Scholarship, Ministry Of District Control of Project National Endeavor Scholarship Control of Project National Endeavor Scho	Institutions, AsianFA iniversity of Singapore wship, CityU of Hong Kong sity of Science and Technology of China et, Ministry of Education, China China	2015 2015 2011 2010 2010 2009 2008 2007
TEACHING EXPERIENCE	Tutor, Finance (Undergraduate), Teaching Evaluation: 4.0/5.0 Teaching Assistant, Applied Econometrics (Ph.D.) Teaching Assistant, Financial Risk Management (Undergraduate) Teaching Assistant, Banking Management (Undergraduate) Teaching Assistant, Financial Risk Management (Undergraduate) Teaching Assistant, Financial Risk Management (MBA)		2015 2015 2014 2014 2013 2012
Refereeing	Management Science, Real Estate Economics, Pacific-Basin Finance Journal, Review of Industrial Organization, Financial Analyst Journal, Journal of Financial Service Research		of Indus-
OTHERS	Skills: SAS, Stata, Matlab, C/C++, Python Member: AFA, EFA, AEA Passed CFA Level II exam		
REFERENCES	Sumit Agarwal (Chair) Vice Dean (Research) Low Tuck Kwong Professor of Economics, Finance and Real Estate National University of Singapore Tel: (65) 8118 9025 Email:bizagarw@nus.edu.sg	Amit Seru Dennis and Karen Chookaszian Profess Finance Booth School of Business University of Chicago Tel: (1) (773) 834 2767 Email:amit.seru@chicagobooth.edu	or of

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Wenlan Qian

Assistant Professor of Finance National University of Singapore Tel: (65) 6516 3015 Email:wenlan.qian@nus.edu.sg Tel: (65) 6516 4553 Email:rststf@nus.edu.sg

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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

Editor, Real Estate Economics	2015 - Present
Associate Editor, Management Science (Finance Department)	2014 - Present
Associate Editor, Journal of Financial Services Research	2014 - Present

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: 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 Mexica, 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. <u>Household Credit Usage: Personal Debt and Mortgages</u>, (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. "<u>The Hidden Perils: The Role of the Condominium Market in the Current Financial Crisis?</u>" (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
- "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. "<u>Do Consumers Choose the Right Credit Contracts?</u>" (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. "<u>The Role of Securitization in Mortgages Renegotiation</u>" (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. "<u>The Brokerage Firm Effect in Herding: Evidence from Indonesia</u>" (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 46th 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 45th 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 43nd 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 Bankrutpcy" (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. Stroebel)
- 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

- "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
- Inter-American Development Bank, Santiago, Chile
 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

 "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 "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
- 12. NUS FRC Tier 1 Research Grant, Ministry of Education October 20 "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

 "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
 "The Great Recession and Fringe Banking" (with Mazumder, B. and T. Gross) 2011-2014
 (\$150,463)
- 17. 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)
- 18. 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)
- 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. 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
- 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

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 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)

46th 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)

44th 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

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

TV Appearance (Selected)

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

- "Backdoor bribes? Banks offer special credit lines to Chinese bureaucrats" Forbes, January 7th 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
- 14. Adam Levitin, "CRA and the housing bubble," *Credit Slips*, December 19, 2012
- 15. Mary Ellen Podmolik, "Mortgage servicers dropped the ball, study says," *Chicago Tribune*, September 20, 2012
- 16. Marilyn Lewis, "Did bank delays cause 800,000 foreclosures?" MSN Money, September 17, 2012
- 17. Ilyce Glink, "Home modification program falls short," CBS News, September 13, 2012
- 18. Paul Kiel, "Foreclosure Fail: Study Pins Blame on Big Banks," *ProPublica*, September 11, 2012
- 19. Nick Timiraos, "Why Obama's Loan Modification Program Fell Short," *Wall Street Journal*, September 5, 2012
- 20. Karen Weise, "Putting numbers to HAMP's limited impact," Business Week, August 31, 2012
- 21. Kristie Neo, "MAS looking into SIBOR setting process," Channel NewsAsia, July 18, 2012
- 22. Economic Report of the President, February, 2012 http://www.whitehouse.gov/sites/default/files/docs/erp_2012_complete.pdf
- 23. Barbara Rehm, "Are State Regulators Too Lax?" American Banker, February 2012
- 24. Victoria McGrane, "State Bank Regulators More Lenient Than Federal Counterparts" *Wall Street Journal*, January 23, 2012
- 25. Bob Frick, "Protect your money from aging problem-solving skills," *Kiplinger Magazine*, June 2011
- 26. Annie Murphy Paul, "10 Ways You Get Smarter as You Get Older," O, The Oprah Magazine, May 2011
- 27. Parthasarathi Swami, "If marriage makes you stupid, why get married?" *Hindustan Times*, May 14, 2011
- 28. Matthew McClearn, "Why we can't stop spending," Canadian Business, April 5, 2011
- 29. Parthasarathi Swami, "Indians Save, Americans Invest: Why Financial Literacy Should Accompany Inclusion," *Knowledge@Wharton*, March 24, 2011
- 30. Brad Tuttle, "The reward for cash-reward credit cards: higher bills, more debt," *Time Magazine*, December 29, 2010
- 31. Conor Doherty, "Credit Cards' Cash Rewards Prompt Higher Spending, More Debt" *The Wall Street Journal*, December 28, 2010
- 32. Valerie Ross, "Older but not wiser? The psychology behind senior's susceptibility to scams" *Scientific American*, November 18, 2010
- 33. Michael Konczal, "The latest on servicing and modifications," *The Washington Post*, November 11, 2010
- 34. Paul Willen, "Securitized mortgage loan or not, lenders are not restructuring," *Real Estate Research Blog*, Federal Reserve Bank of Atlanta, October 20, 2010
- 35. Charles Evans, "Informing the future of Housing Finance: Lessons from the Recent Past," Speech delivered before the Indianapolis Neighborhood Housing Partnership Community Breakfast on August 24, 2010
- 36. M. P. McQueen, "Refinancing: Whom Can We Trust?" *The Wall Street Journal*, September 18, 2010
- 37. David Allison, "Do financial decisions get better with age?" Yahoo! Finance, September 9, 2010

- 38. Laurent Belsie, "Mortgage rates at 50-year lows. Should you refinance? Maybe not," *Christian Science Monitor*, August, 12, 2010
- 39. Chril Dillow, "Why personality matters," *Investors Chronicle*, August, 10, 2010
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TEACHING

Regular Courses

Research Methods in Applied Econometrics, PhD, National University of Singapore
Research Methods in Applied Econometrics, PhD, National University of Singapore
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 Financial Institutions, MBA elective, Indian School of Business Behavioral Finance, MBA elective, Indian School of Business Corporate Financial, MBA core course, DePaul University Financial Management, MBA core course, George Washington Universit Cases in Financial Management, MBA elective, George Washington Uni	Term 5 2008, Term Term Fa y Summ	g, 2012 8 2010 5 2009 11 2007 er 2005 g 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
Merger una requisitions, buillitoino	2012
Mini Courses	
SAFE Research Center, Goethe University	Sep 2015
One week course on consumption, household finance, and real estate markets to t	-
Croatian Bankers Association, Zagreb, Croatia	Sep 2006
Two day follow up course to the Croatian Bankers Association on credit risk model measurement, model validation, and Basel II	
	0-4-2005
Croatia National Bank and Croatian Bankers Association, Zagreb, Croatia	Oct 2005
One week course to the supervision department of the Croatian National Bank an	
Bankers Association on credit risk modeling and measurement, model validation,	
Indian Bankers Association and ICICI Bank, Bombay, India	May 2005
One day course to senior management of various Indian banks on Basel II and Cr	edit 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)	2012-11escht
1	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 Expected 2017
Xin Zou (Finance)	Expected 2017 Expected 2017
Mandy Zhang (Finance)	Expected 2017 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	
	2015
Chenxi Luo (Real Estate)	
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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