Household Finance in China

Households play a crucial role in an(y) economy, in particular, in China, the world's second largest economy. China's large proportion of internal-demand driven GDP, the record-high saving rate, and the soaring real estate price, are all related to the consumption behavior of Chinese households. Though sharing similarities in demographics such as marital status and education level, Chinese households have much lower level of debt to household income, 17%, compared to more than 100% in the United States. This is in particular stark given the similar levels of assets to income in the two countries. Given the imperative to understand Chinese household behavior, there is little research done either in the academia or in the policy studies, mostly due to the limited data covering the entirety of household finances. We endeavor to bridge this gap by constructing a novel data set on the Chinese household finance.

Our objectives are twofold. First, we aim to understand the consumption behavior of Chinese households. A growing body of research has identified income shocks can affect household spending decisions. For example, Baker (2016) shows that consumption among households with higher levels of debt is more sensitive to a (permanent) income shock which is measured by shocks to employers. Baker and Yannelis (2017) provide further evidence that transient income shocks, with no drop in permanent income or wealth, also affect consumption, using the 2013 U.S. federal government shutdown as a natural experiment. Theoretically, the permanent (or transient) income hypothesis should hold equally, regardless of jurisdiction. However it is not empirically clear given the special features of Chinese households. In the United States, many Americans have little liquid assets, limited access to credit, and immediately spend a substantial fraction of tax rebates. In China, households tend to have much higher liquidity assets, mostly cash, and tend to have flexible access to credit, mostly through relatives, both due to the culture-induced saving/borrowing habit. Therefore, the conventional models may not perfectly explain the consumption behavior of Chinese households.

Another trait of Chinese household finance is the important role of the real estate market. The value of real estate, especially those in the larger and more developed cities, comprises of the biggest trunk of a household's wealth. The large volatility in local housing prices thus substantially changes a household's wealth and should further affect her consumption. It's worth noting that the housing-value-included wealth is mainly a nominal value, or a paper value, distinguishing from the real value. Thus, the highly-detailed Chinese household finance data provides a direct test on how the paper loss/gain may set up households' expectation on future income, and further modify their consumptions. This analogy applies equally to the subprime crisis in the U.S. and its ramification on American households, except at a different magnitude which comes from another difference in household behavior of China and the U.S.: leveraging. According to the Survey of Chinese Consumer Finances in 2010, collected by Tsinghua University and funded by Citibank (China) Co., Ltd, while 85% of Chinese households surveyed owned a home, only 11% carried a mortgage on that property. In the United States 69% were

homeowners in 2007, with 70% of them carrying some debt on the property, in the form of a mortgage or a home-equity loan. The leveraging degree contributes to consumption behavior, which has not been studied in the literature.

The second objective of this project is to extract informative component from households consumptions and payments to predict employers' real performance. Intuitively, consumers adjust their consumption behavior to the expectation of future income and to the sentiment of their satisfaction from the job. When employees hold a strong perspective of the company they are working for, they may expand the consumption, both the level and the composition. When employees hold a weak perspective of the company, they may contract the consumption. Therefore, all else equal (especially income remains unchanged), employees' sentiment captured by their consumption behavior contains information on a corporation's real performance. To identify the casual relationship between the two is difficult, due to endogeneity concerns. We design an experiment to orthogonalize the income and examine the informativeness of employees' consumptions on corporation performance.

To achieve the aforementioned objectives, we construct a new data covering about one million households for their credit card transactions during 2008 – 2012. We link households to employers and collect firm-level balance sheets as well as stock market returns. The data covers households from each and all provinces such as Beijing and Tibet. We further collect the province- and city-level real estate variables such as housing prices, trading volume, etc. The panel of comprehensive high-frequency household-level financial information allows for more precise identification strategies, a more generalizable results, as well as the ability to highlight particular channels through which the observed effects occur. Most importantly, this project is the first to analyze income and consumption interactions and the informativeness of household consumptions in China, given the unique features of Chinese households. China is rapidly becoming the world's largest consumer market, so is the size of China's consumer finance system. To date, there has been little scholarship on consumer finance in China. This project takes a leading step at filling this gap in the literature, which we regard as our primary contribution.

Budget

1. Data

   We compile our data from three sources. The credit card transaction data and monthly statements come from one anonymous representative bank. The corporation balance sheets and city-level macroeconomic variables are downloaded from WIND. Inc (commercial data).

- Data from WIND needs $8000 to buy the downloading terminal.
- The private transaction data from the bank is 'free', but it incurs social cost to communicate with the person providing such data, such as meals and local visits, which may cost $1000.

2. Research Assistant

   The project expects to last for two years. At the initial stage, we need RA to clean the credit card transaction data received from the bank, which needs to be converted from the Chinese version to the English one. RA is also expected to download the data from WIND. Assume $15 per hour, we expect the cost in hiring RA will be $15 * 300 = $4500

3. Travel Expenditure

   This project requires significant on-site discussions with household banking data provider in China. We also need to interview households, as well as policymakers and economists in China's consumer finance regulatory institutions. Assume a round-trip ticket from Washington DC to Beijing as $1500, and the average lodging expenditure is $150 per night, we expect the travel expenditure will be at the minimum $2000 * 2 + $150*10 = $5500.

The overall cost will be $8000 + $1000 + $4500 + $5500 = $19,000

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EMPLOYMENT

Assistant Professor of Finance, Georgetown University, 2013 - present

Economist, Federal Reserve Bank of New York, 2008 - 2013

PROFESSIONAL EXPERIENCE

Advisory Council Member in the Board of Governors of the Federal Reserve System, 2017-present

RESEARCH INTEREST

Asset Pricing, and its connection with corporate finance, Credit Risk, Banking, Art Market

RESEARCH PAPERS

1. **"Measuring Liquidity Mismatch in the Banking Sector,"**, (with Arvind Krishnamurthy, and Charles-Henri Weymuller) *forthcoming,* **Journal of Finance**

2. **"Have Financial Markets Become More Informative?"** (with Thomas Philippon and Alexi Savov) **Journal of Financial Economics** 2016, 122(3), 625-654.

   Media: -Bloomberg, New York Times

3. **"Anchoring Corporate Credit Spreads to Firm Fundamentals"** (with Liuren Wu) **Journal of Financial and Quantitative Analysis** 2016, 51(5), 1521-1543.

4. **"On Bounding Credit Event Risk Premia"** (with Pierre Collin-Dufresne, Robert Goldstein, and Jean Helwege), **Review of Financial Studies** 2015, 28(9), 2608-2642.

5. **"State Space Models and MIDAS Regressions"** (with Eric Ghysels, and Jonathan Wright), **Econometric Reviews** 2013, 32(7), 779-813.

6. "The CDS-Bond Basis" (with Pierre Collin-Dufresne, *É*cole Polytechnique F*é*d*é*rale de Lausanne) *R & R,* **Review of Financial Studies,** 2015

   We investigate both the time-series and cross-sectional variation in the CDS-bond basis, which measures the difference between the CDS spread and cash-bond implied credit spread, for a large sample of individual firms during the financial crisis. We test several possible explanations for the violation of the arbitrage relation between cash bond and CDS contract that would, in normal conditions, drive the basis to zero. Our findings do not uncover a clear single explanatory factor for the anomaly. Rather they point towards several drivers related to funding risk, counterparty

risk and collateral quality that force the individual bond basis into negative territory at different phases of the crisis.

7. **"Do Distributional Characteristics of Corporate Bonds Predict Their Future Returns?"** (with Turan Bali and Quan Wen), November 2016

   We find a significantly positive (negative) relation between volatility (skewness) and the cross-section of corporate bond returns, whereas kurtosis does not make a robust incremental contribution to the predictability of future bond returns. The risk-adjusted return spreads in volatility (skewness) sorted portfolios represent compensation for differences in the level of idiosyncratic volatility (idiosyncratic skewness) and differential exposure to the common idiosyncratic volatility factor in the bond market. We also show that the new risk factors based on the distributional moments of bond returns represent an important source of common return variation missing from the long-established stock and bond market factors.

8. **"The Great Wall of Debt: Real Estate, Political Risk, and Chinese Local Government Credit Spreads"** with Andrew Ang, and Hao Zhou, August 2016

   Chengtou bonds – urban construction and investment bonds, backed mostly by land sales, are the major source of financing for Chinese local governments. We find that one standard deviation increase in local real estate GDP – as the main growth engine countrywide – corresponds to about 8.6% decrease in Chengtou bond excess yields. Political risk, a novel measure based on the anti-corruption campaign in China, has a significant negative effect on Chengtou bond prices. However, conditional on high corruption level, real estate GDP actually elevates Chengtou bond yields; only low corruption provinces enjoy low financing costs with high real estate GDP.

9. **"The Role of the Government Bond Lending Market in Collateral Transformation"** with Reena Aggarwal, and Luc Laeven, November 2016

   The securities lending market for government bonds is an active short-term funding market which not only facilitates repo and cash markets, but also plays a unique role in transforming collateral from low-quality into high-quality liquid assets. We provide strong evidence of an increase in scarcity of safe assets and document the role of the securities lending market in collateral upgrading. During periods of market stress, lending fee increases significantly more for higher quality bonds, consistent with a flight-to-quality effect. In addition, borrowers increase the use of low-quality non-cash collateral to upgrade to high-quality securities. Furthermore, there is increased usage of such borrowed securities to obtain cash in the repo market. This evidence is consistent with collateral upgrading in the lending market to obtain cash in the repo market. Finally, we show that central bank purchases of low-quality bonds mitigated disruptions in short-term funding markets by reducing fees of these lower quality bonds.

10. **"Common Risk Factors in the Cross-Section of Corporate Bond Returns"** (with Turan Bali and Quan Wen), November 2016

    We investigate the cross-sectional determinants of corporate bonds and find that downside risk is the strongest predictor of future bond returns. We also introduce common risk factors based on the prevalent risk characteristics of corporate bonds – downside risk, credit risk, and liquidity risk – and find that these novel bond market factors have economically and statistically significant risk premia, which cannot be explained by the long-established stock and bond market factors. We further show that these newly proposed risk factors outperform all other models considered in the literature in explaining the returns of the industry-sorted and size/maturity-sorted portfolios of corporate bonds.

11. **"When Is There a Strong Transfer Risk from the Sovereigns to the Corporates? Property Rights Gaps and CDS Spreads"** (with Shang-Jin Wei)

    When a sovereign faces the risk of debt default, it may be tempted to expropriate the private sector. This may be one reason for why international investment in private companies has to take into account the sovereign risk. But the likelihood of a transfer from the sovereign risk to corporate default risks may be mitigated by legal institutions that provide strong property rights protection. Using a novel credit default swaps (CDS) dataset covering both government and corporate entities across 30 countries, this paper studies both the average strength of the transfer risks and the role of institutions in mitigating such risks. We find that (1) sovereign risk on average has a statistically and economically significant influence on corporate credit risks. All else equal, a 100 basis points increase in the sovereign CDS spread leads to an increase in corporate CDS spreads by 71 basis points. (2) The sovereign-corporate relation varies across corporations, with state-owned companies exhibiting a stronger relation. (3) However, strong property rights institutions tend to weaken the connection. In contrast, contracting institutions (protection of creditor rights or minority shareholder rights) do not appear to matter much in this context.

12. **"The Microstructure of Chinese Government Bond Market"**, (with Michael Fleming, and Casidhe Horan)

    While China now has one of the largest government bond markets in the world, the market has received relatively little attention and analysis. We describe the history and structure of the market and assess its functioning. We find that trading in individual bonds was historically sparse, but has increased markedly in recent years. We find that certain announcements, such as the producer price index and manufacturing index (PMI) have significant effects on yields, even when such yields are measured at a daily level. Despite the increased activity in the market, we are able to reject the null hypothesis of market efficiency under two different tests for four of the most actively traded bonds.

13. **"Going Global: Markups and Product Quality in the Chinese Art Market"**, (with Benjamin Mandel and Jia Guo)
    Media: -Asia Week Guide article

    We analyze two reasons for export prices to be different across markets, namely quality differentiation and variable markups, and attempt to parse their relative importance and some of their underlying drivers. To overcome the substantial measurement issues in this task, we consider a particular industry as a special case: Chinese fine art. The simplicity of the supply-side of art vis-à-vis marginal cost and the wealth of data on its quality characteristics makes it possible to separately identify the markup and quality components of international relative prices for Chinese artworks. Through this lens, we trace the process of internationalization of Chinese art since the year 2000 and uncover a rich set of facts. We find strong support for quality sorting into international markets at both the level of artist and artwork, as well as substantial markup differences across destinations. Using a structural model of endogenous quality choice by Feenstra and Romalis (2012), we argue that much of the international quality premium is driven by specific distribution costs (whether physical or informational) rather than destination-specific preferences for quality.

SEMINAR AND CONFERENCE PRESENTATIONS

2017: AFA, OFR (scheduled), Rutgers University (scheduled)

2016: AFA, AEA, Texas Finance Festival, SFS Finance Calvacade, WFA, IMF, ECB, EFA (Oslo), University of Texas as Dallas, University of Lausanne and *É*cole Polytechnique F*é*d*é*rale de Lausanne, NBER summer institute Asset Pricing conference, Yale SOM Workshop on Financial Fragility, SIFR conference on Credit Markets after the Crisis (Stockholm), Southern Methodist University, University of Texas at Austin, Federal Reserve Board, Rice University, the 8th European Banking Center network conference, the Financial Stability Conference by OFR and Federal Reserve Bank of Cleveland

2015: AEA, Stanford University GSB, the IMF/World Bank joint seminar, NYU, Office of the Comptroller of the Currency, Tsinghua PBCSF Global Finance Forum, Moody's credit risk conference, George Mason University, Brandeis/Boston Fed Municipal Bond Conference, NBER Chinese Economy conference, Federal Reserve Board, Money Market Workshop in ECB, Hong Kong Monetary Authority, City University of Hong Kong

2014: AFA, SFS Finance Calvacade, University of Connecticut Annual Risk Management Conference (invited talk), Western Finance Association, Federal Reserve Board, European Finance Association, BIS Research Network meeting on Banking and Asset Management (invited talk), Annual Bank Research Conference of FDIC, New York University, George Washington University, PBC School of TsingHua University

2013: AFA, EFA (Cambridge), the Day-Ahead Conference of the Federal Reserve System, University of Toronto, Rotman School of Management, Bank of France, Bank of England, Federal Reserve Bank of San Francisco, FDIC-Cornell joint conference on Derivatives Securities and Risk Management, the Department of the Treasury's Office of Financial Research, the Sixth Biennial McGill Global Asset Management Conference in Montreal, Columbia University*, Financial Stability Analysis by the Federal Reserve Bank of Cleveland and Office of Financial Research, the China International Conference in Finance, European Bank Association's 5th Annual Financial Stability Conference, Copenhagen Business School

2012: Yale University*, the CREDIT Conference on Sovereign Risk and its Consequences for Financial Markets, Institutions and Regulation, Artelligence conference*, NBER Asset Pricing Workshop, Society for Economic Dynamics Annual Conference at Cyprus, Fixed Income Conference: Navigating Cathartic Change in Fixed Income, University of South Carolina, University of Florida, Federal Reserve Bank of New York, Cheung Kong Graduate School of Business, New York University*

2011: International Banking, Economics and Finance Association Annual Conference, Rutgers University, Federal Reserve Bank of New York, European Finance Association Annual Conference at Stockholm, City University of New York, Northern Finance Association Annual Conference at Vancouver.

Before 2011: The Sixth MTS Conference on Financial Markets by London Stock Exchange and London School of Economics , Columbia-Tsinghua Conference in International Economics at Beijing, China, Rutgers University, European Central Bank*, MIDAS workshop at Goethe University Frankfurt, European Economic Association Annual Meetings in Barcelona, the China International Conference in Finance, Federal Reserve Bank of New York, University of Alberta, University of Washington, McGill University, Iowa University, Pennsylvania State University, University of Illinois at Chicago, NBER Time Series Conference (Iowa City), University of Chicago Graduate School of Business, NBER Time Series Conference (Montreal), Southern Methodist University

CONFERENCE DISCUSSIONS

- Viral Acharya, Diane Pierret, and Sascha Steffen, "Lender of Last Resort versus Buyer of Last Resort: Evidence from the European Sovereign Debt Crisis," American Finance Association Annual Conference, January 2017.

- Nils Friewald, Florian Nagler, and Christian Wagner, "Debt Refinancing and Equity Returns," European Finance Association Annual Conference, August 2016
- Stefano Corradin, Maria Rodriguez-Moreno, "Violating the Law of One Price: The Role of Non-conventional Monetary Policy," Financial Intermediation Research Society Conference, June 2016
- Karan Bhanot, Carl Larsson, "Uncovering 'The Cost Of Regulatory Uncertainty'," European Finance Association Annual Conference, August 2014
- Jaewon Choi, and Or Shachar, "Did Liquidity Providers Become Liquidity Seekers?: Evidence from the CDS-Bond Basis during the 2008 Financial Crisis," Financial Intermediation Research Society Annual Conference, June 2014
- Fernando Duarte, and Thomas M Eisenbach, "Fire-Sale Spillovers and Systemic Risk," Financial Intermediation Research Society Annual Conference, June 2014
- Phillip Schnabl, Itamar Drechsler, Thomas Drechsel, David Marques-Ibanez, "Who Borrows from the Lender of Last Resort?" University of Connecticut Annual Risk Management Conference, May 2014
- Martin Oehmke, and Adam Zawadowski, "Synthetic or Real? The Equilibrium Effects of Credit Default Swaps on Bond Markets," SFS Finance Calvacade, May 2014
- Jens Dick-Nielsen, "Dealer Inventory and the Cost of Immediacy," April 2013.
- Sanjiv Das, Madhu Kalimipalli, and Subhankar Nayak, "Did CDS Trading Improve the Market for Corporate Bonds?" American Economic Association meeting, January 2013.
- Nils Friewald, Christian Wagner, and Josef Zechner,"The Cross-Section of Credit Risk Premia and Equity Returns," Western Finance Association meeting, June 2012.
- Richard Stanton and Nancy Wallace, "The Bear's Lair: Index Credit Default Swaps and the Subprime Mortgage Crisis," European Finance Association meeting, August 2011.
- Iuliana Ismailescu and Blake Phillips, "Savior or Sinner? Credit Default Swaps and the Market for Sovereign Debt," Northern Finance Association meeting, September 2011.
- Nikunj Kapadia and Xiaoling Pu, "Limited Arbitrage between Equity and Credit Markets," China International Conference in Finance, July 2009.

EDUCATION

Ph.D., University of Chicago, the Booth School of Business
M.B.A., University of Chicago, the Booth School of Business
B.S., Fudan University, Shanghai, China

PROFESSIONAL AFFILIATIONS

American Finance Association
American Economic Association
Western Finance Association
European Finance Association

REFEREEING

Journal of Finance, Review of Financial Studies, Journal of Financial Economics, Journal of Financial and Quantitative Analysis, Review of Finance, Management Science, Journal of Banking and Finance, Review of Asset Pricing Studies, Journal of Money, Credit and Banking, Journal of Empirical Finance, Journal of Financial Markets, Pacific-Basin Finance Journal, International Review of Finance, European Economic Review

HONORS, AWARDS AND GRANTS

Research grant from the Center for Financial Markets and Policies, Georgetown University, 2014-2015

Oscar Mayer Fellowship for Dissertation, University of Chicago, 2007.

University of Chicago Graduate School of Business Doctoral Fellowship for 2002-2006.

Chun-Tsung Scholar, provided by Nobel Prize Laureate Dr. TsungDao Lee, 1999-2001.

All-around best student, the Ministry of Education in Shanghai, 2000.

NON-ACADEMIC EXPERIENCE

Docent and librarian at the Metropolitan Museum of Art, New York, 2010 - 2012.

Docent at the Field Museum, Chicago, 2003 - 2008.

Member of the Asian Art Council in the Art Institute of Chicago, 2003 - 2008.

Docent at the Shanghai Museum, Shanghai, China, 1999 - 2002.

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EMPLOYMENT

Professional Positions

Georgetown University	2016-Present
William G. Droms Term Professor of Finance, McDonough School of Business	2016-Present
Professor of Economics (courtesy), Department of Economics	2016-Present
National University of Singapore	2012 - 2016
Vice-Dean of Research and PhD Program, School of Business	2015 - 2016
Low Tuck Kwong Professor	2014 - 2016
Professor of Finance, School of Business	2014 - 2016
Professor of Economics, School of Arts and Social Science	2014 - 2016
Professor of Real Estate, School of Design and Environment	2014 - 2016
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	2006 - 2012
Senior Financial Economist, Research Department	2008 - 2012
Financial Economist, Research Department	2006 - 2008
Bank of America	2000 - 2006
Senior Vice President, Credit Risk Management Executive	2004 - 2006
Vice President, Financial Economist	2000 - 2004
Health Products Research	1999 - 2000
Senior Analyst	1999 - 2000

Consultancy, Visiting and Other Positions

Senior Visiting Fellow, Institute of Advanced Study, HKUST, Hong Kong	2016-Present
Visiting Professor of Finance, National University of Singapore	2016-Present
Advisory Board, Institute of Estate Agents, Singapore	2016-Present
Executive Committee Member, Transport Research Center, NUS/LTA, Singapore	2016-Present
Management Board Member, Risk Management Institute, NUS, Singapore	2016-Present
Expert Panel Member, Social Science and Humanities Research, Singapore	2016-Present
Expert Panel Member, Health Innovation Program, Singapore	2016-Present
Senior Fellow, Asian Bureau of Finance and Economic Research	2014-Present
Academic Fellow, Center for Advanced Finance Research and Learning, India	2014-Present
Research Associate, Center for Behavioral Economics, NUS	2012-2016

Research Associate, Center for Quantitative Finance, NUS	2012-2016
Research Associate, Institute for Real Estate Studies, NUS	2012-2016
Visiting Scholar, Stigler Center, Booth School, University of Chicago	April 2016
Consultant, Bank for International Settlement, Switzerland	2015-2016
Consultant, Monetary Authority of Singapore, Singapore	2015-2016
Distinguished Senior Visitor, 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
Research Associate, Risk Management Institute, NUS	2012-2015
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 500 citations in published papers (Source: Web of Science, January, 2017)
Over 5000 citations in published and working papers (Source: Google Scholar, January, 2017)
Over 38,000 downloads of my papers (Source: SSRN, January, 2017)

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

Publications and Forthcoming Papers
2. "Consumption Response to Temporary Tax Incentives: Evidence from State Sales Tax Holidays" (with Marvell, N., and L. McGranahan), forthcoming *American Economic Journal – Economic Policy*
3. "Access to Home Equity and Consumption: Evidence from a Policy Experiment" (with Qian, W), forthcoming *Review of Economics and Statistics*
4. "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*
5. "Consumer Choices and Financial Products" (with Chomsisengphet, S., and C. Lim), forthcoming *Annual Review of Financial Economics*
6. "Gender and Household Financial Decision: Evidence from Personal Bankrutpcy" (with Jia, H., T. Sing, and J. Zhang), forthcoming *Review of Finance*
7. "Systematic Mistakes of Borrowers in the Mortgage Markets" (with Ben-David, Z., and V. Yao), *Journal of Finance Economics*, 2017, Vol. 123, Pp. 42-58
8. "The 10% carbon challenge: Nudge and energy savings" (with Rengarajan Styanarain, Tien Foo Sing, and Yang Yang), *Energy Economics*, 2017, Vol. 61, Pp. 29-41
9. "Rushing into the American Dream? House Prices Growth and the Timing of Homeownership" (with Hu, L., and X. Huang), *Review of Finance*, 2016, Vol. 20(6), Pp. 2183-2218
10. "Why do Borrowers Make Mortgage Refinancing Mistakes?" (with Rosen, R., and V. Yao), *Management Science*, 2016, Vol. 62(12), Pp. 3494-3509
11. "Impact of Electronic Road Pricing Changes on Transportation Modal Choice," (with K. Kang), *Regional Science and Urban Economics*, 2016, Vol. 60, Pp. 1-11
12. "The Hidden Perils: The Role of the Condominium Market in the Current Financial Crisis?" (with Deng Y., X. Luo, and W. Qian), *Review of Finance*, 2016, Vol. 20(2), Pp. 467-500
13. "Playing the Boys Game: Golf Buddies and Board Diversity" (Qian, W., D. Reeb and S. Tien-Foo), *American Economic Review – Papers and Proceedings*, 2016, Vol. 106(5), Pp. 272-76
14. "Effects of construction activities on residential electricity consumption: Evidence from Singapore's public housing estates," (with Rengarajan Styanarain, Tien Foo Sing, and Derek Vollmer), *Energy Economics*, 2016, Vol. 55, Pp. 101-111
15. "Adverse Selection in Lending: Evidence from Home Equity Cash Out Behavior" (with Chomsisengphet, S. and C. Liu), *Journal of Financial Services Research*, 2016, Vol. 49(1), Pp. 101-119

16. "Joint Liability Lending and Credit Risk: Evidence from the Home Equity Market," (with Ambrose, B., S. Chomsisengphet, and C. Liu), *Journal of Housing Economics*, 2016, Vol (32), pp. 47-66
17. "School Allocation Policies and Housing Prices: An Experiment with School Relocation Events in Singapore," (with Satyanarain Rengarajan, Tien Foo Sing, and Yang Yang), *Regional Science and Urban Economics*, 2016, Vol. (58), Pp. 42-56
18. "The Information Value of Credit Rating Action Reports: A Textual Analysis" (with Chen, V., and W. Zhang), *Management Science*, 2016, Vol. 62, Pp. 2218-40
19. "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
20. "Collateral Pledge, Sunk-Cost Fallacy, and Mortgage Default" (with Green, R., and V. Yao), *Journal of Financial Intermediation*, 2015, Vol. 24(4), Pp. 636-652
21. "Impact of Electronic Road Pricing (ERP) charges on Real Estate Prices in Singapore", (with Mo Koo, K., and S. Tien-foo), *Journal of Urban Economics*, 2015, Vol 90, Pp. 50-59
22. "The Subprime Virus" (with Ambrose, B. and Y. Yildirim), *Real Estate Economics*, 2015, Vol. 43(4), Pp. 891-915
23. "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
24. "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
25. "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
26. "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
27. "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
28. "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
29. "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
30. "Inconsistent Regulators: Evidence from Banking" (with Lucca, D., A. Seru and F. Trebbi), *Quarterly Journal of Economics*, 2014, Vol. 129(2), Pp.889-938
31. "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
32. "Cognitive Ability and Financial Decision Making" (with Mazumder, B), *American Economic Journal: Applied Economics*, 2013, Vol. 5(1), Pp. 193-207
33. "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)
34. "Adverse Selection in Mortgage Securitization" (with Chang, Y. and A. Yavas), *Journal of Financial Economics*, 2012, Vol. 105(3), Pp.640-660
35. "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)

36. "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
37. "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
38. "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
39. "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
40. "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
41. "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
42. "Distance and Private Information in Lending" (with Hauswald, R), *Review of Financial Studies*, 2010, Vol. 23(7), Pp. 2757-2788
43. "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
44. "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
45. "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
46. "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
47. "Bankruptcy Exemption Laws and the Market for Mortgages" (with Chomsisengphet, S), *Cityscape*, 2009, Vol. 11(1), Pp. 101-112
48. "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
49. "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
50. "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)
51. "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
52. "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
53. "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

54. "The Impact of Homeowners' Housing Wealth Misestimation on Consumption and Saving Decisions" *Real Estate Economics*, 2007, Vol. 35(2), Pp.135-154 (Lead article)
55. "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
56. "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)
57. "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
58. "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
59. "Telecommunication and Economic Growth: A Panel Data Approach" (with Dutta, A), *Applied Economics*, 2004, Vol. 36(15), Pp. 1649-1654
60. "Financial Markets and Financing Choices of Firms: Evidence from Developing Countries" (with Mohtadi, H), *Global Finance Journal*, 2004, Vol. 15(1), Pp. 57-70
61. "Mortgages, Minorities, and Discrimination: A Bank-Specific Analysis" (with Li, S., and L. Mielnicki), *Housing Studies*, 2003, Vol. 18(3), Pp. 303-311
62. "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
63. "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

64. "Fringe Banking During The Great Recession" (with Mazumder, B., and T. Gross), forthcoming, Federal Reserve Bank of Chicago *Economic Perspective*
65. "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
66. "The Asset-Backed Securities Market, the Crisis, and TALF" (with Burette, J. and C. DeNardi), Federal Reserve Bank of Chicago *Profitwise*, 2011
67. "Loan Commitments and Private Firms" (with Chomsisengphet, S., and J. Driscoll), Federal Reserve Bank of Chicago *Economic Perspective*, Q2 2011, Pp. 71-79
68. "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
69. "Why aren't Banks Lending More? The Role of Commercial Real Estate" (with Genay. H., and R. McMenamin), *Chicago Fed Letter*, #281, December 2010
70. "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
71. "Rescuing Asset-backed Securities Markets" (with DeNardi, C., and C. Cun), *Chicago Fed Letter*, #270, January 2010
72. "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
73. "Determinants of Automobile Prepayment and Default" (with Ambrose, B., and S. Chomsisengphet), Federal Reserve Bank of Chicago *Economic Perspective*, Q3 2008, Pp.17-28

74. "Comparing the Prime and Subprime Mortgage Markets" (with Ho, C), *Chicago Fed Letter*, #241, August 2007
75. "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

76. "Market Bases Loss Mitigation Outcome for Troubles Mortgages during the Financial Crisis" (with Amromin, G., I. Ben-David, S. Chomsisengphet and D. Evanoff), in eds. Franklin Allen, Ester Faia, Michael Haliassos, and Katja Langenbucher, June 2016, forthcoming
77. "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*, Edward Elgar Publishing April 2015
78. "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
79. "Consumer Behavior in Financial Markets: Financial Crisis and Policy Implication," *ISB Insight*, 2010, Vol. Summer 2010, Pp. 16-19
80. "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
81. "Consumer Bankruptcy: Theory, Empirical Evidence, and Lessons for China" People's Bank of China and World Bank – IFC, Fall 2008
82. "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
83. "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
84. "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
85. "Stock Market Development and Economic Growth: Preliminary Evidence from African Countries," *Journal of Sustainable Development in Africa*, Spring 2001
86. "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 Financial Economics*
4. "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*
5. "The Politics of Mortgage Foreclosures" (with Amromin, G., I. Ben-David, and S. Dinc), revise and resubmit at *Journal of Finance*

6. "Relationship Lending: Evidence from the Consumer Credit Market" (with Chomsisengphet, S., C. Liu, and N. Souleles), reject and resubmit at *Journal of Monetary Economics*
7. "The Mistakes People Make: Financial Decision Making with Buying and Owning a Home" (with Green, R. and V. Yao), revise and resubmit at *Review of Finance*
8. "Who Bears the Pen? Relative Income and Gender Difference in Mortgage Signing Order" (with Green, R. V. Yao, and J. Zhang), revise and resubmit at *Management Science*
9. "The Choice Between Arm's-Length and Inside Debt" (with Hauswald, R), reject and resubmit at *Journal of Monetary Economics*
10. "Information and Authority" (with Hauswald, R), weak revise and resubmit at *Journal of Finance*
11. "The Information Value of Sovereign Credit Rating Reports" (with Chen, V., J. Sim, and W. Zhang) revise and resubmit, *Review of Corporate Financial Studies*
12. "Do Banks Pass Through Credit Expansions to Consumers Who Want to Borrow? Evidence from Credit Cards" (with, Chomsisengphet, S., N. Mahoney and J. Stroebel), revise and resubmit, *Quarterly Journal of Economics*
13. "Does Keeping Up with the Joneses Cause Financial Distress? Evidence from Lottery Winners and Neighboring Bankruptcies" (with Scholnick, B., and M. Slava), revise and resubmit, *Review of Financial Studies*
14. "Do Second Liens Holdup First Lien Holders' Modifications?" (with Amromin, G., I. Ben-David, S. Chomsisengphet, and Y. Zhang)
15. "Competition in the Mortgage Market: Evidence from the Home Affordable Refinance Program" (with Amromin, G., S. Chomsisengphet, T., Piskorski, A. Seru, and V. Yao)
16. "Age of Decision: Consumption and Debt Response to Retirement Savings Cash Out" (with Pan, J., and W. Qian)
17. "The Limits of Regulation: Appraisal Bias in the Mortgage Market" (with Ambrose, B., and V. Yao)
18. "Disguised Corruption: Evidence from Consumer Credit in China" (with Qian, W., A. Seru, and J. Zhang)
19. "Political Insider Trading: Evidence from Real Estate Markets in Singapore" (with Seru, A., T. Piskorski, T. Sing, and J. Zhang)
20. "The Political Economy of Bank Lending: Evidence from Mexico" (with M. Bernardo, C. Ruiz, and J. Zhang)
21. "Consumption Response to Credit Tightening Policy: Evidence from Turkey" (with Muris Hadzic, C. Song, and Yildiray Yildirim)
22. "The impact of housing credit on personal bankruptcy" (with C. Song)
23. "Strategic Information Disclosure and Bank Lending" (with Chomsisengphet, S., and Q. Wang)
24. "Is Secured Lending Secured?" (with Chomsisengphet, S., and Q. Wang)
25. "Do People Consume More on Sunny Days? Evidence from Credit Card Spending Data" (with Chomsisengphet, S., S. Meier, and X. Zou)

Grants

1. Global Asia Institute Jan 2017
   "Lifecycle financing: Retirement wealth, reverse mortgages, investment decisions and household consumption behavior" (Deng, Y., W. Qian, and T. Sing) 2017-2020, (Singapore $207,600)
2. NUS FRC Tier 1 Research Grant, Ministry of Education Jan 2016
   "Housing Market under Asymmetric Information and Behavioral biases" (with Song, C) 2016-2019, (Singapore $92,975)
3. NUS FRC Tier 1 Research Grant, Ministry of Education Sep 2015

"Strategic Information Disclosures, Agency Problems and Small Business Lending" (with Wang, Q) 2015-2018, (Singapore $63,000)

4. 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)
5. HHS Seed Funding Grant, 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)
6. 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)
7. 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)
8. NBER Household Finance Group/Sloan Foundation Research Grant February 2013
   "Consumer Behavior in Financial Markets in Singapore," (with Qian, W) 2013, ($16,000)
9. 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)
10. NUS Research Grant February 2012
    "Consumer Behavior in Financial Markets" 2012-2015 (Singapore $60,000)
11. Russell Sage Foundation Grant November 2011
    "The Great Recession and Fringe Banking" (with Mazumder, B. and T. Gross) 2011-2014 ($150,463)
12. 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)
13. 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)
14. 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)
15. Center for Financial Research Grant, Federal Deposit Insurance Corporation March 2006
    "Distance and Information Asymmetries in Lending" (with Hauswald, R) ($10,000)
16. 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)
17. Phi Kappa Phi, National Honor Society May 1998
18. University of Geissen, Exchange Program, Germany Summer 1995

Awards

1. Excellence in Refereeing Award 2015 – *American Economic Review* June 2016
2. Society for Financial Studies, Best Paper Award ($10,000) May 2016
   "Do Consumers Choose the Right Credit Contracts?" (with Chomsisengphet, S., C. Liu, and N. Souleles) published in *Review of Corporate Finance Studies*
3. University Outstanding Researcher Award, NUS (Singapore $15,000) April 2016
4. Faculty Outstanding Researcher Award, Business School, NUS (Singapore $1,000) Dec 2013

5. Red Rock Finance Conference, Best Paper Award September 2012
   "Inconsistent Regulators: Evidence from Banking" (with Lucca, D., A. Seru and F. Trebbi)
6. Excellence in Refereeing Award 2011 – *American Economic Review* June 2012
7. Networks Financial Institute Competition, Best Paper Award ($2,500) 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)
8. TIAA-CREF Paul A. Samuelson Award ($2,000) January 2011
   "The Age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation" (with Driscoll, J., X. Gabaix, and D. Laibson)
9. Terker Family Prizes in Investment Research Award, Wharton School ($5,000) January 2009
   "Reaction of Consumer Spending and Debt to Tax Rebates - Evidence from Consumer Credit Data" (with Liu, C., and N. Souleles)
10. Glucksman Institute Research Award, New York University ($2,500) February 2008
    "The Age of Reason: Financial Decisions over the Lifecycle" (with Driscoll, J., X. Gabaix, and D. Laibson)
11. J. Walter Elliot Award for Excellence in Macroeconomics - UWM March 1995

Lectures

1. Institute of Advanced Study, Hong Kong March 2016
   Keynote address on, "Corruption and Insider Trading"
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. Australian National University Dec 2014
   Keynote address on, "Corruption and Insider Trading in Banking and Real Estate Markets" at the ANU Summer Camp
6. 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

PROFESSIONAL SERVICES

Invited Seminar and Conference Presentations

2017 -Research Department, Bank of England
Finance Department, Pennsylvania State University
Research Department, Federal Reserve Bank of Atlanta
Office of Financial Research, U.S. Treasury Department
The Motley Fool, Washington DC

2016 -Congressional Policy Briefing on Housing Legislative Reform, Capital Hill, Washington DC
Economics Department, John Hopkins University, Baltimore
Finance Department, Singapore Management University, Singapore
Economics Department, Presidency College, Kolkata, India
Copenhagen Business School, Denmark
Finance Department, University of Southern California
Brookings Institute India, Delhi, India

Civil Services College, Behavioral Economics Forum, Singapore
Bank of International Settlement, Basel, Switzerland
Economics and Institutions Conference, CSEF-IGIER, Capri, Italy
Georgetown University, Washington DC
Finance Department, University of Science and Technology, Hong Kong
Booth School, University of Chicago, Chicago
Money Sense, National Singapore University
Booth School, University of Chicago, Singapore Campus
Law and Banking Colloquium, NUS, Singapore
Chinese 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, NYC
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, John 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, John 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 -Internet Banking Conference, Federel Reserve Board (D)
Household Finance Conference, Imperial College, U.K. (D)
ABFER Annual Conference, Singapore (D)
IRES Annual Symposium, Singapore (C)
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 Economics 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

ABFER Conference, International Macro, Money and Banking, program committee 2016
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, 2016
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, Canadian Journal of Economics, 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, Social Science and Humanities Research of Singapore

MEDIA

Op-Ed

1. "Is MNREGA destroying factory jobs? Disquieting data shows it discourages skill development" (with Alok, S., Y. Chopra, and P. Tantri), *The Times of India*, January 3rd, 2017
2. "Gender gap in bankruptcy risks: its meaning for policy at home, at work" (with Foo, S. and J. Zhang), *Business Times*, December 6th, 2016
3. "Why it's s difficult to get a cab?" (with Mi, D., J. Pan, and T. Sing), *Today*, October 6th, 2016
4. "One impact of HDB cooling measure is cut in consumer spending" (with Qian, W), *Business Times*, September 23rd, 2016
5. "Golden Spending in the Silver Years" (with Pan, J., and W. Qian), *Straits Times*, August 5th, 2016
6. "Golf Buddies and Board Diversity" *Harvard Law School Forum*, June 27th, 2016
7. "Shop till you drop or when you run out of your cards" (with Qian, W. and K. Koo) *Straits Times*, June 8th, 2016
8. "Bank pass-through of credit expansions and household borrowing" (with Chomsisengphet, S., N. Mahoney, J. Stroebel) *Vox*, January 9th, 2016
9. "Pick a card, any card: Cloaked corruption in China" (with Qian, W., and J. Zhang), *Straits Times*, January 6th, 2016
10. "How school proximity affects house prices in Singapore" (with Tien Foo, S), *Straits Times*, December 17th, 2015
11. "The information advantage of Singapore's real estate agents" *Straits Times*, October 15th, 2015
12. "Home Affordable Refinance Program: Impact on Borrowers" (with Amromin, G., S., Chomsisengphet, T. Piskorski, A., Seru, V. Yao), *Vox*, October 1st, 2015

13. "The 'Hungry Ghost month' effect on housing" (with Tien Foo, S), *Straits Times*, September 2nd, 2015
14. "The impact of housing credit on personal bankruptcy" (with Song. C) *Straits Times*, July 4th 2015
15. "CPF reform: Nudge people to make optimal choices" *Straits Times*, February 7th 2015
16. "Is Uber taking us for a ride?" *Today*, December 22th 2014
17. "The 'lucky 8' premium in housing unit prices" *Straits Times*, September 19th 2014
18. "Singaporeans' puzzling behavior at age 55" (with Pan, J., and W. Qian), *Straits Times*, September 11th, 2014
19. "Govt rebates: Spend or save?" *Straits Times*, June 6th, 2013
20. "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, IT Figures Season 5*, "The Wealth Gap" November 21st 2016
2. *Channel News Asia, Singapore Tonight*, "Relevance of Research on Public Policy" August 18th, 2016
3. *Channel News Asia, Money Mind* show to discuss, "How do couples deal with debt and spending" May 24th, 2016
4. *Channel News Asia, Inside the Storm* show to discuss, "Collapse of Lehman Brothers" January 24th, 2016
5. *Channel News Asia, Common Cents* show to discuss, "Managing your Credit Card" April 30th, 2015
6. *Channel News Asia, Business Singapore* show to discuss, "Technology helps banks engage clients beyond physical branch" March 4th, 2015
7. *Channel News Asia, Business Singapore* show to discuss, "CEA to recognize outstanding property agencies with new scheme" February 18th, 2015
8. *Channel News Asia, Business Singapore* show to discuss, "S&P pays US$1.4b in settlements" February 6th, 2015
9. *Channel News Asia, Business Singapore* show to discuss, "Singapore's home mortgage rates continue to rise" February 2nd, 2015
10. *Channel News Asia, Business Singapore* show to discuss, "Uber aims for $40 Billion Valuation," November 27th, 2014
11. *Channel News Asia, Business Singapore* show to discuss, "Bitcoins Boom or Bust," September 14th, 2014
12. *BBC, Asia Business Report* to discuss, "What does Jackson Hole mean for Asia's businesses", August 25th, 2014
13. *Channel News Asia, Business Singapore* show to discuss, "Bit Coins in Singapore," July 26th, 2014
14. *BBC, Asia Business Report* to discuss, "Asian Workers Rights", May 1st, 2014
15. *NHK, Singapore Bureau* show to discuss, "The future of Bit Coins," April 17th, 2014
16. *BBC, Asia Business Report* to discuss, "Australia Eyes Insider Trading Crackdown", July 12th, 2013
17. *Channel News Asia, Business Singapore* show to discuss, "MAS Reportedly in Discussions to Discontinue SIBOR" February 18th, 2013
18. *CNBC, Squawk Box* to discuss, "Rigging Currency Rates in Singapore," February 6th, 2013
19. *Channel News Asia, Evening News* to discuss, "Regional banks see jump in merger and acquisition activities", November 2nd, 2012
20. *Channel News Asia, Bridging Asia* show to debate, "Should Happiness be a National Target?" October 30th, 2012

21. *BBC, Asia Business Report* to discuss, "HSBC Apologizes Over Claims it Aided Money-Laundering", July 19th, 2012
22. *BBC*, Radio to discuss, "Banking Troubles -- HSBC Money Laundering and Barclays LIBOR Scandal" July 18th, 2012
23. *BBC, Asia Business Report* to discuss, "JP Morgan Loss: Bank Risks 'Different Asia'", May 15, 2012
24. *NewsX, Fineprint* to discuss, "$700 Billion Bailout Package", September 28, 2008

Citation (Selected)

1. "NUS Indian Professor loves to do Research on Local Issues" *Zaobao*, January 9th 2017
2. Lauren Lyons Cole, "Do rising mortgage rates mean it's time to buy a home?" *Consumer Reports*, December 26th 2016
3. Charlie Wells, "The biggest money mistakes we make -- decade by decade" *The Wall Street Journal*, October 24th 2016
4. Eric Reed, "We Can Stop The Next Wells Fargo Scandal: Here's How" *The Street*, September 16th 2016
5. Eric Reed, "Wells Fargo Fraud Perpetrators Get Off Scot-Free: Here's Why Bankers Don't Go To Jail" *The Street*, September 16th 2016
6. Wong Kim Hoh, "Firm Stand Against Greedy Bankers" *The Straits Times*, September 4th 2016
7. Emily Badger, "Why lottery winners may make their neighbors go broke" *The Washington Post*, March 2, 2016
8. Tim Lee, "Lottery winners' neighbors tend to spend themselves into bankruptcy" *Vox*, February 23, 2016
9. Shane Ferro, "Living Near A Lottery Winner Has A Surprising Downside" *Huffington Post*, February 16, 2016
10. Ben Leubsdorf, "Why You Might Go Bankrupt If Your Next-Door Neighbor Wins the Lottery", *Wall Street Journal*, February 16, 2016
11. "Backdoor bribes? Banks offer special credit lines to Chinese bureaucrats" *Forbes*, January 7, 2016
12. "All Credit to Them", *The Economist*, September 26, 2015
13. Siau Ming En, "Study what makes people tick to effect change, says NUS prof," *Today*, March 20, 2015
14. Manju Dalal and Liantng Tu, "DBS Chief Warns of Basel Fallout" *IFRAsia*, October 4, 2014
15. Grace Chua, "Construction ups home energy" *The Straits Times*, January 27, 2014
16. Floyd Norris, "Card Act Cleaned up Credit Cards' Hidden Costs" *New York Times*, November 7, 2013
17. Zack Fox, "New study estimates the effect of predatory-lending law" *SNL Financial*, October 29, 2013
18. Matthew Yglesias, "The CARD Act has Saved Billions" *Slate*, October 9, 2013
19. Cass Sunstein, "How Changing a Forum Can Change Peoples Lives" *Bloomberg*, October 8, 2013
20. Fred O Williams, "CARD Act Cut Fees $20 Billion" *Fox Business Report*, October 3, 2013
21. "What went wrong?" *The Economist*, August 13, 2013
22. E. Thomas McClanahan, "Yes, the Community Reinvestment Act encouraged banks to make risky loans" *Midwest Voices*, December 27, 2012
23. Raghuram Rajan, "Did bankers create the crisis?" *Live Mint*, December 23, 2012
24. Adam Levitin, "CRA and the housing bubble," *Credit Slips*, December 19, 2012
25. Mary Ellen Podmolik, "Mortgage servicers dropped the ball, study says," *Chicago Tribune*, September 20, 2012
26. Marilyn Lewis, "Did bank delays cause 800,000 foreclosures?" *MSN Money*, September 17, 2012
27. Ilyce Glink, "Home modification program falls short," *CBS News*, September 13, 2012

28. Paul Kiel, "Foreclosure Fail: Study Pins Blame on Big Banks," *ProPublica*, September 11, 2012
29. Nick Timiraos, "Why Obama's Loan Modification Program Fell Short," *Wall Street Journal*, September 5, 2012
30. Karen Weise, "Putting numbers to HAMP's limited impact," *Business Week*, August 31, 2012
31. Kristie Neo, "MAS looking into SIBOR setting process," Channel NewsAsia, *July 18, 2012*
32. Economic Report of the President, February, 2012 http://www.whitehouse.gov/sites/default/files/docs/erp_2012_complete.pdf
33. Barbara Rehm, "Are State Regulators Too Lax?" *American Banker*, February 2012
34. Victoria McGrane, "State Bank Regulators More Lenient Than Federal Counterparts" *Wall Street Journal*, January 23, 2012
35. Bob Frick, "Protect your money from aging problem-solving skills," *Kiplinger Magazine*, June 2011
36. Annie Murphy Paul, "10 Ways You Get Smarter as You Get Older," *O, The Oprah Magazine*, May 2011
37. Parthasarathi Swami, "If marriage makes you stupid, why get married?" *Hindustan Times*, May 14, 2011
38. Matthew McClearn, "Why we can't stop spending," *Canadian Business*, April 5, 2011
39. Parthasarathi Swami, "Indians Save, Americans Invest: Why Financial Literacy Should Accompany Inclusion," *Knowledge@Wharton*, March 24, 2011
40. Brad Tuttle, "The reward for cash-reward credit cards: higher bills, more debt," *Time Magazine*, December 29, 2010
41. Conor Doherty, "Credit Cards' Cash Rewards Prompt Higher Spending, More Debt" *The Wall Street Journal*, December 28, 2010
42. Valerie Ross, "Older but not wiser? The psychology behind senior's susceptibility to scams" *Scientific American*, November 18, 2010
43. Michael Konczal, "The latest on servicing and modifications," *The Washington Post*, November 11, 2010
44. Paul Willen, "Securitized mortgage loan or not, lenders are not restructuring," *Real Estate Research Blog*, Federal Reserve Bank of Atlanta, October 20, 2010
45. 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
46. M. P. McQueen, "Refinancing: Whom Can We Trust?" *The Wall Street Journal*, September 18, 2010
47. David Allison, "Do financial decisions get better with age?" *Yahoo! Finance*, September 9, 2010
48. Laurent Belsie, "Mortgage rates at 50-year lows. Should you refinance? Maybe not," *Christian Science Monitor*, August, 12, 2010
49. Chril Dillow, "Why personality matters," *Investors Chronicle*, August, 10, 2010
50. Shefali Anand, "Indians are better off than Americans," *The Wall Street Journal*, July, 2, 2010
51. Joe Castaldo, "Investing: Are you getting too old to invest on your own?" *Canadian Business Magazine*, December 7, 2009
52. Brent Hunsberger, "Sad but true: Financial smarts depreciate as we age," *Oregonian*, November 21, 2009
53. Ryan Sager, "The Peak Age of Financial Reason," *SmartMoney*, November 20, 2009
54. Mitra Kalita, "Financial Literacy a 'Civil-Rights' Problem?" *Wall Street Journal*, October 9, 2009
55. Jeff Nash, "Dementia poses threat to aging boomers' portfolio," *Investment News*, September 13, 2009
56. Justin Lahart, "Financial Skills Decline With Age," *Wall Street Journal*, September 10, 2009
57. Zubin Jelveh, "Should we give financial advice to the poor?" T*he New Republic*, April 4, 2009

58. Phil Kadner, "Southwest side had early solution to housing crisis," *Chicago Sun-Times*, January 10, 2009
59. Kelly Evans and Sudip Reddy, "Where will all the rebates go?" *Wall Street Journal*, April 30, 2008
60. Daniel Gross, "Understimulated: Do Americans lie to pollsters about how they'll spend their stimulus rebate checks?" *Slate*, February 7, 2008
61. Kathleen Pender, "Consumer not likely to spend tax rebates," *San Francisco Chronicle*, February 5, 2008
62. Laura Mandaro, "Clothes, food could get smaller slice of rebates," *MarketWatch*, January 29, 2008
63. Jennifer Waters, "Rebates burn holes in most consumers' pockets," *The Wall Street Journal*, January 22, 2008
64. David Lazarus, "Will $800 help much?" *Los Angeles Times*, January 19, 2008
65. Dona DeZube, "Young and old alike" *Mortgage Banking Magazine*, October 1, 2007
66. Mark Miller, "The Age of Reason? It's 53" *Chicago Sun-Times*, September 24, 2007
67. Steve Cahalan, "Economist: Young, old need most financial education" *La Crosse Tribune*, September 20, 2007
68. Gail Liberman and Alan Lavine, "Why loan rates may be so high," *MarketWatch*, September 17, 2007
69. David Kiley, "Another Headache for Detroit," *Business Week*, August 10, 2007
70. Marilyn K. Melia, "Getting to the bottom of things," *Chicago Tribune*, July 29, 2007
71. Martha M. Hamilton, "Safeguards for Aging Investors," *The Washington Post*, July 15, 2007
72. Ros Krasny, "Chicago Fed study sees subprime woes contained," *Reuters News*, June 28, 2007
73. Marilyn K. Melia, "Re-fi Wisdom Cost Many Money," *Chicago Tribune*, June 3, 2007
74. Marilyn K. Melia, "Pick 'Reverse' at a Deliberate Speed," *Chicago Tribune*, April 29, 2007
75. Michael Moskow, "Learning About Money is a Smart Move," *Chicago Sun-Times*, April 20, 2007
76. David Wessel, "Why Middle Age May Be Healthy for Your Wallet," *Wall Street Journal* (Front Page), March 22, 2007

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, NUS (PhD requirement)	Rating 4.7/5	2016
Research Methods in Applied Econometrics, NUS (PhD requirement)	Rating 2.6/5	2015

Real Estate Finance, NUS (PhD elective) Rating 5/5 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

Finance Department, HKUST May 2016-Present
Semester style course on consumption, household finance, and real estate markets to the Phd students

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

Georgetown University

Member, Faculty Research Committee	2016-Present
Member, Area Evaluation Committee	2016-Present

National University of Singapore

University Research Committee Expert Panel (Business and Social Science Cluster)	2014-2016
Faculty Promotion and Tenure Committee (School of Public Policy)	2015-2016
Faculty Promotion and Tenure Committee (School of Business)	2014-2016
Faculty Promotion and Tenure Committee (School of Design and Environment)	2014-2016
Member, Department Recruitment Committee (Economics Department)	2013-2016
Chair and Member, Department Recruitment Committee (Finance Department)	2012-2016
Chair, Department Recruitment Committee (Real Estate Department)	2012-2016
Chair, Faculty Research Committee (School of Business)	2012-2016
Member, Faculty Research Committee (School of Design and Environment)	2012-2014
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, NUS)	Expected 2018
Zoe Zhang (Real Estate, NUS)	Expected 2017
Xin Zou (Finance, NUS)	Expected 2017
Mandy Zhang (Finance, NUS)	Expected 2017
Yinqi Zhang (Real Estate, NUS), Shanghai University	2016
Jian Zhang (Finance, NUS), Baptist University of Hong Kong	2016
Kang Mo Koo (Real Estate, NUS), Baruch College	2016
Dulani Jayasuryia (Finance, NUS), IIM Ahmadabad	2016

Ph.D. Committee Member

Louise Charlotte Willerslev-Olsen (Economics, University of Copenhagen)	2016
Chenxi Luo (Real Estate, NUS)	2015
Yunglin Wang (Real Estate, NUS)	2015
Yupeng Lin (Finance, NUS)	2014
Maggie Wu (Finance, NUS)	2014
He Jia (Real Estate, NUS)	2014

Others

Field Service Project Supervisor (four students), NUS	2012-2013
Undergraduate Honors Thesis Supervisor (three students), NUS	2012-2013
Undergraduate Honors Thesis Supervisor (four students), NUS	2013-2014

Undergraduate Honors Thesis Supervisor (four student), NUS 2014-2015

REFERENCES

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