Contact Information

Address: 43 Chengfu Road, Haidian District, Beijing, 100083, China

Email: <u>zhouh@pbcsf.tsinghua.edu.cn</u>
Webpage: <u>www.pbcsf.tsinghua.edu.cn</u>

Primary Employment

2013-	Unigroup Chair Professor, PBC School of Finance, Tsinghua University, C				
	Deputy Head, National Institute of Financial Research				
	Director, Monetary Policy & Financial Stability Research Center				
2006-2013	Senior Economist, Risk Analysis Section, Federal Reserve Board				
2000-2006	Economist, Trading Risk Analysis Section, Federal Reserve Board				
1999-2000	Lecture, Department of Economics, Duke University				
1993-1994	Consultant, Development Research Center of State Council, China				
1989-1990	Administrator, Nandan County of Guanxi Province, China				

Secondary Position

Visiting Professor	2007-Fall	MIT Sloan School of Management – Finance Area
Visiting Professor	2005-Sept.	China Center for Economic Research at Peking University

Education Background

PhD	Department (of Economic	s. Duke	University.	May 2000

MA Guanghua School of Management, Peking University, June 1993
BA Department of International Economics, Peking University, July 1989

Major: Financial Economics and Econometrics

Advisors: Ravi Bansal (co-chair), Tim Bollerslev, and George Tauchen (co-chair)

Teaching Experience

Empirical Finance (MS), Monetary Policy & Financial Stability (PhD), Tsinghua University Financial Markets and Investments, Introduction to Econometrics (BS/BA), Duke University

Research Interests

Consumption-Based Asset Pricing Models with Stochastic Volatility
Structural Credit Risk Models and Credit Derivatives Market
Financial Market Volatility and Return Predictability
Term Structure Model with Consumption and Inflation Uncertainty
Realized Jumps on Financial Market and Asset Pricing Puzzles
International Risk Premium Dynamics and Global Economic Uncertainty
Systemic Risk and Macro-Prudential Regulation of Financial Institutions
China Financial Market – Reform and Policy

September 2014 Page - 1 -

Award & Honor

- 1. Best Teaching and Mentoring Award (for graduate students), Tsinghua University, 2014.
- 2. Thousand Talents Program, China, 2014.
- 3. "Dynamic Estimation of Volatility Risk Premia and Investor Risk Aversion from Option-Implied and Realized Volatilities," with Tim Bollerslev and Mike Gibson, Whitebox Selected Research Best Financial Research Paper finalist, 2012.
- 4. "Predicting Stock Returns with Variance Risk Premia: Statistical Inference and International Evidence," with Tim Bollerslev, James Marrone, and Lai Xu, China International Conference in Finance Best Paper Award, 2011.
- 5. "Variance Risk Premia, Asset Predictability Puzzles, and Macroeconomic Uncertainty," Crowell Memorial Prize 3rd Place by PanAgora Asset Management, 2010.
- 6. "Variance Risk Premia, Asset Predictability Puzzles, and Macroeconomic Uncertainty," Chicago Quantitative Alliance (CQA) Academic Competition Award 3rd Place, 2009.
- 7. "Assessing the Systemic Risk of a Heterogeneous Portfolio of Banks during the Recent Financial Crisis," with Xin Huang and Haibin Zhu, BankScope Best Paper Prize of the 22nd Australasian Finance and Banking Conference, 2009.
- 8. "Credit Default Swap Spreads and Variance Risk Premia," with Hao Wang and Yi Zhou, Global Association of Risk Professionals (GARP) Research Proposal Award, 2009.
- "Credit Default Swap Spreads and Variance Risk Premia," with Hao Wang and Yi Zhou, Imperial College London Centre for Hedge Fund Research (CHFR) Research Proposal Award, 2009.
- 10. "A Framework for Assessing the Systemic Risk of Major Financial Institutions," with Xin Huang and Haibin Zhu, Bocconi Centre for Applied Research in Finance (CAREFIN) Research Proposal Award, 2008.
- 11. "Short Course on Asset Pricing Puzzles," China Center for Economic Research (CCER) of Peking University, Oversea Young Chinese Forum (OYCF) Gregory C. and Paula K. Chow Teaching Fellowship, 2005.

Research Publications

Working Paper

1. "Belief Uncertainty, Volatility Risk Premium, and Speculative Trading" with Ming Guo, Tsinghua University PBC School of Finance, 2014.

September 2014 Page - 2 -

- 2. "Stock Return Volatilities and Capital Structure Decisions," with Hui Chen and Hao Wang, Tsinghua University PBC School of Finance, 2014.
- 3. "Do Behavioral Biases Affect Order Aggressiveness?" with Jiangze Bian, Kalok Chan, and Donghui Shi, Tsinghua University PBC School of Finance, 2013.
- 4. "Realized Jump Risk and Conditional Equity Premium," with Hui Guo, Zhentao Liu, Kent Wang, and Haomiao Zuo, Tsinghua University PBC School of Finance, 2013.
- 5. "The Systemic Risk of European Banks during the Financial and Sovereign Debt Crises," with Lamont Black, Ricardo Correa, and Xin Huang, Federal Reserve Board, 2012.
- 6. "Variance Risk Premiums and the Forward Premium Puzzles," with Juan M. Londono, Federal Reserve Board, 2012.
- 7. "Ambiguity Aversion and Variance Premium," with Jianjun Miao and Bin Wei, Federal Reserve Board, 2012.
- 8. "Short-Run Bond Risk Premia," with Philippe Mueller and Andrea Vedolin, Federal Reserve Board, 2011.
- 9. "Variance Risk Premia, Asset Predictability Puzzles, and Macroeconomic Uncertainty," Working Paper, Federal Reserve Board, 2009.
- 10. "Specification Analysis of Structural Credit Risk Models," with Jingzhi Huang, Working Paper, Federal Reserve Board, 2008.
- 11. "Effect of Liquidity on the Nondefault Component of Corporate Bond Spreads: Evidence from Intraday Transactions Data," with Song Han, Federal Reserve Board, 2008.

Refereed Journal

- 1. "Risk, Uncertainty, and Expected Returns," with Turan Bali, *Journal of Financial and Quantitative Analysis*, forthcoming, 2014.
- 2. "Stock Return and Cash Flow Predictability: the Role of Volatility Risk," with Tim Bollerslev and Lai Xu, *Journal of Econometrics*, forthcoming, 2014.
- 3. "Predicting Stock Returns with Variance Risk Premia: Statistical Inference and International Evidence," with Tim Bollerslev, James Marrone, and Lai Xu, *Journal of Financial and Quantitative Analysis*, forthcoming, 2014.
- 4. "Credit Default Swap Spreads and Variance Risk Premia," with Hao Wang and Yi Zhou, *Journal of Banking and Finance*, vol. 37, pages 3733-3746, 2013.

September 2014 Page - 3 -

- 5. "Assessing the Systemic Risk of a Heterogeneous Portfolio of Banks during the Recent Financial Crisis," with Xin Huang and Haibin Zhu, *Journal of Financial Stability*, vol. 8, pages 193-205, 2012.
- 6. "Systemic Risk Contributions," with Xin Huang and Haibin Zhu, *Journal of Financial Services Research*, vol. 42, pages 55-83, 2012.
- 7. "Realized Jumps on Financial Markets and Predicting Credit Spreads," with George Tauchen, *Journal of Econometrics*, vol. 160, pages 235-245, 2011.
- 8. "Dynamic Estimation of Volatility Risk Premia and Investor Risk Aversion from Option-Implied and Realized Volatilities," with Tim Bollerslev and Mike Gibson, *Journal of Econometrics*, vol. 160, pages 102-118, 2011.
- 9. "Explaining Credit Default Swap Spreads with the Equity Volatility and Jump Risks of Individual Firms," with Ben Zhang and Haibin Zhu, *Review of Financial Studies*, vol. 22, pages 5099-5131, 2009.
- 10. "Bond Risk Premia and Realized Jump Risk," with Jonathan Wright, *Journal of Banking and Finance*, vol. 33, pages 2333-2345, 2009.
- 11. "A Framework for Assessing the Systemic Risk of Major Financial Institutions," with Xin Huang and Haibin Zhu, *Journal of Banking and Finance*, vol. 33, pages 2036-2049, 2009.
- 12. "Expected Stock Returns and Variance Risk Premia," with Tim Bollerslev and George Tauchen, *Review of Financial Studies*, vol. 22, pages 4463-4492, 2009.
- 13. "Volatility Puzzles: A Simple Framework for Gauging Return-Volatility Regressions," with Tim Bollerslev, *Journal of Econometrics*, vol. 131, pages 123-150, 2006.
- 14. "Regime-Shifts, Risk Premiums in the Term Structure, and the Business Cycle," with Ravi Bansal and George Tauchen, *Journal of Business and Economic Statistics*, vol. 22, pages 396-409, 2004.
- 15. "Ito Conditional Moment Generator and the Estimation of Short Rate Processes," *Journal of Financial Econometrics*, vol. 1, pages 250-271, 2003.
- 16. "Estimating Stochastic Volatility Diffusion Using Conditional Moments of Integrated Volatility," with Tim Bollerslev, *Journal of Econometrics*, vol. 109, pages 33-65, 2002.
- 17. "Term Structure of Interest Rates with Regime Shifts," with Ravi Bansal, *Journal of Finance*, vol. 57, pages 1997-2043, 2002.
- 18. "Finite Sample Properties of EMM, GMM, QMLE, and MLE for a Square-Root Interest Rate Diffusion Model," *Journal of Computational Finance*, vol. 2, pages 89-122, 2001.

September 2014 Page - 4 -

19. "Rural-Urban Disparity and Sectoral Labor Allocation in China," with Dennis Tao Yang, *Journal of Development Studies*, vol. 35, pages 105-133, 1999.

Nonrefereed Publication

- 20. "Comment Systemic Risks and the Macroeconomy," by Gianni De Nicolò, Marcella Lucchetta, NBER Book *Quantifying Systemic Risk*, Joseph G. Haubrich and Andrew W. Lo editors, 2013.
- 21. "Comment Numerical Techniques for Maximum Likelihood Estimation of Continuous-Time Diffusion Processes," by Garland B. Durham and A. Ronald Gallant, *Journal of Business and Economic Statistics*, vol. 20, pages 332-335, 2002.

Professional Activities

Conference and Seminar: (coauthor^c, discussion^d)

- 2015: AFA Meeting in Boston.
- 2014: Econometric Society Meeting in Philadelphia, McGill/IFM2 Financial Risk Management Conference in Monte Tremblant^c, Midwest Finance Association Meeting^c, 14th Annual Missouri Economics Meeting^c, Luxembourg School of Finance and European Investment Bank Joint Seminar^c, 3rd University of South Carolina Fixed Income Conference^c, China International Conference in Finance in Chengdu, Conference on Bank Regulation and Financial Innovation in Xiamen.
- 2013: AFA Meeting in San Diego (2 papers)^{c,d}, Federal Reserve ASSA Day-Ahead Financial Markets & Institutions Conference^c, Cass Business School Mini Conference on Systemic Risk Contagion and Jumps^c, University of Chicago Workshop on Ambiguity and Robustness in Macroeconomics and Finance^c, QFE Seminar Series at NYU Stern^c, 12th Annual Darden International Finance Conference^c, Tsinghua Finance Workshop^d, WU Gutmann Center Symposium 2013 on Sovereign Credit Risk and Asset Management in Vienna^c, Second Symposium on China's Financial Markets at Peking University, China International Conference in Finance in Shanghai, Risk Management Conference at National University of Singapore^c, Federal Reserve Board, FSID and Bank of Canada Second Conference on Derivatives: Tail Risk^c, Peking University Guanghua School of Management, Australian Finance and Banking Conference (PhD Forum) ^d.
- 2012: McGill/IFM2 Financial Risk Management Conference in Monte Tremblant^c, Finance Down Under Conference in Melbourne, FDIC Annual Derivative and Risk Management Conference, Volatility Institute Conference at NYU Stern, Five Star Financial Forum in Beijing^c, Mitsui Finance Symposium on Financial Market Implications of the Macroeconomy^d, BI Norwegian Business School Workshop on Time-Varying Expected Returns, Symposium on China's Financial Markets in Beijing^d, China International Conference in Finance in Chongqing, Risk Management Conference at National University of Singapore^c, Singapore International Conference on Finance, European Summer

September 2014 Page - 5 -

Symposium in Financial Markets in Gerzensee, Federal Reserve Bank of San Francisco^c, Euro Area Crisis Research Workshop at the International Finance Division of Federal Reserve Board^c, G20 Conference on Financial Systemic Risk at Istanbul^c, University of California at Santa Cruz^c, FDIC Annual Bank Research Conference^c, Federal Reserve Bank of New York, CARFIN-Bocconi Conference on the Effect of Tighter Regulation Requirements on Bank Profitability and Risk-Taking Incentives in Milan^c, Peking University^c, Tsinghua University^c, Cheung Kong GSB^c, City University of Hong Kong^c, Hong Kong University of Science and Technology^c, Seventh Imperial College London's Conference on Advances in the Analysis of Hedge Fund Strategies, Georgetown University, University of International Business and Economics.

- 2011: AFA Meeting in Denver^c, Bank of Korea-BIS Conference on Macroprudential Regulation and Policy in Seoul, Notre Dame University, FDIC Annual Derivative and Risk Management Conference, Volatility Institute Conference at NYU Stern, Duke University, Hong Kong University of Science and Technology, Shanghai Advanced Institute of Finance, China International Conference in Finance in Wuhan, Risk Management Conference at National University of Singapore, Deutsche Bundesbank Conference on Basel III and Beyond-Regulating and Supervising Banks in the Post-Crisis Era, Federal Reserve Bank of New York and NYU Global Systemic Risk Conference^c, Sixth Imperial College London's Conference on Advances in the Analysis of Hedge Fund Strategies.
- 2010: University of Texas at Dallas, University of Wisconsin Madison, UBC Winter Finance Conference in Vancouver, McGill/IFM2 Financial Risk Management Conference in Monte Tremblant, University of Calgary, Bank Structure and Competition Conference in Chicago, Fields Institute Industrial-Academic Forum on Systemic Stability and Liquidity in Toronto, IMF Conference on Operationalizing Systemic Risk Monitoring, Empirical Asset Pricing Retreat in Amsterdam, China International Conference in Finance in Beijing, Emerging Markets Finance Conference at Tsinghua University, Risk Management Conference at National University of Singapore, Baruch College, Rice University, Texas A&M University, 10th Annual Bank Research Conference at FDIC, Conference of Financial Economics and Accounting^d.
- 2009: AFA Meeting in San Francisco (2 papers), Bank for International Settlement (Hong Kong), Symposium on Housing Loan Portfolio Stress Testing in Beijing Sponsored by IFC and China Banking Regulatory Commission, Qinghua University, Federal Reserve Bank of Kansas City, University of Kansas, Federal Reserve Bank of San Francisco, East China University of Science and Technology, China International Conference in Finance in Guangzhou, Risk Management Conference at National University of Singapore, Hanqing Advanced Institute at Renmin University, Chicago Quantitative Alliance Fall Conference, University of Texas at Dallas, Journal of Investment Management Fall Conference on the Future of Risk Management in Boston, Duke University, NBER-FRB Conference on Quantifying Systemic Risk in Boston^d, Anniversary Conference of Financial Economics and Accounting in New Brunswick, The Chinese Finance Association Meeting in New York, Purdue University.

September 2014 Page - 6 -

- 2008: AFA (2 papers) and Econometric Society Meetings in New Orleans, Rutgers University, China Financial Risk Managers Forum in Beijing, People's Bank of China, Peking University, Qinghua University, Federal Reserve System Committee Meeting on Financial Structure and Regulation in Boston, Conference of Financial Markets and Real Activity at Banque de France, Third Imperial College London's Conference on Advances in the Analysis of Hedge Fund Strategies, Conference on Financial Markets at Cass Business School London, International Monetary Fund.
- 2007: AEA and Econometric Society Meetings in Chicago, Conference on Return Predictability at Copenhagen Business School, Utah Winter Finance Conference in Salt Lake City, Montreal Financial Econometrics Conference^d, Federal Reserve Conference on Credit Risk and Credit Derivatives, Workshop on Economic Analysis of High-Frequency Data and the Impact of Economic News at Stanford University, China International Conference in Finance in Chengdu, NBER Summer Institute (Asset Pricing), MIT Sloan School of Management.
- 2006: AFA and Econometric Society Meetings in Boston, McGill/IFM2 Conference on Risk Management in Montreal^d, CIREQ Conference on Realized Volatility at Montreal, FDIC Annual Derivative and Risk Management Conference, China International Conference in Finance in Xi'an, Far Eastern Meeting of the Econometric Society in Beijing.
- 2005: FDIC Annual Derivative and Risk Management Conference, Conference on Time-Varying Financial Structures in Venice, Federal Reserve Conference on Financial Market Risk Premiums, Peking University, Bank for International Settlement.
- 2003: University of Arizona, Symposium of New Frontiers in Financial Volatility Modeling in Florence, Econometric Society Summer Meeting in Chicago, CIREQ Conference of Realized Volatility in Montreal.
- 2001: Workshop on Modeling, Estimating and Forecasting Volatility in Montreal, WFA Meeting in Tucson, NBER Market Microstructure Meeting, Joint Statistical Meeting in Atlanta^d.
- 2000: Econometric Society Meeting in Boston, Brown University, Michigan State University, University of Virginia, Federal Reserve Board, NBER Summer Institute (Forecasting and Empirical Methods in Macro and Finance), WFA Annual Meeting in Idaho, Duke University Conference on Risk Neutral and Objective Probability.
- 1999: Society for Nonlinear Dynamics and Econometrics Meeting in New York, Econometric Society Summer Meeting in Madison, FMA Meeting in Orlando.

Policy Speech:

- 2014: "The Positive Effects of Structural Monetary Policy," Financial Times (in Chinese online).
- 2014: "Central Bank Independence," 70th Anniversary Conference on the Bretton Woods System.

September 2014 Page - 7 -

2014: "China's Shadow Banking," Joint PBoC/IMF Conference on Monetary Policy.

2013: "QE Exit Effect on China's Economy," PBoC's Monetary Policy Committee.

Conference Organizer:

China International Conference in Finance, Program Co-Chair, July 2014, Chengdu, China.

Sixth Annual Risk Management Conference – Risk Management Responses to Rising Systematic and Systemic Risks, July 2012, National University of Singapore

Basel Committee of Banking Supervision Research Task Force Conference on Stress Testing of Credit Risk Portfolio: The Link between Macro and Micro, March 2008, Amsterdam

Federal Reserve Conference on Credit Risk and Credit Derivatives, March 2007, Washington DC

Federal Reserve Conference on Financial Market Risk Premiums – Time Variations and Macroeconomic Links, July 2005, Washington DC

Professional Membership:

AEA, AFA, Econometric Society, WFA.

Journal Referee:

American Economic Review, Econometrica, Economic Theory, European Financial Management, International Journal of Central Banking, Finance Research Letters, Journal of Applied Econometrics, Journal of Banking and Finance, Journal of Business and Economic Statistics, Journal of Credit Risk, Journal of Econometrics, Journal of Economic and Dynamic Control, Journal of Empirical Finance, Journal of Finance, Journal of Financial and Quantitative Analysis, Journal of Financial Econometrics, Journal of Financial Markets, Journal of Financial Stability, Journal of Futures Markets, Journal of International Money and Finance, Journal of Money, Credit, and Banking, Management Science, Pacific-Basin Finance Journal, Review of Financial Studies.

September 2014 Page - 8 -