Zhaogang Song

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Employment	nccp., / Sices. google. com/ a/ cornerr. edu/ 293/
 Johns Hopkins University, Carey Business Sch Professor of Finance Associate Professor of Finance Assistant Professor of Finance 	hool $2022 - ext{present}$ $2018 - 2022$ $2015 - 2018$
• Board of Governors of the Federal Reserve System Economist, Division of Monetary Affairs	stem 2011 – 2015
• Cornell University, U.S. Ph.D. Economics	2006-2011
 Shandong University, China M.A. Finance B.S. Management Science and Engineering 	1998-2006
Other Affiliations	
• Shanghai Advanced Institute of Finance Visiting Professor	Spring, 2024
 Baruch College, William Newman Department Newman Fellowship Visiting Professor (short-term 	
 Hong Kong Institute for Monetary and Finance Scholar of the Thematic Research Programme 	sial Research $2023-2024$
• Peking University HSBC Business School Distinguished Visiting Professor (short-term visit)	2023
• Federal Reserve Bank of Philadelphia Visiting scholar	$2020-{ m present}$
• U.S. Commodity Futures Trading Commission Academic Expert	2018-2019

Honors and Awards

- Keynote speaker, the second Asia-Pacific Search and Matching Online Workshop, 2023
- The Outstanding Paper in Fixed-Income Award for JFDS, 2022
- Carey Supplemental Research Support Award, 2018 2019, 2021 2022
- Outstanding Referee for the Journal of Banking and Finance, 2017 2018
- Outstanding Referee for the Journal of Empirical Finance, 2017 2018

- Dennis J. Aigner 2017 Honorable Mention for the best paper in empirical econometrics published by the Journal of Econometrics in 2015 - 2016
- Dean's Award for Faculty Excellence, The Johns Hopkins Carey Business School, 2017 2020
- NASDAQ Best Paper Award in Market Microstructure Financial Management Association 2016
- TCFA Best Paper Award, Chinese Finance Association, 2014
- Q-Group Research Award, 2013
- IFSID Research Award, Montreal Institute of Structured Products and Derivatives, 2013
- GARP Research Award, Global Association of Risk Professionals, 2013
- Best Paper Award (first prize), China Finance Review International Conference, 2013
- Best Paper Award, International Symposium on Risk Management and Derivatives, 2012
- Outstanding Teaching Assistant Award, Cornell University, 2009-2010
- Sage Foundation Graduate Fellowship, Cornell University, 2006-2008
- Third Prize, China National Mathematics Olympiad, 1998

Research Specialization

- · Asset Pricing, Market Structure and Liquidity, Nonbank Financial Intermediaries
- FinTech in Credit and Crypto Markets
- · China Monetary Policy and Financial Markets
- Financial Econometrics

Publications

- 17. "Monetary Transmission and Government Investment in China"

 China Economic Review, December 2023, 82-102049, with Qian Han, Yufei Yuan, and Yuanhang Zhao
- 16. "Does the Federal Reserve Obtain Competitive and Appropriate Prices in Monetary Policy Implementation?" **Review of Financial Studies**, October 2023, 36-10: 4113-4157, with Yu An
- 15. "Asset Pricing with Cohort-Based Trading in MBS Markets" **Journal of Finance**, December 2022, 77-6: 3249-3287, with Nicola Fusari, Wei Li, and Haoyang Liu
- 14. "Commonality in Credit Spread Changes: Dealer Inventory and Intermediary Distress"

 Review of Financial Studies, August 2022, 35-10: 4630-4673, with Zhiguo He and Paymon Khorrami
- 13. "Unconventional Monetary Policy and Disaster Risk: Evidence from the Subprime and COVID-19 Crises"

 Journal of International Money and Finance, April 2022, 122:102543, with Gustavo Cortes, George Gao, and Felipe B.G. Silva

Among the most cited articles since 2021

- 12. "Treasury Inconvenience Yields during the COVID-19 Crisis"

 <u>Journal of Financial Economics</u>, January 2022, 143-1: 57-79, with Zhiguo He and Stefan Nagel Policy coverage: U.S. Government Accountability Office
- 11. "Disagreement Beta"

Journal of Monetary Economics, November 2019, 107: 96-113, with George Gao, Xiaomeng Lu, and

Hongjun Yan

Policy coverage: Refinitiv White Papers

10. "Tail Risk Concerns Everywhere"

Management Science, July 2019, 65-7: 3111-3330, with George Gao and Xiaomeng Lu

2013 GARP Research Award 2014 TCFA Best Paper Award

9. "Mortgage Dollar Roll"

Review of Financial Studies, August 2019, 32-8: 2955-2996, with Haoxiang Zhu Media Coverage: Mortgage News Daily

8. "Transparency and Dealer Networks: Evidence from the Initiation of Post-Trade Reporting in the Mortgage Backed Security Market"

Journal of Financial Economics, July 2019, 133-1: 113-133, with Paul Schultz

7. "Do Hedge Funds Exploit Rare Disaster Concerns?"

Review of Financial Studies, July 2018, 31-7, 2650-2692, with George Gao and Pengjie Gao 2013 Q-Group Research Award

6. "Quantitative Easing Auctions of Treasury Bonds"

Journal of Financial Economics, April 2018, 128-1: 103-124, with Haoxiang Zhu Media Coverage: FORTUNE, BloombergView

- 5. "Liquidity in a Market for Unique Assets: Specified Pool and TBA Trading in the MBS Market" **Journal of Finance**, June 2017, 72-3: 1119-1170, with Pengjie Gao and Paul Schultz
- 4. "The Value of Trading Relations in Turbulent Times"

<u>Journal of Financial Economics</u>, May 2017, 124-2: 266-284, with Marco Di-Maggio and Amir Kermani NASDAQ Best Paper Award in Market Microstructure - FMA 2016

Media Coverage: VOX

Policy Reference: SEC's 2017 Report to Congress on "Access to Capital and Market Liquidity"

3. "A Tale of Two Option Markets: Pricing Kernels and Volatility Risk"

Journal of Econometrics, January 2016, 190-1: 176-196, with Dacheng Xiu

Dennis J. Aigner 2017 Honorable Mention by the Journal of Econometrics

Best Paper Award in Derivatives - International Symposium on Risk Management and Derivatives

2. "Testing Whether the Underlying Continuous-Time Process follows a Diffusion: an Infinitesimal Operator-Based Approach"

Journal of Econometrics, March 2013, 173-1: 83-107, with Bin Chen

"A Martingale Approach for Testing Diffusion Models Based on Infinitesimal Operator"
 Journal of Econometrics, June 2011, 162-2: 189-212

Policy, Practitioner, and Special-Field Works

- "The Expected Returns of Agency MBS" (with Savina Rizova, Samuel Yusun Wang, Mingzhe Yi)

 Collaborated investment research as a consultant for the Dimensional Fund Advisors
- "Term Structure of Interest Rates with Short-Run and Long-Run Risks"
 <u>Journal of Finance and Data Science</u>, November 2022, 8:255-295, with Olesya Grishchenko and Hao Zhou

The Outstanding Paper in Fixed-Income Award for JFDS

- "Trading Methods and Trading Costs for Agency Mortgage Backed Securities"
 Journal of Investment Management, October 2018, 16-4: 29-46, with Pengjie Gao and Paul Schultz
- "Tracking the Treasury Yield Curve and Flight to Cash"
 "Treasury Inconvenience Yields during the COVID-19 Crisis"

Chicago BFI Key Economic Facts About COVID-19, March 2020, with Zhiguo He and Stefan Nagel

- "MBS Market Dysfunctions in the Time of COVID-19"
 - <u>Liberty Street Economics Blog, the Federal Reserve Bank of New York</u>, July 2020, with Jiakai Chen, Haoyang Liu, David Rubio and Asani Sarkar
- "Did Dealers Fail to Make Markets during the Pandemic?"
 <u>Liberty Street Economics Blog, the Federal Reserve Bank of New York</u>, March 2021, with Jiakai Chen, Haoyang Liu, David Rubio, and Asani Sarkar

Recent Working Papers

• "Agency MBS as Safe Assets" (with Zhiguo He)

Revise & Resubmit at Review of Financial Studies

Practitioner Coverage: Inside Mortgage Finance

- "TBA Trading and Security Issuance in the Agency MBS Market" (with Yu An and Wei Li) Revise & Resubmit at Real Estate Economics
- "Dealer Expertise and Market Concentration in OTC Trading" (with Wei Li)

 Revise & Resubmit at Journal of Economic Theory
- "Dealers and the Dealer of Last Resort: Evidence from the Agency MBS Market in the COVID-19 Crisis" (with Jiakai Chen, Haoyang Liu, and Asani Sarkar)

 Policy Coverage: BIS Speech of the New York Fed President John Williams; Congressional Research Service
- "Asset Heterogeneity, Market Fragmentation, and Quasi-Consolidated Trading" (with Wei Li)
- "Defragmenting the Agency MBS Market" (with Haoyang Liu and James Vickery)
- "Shadow Bank and FinTech Mortgage Securitization" (with Yu An, Lei Li, and Haoyang Liu)

Inactive Working Papers

- "Dealer Disagreement and Asset Prices in FX Markets", (with Brandon Han and Sophia Li)
- "Tail Risk in Fixed-Income Markets", (with Haitao Li)
 The Montreal Institute of Structured Finance and Derivatives (IFSID) Award
- "An Empirical Test of Auction Efficiency: Evidence from MBS Auctions of the Federal Reserve", (with Pietro Bonaldi, Ali Hortacsu)

Finance and Economics Discussion Series 2015-082. Board of Governors of the Federal Reserve System

Teaching Experiences

- Johns Hopkins University, Carey Business School
 - Financial Econometrics (STEM Course, Master of Finance)
 - Linear Econometrics for Finance (STEM Course, Master of Finance)
 - Fixed-Income Securities (Master of Finance)

- Wealth Management (Master of Finance)
- o Business Microeconomics (Master of Finance, Online)
- Cornell University (Teaching Assistant)
 - o Introductory Microeconomics (undergraduate)
 - Introductory Macroeconomics (undergraduate)
 - o Econometrics II (PhD)
 - Fixed-income securities (MBA)

Professional Activities

- Editorial Committee:
 - Associate Editor: Journal of Economic Dynamics and Control

2024 - present

o Associate Editor: International Review of Finance

2020 - present

- Ad-hoc Referee:
 - Finance: Journal of Finance, Review of Financial Studies, Journal of Financial Economics, Journal of
 Financial and Quantitative Analysis, Review of Asset Pricing Studies, Review of Finance, Journal of
 Banking and Finance, Journal of Empirical Finance, Review of Derivatives Research, Finance Research
 Letters, International Review of Finance
 - Economics: American Economic Review: Insights, Journal of Monetary Economics, Journal of Money,
 Credit, and Banking, Journal of Economic Dynamics and Control, Journal of Econometrics, Journal of
 Financial Econometrics, Journal of Business and Economic Statistics, Journal of Statistical Planning
 and Inference, Econometric Reviews, International Journal of Forecasting
 - Management: Management Science, Production and Operations Management
- Conference Program Committee:

Western Finance Association (2021-present), FMA/CBOE Conference on Derivatives and Volatility (2017-present), Midwest Finance Association (2016, 2018, 2020), Annual Conference on Financial Economics and Accounting (2016), Annual Risk Management Conference Singapore (2014)

• Research Grant Review:

Hong Kong Research Grant Council, external reviewer (2016 - 2019), NSF (2018)

- Consulting
 - o Dimensional Fund Advisors

2022 - 2023

o Quinn Emanuel

2019 - 2020

Internal Service

- Faculty Recruiting Committee, The Johns Hopkins Carey Business School
 - o Member: 2015 2021
 - o Co-Chair and Chair: 2022 present
- Finance Seminar Coordinator, The Johns Hopkins Carey Business School, 2016-2019
- Ph.D. Dissertation Committee Membership: Burcin Kisacikoglu (Ph.D in Economics, Johns Hopkins University, 2016)

Invited Presentations

(Excluding presentations by co-authors; including those scheduled)

2024

AFA Federal Reserve Day-Ahead Conference⁺, SMU Lee Kong Chian School of Business , CKGSB, Renmin University of China, City University of Hong Kong, HKUST, HKIMR, Tsinghua SEM , University of Wisconsin at Madison, INSEAD, Stockholm Business School, University of Hawaii

• 2023

AFA New Orleans⁺, Baruch Real Estate, Dimensional Fund Advisors, Michigan Ross, the 2nd Asia-Pacific Search and Matching Online Workshop, the 9th International Conference on Sovereign Bond Markets⁺, University of Exeter, Bank of England, City University of London Bayes Business School, PKU HSBC, Fudan University, Virginia Tech

• 2022

AFA Boston, Dimensional Fund Advisors, MFA⁺, Baruch Real Estate, Federal Reserve/UMD Conference on Short-Term Funding Market⁺, University of College London, Mortgage Market Research Conference at the Federal Reserve Bank of Philadelphia, SFS Cavalcade, CUHK Shenzhen, WFA⁺, Federal Reserve Board

• 2021

AFA Chicago, Columbia Business School, UC Berkeley Hass, Microstructure Exchange, WFA, Tshinghua SEM, CICF

• 2020

AFA San Diego⁺, Federal Reserve Bank of New York (Money and Payment Studies Function), Treasury OFR, WFA⁺, MFA⁺

• 2019

AFA Atlanta, Cornell SC Johnson College of Business, Rutgers Business School, Fordham University, Georgetown University, MFA⁺, GSU/RFS FinTech Finance Conference⁺

• 2018

Freddie Mac, Federal Reserve/UMD Conference on Short-Term Funding Market, SFS Cavalcade(Yale)⁺, MIT Junior Finance Faculty Conference

• 2017

AFA Chicago, USC Marshall, University of Illinois at Chicago, IMF Workshop on Forecasting⁺

• 2016

EFA Oslo, WFA Park City (2 papers), SEC Conference on Financial Market Regulation Washington DC, SFS Cavalcade Toronto*, International Conference on Sovereign Bond Markets NYU Stern, Treasury OCC, FIRS Lisbon⁺, University of Florida Warrington

• 2015

Federal Reserve Bank of Atlanta Real Estate Finance Conference New Orleans, FIRS Iceland, University of Nebraska-Lincoln, University of Hong Kong, Hong Kong University of Science and Technology, Chinese University of Hong Kong, National University of Singapore, Johns-Hopkins Carey Business School, Shanghai Advanced Institute of Finance

• 2014

NBER Universities Research Conference, NBER Summer Institute (EFWW), Central Bank Workshop on Microstructure of Financial Markets Rome, SFS Cavalcade Georgetown, AEA (Session on "Volatility and Asset Returns"), Annual Hedge Fund Research Conference Paris, Cornell Finance Brownbag, Cheung Kong GSB, Tsinghua PBC

• 2013

EFA Cambridge (3 papers), University of Maryland Smith School of Business, HEC Montreal, Cheung Kong GSB, IFSID and Bank of Canada Conference on Tail Risk⁺

• 2012

SoFiE Conferences Oxford, CICF, International Symposium on Risk Management and Derivatives Conference Xiamen, NFA^+

• 2011

Chicago Booth, Federal Reserve Board, Fordham GSB, North American Econometric Society Summer Meeting St Louis

Invited Discussions

- "Frictional Intermediation, Inventory Hedging, and the Rise of Portfolio Trading in the Corporate Bond Market" (by Jessica Li), AFA, New Orleans, 2023
- "Bond Convenience Yields in the Eurozone Currency Union" (by Zhengyang Jiang, Hanno Lustig, Stijn Van Nieuwerburgh, and Mindy Z. Xiaolan), WFA, Portland, 2022
- "Hedge Funds and the Treasury Cash-Futures Disconnect" (by Daniel Barth and Jay Kahn), 5th Annual Short Term Funding Markets Conference, CFP and Federal Reserve Board of Governors, Virtual, 2022
- "Long-Horizon Returns of Stocks, Bonds, and Bills: Evidence from a Broad Sample of Developed Markets" (by Aizhan Anarkulova, Scott Cederburg, and Michael S. O'Doherty), MFA, Virtual, 2022
- "Dealer Networks and the Cost of Immediacy" (by Jens Dick-Nielsen, Thomas Poulsen, and Obaidur Rehman), CICF, Virtual, 2021
- "When Safe becomes Risky: The information sensitivity of subprime RMBS" (by Narananan and Rhodes), the 4th Annual Short Term Funding Markets Conference, CFP and Federal Reserve Board of Governors, Virtual, 2021
- "Marginal Constraints and Asset Prices" (by Jake Ahn), MFA, Virtual, 2021
- "The Real Effects of Secondary Market Trading Structure: Evidence from the Mortgage Market" (by Yesol Huh, You Suk Kim), WFA, San Francisco, 2020
- "Do Municipal Bond Dealers Give their Customers 'Fair and Reasonable' Pricing?" (John Griffin, Nicholas Hirschey, and Samuel Kruger), AFA, San Diego, 2020
- "Trader Positions and Marketwide Liquidity Demand" (by Esen Onur, John Roberts, and Tugkan Tuzun),
 MFA, Chicago, 2019
- "Bond Risk Premia with Machine Learning" (Daniele Bianchi, Matthias Buuchner, and Andrea Tamoni), Georgia State FinTech Conference, 2019
- "Liquidity Creation as Volatility Risk" (by Itamar Drechsler, Alan Moreira, Alexi Savov), JHU Carey Finance Conference, Baltimore, 2018

- "Discriminatory Pricing of Over-the-Counter Derivatives" (by Harald Hau, Peter Hoffmann, Sam Langfield, Yannick Timmer), SFS Cavalcade, New Haven, 2018
- "Financial Information and Macroeconomic Forecasting" (by Sophia Chen and Romain Rancierre), IMF Workshop on Forecasting, DC, 2017
- "Hedge Fund Tail Risk: Hedging Mechanisms and Performance" (by Juha Joenvaara and Mikko Kauppila), FIRS, Lisbon, 2016