

Ai He

Department of Finance
Goizueta Business School
Emory University
1300 Clifton Road NE, Room W418
Atlanta, GA 30322

Phone: +1 (404) 285-7204
Email: ai.he@emory.edu
Web: www.aihefinance.com

Last Updated: January 10, 2019

Education

Emory University, Goizueta Business School, Atlanta, GA

Ph.D. in Finance, 2013–2019 (expected)

*Committee: Narasimhan Jegadeesh (Co-Chair), Jay Shanken (Co-Chair),
Christoph Herpfer, Clifton Green, Tao Zha (External)*

Shanghai Jiao Tong University, Shanghai, China

MS-PhD Program (course work), Shanghai Advanced Institute of Finance (**SAIF**), 2010–2012

B.B.A. in Management Information Systems (with distinction), 2006–2010

Research Interests

Financial Intermediaries and Institutions, Empirical Asset Pricing, Investment, Credit Markets

Working Papers

- [1] **“Exogenous Shocks and Real Effects of Financial Constraints: Loan- and Firm-Level Evidence around Natural Disasters,”**

(Job Market Paper)

2018 SEC Doctoral Student Symposium, Paris December 2018 Finance Meeting, 2019 MFA (scheduled)

Abstract: This article studies how non-financial, exogenous shocks on a subset of borrowers constrain bank lending and affect real economic activities of non-shocked firms. I separate a loan supply effect from a loan demand effect by identifying borrower-level shocks with the occurrence of major U.S. natural disasters. Financially constrained banks reallocate post-disaster lending by restricting credit supply as well as increasing loan pricing to non-shocked firms but prioritizing the disaster firms with which they have strong pre-disaster relationships. I find one dollar of additional lending to disaster firms is associated with 11.5 cents of decline of the same bank’s lending to non-shocked firms. Non-shocked firms’ pre-disaster dependence on such banks for financing accounts for economically significant reductions of their total loan borrowing, investment, profitability, and sales-growth in the year following a natural disaster. Consistent with frictions deriving from asymmetric information, the real outcome losses are larger for financially constrained firms.

- [2] **“What Firm Characteristics Drive US Stock Returns?”** October 2018, with Yufeng Han, David Rapach, and Guofu Zhou

- Revise and Resubmit at the *Review of Financial Studies*

2019 AFA, 2018 ISF, WUSTL Olin, GSU Robinson, Rutgers, CUNY Baruch, SLU, Indiana University

Abstract: We employ a forecast combination approach to analyze the ability of 94 firm characteristics

from Green, Hand, and Zhang (2017) to predict US stock returns. Using machine learning tools to pool forecasts, we find that most of the firm characteristics matter over time—and approximately 30 matter on average at each point in time—for forecasting value-weighted cross-sectional returns before and after 2003, a year when Green, Hand, and Zhang (2017) detect a major structural break. By processing the information in a plethora of predictors in a manner that alleviates overfitting, our combination approach provides economically significant out-of-sample forecasts of cross-sectional returns consistently over time.

[3] **“Reciprocity in Shadow Bank Lending: Evidence from the Cross-Holding Relation in Money Market Funds,”** November 2018

2018 AFA Phd Poster Session, 2018 European Central Bank Money Market Workshop (the only invited solo PhD paper), 2017 NFA, 2017 LBS Transatlantic Doctoral Conference, 2017 FMA, 2017 SUERF, 2016 AFBC

- FMA Semi-finalist of the Best Paper in Markets and Institutions
- AFBC 3rd Best Ph.D. Paper Award

Abstract: This paper documents a reciprocal cross-holding relation (CHR) between financial conglomerates: banks mutually hold each other’s money market instruments through their affiliated money market funds (MMFs). Using novel security-level holdings data, this study shows that U.S. banks increased their MMFs’ portfolio weights on bilateral-connected European financial firms after Moody’s downgraded review of European banks in mid-2011, a unique period in which MMFs generally reduced their exposure to European issuers to avoid further redemption. This study provides evidence that this bias represents reciprocity between the bilateral-connected financial firms. In return, during the same period, European financial firms held more insecure securities issued by their bilaterally-connected non-European partners through their affiliated MMFs. Issuer- or fund-characteristics do not fully explain the results.

[4] **“Factor Models Fail at the Stock Level: Evidence from Systematic Pricing Error Reversals,”** November 2018, with Dashan Huang and Guofu Zhou

2018 CFPD, WUSTL Olin, Peking University, Renmin University, Shanghai University of Finance and Economics

Abstract: We examine the pricing errors (PEs) of factor models at the firm level and find that there is a systematic PE reversal pattern for all models, including a) models with pre-specified factors—the CAPM, the Fama-French three factors, the Carhart four factor, the Fama-French five factors, the Hou-Xue-Zhang four factors, or the Stambaugh-Yuan mispricing factors; b) models with PCA factors extracted from 62 anomalies; and c) models with true factors that are extracted from target assets and have zero mispricing. A spread portfolio that buys stocks in the bottom PE decile and sells stocks in the top PE decile earns significant abnormal returns, implying that none of the models is adequate in explaining the cross section of stock returns. Moreover, all the model improve little beyond the CAPM in pricing individual stock returns. Of the economic forces, the reversal is partially driven but cannot be fully explained by limits-to-arbitrage, lottery demand, and expectation extrapolation.

Work in Progress

“Measuring Mutual Fund Performance from a Mispricing Perspective”

2018 AFBC (accepted)

Conferences Presentations

* indicates presentation by a co-author. Scheduled presentations are included.

- 2019** American Finance Association Annual Meeting, Midwest Finance Association Annual Meeting
- 2018** American Finance Association Annual Meeting PhD Poster Session, Doctoral Student Symposium by U.S. Securities and Exchange Commission, European Central Bank Money Market Workshop, Paris December 2018 Finance Meeting, Conference on Financial Predictability and Data Science*, International Symposium on Forecasting*
- 2017** London Business School Trans-Atlantic Doctoral Conference, Financial Management Association Annual Meeting, Northern Finance Association Conference, SUERF Colloquium and Bank of Finland Conference in Shadow Banking
- 2016** Australasian Finance and Banking Conference and PhD Forum

Professional Services

Discussant

- 2018** FMA, “Predicting New Stocks’ Future Returns By Portfolio Mimicking Error: An Approach to Identify Innovative Stocks”, by Raymond C. W. Leung and Yu-Man Tam.
CICF, “Bank Specialness, Credit Lines, and Loan Structure”, by Allen Berger, Donghang Zhang, and Yijia Zhao.
- 2017** LBS TADC, “The Other Guy’s Fault: CEO’s Excessive Blaming and Stock Price Distortion”, by Hao Qu and Conson Zhang.
FMA, “Venture or Safety? Retirement and Portfolio Choice”, by Guodong Chen and Tong-yob Nam.
- 2016** AFBC, “Private Information in the Chinese Stock Market: Evidence from Mutual Funds and Corporate Insiders”, by Yeguang Chi

Session Chair

2017 FMA, Session “Portfolio Choice”; 2016 AFBC, Session “Funds Management”

Grants and Honors

- Graduate Student Council Travel Grant, Emory University, 2017, 2018
- Transatlantic Doctoral Conference Travel Grant, LBS, 2017
- Professional Development Support Funds, Emory University, 2016, 2017
- Best Ph.D. Paper Award (3rd prize), AFBC, 2016
- Doctoral Student Travel Grant (8 selected), AFBC, 2016
- Sheth Fellowship, Emory University, 2016
- AFA Doctoral Student Travel Grants, 2016
- Graduate Fellowship, Emory University, 2013–2018
- Asia Summer Institute in Behavioral Economics, National University of Singapore, 2013
- Asia Institute for Political Economy Fellowship, the Fund of American Studies & Georgetown University & the University of Hong Kong, 2011
- Graduate Fellowship, Shanghai Jiao Tong University, 2010–2012
- A-Level Scholarship (Top 5%), Shanghai Jiao Tong University, 2007, 2009, 2010
- National Scholarship (Top 1%), Ministry of Education of China, 2008
- Merit Student, Shanghai Jiao Tong University, 2007

Teaching

Securities Analysis and Valuation (MBA) with Prof. Francisco Barillas, *Teaching Associate*, Fall 2017

Empirical Asset Pricing (PhD) with Prof. Narasimhan Jegadeesh, *Teaching Assistant*, Spring 2016

Investment (BBA) with Prof. Narasimhan Jegadeesh, *Teaching Associate*, Spring 2016

International Finance (BBA) with Prof. Breno Schmidt, *Teaching Assistant*, Fall 2015

Work Experiences

Research Assistant, Shanghai Advanced Institute of Finance, 2010–2013

Research Assistant, China Academy of Financial Research, 2010–2013

Consultant Intern, Roland Berger Strategy Consultants Shanghai Office, March–July, 2010

Other

Computing skill: SAS, Stata, R, Python, Matlab

Languages: Chinese (native), English (fluent), Nakhi (native), Japanese (basic)

Hobbies: Running (4 Half-Marathon, 1 21-Mile), Kendo (Japanese swordsmanship 4 Kyu)

References

Narasimhan Jegadeesh (Dissertation Co-Chair)

Dean's Distinguished Chair of Finance

Goizueta Business School

Emory University

Phone: (404) 727-4821

Email: jegadeesh@emory.edu

Jay Shanken (Dissertation Co-Chair)

Goizueta Chair and Professor in Finance

Goizueta Business School

Emory University

Phone: (404) 727-4772

Email: jay.shanken@emory.edu

Guofu Zhou

Frederick Bierman and James E. Spears Professor of Finance

Olin Business School

Washington University in St. Louis

Phone: (314) 935-6384

E-mail: zhou@wustl.edu

Christoph Herpfer

Assistant Professor of Finance

Goizueta Business School

Emory University

Phone: (404) 727-5615

E-mail: christoph.herpfer@emory.edu