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**THE OHIO STATE UNIVERSITY**

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JULY 2017

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### **Academic Experience**

#### **Max M. Fisher College of Business, The Ohio State University**

The John W. Galbreath Chair, Professor of Finance, 6/2017-present  
Fisher College of Business Distinguished Chair, Professor of Finance, 10/2015-5/2017  
Dean's Distinguished Chair, Professor of Finance, 10/2010-9/2015

#### **Stephen M. Ross School of Business, University of Michigan**

Professor of Finance, 2009-2010  
Associate Professor of Finance (with tenure), 2006-2009

#### **William E. Simon Graduate School of Business Administration, University of Rochester**

Assistant Professor of Finance, 2002-2006

### **Education**

The Wharton School, University of Pennsylvania. 1998-2002. Ph.D. in Finance, 2002. M.A. in Finance, 2000. [Ph.D. dissertation: Essays on the cross section of returns](#)

Washington University in St. Louis. 1996-1998. M.A. in Economics, 1997

The Graduate School of the People's Bank of China (renamed PBC School of Finance, Tsinghua University). 1993-1996. M.S. in Finance, 1996

Jiangxi University of Finance and Economics. 1989-1993. B.A. in Economics, 1993

### **Professional Honors and Awards**

Finalist, the Chicago Quantitative Alliance Academic Competition, "Replicating anomalies" (with Kewei Hou and Chen Xue), 2017

Keynote speech: “Replicating anomalies,” the Inquire Europe Symposium on “Advances in Factor Investing,” Montreux, Switzerland, October 2017

Keynote speech: “The investment CAPM,” the European Financial Management Symposium on “Finance and Real Economy,” Xiamen, China, April 2017

Special Term Professor, PBC School of Finance, Tsinghua University, 2017-present

“Digesting anomalies: An investment approach” (with Kewei Hou and Chen Xue) is [the most cited article published at Review of Financial Studies in 2015](#)

Inquire Europe, Institute for Quantitative Investment Research, grant of €10,000 for “Global  $q$ -factors” (with Kewei Hou and Chen Xue), 2016

Second Prize, the Chicago Quantitative Alliance Academic Competition, “A comparison of new factor models” (with Kewei Hou and Chen Xue), 2015

**The Outstanding Working Professional MBA Elective Faculty Award**, Fisher College of Business, The Ohio State University, 2015

Special Term Professor, School of Finance, Shanghai University of Finance and Economics, 2012-present

Research Fellow, Charles A. Dice Center for Research in Financial Economics, The Ohio State University, 2010-present

Distinguished Referee Award, Review of Financial Studies, 2010

Researcher of The Year Award, Stephen M. Ross School of Business, University of Michigan, 2010. “In recognition of his achievements on multiple scholarly dimensions, his stellar reputation in the field of finance, and his efforts to improve the research environment at the Stephen M. Ross School of Business”

Inaugural Distinguished Referee Award, Review of Financial Studies, 2009

National Bureau of Economic Research: Research Associate, 2009-present, Faculty Research Fellow, 2005-2009, Asset Pricing program

Special Term Professor, Shanghai Advanced Institute of Finance, Shanghai Jiaotong University, 2009-2012

Since 2007, “The value premium” (Zhang, 2005, Journal of Finance) and “Is value riskier than growth?” (Petkova and Zhang, 2005, Journal of Financial Economics) have been featured in Bodie, Kane, and Marcus’s Investments, a standard textbook for top business schools

“The value premium” is the 4th most highly cited article in the literature on anomalies and fundamental analysis since 2000 with the highest average number of citations per year (source: Richardson, Tuna, and Wysocki, 2010, Journal of Accounting and Economics)

“The value premium” is among the 25 most cited articles in Journal of Finance since 2004 (source: The American Finance Association Web site)

The 2007-08 NTT Research Fellowship Award, University of Michigan

Invited lecture on “Understanding anomalies: Is much of what we call alpha actually beta?”  
Sanford C. Bernstein Conference on Controversies in Quantitative Finance and Asset  
Management, New York City, March 2008

Gutmann Center Research Fellow, University of Vienna, April 2007

**First Prize, the Smith-Breeden Award for Best Paper**, 2005, the American Finance  
Association and Journal of Finance for “The value premium”

Runner-up for Best Paper Award at the 2005 Utah Winter Finance Conference for “Anomalies”

Runner-up for Barclays Global Investors Award for the Best Conference Paper at the 2005  
European Finance Association Meetings for “The new issues puzzle: Testing the investment-  
based explanation” (with Evgeny Lyandres and Le Sun)

Dean’s Fellowship for Distinguished Merits, The Wharton School, 1998-2002

## Research

Area of concentration: Asset pricing, in connection with macroeconomics, corporate finance,  
labor economics, computational economics, accounting, and meta-science

## Publications

- 2017 Zhang, Lu, [The investment CAPM](#), forthcoming, **European Financial Management**.
- 2017 Petrosky-Nadeau, Nicolas, and Lu Zhang, [Solving the Diamond-Mortensen-Pissarides model accurately](#), **Quantitative Economics** 8 (2), 611-650.
- 2015 Hou, Kewei, Chen Xue, and Lu Zhang, [Digesting anomalies: An investment approach](#), **Review of Financial Studies** 28 (3), 650-705. Editor’s Choice, lead article.  
  
[\[The most cited article published at Review of Financial Studies in 2015\]](#)
- 2014 Liu, Laura Xiaolei, and Lu Zhang, [A neoclassical interpretation of momentum](#), **Journal of Monetary Economics** 67, 109-128.
- 2014 Tang, Yue, Jin (Ginger) Wu, and Lu Zhang, [Do anomalies exist ex ante?](#) **Review of Finance** 18 (3), 843-875, lead article.
- 2013 Belo, Frederico, Chen Xue, and Lu Zhang, [A supply approach to valuation](#), **Review of Financial Studies** 26 (12), 3029-3067.
- 2013 Lin, Xiaoji, and Lu Zhang, [The investment manifesto](#), **Journal of Monetary Economics** 60 (3), 351-366.
- 2011 Gulen, Huseyin, Yuhang Xing, and Lu Zhang, [Value versus growth: Time-varying expected stock returns](#), **Financial Management** 40 (2), 381-407.

- 2011 Chen, Long, and Lu Zhang, [Do time-varying risk premiums explain labor market performance?](#) **Journal of Financial Economics** 99 (2), 385-399.
- 2010 Li, Dongmei, and Lu Zhang, [Does  \$q\$ -theory with investment frictions explain anomalies in the cross-section of returns?](#) **Journal of Financial Economics** 98 (2), 297-314.
- 2010 Wu, Jin (Ginger), Lu Zhang, and X. Frank Zhang, [The  \$q\$ -theory approach to understanding the accrual anomaly](#), **Journal of Accounting Research** 48 (1), 177-223.
- 2009 Liu, Laura Xiaolei, Toni M. Whited, and Lu Zhang, [Investment-based expected stock returns](#), **Journal of Political Economy** 117 (6), 1105-1139.
- 2009 Li, Erica X. N., Dmitry Livdan, and Lu Zhang, [Anomalies](#), **Review of Financial Studies** 22 (11), 4301-4334, lead article.
- 2009 Livdan, Dmitry, Horacio Sapriza, and Lu Zhang, [Financially constrained stock returns](#), **Journal of Finance** 64 (4), 1827-1862.
- 2008 Liu, Laura Xiaolei, and Lu Zhang, [Momentum profits, factor pricing, and macroeconomic risk](#), **Review of Financial Studies** 21 (6), 2417-2448.
- 2008 Lyandres, Evgeny, Le Sun, and Lu Zhang, [The new issues puzzle: Testing the investment-based explanation](#), **Review of Financial Studies** 21 (6), 2825-2855.
- [Runner-up for Barclays Global Investors Award for the Best Conference Paper at the 2005 European Finance Association Annual Meetings]
- 2008 Liu, Naiping, and Lu Zhang, [Is the value spread a useful predictor of returns?](#) **Journal of Financial Markets** 11 (3), 199-227, lead article.
- 2008 Campello, Murillo, Long Chen, and Lu Zhang, [Expected returns, yield spreads, and asset pricing tests](#), **Review of Financial Studies** 21 (3), 1297-1338.
- 2008 Chen, Long, Ralitsa Petkova, and Lu Zhang, [The expected value premium](#), **Journal of Financial Economics** 87 (2), 269-280.
- 2006 Gomes, Joao F., Amir Yaron, and Lu Zhang, [Asset pricing implications of firms' financing constraints](#), **Review of Financial Studies** 19 (4), 1321-1356.
- 2005 Petkova, Ralitsa, and Lu Zhang, [Is value riskier than growth?](#) **Journal of Financial Economics** 78 (1), 187-202.
- [Featured in Bodie, Kane, and Marcus, 2014, Investments]
- 2005 Zhang, Lu, [The value premium](#), **Journal of Finance** 60 (1), 67-103.
- [First Prize, the Smith-Breeden Award for Best Paper, 2005, the American Finance Association and Journal of Finance]
- [Featured in Bodie, Kane, and Marcus, 2014, Investments]

[The 4th most cited article in the literature on anomalies and fundamental analysis since 2000 with the highest average number of citations per year. Source: Richardson, Tuna, and Wysocki (2010, Journal of Accounting and Economics)]

[One of the 25 most cited articles in Journal of Finance since 2004. Source: The American Finance Association Web site]

2004 Brandt, Michael W., Qi Zeng, and Lu Zhang, [Equilibrium stock return dynamics under alternative rules of learning about hidden states](#), **Journal of Economic Dynamics and Control** 28 (10), 1925-1954, lead article.

2003 Gomes, Joao F., Amir Yaron, and Lu Zhang, [Asset prices and business cycles with costly external finance](#), **Review of Economic Dynamics** 6 (4), 767-788.

2003 Gomes, Joao F., Leonid Kogan, and Lu Zhang, [Equilibrium cross section of returns](#), **Journal of Political Economy** 111 (4), 693-732, lead article.

[Reprinted in "Stephen A. Ross, Mentor: Influence Through Generations," ed. Mark Grinblatt, McGraw-Hill Irwin, 2008]

### Other Publications

2016 Zhang, Lu, [Factors war](#), **Tsinghua Financial Review** 37, 101-104 in Chinese; [资产定价中的因子大战](#), 《清华金融评论》.

2014 Zhang, Lu, [Exploring asset pricing anomalies](#), **NBER Reporter** 1, 17-19.

### Working Papers

Petrosky-Nadeau, Nicolas, Lu Zhang, and Lars-Alexander Kuehn, 2017, [Endogenous disasters](#), under third review, **American Economic Review**

Bai, Hang, Kewei Hou, Howard Kung, Erica X. N. Li, and Lu Zhang, 2016, [The CAPM strikes back? An investment model with disasters](#), under revision for second review, **Journal of Financial Economics**

Hou, Kewei, Chen Xue, and Lu Zhang, 2017, [Replicating anomalies](#). Finalist, the Chicago Quantitative Alliance Academic Competition, 2017

Hou, Kewei, Haitao Mo, Chen Xue, and Lu Zhang, 2017, [The economics of value investing](#)

Petrosky-Nadeau, Nicolas, and Lu Zhang, 2013, [Unemployment crises](#)

Hou, Kewei, Chen Xue, and Lu Zhang, 2017, Global  $q$ -factors. Inquire Europe, Institute for Quantitative Investment Research, grant of €10,000

Zhang, Lu, 2017, Factor theories

Hou, Kewei, Chen Xue, and Lu Zhang, 2014, [A comparison of new factor models](#), NBER working paper 20682, permanent working paper. Second Prize, the Chicago Quantitative Alliance Academic Competition, 2015

Zhang, Lu, 2005, [Anomalies](#), NBER working paper 11322, permanent working paper. Runner-up, Best Paper Award at the 2005 Utah Winter Finance Conference

## Teaching

### **Max M. Fisher College of Business, The Ohio State University**

Investment Management I, M.B.A. and Undergraduate programs  
Theory of Finance, Ph.D.  
Advanced Asset Pricing, Ph.D.

### **Stephen M. Ross School of Business, University of Michigan**

Derivative Securities, B.B.A.  
Capital Markets and Investment Strategy, M.B.A.  
Empirical Methodology in Finance, Ph.D.

### **William E. Simon Graduate School of Business Administration, University of Rochester**

Investments, Corporate Finance, M.B.A.  
Advanced Topics in Capital Markets, Ph.D.

## Professional Activities

### **Professional Leadership**

China Finance Review International, International Editorial Advisory Board, 2017-present  
Critical Finance Review, Associate Editor, 2010-present  
European Financial Management, Associate Editor, 2017-present. Guest Editor, Special issue on "Corporate Policies and Asset Prices"  
Finance Research Letters, Associate Editor, 2013-present  
Financial Management, Associate Editor, 2009-2011  
Journal of Banking and Finance, Associate Editor, 2015-present  
Journal of Financial and Quantitative Analysis, Associate Editor, 2011-present  
Journal of Financial Economics, Associate Editor, 2011-present  
Management Science, Associate Editor, 2009-2012  
Quarterly Journal of Accounting and Finance, Advisory Editor, 2015-present  
Review of Financial Studies, Associate Editor, 2009-2012

### **Service Leadership**

Macro Finance Society: Founding President (2012-2013), Board of Directors (2012-2014)

American Finance Association: Nominating Committee (2013)

The Ohio State University: Department of Finance Executive Committee (2011-present), Fisher College Promotion and Tenure Committee (2012-2016), both elected by faculty

University of Michigan: Finance Area Chair (2009-2010), Chair of Investments Curriculum Task Force (2008-2009), Ross School of Business Community Values Committee (2007-2008)

### **Ph.D. Students Supervised**

- 2018    Andrei S. Goncalves, Ohio State, “Can reinvestment risk explain the dividend and bond term structures?” In progress
- 2017    Ivan Alfaro, Ohio State, “Production-based exchange rates.” Placement: BI Norwegian Business School
- 2016    Hang Bai, Ohio State, “Unemployment and credit risk.” Placement: University of Connecticut
- 2015    Woo Hwa Koh, Ohio State, “The impact of uncertainty shocks on the cross-section of returns.” Placement: Korea Advanced Institute of Science and Technology (KAIST)
- 2014    Andrew Y. Chen, Ohio State, “External habit in a production economy: A unified model of asset prices and aggregate fluctuations.” Placement: Federal Reserve Board
- 2012    Chen Xue, University of Michigan, “Cross-sectional stock returns and mutual fund performance evaluation: An investment-based investigation.” Placement: University of Cincinnati
- 2009    Ryan Israelsen, University of Michigan, “Investment based valuation.” Placement: Indiana University
- 2008    Xiaoji Lin, University of Minnesota, “Endogenous technological progress and the cross section of stock returns.” Placement: London School of Economics
- 2007    Erica Xuenan Li, University of Rochester, “Corporate governance, the cross section of returns, and financing choices.” Placement: University of Michigan
- 2005    Laura Xiaolei Liu, University of Rochester, “Do firms have target leverage ratios? Evidence from historical market-to-book and past return.” Placement: Hong Kong University of Science and Technology
- 2005    Horacio Saprizza, University of Rochester, “Sovereign default and interest rates in emerging market economies.” Placement: Rutgers Business School
- 2003    Ralitsa Petkova, University of Rochester, “Do Fama-French factors proxy for innovations in predictive variables?” Placement: Case Western Reserve University

### **Professional Affiliations**

American Economic Association. The Econometric Society.  
American Finance Association. Western Finance Association. Macro Finance Society.



## Biography

Dr. Lu Zhang is The John W. Galbreath Chair, Professor of Finance, at Fisher College of Business, The Ohio State University, as well as Research Associate at National Bureau of Economic Research (Asset Pricing program) and Associate Editor for Journal of Financial Economics and Journal of Financial and Quantitative Analysis. He is Founding President of Macro Finance Society, an international academic society devoted to advancing and disseminating high-quality research at the intersection of financial economics and macroeconomics. Before joining Ohio State in 2010, he taught at Stephen M. Ross School of Business at University of Michigan and William E. Simon Graduate School of Business Administration at University of Rochester. Dr. Zhang's research focuses on asset pricing, in relation with macroeconomics, corporate finance, labor economics, computational economics, and capital markets research in accounting. His major contribution is [the investment CAPM](#), a unified conceptual framework for understanding asset pricing anomalies. His recent work also shows how labor market frictions give rise endogenously to economic disasters. Dr. Zhang has published extensively at leading academic journals. His doctoral thesis "[The value premium](#)" won **the Smith-Breeden Award for Best Paper** for 2005 from American Finance Association and Journal of Finance. His financial research has been featured in prominent media outlets such as The Wall Street Journal, Bloomberg, and Shanghai Financial News.

Recent publications include "[The investment CAPM](#)," forthcoming, European Financial Management; "Solving the Diamond-Mortensen-Pissarides model accurately" (with Petrosky-Nadeau), forthcoming, Quantitative Economics; "Digesting anomalies: An investment approach" (with Hou and Xue), Review of Financial Studies, 2015; "A neoclassical interpretation of momentum" (with Liu), Journal of Monetary Economics, 2014; "A supply approach to valuation" (with Belo and Xue), Review of Financial Studies, 2013; "The investment manifesto" (with Lin), Journal of Monetary Economics, 2013.

Dr. Zhang has extensive teaching experience at the undergraduate, M.B.A., and Ph.D. levels. He has taught Investment Management, Derivative Securities, Capital Markets and Investment Strategy, Corporate Finance, Theory of Finance, and Advanced Asset Pricing. In 2015, he was voted **the Outstanding Working Professional MBA Elective Faculty Award** recipient at Fisher College of Business, The Ohio State University.

Jiangxi University of Finance and Economics, B.A. in Economics, 1993. The Graduate School of the People's Bank of China (renamed PBC School of Finance, Tsinghua University), M.S. in Finance, 1996. Washington University in St. Louis, M.A. in Economics, 1997. The Wharton School, University of Pennsylvania, M.A. in Finance, 2000, Ph.D. in Finance, 2002.

Born on August 31, 1972. Citizen of China, U.S. Permanent Resident  
Married to Yiqing Zhang. Two cats: Kiddy, Mashou. Three parrots: Mango, Greenie, Tilly

## Media Mention

[Replicating anomalies](#), hedge.lu.com, July 3, 2017

[Attention aux fake strategies smart beta](#), Associés en Finance, in French, June 30, 2017

[Replicating anomalies in financial markets with Hou, Xue, and Zhang](#), The Economics Detective Radio, June 30, 2017



[Bursting the big data bubble.... with theory](#), RealClearAgriculture.com, June 23, 2017

[Replicating scientific research: Ugly truth](#), True Economics, June 16, 2017

[Hou, Xue, and Zhang: Replication controversies in finance and accounting](#), The Replication Network, June 14, 2017

[Financial anomalies are contingent on being unknown](#), Statistical Modeling, Causal Inference, and Social Science, June 10, 2017

[Are markets efficient if you are a particle physicist?](#) Prof. Jayanth R. Varma's Financial Markets Blog, June 7, 2017

[Mast investment letter](#), Mast Investment Advisors LLC, June 2017

[My smart beta ETF premised on cats rang up an 849,751% return](#), Bloomberg

[Reexamining accepted market wisdom](#), TwoPlusTwo Magazine

[E' possibile battere il mercato?](#) Finanzaoperativa.com

[One by one, the anti-EMH arguments collapse](#), TheMoneyIllusion.com

["What'd You Miss?" \(57:29\)](#), Bloomberg, May 24, 2017

[A practical approach to factor-based investing](#), The Globe and Mail, May 23, 2017

[Most stock anomalies fake news?](#) CXO Advisory, May 23, 2017

[All about microcaps](#), Daily Speculations, May 23, 2017

[Problems with the factor zoo](#), by Larry Swedroe, ETF.com

[How well do anomalies in finance and accounting replicate?](#) The Replication Network

[P-hacking versus skin in the game: How can understanding incentive structures help us think about market efficiency?](#) Episodeblog.com

[Weekly top 5 papers – May 15th 2017](#), The SSRN Blog

[P-hacking in anomaly research](#), Diary of Imaginary, in Japanese

[Active manager lags despite research](#), by Larry Swedroe, ETF.com, May 12, 2017

[Kicking the tires of market anomalies](#), by James Mackintosh, The Wall Street Journal, Business & Finance B1-B2, May 12, 2017

[WSJ: Most market anomalies academics have identified don't exist](#), Bogleheads.org

[When researchers and investors walk into a bar, the investors get hammered](#), by Jason Zweig, The Wall Street Journal, May 12, 2017

[An algorithm, an ETF and an academic study walk into a bar](#), by James Mackintosh, The Wall Street Journal, May 11, 2017

[Ivory tower wonks help traders make a quick buck](#), by Noah Smith, Bloomberg View, May 11, 2017

[Cleaning out the factor zoo](#), by James Picerno, The Capital Spectator, May 11, 2017, Investing.com, May 11, 2017, Seeking Alpha, May 12, 2017

[Half anomalies are fantasy of the discoverers](#), IEXProfs, in Dutch, May 11, 2017

[Do you think behavioral anomalies will persist?](#) Bogleheads.org

[Do trading costs destroy factor investing?](#) ValueWalk.com

[Anomalies, pitches, and promises](#), by Matt Levine, Bloomberg View, May 9, 2017

[Research paper says most market anomalies are imaginary](#), by Eric Weiner, The Globe and Mail, May 9, 2017

[Forget factors, paper says most market anomalies are imaginary](#), by Eric Weiner, The Washington Post, May 9, 2017

[A new paper just took a huge shot at some of the world's hottest investments](#), by Eric Weiner, Bloomberg, May 8, 2017

[Market anomalies fail to replicate](#), MarginalRevolution.com

[How to make trouble](#), Anti-Dismal.com

[Replicating anomalies](#), No Hesitations

[Financial research, data mining and star wars \(金融研究, 数据挖掘与星球大战\)](#), in Chinese, 辍耕录

[A new benchmark model for estimating expected stock returns](#), Oxford University Press Blog

[投资 CAPM](#), Diary of Imaginary, in Japanese

[Battle of new factor models](#), by Larry Swedroe, ETF.com

[Passive investing's foundations](#), by Larry Swedroe, ETF.com

[Applications of quantitative investment models in asset management \(量化投资模型在资产管理中的策略与应用\)](#), in Chinese, 陆想汇, 雪球

[Lu Zhang: The  \$q\$ -factor model can be used in quantitative investment management \(张撻:  \$q\$ -因子模型可用于量化投资管理\)](#), in Chinese, Shanghai Financial News (上海金融报)

[Improving on Fama-French](#), by Larry Swedroe, ETF.com

[Factor investing is more art, and less science](#), by Wesley Gray, Alpha architect

[A new four-factor investing model](#), by Larry Swedroe, BAM Intelligence

[Is outperforming the market alpha or beta?](#) by Larry Swedroe and Andrew Berkin, The AAI Journal, American Association of Individual Investors

[Using profitability as a factor? Perhaps you should think twice...](#), by Wesley Gray, Alpha architect

[The academic finance papers that changed my mind](#), by Wesley Gray, Alpha architect

[Stock anomaly smorgasbord-Wow!](#) by Wesley Gray, Alpha architect

[Understanding the value premium](#), by Larry Swedroe, ETF.com

[Challenge to the Fama French three factor model](#), Bogleheads.org

[The expected value premium](#), CFA Institute Publications

[Explaining the value premium](#), Index Fund Advisors

[The countercyclical value premium?](#) CXO Advisory

[Is value riskier than growth?](#) Edhec-Risk

[The value of value](#), Advisor Perspectives

[Smart beta: Strategies and implementation](#), PNC.com

[Factor investing](#), tickrz.com

[Value investing: Timeless reading](#), ValueWalk.com