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RESEARCH INTERESTS: Empirical Asset Pricing, Machine Learning, and International Finance

TOP-TIER ACADEMIC PUBLICATIONS

See my research papers at http://ssrn.com/author=330093 Please click paper titles (in Italic) to access full articles.

- 1. A Picture is Worth a Thousand Words: Measuring Investor Sentiment by Combining Machine Learning and Photos from News with Khaled Obaid, Forthcoming, **Journal of Financial Economics**
 - Winner, Winemiller Excellence Award 2019
 - Winner, Hillcrest Award 2019
 - The 2020 Georgia State University Review of Financial Studies FinTech Conference, [1] MFA 2017, St. Louis University, University of Missouri St. Louis, Missouri State University, Cal State East Bay
- 2. A Protocol for Factor Identification, with Richard Roll and Avanidhar Subrahmanyam, **Review of Financial Studies** 32 (4), April 2019, 1573–1607.
 - Awards: Crowell Prize Pan Agora Asset Management Award 2018, Jack Treynor Prize Winner- Q group grant 2017, Inquire UK grant, ICPM Grant- the University of Toronto, Dauphine-Amundi Chair in Asset Management, KPMG Fellowship.
 - Presentations: JOIM meeting 2018, Dauphine University Paris 2015, FTSE conference 2015, Research Affiliates meeting in Laguna Beach, California May 2015, JOIM conference 2015, FMA 2014, Inquire Europe 2014. Asian FMA 2014, Australian Finance 2013, Rotman ICPM 2013, Inquire UK 2012, Caltech, UCLA, and MU finance seminar.
- 2. Empirical Tests of Asset Pricing Models with Individual Assets: Resolving the Errors-in-Variables Bias in Risk Premium Estimation with Narasimhan Jegadeeh, Joonki Noh, Richard Roll and Junbo Wang, forthcoming Journal of Financial Economics, 2019 In Press
 - Five authors in this paper have a similar idea of applying instruments to individual stocks due to merging three papers (Jegadeesh and Noh; Pukthuanthong and Roll; Wang). Instead of competing, we decided to collaborate.
 - Northern Finance Association 2018, American Finance Association 2018

- 3. Positive And Negative Synergies Between The CEO's And The Corporate Board's Human And Social Capital: A Study Of Biotechnology Firms IPOs with Chamu Sundaramurthy and Yasemin Kor, Strategic Management Journal, 36(6), June 2014 845-868.
- 4. Disclosure Regulation and IPO Underpricing: An International Analysis co-authored with Charles Shi and Thomas Walker, Contemporary Accounting Research 2013, 30 (1), 356-387.
- 5. Market Fragility and International Market Crises co-authored with Dave Berger, Journal of Financial Economics 2012, 105(3), 565-580.
- 6. International Diversification with Frontier Markets with David Berger and Jimmy Yang, Journal of Financial Economics, 2011, 101(1), 227-242.
 - Featured on-line and in print in the New York Times¹
- 7. Global Market Integration: A Better Way To Measure It And Its Application co-authored with Richard Roll, Journal of Financial Economics 2009, 94(2), 214-232.
 - Best paper Australian Finance Association, Sydney Australia 2009
 - Awards: Inquire, UK 2009, GARP 2009 and Inquire, Europe 2009

OTHER PUBLICATIONS

- 1. VC ownership post-IPO: When, why, and how do VCs exit? with Anup Basnet, Harry Turtle, and Thomas Walker, forthcoming *Journal of Business Research*
- **2.** *Insider Trading in Rumored Takeover Targets* with Fred Davis, Hamed Khardivar, and Thomas Walker, 27(3), June 2021, *European Financial Management*, 490-527.
- 3. Informativeness of Mutual Fund Advertisements: Does Advertising Communicate Fund Quality to Investors? with Khaled Obaid, 50(1), March 2021, Financial Management, 203-236.
- 4. The Information Content of Analysts' Value Estimates with Ryan Chacon and Dan French, 63, 2021, Journal of Real Estate Finance and Economics, 598-629.
 - AAA 2017, MU 2016, SWFA 2016
- 5. Earning conference call and institutional monitoring with Arash Amoozegar, David Berger and Xueli Cao, 43(1), Spring 2020, *Journal of Financial Research*, 5-36, *lead article*.
 - o FMA 2018 in San Diego
- 6. Efficiency In Islamic Vs. Conventional Banking: The Role Of Capital And Liquidity with Mohammad Bitar and Thomas Walker, 46, November 2020 Global Finance Journal
- 7. Corporate Social Responsibility And M&A Uncertainty with Mohamed Arouri and Mathieu Gomes, Journal of Corporate Finance, 56, June 2019, 176-198

 $^{^1} http://www.nytimes.com/2015/04/12/business/mutfund/venturing-even-further-on-the-market-frontier.html?_r = 0$

- 8. Jump Risk Premia Across Major International Equity Markets with Mohamed Arouri and Oussama M'saddek, lead article, Journal of Empirical Finance, 52, June 2019, 1-21.
 - o FMA 2017
- 9. Cojumps And Asset Allocation In International Equity Markets with Mohamad Arouri, Oussama M'saddek, and Duc Nguyen, <u>lead article</u>, Journal of Economic Dynamics and Control, 98, January 2019, 1-22.
 - o FMA 2016, Paris Finance Meeting 2015
- 10. Has The Difference In Stock Liquidity And Stock Returns Between Chinese State Owned And Privately Owned Enterprises Become Smaller? with Zhuo Qiao at Finance Research Letters 28, March 2019, 39-44
- 11. Conflict-Induced Forced CEO Turnover and Firm Performance with Saif Ullah, Thomas Walker, and Jing Zhang, *Managerial Finance* 44(9), 2018, 1134-1154.
 - o Featured in Agenda²
 - o Fortune Magazine January 28, 2019³
- 12. The Performance of Islamic Vs. Conventional Banks: Evidence on the Suitability of the Basel Capital Ratios with Mohammad Bitar, Mohammad Hassan, and Thomas Walker, **Open Economies Review**, <u>lead article</u>, 2018, 1-36.
- 13. The Effect Of Capital Ratios On The Risk, Efficiency And Profitability Of Banks: Evidence From OECD Countries with Mohammad Bitar and Thomas Walker, Journal of International Financial Markets, Institutions & Money, 53. March 2018. 227-262.
- 14. Size does not matter: Diseconomies of Scale in the Mutual Fund Industry Revisited with Blake Phillips and Raghavendra Rau, **Journal of Banking and Finance**, 2018, 88(C), 357-365.
- 15. Timely vs. Delayed CEO Turnover, with Saif Ullah, Thomas Walker, and Xuan Wu, Information Systematic Frontier 2017, 19(3), 469-479.
- 16. Litigation Risk and Institutional Monitoring with Harry Turtle, Thomas Walker, and Jun Wang, Journal of Corporate Finance 2017, 45, 342-359.
- 17. On the Role of the Chief Risk Officer and the Risk Committee in Insuring Financial Institutions against Litigation with Arash Amoozegar and Thomas Walker, **Managerial Finance**, 2016, 43(1), 19-43.
- 18. The Determinants of IPO-Related Shareholder Litigation: The Role of CEO Equity Incentives and Corporate Governance with Xingli Li, Marcus Glenn Walker, and Thomas Walker, Journal of Financial Markets, 2016, 31, issue C, 81-126.

² http://agendaweek.com/c/2123283/253583?referrer_module=SearchSubFromAG&highlight=kuntara

³ http://fortune.com/2019/01/27/4-stocks-that-could-soar-under-new-ceos

- **19.** Do Hedge Funds Dynamically Manage Systematic Risk? with Ethan Namvar, Blake Phillips, and P. Raghavendra Rau, <u>lead article</u>, Journal of Banking and Finance, 2016, 64 (C), 1-15.
- 20. Insider Stock Trading and the Bond Market with Andreas Oehler with Thomas Walker and Stefan Wendt, **Journal of Fixed Income**, Winter 2016, Vol. 25, No. 3, pp. 74-91.
- 21. Fragility, Stress, And Market Returns with Dave Berger, **Journal of Banking and Finance**, 2016, 62, 152-163.
- 22. Past Performance May Be An Illusion: Performance, Flows, And Fees In Mutual Funds with Blake Phillips and Raghavendra Rau, *Critical Finance Review*, 2016, volume 5, 351-398.
 - a. Featured online in the Economist, Financial Times, Bloomberg, Judge Business School Cambridge University media, and Alpha Architect.
 - b. Best investment paper from Southern Finance Association Meeting 2014
- 23. Model-Free Jump Measures And Interest Rates: Common Patterns In US And UK Monetary Policy Around Major Economic Events with Januj Juneja, European Journal of Finance, 2016, 22, 1388-1413.
- 24. Internationally Correlated Jumps with Richard Roll, Review of Asset Pricing Studies Volume 5(1), 2015, 92-111.
 - a. Lamfalussy Fellowship 2011
- 25. Detecting Superior Mutual Fund Managers: Evidence from Copycats with Blake Phillips and Raghavendra Rau, Review of Asset Pricing Studies 2014, 4(2), 286-321.
 - a. Featured on-line in The Economist, WSI, 10 and Financial Times 11
- 26. Legal Opportunism, Litigation Risk, and IPO Underpricing Thomas Walker, Harry Turtle, and Dolrudee Thiengtham, *Journal of Business Research*, 68 (2), February 2015, 326-340.
 - Featured on-line in Bloomberg, "Uber Aims to Shed Troubled Past in Pre-IPO Peace-Making Bonanza" 12

⁴http://www.economist.com/news/business-and-finance/21644137-investors-get-misled-stale-returns-mutton-dressed-lamb?zid=300&ah=e7b9370e170850b88ef129fa625b13c4

⁵ http://www.bloomberg.com/research/markets/news/article.asp?docKey=600-201502200512M2____EUPR___fc290000033e1f1b_3600-1&article_id=20505454138

⁶ http://www.jbs.cam.ac.uk/media/2015/stale-illusion/http://www.jbs.cam.ac.uk/media/2015/stale-illusion/

⁷ http://www.ft.com/cms/s/0/9f734416-b920-11e4-a8d0-00144feab7de.html?siteedition=uk#axzz3S4uQmpYe

⁸ http://blog.alphaarchitect.com/2016/07/21/stale-performance-chasing-beware-of-horizon-effects/?utm_source=Alpha+Architect+Website+Users&utm_campaign=02f36ae24b-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_2f87b7924e-02f36ae24b-149755185#gs.FMN393g

⁹ http://www.economist.com/blogs/buttonwood/2014/10/investing

¹⁰ http://blogs.wsj.com/moneybeat/2014/10/20/even-stock-pickers-cant-pick-good-stock-pickers/

¹¹ http://www.ft.com/cms/s/0/39bb337a-5879-11e4-a31b-00144feab7de.html?siteedition=uk

¹² https://www.bloomberg.com/news/articles/2018-12-15/uber-aims-to-shed-troubled-past-in-pre-ipo-peace-making-bonanza

- 27. Underwriters and the Broken Chinese Wall: Institutional Holdings and Post-IPO Securities Litigation, Sergey Barabanov, Onem Ozocak, and Thomas Walker, **Journal of Financial Research**, 36, Winter 2013, 543-578.
- 28. The Role of Aviation Laws and Legal Liability in Aviation Disasters: a Financial Market Perspective co-authored with Thomas Walker and Dolruedee Thiengtham, *International Review of Law and Economics* Volume 37, March 2014, Pages 51–65
- 29. Is the Diversification Benefit of Frontier Markets Realizable by Mean-Variance Investors? The Evidence of Investable Funds with Dave Berger and Jimmy Yang, **Journal of Portfolio Management** Summer 2013, 39 (4), 36-48
- 30. The Effects of Cash, Debt, and Insiders on Open Market Share Repurchases with Liang Feng, Dolruedee Thiengtham, Harry Turtle, and Thomas Walker, **Journal of Applied Corporate** Finance, 2013, 25 (1), 55-63.
- 31. Does Family Ownership Create or Destroy Value: Evidence from Canada, with Thomas Walker International Journal of Managerial Finance 2013, 9(1), 13-48.
- 32. Legitimacy Signals And Family IPO Performances co-authored with Hung-bin Ding Journal of Business Economics and Management 2013, 14(1), 156-181.
- 33. An International Look at the Lawsuit Avoidance Hypothesis of IPO Underpricing co-authored with Huiling Lin and Thomas Walker, **Journal of Corporate Finance** 19, February 2013, 56–77
- 34. An International CAPM for Partially Integrated Markets co-authored with Mohamed Arouri and Duc Nguyen, **Journal of Banking and Finance** 2012, 36(9), 2473-249.
- 35. Gold price and US dollar (and the Euro, Pound, and Yen) co-authored with Richard Roll, **Journal** of Banking and Finance 2011, 35(8), 2070-2083.
- 36. Why should We Like Firms that Voluntarily Disclose? Evidence From Profit Warning Firms, **Journal** of Investing, 2010, 19(4), 66-83.
- 37. Why Warn? The Impact Of Profit Warnings On Shareholder's Equity co-authored with Fayez Elayan, International Research Journal Investment Management and Financial Innovations 2009, 6, 39-51.
- 38. Who Benefits from Market Integration? A comparative study of Yankee IPOs from high and low integrated markets, **Journal of Financial Transformation** 2009, 26, 116-130.
- 39. The International Aviation Insurance Regime in Times of Industry Uncertainty co-authored with Triant Flouris, Paul Hayes, and Thomas Walker, International Journal of Private Law 2009, 2 (4), 343-357.
- 40. Family Firm IPO Performance and Market Signals co-authored with Hung-bin Ding, **Journal** of Enterprising Culture, 2009, 17(1), 55-77.

- 41. Idiosyncratic Volatility and Stock Returns: A Cross Country Analysis co-authored with Nuttawat Visaltanachoti, a lead article Applied Financial Economics 2009, 19(16), 1269-1281.
- 42. Recent Developments in the Aviation Insurance Industry co-authored with Triant Flouris, Paul Hayes, Dolruedee Thiengtham and Thomas Walker, **Risk Management and Insurance Review** 2009, 12(2), 227-249.
- 43. Pre-IPO Insider Ownership and Underpricing: High-tech versus Low-tech IPOs co-authored with Thomas Walker, Financial Decisions 2009.
- 44. Commonality in Liquidity: Evidence from Stock Exchange of Thailand co-authored with Nuttawat Visaltanachoti, **Pacific-Basin Finance Journal** Jan 2009, 17(1), 80-99.
- 45. Weak Form Efficiency in Currencies: an Update and an Explanation co-authored with Lee Thomas, Financial Analyst Journal May/June 2008, 64(3), 31-52.
- 46. Family Control, Underwriter Prestige, and IPO Underpricing: A Cross Country Analysis with Thomas Walker, a <u>lead article</u>, Multinational Business Review 2008, 16(2), 1-42.
- 47. Leverage, Pre-IPO Insider Ownership, and Underpricing: high-tech versus low-tech IPOs co-authored with Thomas Walker and Jaemin Kim, *Management Decision* March 2008, 46(1), 106-130.
- 48. Bookbuilding Versus Auction Selling Methods: A Study Of US IPOs co-authored with Nikhil Varaiya and Thomas Walker, *lead article, Venture Capital Journal* 2007, 9(4), 1-36.
- 49. IPO Pricing, Block Sales, and Long-Term Performance co-authored with Nikhil Varaiya, a <u>lead</u> <u>article</u>, Financial Review 2007, 42 (3), 1-30.
- 50. Venture Capital in China: A Culture Shock for Western Investors co-authored with Thomas Walker, **Management Decision** 2007, 45, 708 731.
- 51. How Employee Stock Options and Executive Equity Ownership Affect Long-term IPO Operating Performance co-authored with Richard Roll and Thomas Walker, **Journal of Corporate** Finance 2007, 13, 695-720.
- 52. Do Foreign Exchange Markets Still Trend? co-authored with Lee Thomas and Richard Levich, lead article Journal of Portfolio Management Fall 2007, 1-5.
- 53. Equity and Debt Market Responses to Sovereign Credit Ratings Announcements co-authored with Fayez Elayan and Lawrence Rose, Global Finance Journal 2007, 18(1), 47-83.
- 54. Random Walk Currency Futures Profits Revisited co-authored with Carlos Bazan and Lee Thomas, International Journal of Managerial Finance 2007, 3(3), 263-286.
- 55. IPO Firm Executives, Compensation, and Selling co-authored with Jaemin Kim, <u>lead article</u> Journal of Entrepreneurial Finance and Business Ventures 2006, 11(1), 3-21.
- **56.** *Investor* Reaction to Inter-corporate Business Contracting: Evidence and Explanation co-authored with Fayez Elayan and Richard Roll, *Economic Notes* 2006, 35(3), 253-291.

- 57. Underwriter Learning about Unfamiliar Firms: Evidence from the History of Biotech IPOs, **Journal of** Financial Markets 2006, 9(4), 366-407.
- 58. On the Stock Markets Reaction to Major Railroad Accidents: An Empirical Analysis co-authored with Thomas Walker and Sergey Barabanov, **Journal of the Transportation Research Forum** Spring 2006, 45(1), 23-39.
- 59. On the Pros and Cons of Employee Stock Options: What Are the Alternatives co-authored with Thomas Walker, *International Corporate Ownership and Control Journal* Fall 2006, 4(1), 266-277.
- 60. A Review of IPO Selling Methods: Is there a Clear Winner? co-authored with Thomas Walker, International Corporate Ownership and Control Journal Winter 2005-2006, 3(2), 68-74.
- 61. Investors Like Firms that Expense Employee Stock Options And They Dislike Firms that Fail to Expense co-authored with Richard Roll and Fayez Elayan, **Journal of Investment Management** 2005, 3(1), 75-98.
- 62. Corporate Governance and Theories of Executive Pay a lead article co-authored with Eli Talmor and James Wallace, *International Corporate Ownership and Control Journal*, a lead article Winter 2004, 1(2), 95-106.

UNDER REVISE AND RESUBMIT

War Discourse and the Cross-Section of Expected Stock Returns with David Hirshleifer and Dat Mai

• Revise and Resubmit, Journal of Finance

Abstract: We test whether a war-related factor model derived from textual analysis of media news explains the cross-section of expected asset returns. The war risk factor is motivated by, and builds on a semi-supervised topic model to extract discourse topics from 7,000,000 New York Times stories spanning 160 years, which has been shown to be powerful in predicting aggregate market returns. We find that war risk factors help predict the cross section of returns across a diverse range of testing assets, deriving from both traditional and machine learning construction techniques, encompassing both public and own-constructed sources, and spanning a wide range of 138 anomalies. These findings are consistent with assets that have poor returns during periods of heightened war risk earning higher risk premia, or alternatively, that a factor based upon war sensitivity captures investor mispricing of war risk. The return premium associated with the war factor is incremental to factors from prominent factor models and other measures of news-based uncertainty. Our results are further buttressed through the factor mimicking portfolio of war risk. War risk passes the protocol of factor identification and is shown to be a genuine risk factor.

War Discourse and Disaster Premia: 160 Years of Evidence from Stock and Bond Markets with David Hirshleifer and Dat Mai with David Hirshleifer and Dat Mai

- Under R&R at Review of Financial Studies
- Chicago Quantitative Alliance (2nd prize winner, 2021)

- EFA 2021 (Ph.D. symposium), Texas Finance Ph.D. symposium (2021), NFA (2021), FMA (2021), SFA (2021), FRA (2021), AFA Ph.D. poster session (2022), MFA (2022), Texas Ph.D. Symposium (2022), CFDM Conference at Boulder (2022), Bank of Portugal (scheduled June 2022), Center for Financial Research Cologne (CFR, scheduled June 2022)
- Long Tail Alpha presentation (2021)

Abstract: Using a semi-supervised topic model to extract discourse topics from 7,000,000 New York Times stories spanning 160 years, we test whether topics of media discussion are predictors of future market returns. This provides a test of theories of rare disaster risk premia, and of behavioral hypotheses about the valuation of the prospect of rare disasters. Using data on investors' perception of rare disaster risks derived from news allows us to circumvent the empirical problem that major disasters are rare. Our methodology also avoids look-ahead bias and addresses the semantic shifts that occur over long time periods. War discourse positively predicts market returns both in-sample and out-of-sample, with an out-of-sample R-squared of 1.35%, and beats all other discourse topics as return predictors. War's predictive power increases through the sample period and is robust when constructed from the Wall Street Journal. These findings are consistent with a focus by investors on the risk of war in media discourse being associated with low market valuations and high subsequent returns.

Media tone is a genuine priced risk factor: Currency market evidence with Kari Heimonen and Heikki Lehkonen

- R&R at Journal of Banking and Finance
- FMA 2021, NEU (brown bag)

Abstract: Media tone constructed from 7,000,000 articles from 2,000 global media and 800 social media sites is not just a tone but a genuine risk factor that cross-sectionally prices currencies. It predicts excess US dollar returns for up to six months and beats the nochange benchmark in predicting US dollar returns out of sample. Its predicted value contains information beyond those predicted by currency factors and business cycles. Our evidence collaborates with the theory that Media tone increases investment returns, has pronounced predictive power for the currencies associated with hard-to-value characteristics, and its predictive power increases with media sources. Rational investors, including banks, trade on Media tone.

UNDER REVIEW

Do robots hurt humans? Evidence from the dark side of workplace automation with Zhihua Wei, Aoran Zhang*, and Yunfei Zhao

- Under review Contemporary of Accounting Research
- FMA 2022
- Oxford finance conference 2023
- Asian FMA 2022

Slope Factors Outperform: Evidence from a Large Comparative Study

- Review at Journal of Financial and Quantitative Analysis
- Washington University (2021)
- CICF (2022)

Abstract:

Does the method used to construct long-short factors from firm-level characteristics change the assessment of the risk factors (risk factors) incorporated in the cross-section of expected returns? Is the construction method necessary for the pricing performance of those risk factors? We compare factors constructed by three methods: pure-play slope factors (estimated OLS slopes from cross-sectional regressions), differential factors (difference in returns of 2 by K sorts of stocks), and rank factors (normalized rank weighted returns). Starting from 62 firm-level characteristics, we construct 62 such factors from each method. For each set of 62 factors plus the market factor, we examine the posterior distributions of the SDF coefficients to infer risk factors and apply Bayesian pricing criteria to determine the evidence in favor of pricing for an extensive collection of portfolios, ETFs, and stocks. The evidence shows that the slope risk factors strongly dominate, with important implications for empirical finance.

Commodity dependence and optimal asset allocation with Vianney Dequiedt, Mathieu Gomes, and Benjamin Williams-Rambaud

- Review at European Economic Review
- World Finance (2021), and FMA (2023)

Abstract: This paper investigates the diversification benefits of commodities to a portfolio of traditional assets from the perspective of domestic investors around the world. We develop a model and derive a set of implications leading us to argue that a country's degree of commodity dependence should impact the benefits of including commodities into domestic investors' porfolios. Using an international sample of 39 countries, we find support for our hypothesis in that investors located in high-commodity dependence countries usually do not benefit from adding commodities to

their portfolio while investors located in low-commodity dependence countries usually

do.

WORKING PAPERS

Testing Asset Pricing Model with Non-Traded Factors: A New Method to Resolve (Measurement/Econometric) Issues in Factor-Mimicking Portfolio with Richard Roll, Junbo Wang, and Tengfei Wang

- Finalist of Crowell Prize 2019, PanAgora Asset Management
- AFA (Ph.D. Poster), CICF, EFA, FMA, Louisiana State University, NFA, the Society of Financial Econometrics Conference (SoFiE), the World Finance Conference, and PanAgora Asset Management

Abstract: We relate factor-mimicking portfolios (FMPs) to the beta-pricing model and propose that each FMP should minimize the mispricing component of its underlying factor. We also examine FMP construction when the underlying factor contains noise and offer a new method to resolve this issue. We recommend enhanced necessary criteria for both classical and our newly proposed methods. FMPs of several macroeconomic factors constructed by our method satisfy these criteria. We find that equities are priced by

consumption growth, inflation, and the unemployment rate, and corporate bonds are priced by consumption growth, industrial production, and the default spread.

Animating Stock Markets by Tomasz Kaczmarek

• MFA 2024, FutFinInfo 2024 (scheduled)

Abstract: Our study presents a revolutionary method called Variational Recurrent Neural Networks (VRNNs) that utilizes a series of graphs to predict future stock price trends. It works like an animated movie about price trends. We analyze data from the S&P500 index constituents, which are known to be less predictable than other traded stocks, between 1993 and 2021. Our model generates a Sharpe ratio of 2.94 for equally weighted portfolios and 2.47 for value-weighted portfolios. Even after taking into account a 10 basis points transaction cost, our Sharpe ratio remains approximately twice as high as that of Jiang, Kelly, and Xiu, 2020. By adopting our graph-based approach, we achieve a substantial alpha of 55 basis points per week after controlling for established risk factors (FF3, FF5, FF6, Q5, and DHS). Furthermore, our prediction of price changes, after adjusting for various price trend strategies and firm traits, strongly forecasts the weekly returns of firms

Just Look: Knowing Peers with Image Representation with Tomasz Kaczmarek

 University of Missouri Columbia, Missouri State University, University of Missouri St. Louis, the Fields Institute for Research in Mathematical Sciences at University of Toronto 2022, Poznan University, Blackrock 2023, FinTech City University of Hong Kong 2023, and Northern Finance Association meeting 2023

Abstract: We present a novel approach to assess firm similarity by analyzing two million images. We leverage machine learning techniques to identify graphical objects that best represent companies' operations, forming Image Industry Classifications (IIC). IIC mirrors investor-defined peer groups and, akin to the brain's visual processing superiority, outperforms SIC, GICS, NAICS, and text-based similarity in delivering the greatest diversification benefits and industry momentum profits. This success is attributed to high investor agreement within IIC, leading to substantial aggregated demand and supply effects on stock prices. IIC excels in industries characterized by expectation-driven value, growth, and intangibility.

Blaze New Trails for Others to Follow: Evidence from Scanner Data with Ruixiang Wang

- FMA 2019, SWFA 2020, AFA 2021
- Twinbeech Capital (2021)

Abstract: Tracking more than 100 billion weekly transactions of two million products at the barcode level from 2007 to 2017, we identify and categorize new products as pioneers, followers, and improvers to study corporate exploratory and/or exploitative innovation strategies. Firms introducing "pioneer" products are associated with greater future profitability and stock returns than those introducing "improver" and "follower" products. The price elasticity of demand explains pioneering (exploratory) innovation's operating success. Meanwhile, limited investor attention accounts for pioneering firms'

superior stock performance. We exploit two exogenous shocks to firms' new product development decisions to address endogeneity concerns.

Cracking the Code: The Networking Matrix of Finance Academia with Sujiao (Emma) Zhao

- Bank of Portugal (July 2023)
- FMA (2023)

Abstract: This research delves into social networks among finance academics from 1980 to the present. Engagement in social networks positively correlates with productivity, with coauthors and student-advisor networks having the most significant impact, followed by post-Ph.D. and Ph.D. networks. Focusing on existing relationships rather than expanding connections and connecting with prominent researchers has proven more effective. Scholars with strong networks produce higher-quality research and receive better compensation. Our findings on editorial favoritism are complex. Co-authors of editors and Ph.D. colleagues are less likely to have their papers accepted, while student advisors are more likely. There is no evidence to support bias toward female scholars, but discrimination against Asian and Hispanic females and favoritism towards White females and Hispanic males is evident.

Convenience Yields of Collectibles, with Elroy Dimson and Matthew Vorsatz. Please also see the Appendix and additional materials.

Abstract: We propose a novel method to estimate convenience yields of collectibles based on factor-mimicking portfolios. Using up to 110 years of collectible returns for 13 distinct asset classes, we apply machine learning techniques to address challenges from non-synchronous trading. We use these estimates to study how convenience yields affect equilibrium pricing. Convenience yield estimates for 24 of our 30 collectibles return series are positive, with an annualized mean (median) of 2.64% (2.53%). Despite various forms of underestimation, these results prove that assets with positive emotional returns have lower equilibrium financial returns. This finding has important implications for ESG investing.

Changing Expected Returns can Induce Spurious Serial Correlation with Richard Roll and Avanidhar Subrahmanyam

• 6th JAAF India Symposium (January 2022), Auckland University of Technology, The 14th SME International Conference

Abstract Changing expected returns could induce spurious autocorrelation in returns. We show why this happens with simple examples and then investigate its prevalence in equity data. Using different measures of expected returns based on realized means, options markets, factor models, and analysts' price targets, we find evidence that supports our premise. Specifically, absolute shifts in expected returns are strongly and positively related to measured autocorrelations in the cross-section of individual stocks, as predicted by our analysis. Well-studied risk factors show no evidence of spurious components. We also show how our analysis implies spurious cross-autocorrelation and find supporting evidence for this phenomenon.

Agnostic Tests of Stochastic Discount Factor with Richard Roll and Junbo Wang

- The first version with Richard Roll, "An Agnostic and Practically Useful Estimator of the Stochastic Discount Factor"
- The revised version with Richard Roll and Junbo Wang, "An Agnostic and Practically Useful Estimator of the Stochastic Discount Factor"
- New York University, Louisiana State University, Texas Tech, World Finance 2021, LSU (2021), MFA 2022
- The 2nd prize, best paper award, The 14th SME International Conference

Abstract: We propose an estimator for the stochastic discount factor (SDF) that does not require macroeconomic proxies or preference assumptions. It depends only on observed asset returns yet is immune to the form of the multivariate return distribution. It does not depend on factor structure, thus making our SDF ideal for asset pricing tests. We find that SDF is correlated with many the factor/firm characteristics, which confirms Kozak, Nagel, and Santosh (2018)'s finding. Moreover, assets within the equity market are not fully integrated as SDFs constructed from different asset groups are uncorrelated.

Human Capital Valuation, Asset Pricing, and Economic Development with Dave Berger and Richard Roll

- Semi-Finalist of Best Paper Award 2016, Financial Management Association Meeting
- World Finance Conference 2021

Abstract: Human capital is the most significant component of aggregate wealth, but its relation to other macroeconomic variables is murky due to the lack of market prices. Using historical costs or expected income, valuing human capital is characterized by substantial measurement error. We develop a human capital index using slave prices and relate its dynamics to that of other indicators, including equities, GDP, real estate, and interest rates. The human capital values are extrapolated from the 19th Century to the modern era. Their evolution has substantial implications for our understanding of human capital dynamics, with applications to growth and portfolio allocation.

Average and Marginal Tobin's q as Indicators of Future Growth Opportunities, Expected Return, and Risk with Richard Roll

Abstract Contrary to popular opinion, average Tobin's q is a better indicator of future growth opportunities than marginal Tobin's q. We derive a curious relation between average and marginal q: the more profitable a new investment opportunity, the smaller will be the increase in average q when the opportunity is undertaken. Average q is inversely related to the cost of equity capital, so it represents an inverse measure of risk. The closely-related book/market ratio is also a measure of risk in the cross-section.

A Generalized Machine Learning Framework for Linear Factor Model Test with Christopher Jones, Jinchi Lv and Junbo Wang

• LSU (2020); SOFIE UCSD 2021; NBER-NSF 2021

Abstract: We introduce a generalized statistical learning method, sparse orthogonal factor regression (SOFAR), in testing linear factor models with both large numbers of factors and testing assets. Our approach encompasses most of the existing methods in the literature and can be used in many other scenarios with large data sets. Applying SOFAR, we can select the PC factors from the whole swath of 219 candidate factors proposed by the literature simultaneously, identify test assets associated with the selected PC factors, and interpret them. We can also select the PC factors and correlated characteristics in the IPCA framework without bootstrapping. Without firm characteristics instrumenting, we find that four PC factors (market, investment, intangible, and frictions) are relevant to the covariance of asset returns and three types of factors (profitability, asset liquidity, and liquidity bets) price assets in cross-section. With characteristics as instruments, we only identify one factor, and the correlated characteristics are beta, size, momentum, and liquidity.

Asset Prices and Partisanship: Evidence from Daily Shopper Data with Jialu Shen and Ruixiang Wang

- The data of the mimicking portfolio of our consumption growth is here.
- Midwest Finance Association meeting 2021; FutFinInfo 2021; World Finance Conference 2021; FMA 2021, AFA 2024

Abstract: We propose a novel consumption measure that has a daily frequency and is based on real-time shopping data. Our measure explains the joint equity-premium—risk-free rate puzzle with a risk aversion coefficient much lower than any other consumption measures. It encompasses other consumption measures in explaining the cross-sectional variation of expected returns on various portfolio and is the only consumption measure that passes Kleibergen and Zhan (Journal of Finance, 2020) robust tests. Our model decomposes consumption shocks into different frequency of volatility and shows that ignoring short-term dynamics and intra-annual fluctuations explains the much higher risk aversion from low-frequency consumption measures. At state-level daily consumption, (a) consumption in blue states suggests higher risk aversion than that in red states; (b) only Democratic consumption beta explains a variation of cross-sectional returns and is more sensitive to overall industry performance.

Are stock market anomalies anomalous after all, with George Chalamandaris, and Nikolaos Topaloglou

• World Finance Conference 2021

Abstract: We propose a stochastic spanning to evaluate whether anomalies are genuine under the factor-model framework. Our approach is nonparametric and does not rely on any assumption of return distribution and investor risk preferences. It depends on the whole distribution of returns rather than only on the first two moments. Of the anomalies considered, only a few expand the opportunity set of the risk-averter and have actual economic content. Our approach is consistent in identifying genuine anomalies in and out of samples. This contrasts mean-variance (MV) spanning tests where anomalies are identified in-sample, not out-of-sample.

No One-Size-Fits-All Tale: The Diversity and Complexity in Asset Pricing across Global Markets with Zhuo Qiao and Yan Wang

We utilize a Bayesian approach developed by Chib, Zeng, and Zhao (2020) and Chib and Zeng (2020) to identify the best asset pricing models for international stock markets. Our findings reveal that models with Student-t distribution outperform models with Gaussian distribution in all markets. However, the best models vary depending on the specific market, and the factor strength fluctuates over time, highlighting the diversity and complexity of asset pricing in different markets. Although currency risk factors are crucial in international asset pricing, they were weakened during the global financial crisis in 2008. Additionally, we evaluate the efficiency of our local, regional, and global models in explaining various cross-sectional anomalies. Our research indicates that local factor models are the most successful, while regional and global models have similar outcomes.

ECONOMICS

Interest Rates and Real Estate Values: The Divergence Effects of Real Rates and Expected Inflation with Richard Roll

Abstract: A common belief is that higher interest rates reduce real estate values, but corroborating evidence is underwhelming. A sensible explanation that suggests heterogeneity across countries is that mortgage interest deductibility for the U.S. personal income tax makes much of the actual value of the mortgage principal tax deductible when inflation is high. This implies that nominal mortgage rates could positively affect U.S. house prices. We find evidence consistent with this possibility; the inflation component of nominal interest is associated positively with U.S. real estate prices but negatively with those in Canada, a country without mortgage interest deductibility.

Machine Learning Classification Methods and Portfolio Allocation: An Examination of Market Efficiency with Yang Bai

• Third prize winner of Crowell Prize, 2020 awarded by PanAgora Asset Management

Abstract: We design a novel framework to examine market efficiency through out-of-sample (OOS) predictability. We frame the asset pricing problem as a machine learning classification problem and construct classification models to predict return states. The prediction-based portfolios beat the market with significant OOS economic gains. We measure prediction accuracies directly. We introduce a novel application of the binomial test for each model to test the accuracy of 3.34 million return state predictions. The tests show that our models can extract valuable contents from historical information to predict future return states. We provide unique economic insights about OOS predictability and machine learning models.

Abstract: We investigate the influence of utilizing automated capital to replace human workers in U.S. public firms. Firms that can replace human capital with automated capital need better records on employee related corporate social responsibility (employee CSR) and workplace safety. Our results remain robust

after addressing the endogeneity concern. We further document that the negative link is more powerful for firms adopting more aggressive financial policies, incurring higher labor-related costs, and locating in less religious areas. Our analysis also unveils an ethical conundrum. The compromise on employees' well-being among firms that are highly subjective to workplace automation comes at the cost of reputation damage; however, such firms are associated with better financial performance. Overall, we document that workplace automation creates a moral hazard: firms expect to increase productivity with automated capital while paying less attention to current employees' welfare.

REFEREED BOOK CHAPTERS:

- 1. What Drives Variation in the International Diversification Benefits? A Cross-country Analysis with Handbook of Financial Econometrics, Mathematics, Statistics, and Technology edited by Cheng Few Lee, Rutgers University.
- 2. Venture Capital in Europe: Closing the Gap to the U.S. co-authored with Andreas Oehler, Marco Rummer, and Thomas Walker, in Venture Capital in Europe, Greg N. Gregoriou, Maher Kooli and Roman Kräussl (eds.), Elsevier, Amsterdam, The Netherlands (lead chapter, November 2006).
- 3. Why Venture Capital Markets Are Well Developed in Some Countries But Comparatively Small in Others: Evidence from Europe co-authored with Dolruedee Thiengtham and Thomas Walker, in Venture Capital in Europe, Greg N. Gregoriou, Maher Kooli and Roman Kräussl (eds.), Elsevier, Amsterdam, The Netherlands (November 2006).
- 4. Asset Allocation Barbells co-authored with Lee Thomas, Frank J. Fabozzi's Handbook of Finance, 2008
- 5. IPO Valuation, Frank J. Fabozzi's Handbook of Finance, 2008
- 6. Multinational Finance and Global Financial Market Integration in Hossein Bidgoli (ed.) Handbook of Technology Management, 2010

ARTICLE IN THE BULLETIN

• Crash of '08 co-authored with Dr. Lee R. Thomas III published in Capco Institute Bulletin and the Global Association of Risk Professionals, December 2008.

The link to it in risk center: http://www.riskcenter.com/story.php?id=17503

HONORS & AWARDS:

Distinguished Professor Award
 Trulaske College of Business research grant
 Winner, Winemiller Excellence Award

 A Picture is Worth a Thousand Words: Market Sentiment from Photos

 Winner, Hillcrest Behavioral Finance Research Award

 A Picture is Worth a Thousand Words: Market Sentiment from Photos

 Finalist, Crowell Prize PanAgora Asset Management¹³

 A Toolkit for Factor-Mimicking Portfolios

¹³ PanAgora award Crowell Prize to the best quantitative investment once a year. Last year, the recipients include professors from Harvard, Houston, UCLA

https://www.prnewswire.com/news-releases/panagora-asset-management-announces-winner-of-17th-annual-dr-richard-a-crowell-prize-300788466.html

•	Trulaske College of Business Large Grant Award	2018
•	Trulaske College of Business Summer Scholar Award recipient	2018
•	Outstanding paper award, Managerial Finance	2018
	o On the Role of the Chief Risk Officer and the Risk Committee in Insuring Financial	Institutions
	against Litigation	
•	Crowell Prize, PanAgora Asset Management	2017
_	A Protocol for Factor Identification The New 2. The Factor Administration The New 2. The Factor Administration and the second se	2017
•	The Mizzou's Top Faculty Achievers Award	2016
•	Best paper award at the Southern Finance Association meeting ¹⁴	2015
•	Jack Treynor Prize Winner, Q Group ¹⁵	2015
	 A Protocol for Factor Identification Inquire Europe seminar in Stockholm, Sweden 	2014
•	A Protocol for Factor Identification	2014
•	Dauphine-Amundi Chair In Asset Management ¹⁶	2013
	A Protocol for Factor Identification,	2013
•	Graduate grant fee program, SDSU	2013
	Human capital value	
•	ICPM Grant, University of Toronto ¹⁷	2013
	 A Protocol for Factor Identification, 	
•	Graduate grant fee program, SDSU	2012
	 A Protocol for Factor Identification, 	
•	Inquire UK ¹⁸	2012
	A Protocol for Factor Identification,	
•	Professor-in-Residence at Research Affiliates, Newport Beach, CA ¹⁹ Feb - July	
•	College of Business Administration Grant Program, SDSU	2011
•	The Office of the Vice President, Research and Graduate	2011
	Studies (OVPRGS) Grant at Concordia University	204.0
•	Graduate Grant Fee Program, SDSU	2010
•	CIBER, UCLA	2010
•	Ziman Center for Real Estate, UCLA	2010
•	Graduate Grant Fee Program, SDSU	2010
•	KPMG Fellowship	2010
•	Lamfalussy Fellowship from the European Central Bank ²⁰ O International Correlated Jump	2010
•	China Workshop, SDSU	2010
•	College of Business Administration Grant Program	2010
•	University Grant Program	2009

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¹⁴ A Market for Lemons in Mutual Fund Management with Andrew Lynch, Michael Gibbs, and Khaled Obaid. Michael and Khaled were MU PhD student at that time while Andrew graduated from MU a year before. I have committed to work with our PhDs.

¹⁵ Q-group awards once a year "superior academic working papers with potential applications in the fields of investment management and financial market". https://www.q-group.org/jack-treynor-prize-winners/

¹⁶ https://housefinance.dauphine.fr/en/research/research-chairs-and-initiatives.ht

¹⁷ ICPM awards grant to any pension-and investment-related research that supports effective management in pension and investment. https://icpmnetwork.com/site/research/call-for-research

¹⁸ Inquire UK offers a grant where applicants have to submit a proposal. Inquire Europe and Inquire UK have the same policy granting award for best quantitative investment research http://www.inquire.org.uk/

¹⁹ After my tenure, they invited Ning Wang from Columbia University as their professor-in-residence.

https://www.ecb.europa.eu/pub/economic-research/programmes/lamfalussy/html/index.en.html
ECB awards Lamfalussy fellowships annually to scholars who are 36 years old or younger and who have outstanding research.

• CIBER, UCLA	2009
• Inquire, UK	2009
 Global Market Integration: A Better Way To Measure It And Its Application 	
• GARP	2009
 Global Market Integration: A Better Way To Measure It And Its Application 	
• Inquire, Europe ²¹	2009
o Global Market Integration: A Better Way To Measure It And Its Application	
• A College of Business Administration Faculty Development Award, SDSU	2009
• Entrepreneurial Management Center Grant, SDSU	2009
• CIBER, UCLA	2008
Social Sciences and Humanities Research Council of Canada Grant	2008
University Grant Program	2008
• Ziman Center for Real Estate, UCLA	2007
Entrepreneurial Management Center Grant, SDSU	2007
University Grant Program, SDSU	2007
Entrepreneurial Management Center Grant, SDSU	2006
San Diego State University Foundation Grant, SDSU	2006
A College of Business Administration Faculty Development Award, SDSU	2006
o CIBER Grant, SDSU	2006
• Entrepreneurial Management Center Grant, SDSU	2005
• University Research Grant, SDSU	2004
• A College of Business Administration Faculty Development Award, SDSU	2004

EDUCATION:

University of California, Irvine (UCI) Ph.D. Finance
Washington University MBA Finance
Chulalongkorn University, Thailand B.A. Economics

ACADEMIC EXPERIENCE:

- Professor of Finance, Robert Trulaske Jr. Professorship, University of Missour (2019–present)
- Associate Professor in Finance, Robert Trulaske Jr. Professorship, University of Missouri, Columbia, (2013-2019)
- Associate Professor in Finance with tenure, San Diego State University, San Diego (2009-2013)
- Assistant Professor in Finance, San Diego State University, San Diego (2003-2009)

TEACHING EXPERIENCE:

- Spring 2022 to now, teaching course: "Ph.D. Seminar in Investment" or FIN 9400 to Ph.D. students in finance.
- Spring 2020, teaching course: "Managerial Finance" to MBA students.
- Spring 2014- present, teaching course: "Financial Management" or FIN 4010/7010 to students who have master in accounting and undergraduate students in finance.
- Fall 2003- Summer 2013, teaching course: "Seminar in International Finance" to MBA and undergraduate students.

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²¹ Awarded once a year, https://www.inquire-europe.org/awards/

- Fall 2011 Fall 2012, teaching course: "Fundamental Finance" to undergraduate students.
- Fall 2003- Fall 2010, teaching course: "Entrepreneurial Finance" to undergraduate students.
- Spring 2009, teaching course: "Financing the Emerging Enterprise" to MBA students at Northeastern University, Beijing China
- Spring 2005, teaching course: "Seminar in International Finance" to Taiwanese MBA students MBA, San Diego State University in Taipei Taiwan
- Spring 2003, An adjunct instructor of International Finance at Vanguard University
- 1998-2003, Teaching Assistant and Grader for courses at UCI: Investments, Managerial Statistics, Decision Making, Creating Wealth, Derivatives, International Finance and Managerial Finance

WORKING EXPERIENCE:

- August 2023 present, Consultant, Blackrock
- August 2023, Partner, Flint Rock Global Investors, LLC
- June 2018 January 2019, Consultant, AXA Rosenberg Investment Management, Los Angeles, CA²²
- January 2013 July 2015, Board of Directors, Centricity Financial, LLC
- January 2012 December 2012, Consultant, Denali Advisors, LLC
- January 2010 December 2012, Consultant, Flint Rock Global Investors, LLC
- August 2011 February 2012, Consultant at Research Affiliates, Newport Beach, CA
- 1998-2003, Research Assistant, International Portfolio Management, research with Dr. Lee Thomas III, Managing Director at PIMCO.
- 2000-2001, Research Assistant, Financial Institutions Literature Review for the updated version of Greenbaum and Thakor's "Contemporary Financial Intermediation" book, research with Professor Neal Stoughton.
- 1999-2000, Research Assistant, Internet Stock Valuation based on Schwartz and Moon's paper, research with Professor Neal Stoughton.
- 1998-2000, Research Assistant, Executive Compensation in the Computer and Finance Industries, research with Professor Eli Talmor and Professor James Wallace.
- Financial analyst in Fixed Income Securities Department, Bank of Thailand, Bangkok Thailand (1997). Tasks performed include pricing bonds and research in fixed-income securities.
- Trainee at Bangkok Bank, Bangkok, Thailand (Summer 1995).

OTHER SCHOLARLY ACTIVITIES:

*** Top-tier journals

- 1 ***Defence Lournal of Fin
- 1. ***Referee, Journal of Financial and Quantitative Analysis August 2019, December 2015, December 2023
- 2. ***Referee, Review of Financial Studies, May 2018, September 2014, January, 2024
- 3. ***Referee, Management Science 2022, 2023, 2024
- 4. ***Referee, Review of Finance, August 2020
- 5. Referee, Finance Research Letter, June 2020, August 2020
- 6. Referee, Emerging Market Review, October 2018
- 7. Referee, Journal of Corporate Finance, July 2018, September 2014

²² Based on the P&T Guideline, "Consulting gives the College additional visibility, and represents another example of professional service."

- 8. Referee, Journal of Banking and Finance, January, July, and August 2016, two papers, November 2015, June 2020
- 9. A committee for Midwest Finance Association reviewing, 2015.
- 10. Referee, Journal of International and Managerial Finance, May 2015
- 11. Referee, Journal of Investment Management, March 2015
- 12. Referee, Asia-Pacific Journal of Financial Studies, February 2015, 2013
- 13. Referee, Journal of Financial Markets, September 2014, December 2019, June 2020
- 14. Referee, Journal of International Managerial Finance, September 2014
- 15. Referee, Financial Review, September 2014
- 16. Referee, European Finance Association, August 2014
- 17. ***Referee, Management Science
- 18. ***Referee, Review of Financial Studies twice
- 19. ***Referee, Journal of Financial Economics
- 20. Scientific committee, Paris Financial Management Conference (PFMC-2013)
 - a. IPAG Business School 184, Boulevard Saint-Germain, 75006 Paris, France
- 21. Referee, Review of Finance
- 22. Referee, Journal of Banking and Finance five times
- 23. Referee, Journal of Financial Markets four times
- 24. Referee, Journal of Corporate Finance twice
- 25. Referee, Financial Review
- 26. Referee, Applied Finance Economics twice
- 27. Referee, Journal of Economic and Business
- 28. Referee, Management Decision twice
- 29. Referee, Financial Analysts Journal three
- 30. Referee, Journal of Financial Econometrics
- 31. Referee, South Africa Journal of Economics
- 32. Referee, SSHRC, Canada
- 33. Referee, World Economy
- 34. Referee, Managerial Finance
- 35. Reviewer, the European Finance Association 2013, Cambridge University
- 36. Referee, International Trade Journal

SERVICE FOR THE UNIVERSITY AND THE COMMUNITY:

Dissertation chair

- Niklas Augustin, Ph.D. in finance, expected in May 2026
- Bai Yang, Ph.D. in Finance, expected in May 2024 California State University, Fullerton
- Dat Mai, Ph.D. in finance expected in May 2023
- Ruixiang Wang, Ph.D. in Finance, expected in May 2021, Clark University
- Khaled Obaid, Ph.D. in Finance 2019 Mississippi State University

Dissertation committee

- Ioannis Ropotos, Ph.D. in Finance, April 2024, University of College Dublin, Ireland
- Brookelyn Adams, Ph.D. in Economics, May 2025
- Nabi Ahjmadi, Ph.D. in Economics, May 2024, Kuwait University
- Qinhua Xi, Ph.D. in Economics, May 2023, Citi Bank
- Wenye Tang, Ph.D. in Accounting, May 2021, Appalachian State University
- Ryan Chacol, Ph.D. in Finance, expected in May 2020, Colorado State University

- Tengfei Zhang, Ph.D. in Finance 2020, Louisiana State University
- Thibaut Morillon, Ph.D. in Finance 2019 Elon University
- Feifei Wang, Ph.D. in Finance 2017 Miami University
- Michael Gibbs, Ph.D. in Finance 2017 California State University Long Beach
- Xueli Cao, Ph.D. in Economics 2017 Walmart

University committee

• A member of Research Council Committees at the University Level, Fall 2018 – present.

College of Business Committee

- A Co-Chair of AI and Data Analytics Initiatives, 2024- present
- Chair of the Faculty Policy Committee, October 25, 2019 2023
- A member of the Promotion and Tenure Committee, Fall 2019-present
- A member of the Undergraduate Committee, Fall 2017 Spring 2019

Department committee

- A member of the Curriculum Committee, Fall 2019-present
- A member of the Promotion and Tenure Committee, Fall 2019-present
- A liaison of the library from Fall 2014 the present.
- A member of Immigration Committees in the Fall of 2015
- A faculty marshal for the commencement in 2014, 2015, and December 2019
- Chair of Research Committee, Fall 2015- 2017
- Candidates search committee Fall 2014
- Friday seminar coordinator Fall 2014 Spring 2016
- Research committee Spring 2014 Spring 2015
- A Graduate Grant Fee Program committee from Fall 2012 Spring 2013

External examiner

• External Examiner for the evaluation of Kaveh Moradi Dezfouli's doctoral thesis. Kaveh Moradi Dezfouli graduated with a Ph.D. in finance at Concordia University in **May** 2019.

Note: I performed the activities below at San Diego State University

- A graduate committee at San Diego State University from 2008 2010
- Attended the new student convocation in 2007.
- A faculty marshal for the commencement in 2006, 2007 and 2008
- Co-Chaired the Scholarship Committee from 2006-2013
- An undergraduate advisor from 2006-2013
- Recruiting international finance candidates
- Being part of a university-wide Faculty Hearing Panel
- A thesis advisor for Forest Dickey, a master's student of fine arts in furniture design and woodworking, and Eser Ecil, an MBA student from San Diego State University
- A PhD thesis advisor for Jeffrey Stangl, Massey University, Auckland, New Zealand

EXTERNAL SERVICE

• AFA (American Finance Association)

- WFA (Western Finance Association)
- FMA (Financial Management Association)
- Member of the *Econometric Society* 2018-2019

ADVISORY BOARDS

- Associate Editor, Journal of International Financial Management & Accounting 2023- present
- Associate Editor, International Review of Financial Analysis, 2022- present
- Chief Editor, Frontiers Journal in Finance and Economics, 2022-2024
- Scientific Committee, Future Finance Info, Sweden 2022-present
- Advisory Editorial Board, American Journal of Business, 2012 to 2019
- Scientific Committee, Scientific committee of Paris Financial Management conference since 2013
- Scientific Committees Vietnam Finance Symposium from 2019

PRESENTATIONS

Note: Most of the presentations were done by my co-authors

Invited to present to Texas Christian University, April 2024

Animating Stock Markets by Tomasz Kaczmarek, Midwest Finance Association 2024

Asset Prices and Partisanship: Evidence from Daily Shopper Data with Jialu Shen and Ruixiang Wang, American Finance Association in January 2024.

Invited to present War Discourse and the Cross-Section of Expected Stock Returns with David Hirshleifer and Dat Mai at Chicago Quantitative Alliance

Discussant, "What is residual momentum?" Bryan Kelly chaired American Finance Association in January 2023.

Changing Expected Returns Can Induce Spurious Serial Correlation with Richard Roll: Kansas University invited me to present a research paper in December 6, 2019.

A Tool Kit for Factor-Mimicking Portfolios

- 2020 PhD Poster Session, American Finance Association in San Diego, January 3-4
- 2019 NFA conference in Vancouver
- 2019 China International Conference in Finance in Guangzhou, July 9-1
- Eastern Finance Conference Miami Florida April 10-13, 2019
- Louisiana State University
- Society of Financial Econometrics Conference (SoFiE) 2019
- Southwestern Finance Conference 2019

An Analysis of the Consequences of Regulation SHO: The Case of Former Arthur Andersen Clients with Inder Khurana, Raynolde Pereira and Sujiao Zhang

- American Accounting Association Meeting August 2019
- The Hong Kong Polytechnic University February 2019

Agnostic Tests of Stochastic Discount Factor Theory

- QFE Seminar Series, NYU, May 2nd
- 9th Financial Risks International Forum: New Challenges Facing the Investment Management Industry, March 21 & 22, 2016, Paris
- New York University 2016
- California Institute of Technology Brownbag Seminar April 2015
- UCLA Brownbag Seminar April 2015

Insider Trading in Firms Rumored to be Takeover Targets with Fred Davis, Hamed Khardivar, and Thomas Walker. Eastern Finance Association, Miami Florida April 10-13, 2019

A Picture is Worth a Thousand Words: Market Sentiment from Photos with Khaled Obaid

- Georgia Tech/RFS Fintech Calvacade, Atlanta Georgia February 28-29, 2020
- Eastern Finance Association, Florida
- St. Louis University, 2018
- Midwest Finance Association, Chicago March, 2019
- University of Missouri St Louis, 2018
- Missouri State University, 2018

Empirical Tests of Asset Pricing Models with Individual Assets: Resolving the Errors-in-Variables Bias in Risk Premium Estimation with Narasimhan Jegadeesh, Joonki Noh, Richard Roll, and Junbo Wang,

- American Finance Association, Philadelphia, Pennsylvania, September 15-17, 2018
- Northern Finance Association Meeting, Halifax Nova Scotia, September 15-17, 2017

Jump risk premia across major international equity markets with Mohamad Arouri, Oussama M'saddek Financial Management Association meeting, October 11-14, Boston, MA

Yesterday's news: Media created emotions in asset markets with Heikki Lehkonen, Financial Management Association meeting, October 11-14, Boston, MA

Mutual Funds Correlated Jumps with Andrew Lynch and Michael Gibbs, Financial Management Association meeting, October 11-14, Boston, MA

• One of the semifinal list papers for best paper

Political Connections, Government Procurement Contracts, and the Cost of Debt with Reza Houston and David Maslar

- Financial Management Association meeting, October 11-14, 2017 Boston, MA
 - One of the semifinal list papers for best paper
- Ball State University, 2018
- University of Dayton, 2018
- University of Richmond,
- The 2018 MPSA and SFA meetings

Yesterday's news: Media created emotions in asset markets with Heikki Lehkonen, Financial Management Association meeting, October 6, University of Missouri, Columbia.

The Information Content of Analysts' Value Estimates with Ryan Chacon and Dan French,

• 2017 American Accounting Association meeting, August 4-6, San Diego

- 2016 Paris Financial Management Conference (PFMC2016), 12-14 December 2016, in Paris, France
- A Market for Lemons in Mutual Fund Management with Andrew Lynch, Michael Gibbs, and Khaled Obaid,
 - 2016 Southern Finance Association Meeting (SFA) in San Destin, Florida from November 16 19, 2016.
 - Financial Management Association, Las Vegas October 2016
 - Oklahoma City, Southwestern Finance Meeting, March 9-12, 2016.
 - Best investment paper in Southern Finance Association Meeting 2015
- Foreign Exchange Exposure and Stock Returns with Kari Heimonen and Heikki Lehkonen, Financial Management Association, Las Vegas October 2016
- On valuing human capital and relating it to macroeconomic conditions with David Berger, Kuntara Pukthuanthong, and Richard Roll,
 - Financial Management Association, Las Vegas October 2016
 - One of the semifinal list papers for best paper
- International asset allocation in presence of systematic cojumps with Mohamad Arouri, Oussama M'saddek, and Duc Nguyen, Financial Management Association, Las Vegas October 2016
- Agency Incentives, Risk Shifting and Mutual Fund Performance, with Blake Phillips and Raghavendra Rau, has been accepted for presentation at the 2016 FMA European Conference, Hanken School of Economics in Helsinki, Finland on June 9 & 10, 2016
- The Capital Requirements and performance of Islamic vs. conventional banks, with Mohammad Bitar and Thomas Walker, Eastern Finance Association meeting, Baltimore, Maryland, April 6-9, 2016
- Litigation Risk and Institutional Monitoring with Harry Turtle, Jun Wang, and Thomas Walker,
 - Paris Financial Management Meeting, December 14-15, 2015.
 - FMA Chicago, October 16-19, 2013
- Insider Stock Trading and the Bond Market with Andreas Oehler, Thomas, Stefan Wendt, Paris Financial Management Meeting, December 14-15, 2015.
- International asset allocation in presence of systematic cojumps with M'Saddek Oussama, Arouri Mohamed El Hedi, and Nguyen Duc Khuong, Eurofidai Paris December 2015 Finance Meeting 13th International Paris Finance Meeting, December 17th, 2015.
- Agency Incentives, Risk Shifting and Mutual Fund Performance with Blake Phillips and Raghavendra Rau, the 4th Luxembourg Asset Management Summit, October 21-23, 2015
- The Role of Board Leadership Structure in Enhancing the Value of Directors' Human and Social Capital, with Chamu Sundaramurthy and Yasemin Kor, AOM Annual Meeting, Vancouver, Canada August 7-11, 2015
- Portfolio Stacking: What's in a Fund's Top 10 List? with Mark R. Huson and Blake Phillips, , Financial Management Association European Conference, Venice, Italy, June 11-12, 2015
- Performance Chasing by Investors and the Risk Taking Incentives of Mutual Fund Managers with Blake Phillips and Raghavendra Rau,
 - FMA Chicago, October 16-19, 2013
 - Midwest Finance Association, March 4-7, 2015
 - Southern Finance Association, Florida, November 2014

Time variation in diversification benefit with Paul Chiou, Financial Management Association Meeting, Tennessee, October 2014

Basel III and bank efficiency: Does one solution fit all? Evidence from Islamic and conventional banks, with Mohammad Bitar and Thomas Walker,

- Paris Financial Management Meeting, December 14-15, 2015.
- Midwest Finance Association, March 4-7, 2015
- Southwestern Finance Association, March 11-15, 2015
- The 14th FRAP Finance, Risk and Accounting conference, taking place in Oxford 22.-24. September 2014
- The 4th Islamic Banking conference at Lancaster University Management School, 23/24th June, 2014

A Protocol for Factor Identification with Richard Roll

- Chair-in-asset-management workshop, Paris-Dauphine University, Paris, France June 9, 2015
- World Investment Forum, FTSE conference, Newport Coast, CA, May 17-20, 2015
- Research Affiliates meeting, Laguna Beach, California May 2015
- JOIM Conference, April 26-28, 2015, La Jolla, California
- Financial Management Association Meeting, Tennessee, October 2014
- Asian Finance Association Meeting, Bali, Indonesia, June 23-26, 2014Australian Finance Association Meeting, Sydney, Australia December 19-20, 2013
- Rotman International Centre for Pension Management (ICPM) October 2013 Discussion Forum, Sacramento, CA October 7-8, 2013
- University of Missouri Columbia September 19, 2014
- Inquire Europe, Stockholm Sweden October 12-14, 2014

Do hedge funds dynamically manage systematic risk?, Ethan Namvar, Blake Phillips, and Raghavendra Rau

- Northern Finance Association meeting, Quebec, Canada September 27-29, 2013
- The 2013 AIDEA conference in Lecce (Italy), on 19-21 September 2013.

Size doesn't matter: Diseconomies of Scale in the Mutual Fund Industry Revisited Blake Phillips and Raghavendra Rau

- The Northern Finance Association meeting, Lake Louis, September 18-20, 2015
- The Financial Management Association European Conference, Venice, Italy, June 11-12, 2015
- EFA Lugano Switzerland, August 27-30, 2014
- FMA Chicago, October 16-19, 2013
- The 2013 AIDEA conference in Lecce (Italy), on 19-21 September 2013

Chasing mutual fund returns Blake Phillips and Raghavendra Rau

- The 2013 AIDEA conference in Lecce (Italy), on 19-21 September 2013
- 2013 EFA, Cambridge, August 28-21, 2013
- The 3rd Helsinki Finance Summit on Investor Behavior, August 26-27, 2013.
- 2013 SFS Cavalcade, May 13-16, 2013, University of Miami, Miami, Florida hosted by the University of Miami

- Hung-bin Ding, The Impact of Corporate Venture Capital on IPO valuation: An Empirical Examination, 2013 Academy of Management Meeting, August 9-13, in Lake Buena Vista (Orlando), Florida
- Sergey Barabanov, Onem Ozocak, and Thomas Walker, Underwriters and the Broken Chinese Wall: Institutional Holdings and Post-IPO Securities Litigation,
 - July 16, 2013 at the University of Bamberg
 - 2013 World Finance Conference, Cyprus (July 1-3).
- Duc Nguyen and Mohamed Arouri, Diversification benefits and strategic portfolio allocation across different asset classes: The case of US markets
 - FABS 2013 Conference in Nottingham, United Kingdom, June 26-28, 2013
 - 25th Annual Australian Finance and Banking Conference, Sydney on the 16th-18th December 2012
- Qiao Zhao and Raghavendra Rau, New evidence on the Return Characteristics of State-Owned and Non-State-Owned Chinese A Shares, European Financial Management Association, Luxembourg, June 12-14, 2013
- The Interactive Value of the CEO's and the Corporate Board's Human Capital: A Study of Biotechnology IPOs, Chamu Sundaramurthy, Kuntara Pukthuanthong, and Yasemin Kor, Kansas University, May 3, 2013
- Richard Roll, *Internationally correlated jumps*, University of Missouri, Columbia, April 5, 2013 Richard Roll, *A Protocol for Factor Identification*,
 - South Western Finance Association, March 5-17, 2013, Santa Fe, New Mexico
 - Inquire UK, Autumn 2012, Bath, UK
- Dave Berger and Jimmy Yang Is the diversification benefit of frontier markets realizable by mean-variance investors? The evidence of investable funds, Midwest Finance Association, Chicago March 13-16, 2013
- Do hedge fund manage beta risks?, Blake Phillips and Raghavendra Rau, the Deakin Finance Colloquium 2012, Melbourne, Australia, November 9, 2012, Melbourne.
- Chasing mutual fund returns Blake Phillips and Raghavendra Rau,
 - University of Waterloo, October 12, 2012.
 - Northern Finance Association Meeting, September 28-30, 2012, Niagara Falls, Ontario
 - the 2012 Annual Meeting of the Academy of Behavioural Finance and Economics, September 18-21, 2012, NYU-Poly Campus New York, NY, USA
- Jumps, Interest Rates, and Monetary Policy, Januj Juneja, Financial Management Association Meeting, Atlanta, October 18-20, 2012
- The Interactive Value of the CEO's and the Corporate Board's Human Capital: A Study of Biotechnology IPOs Chamu Sundaramurthy and Yasemin Kor, the Academy of Management Annual Meeting in Boston, August, 2012.
- Does Disclosure Regulation Work? Evidence from International IPO Markets presented at the Multination Finance Conference 2012 in Krakow, Poland, June 24-27, 2012.
- Insider stock trading and the bond market
 - Eastern Finance Association 2012 Annual Meeting, Boston, April 11-14, 2012.
 - Financial Management Association Meeting in Denver, October 21, 2011.
- Does style really matter? Measuring integration across hedge fund styles presented at the Financial Management Association Meeting in Denver, October 21, 2011.
- An international CAPM for partially integrated markets: Theory and empirical evidence presented at the Financial Management Association Meeting in Denver, October 21, 2011.
- The Determinants of IPO-Related Shareholder Litigation: The Role of CEO Equity Incentives and Corporate Governance was accepted for the presentation at the 12th Workshop on Corporate

Governance and Investment, the Leipzig Graduate School of Management, Germany during October 7th-8th, 2011.

Market Fragility and International Crises co-authored with Dave Berger,

- Conference organized by Wilfrid Laurier University in Waterloo, October 3-4 2011.
- The Bank of Finland/CEPR/JFI/SUERF Conference on the Future of Risk Management, co-organized by the Journal of Financial Intermediation in Helsinki on September 22-23, 2011.
- How do competition, certification, and underwriter relationships affect the cost of public debt? The impact of shelf registrations discussed at the Western Finance Association meeting in Santa Fe, New Mexico, June 22, 2011.
- The Determinants of IPO-Related Shareholder Litigation: The Role of CEO Equity Incentives and Corporate Governance presented at Financial Management Association in Queenstown, New Zealand, April 7-8, 2011

Jumps, Information Surprises, Risk, and Fed Policy

- Seaton Hall University
- Brown Bag Lunch Seminar at SDSU

The Determinants of IPO-Related Shareholder Litigation: The Role of CEO Equity Incentives and Corporate Governance at National Business and Economic Society, Curacao, Netherlands Antilles, Marriott Curacao Resort and Emerald Casino, Netherlands

International Correlated Jump

- FTSE, World Investment Forum 2011, Napa Valley, CA.
- Massey University, April 11, 2011
- American Finance Association in Denver, January 2011
- 18th Conference on the Theories and Practices of Securities and Financial Markets, Kaohsiung, Taiwan in December 17-18, 2010. The meeting is organized by the National Sun Yat-Sen University.
- University of California, San Diego, October 2010
- Financial Management Association meeting in New York, October 2010
- European Finance Management Association meeting in Denmark in June 2010

International Diversification with Frontier Markets presented at the 18th Conference on the Theories and Practices of Securities and Financial Markets, Kaohsiung, Taiwan in December 17-18, 2010

- The Difference between Dynamic Capabilities of Independent Venture Capital and Corporate Venture Capital presented at the 18th Conference on the Theories and Practices of Securities and Financial Markets, Kaohsiung, Taiwan in December 17-18, 2010
- Organizational Legitimacy and the Performances of Family Firm IPOs presented at the 18th Conference on the Theories and Practices of Securities and Financial Markets, Kaohsiung, Taiwan in December 17-18, 2010

International Diversification with Frontier Markets

- Financial Management Association meeting in New York, October 2010
- European Finance Association meeting in Denmark in June 2010

The Difference between Dynamic Capabilities of Independent Venture Capital and Corporate Venture Capital, Financial Management Association meeting in New York, October 2010

Legal Opportunism, Litigation Risk, and IPO Underpricing presented at the Eastern Finance Association April 14 to 17th, 2010.

Global market integration: A better way to measure it and its application

• Australian Banking and Finance Conference, Sydney in December 2009.

- O Joint winner of the best quantitative finance paper, sponsored by the Australian Securities Exchange
- The 7th NTU International Conference on Economics, Finance and Accounting (IEFA), Taiwan in May 2009.
- The California Institute of Technology in April 2009.
- Washington State University in April 2009.
- Kansas State University.
- Third Annual Research Conference organized by Centre for Analytical Finance (CAF) at the Indian School of Business (ISB), Hyderabad, India.
- American Finance Association 2009 in San Francisco, CA.
- Financial Management Association 2008 in Dallas, Texas.

Legal Opportunism, Litigation Risk, and IPO Underpricing

- Chulalongkorn Accounting and Finance Symposium in November 5th to 6th, 2009.
- Financial Management Association in October 2009.

Why Should We Like Firms That Voluntarily Disclose? Evidence from Profit Warning Firms presented at the Financial Management Association in October 2009.

Human Capital of the CEO and the Corporate Board of Directors and IPO Performance

- Financial Management Association in October 2009.
 - One of the top 10% best papers in the conference

Understanding Family Businesses presented in the Academy of Management in Chicago, August 2009. Real estate and interest rate: A comparison between US and Canada co-authored with Richard Roll

- 7th NTU International Conference on Economics, Finance and Accounting (IEFA), Taiwan in May 2009
 - One of the three papers (out of 87) receiving the best paper award
- Western Finance Association in Hawaii.
 - o There were 1128 papers submitted and only 144 (12.77%) made the program.
- Financial Management Association 2008 in Dallas, Texas.

Retained wealth and family firm IPO presented in the Financial Management Association 2008 in Dallas, Texas.

An International Look at the Lawsuit Avoidance Hypothesis of IPO Underpricing presented in the Financial Management Association 2008 in Dallas, Texas.

The Role of Aviation Laws and Legal Liability in Aviation Disasters: A Financial Market Perspective presented in the Financial Management Association 2008 in Dallas, Texas.

Disclosure Regulation and IPO Underpricing: An International Analysis, presented in the Financial Management Association 2008 in Dallas, Texas.

Idiosyncratic Volatility and Stock Returns: A Cross Country Analysis presented in the Financial Management Association 2008 in Dallas, Texas.

The Relationship between Corporate Board of Directors and IPO Performance presented at Strategic Management Society, 27th Annual International Conference in San Diego, October15th, 2007.

Retained wealth and family firm IPO

- Loyola Marymount University, Los Angeles in September 8th, 2007.
- International Family Enterprise Research Academy Conference, European Business School, Germany in June 21st, 2007.

The Relationship between Corporate Board of Directors and IPO Performance presented at CGI Research Roundtable in SDSU, April 27th, 2007.

On the Stock Markets Reaction to Major Railroad Accidents: An Empirical Analysis presented at Financial Management Association 2006, Utah.

- Global Equity and Debt Market Responses to Sovereign Credit Ratings Announcements presented at Financial Management Association 2006, Utah.
- Are IPO Auctions Celebrating a Comeback: U.S. Evidence presented at Financial Management Association 2006, Utah.
- You Get What You Pay For: How Employee Stock Options and Executive Equity Ownership Enhance Long Term IPO Performance presented at Financial Management Association 2005, Chicago.
- Biotech IPO Valuation: R&D, Human Capital Quality, and Underwriter Education presented at Financial Management Association 2005, Chicago.
- Do insiders Know When Disaster Strikes? A Detailed Look at the Trading Patterns of Corporate Insiders Prior to Litigation Announcements presented at Financial Management Association 2005, Chicago.
- Stock Option and Long Term IPO Performance presented at Babson College Entrepreneurship Research Conference 2005, Babson Park.
- IPO Misvaluation, Flipping, and Long Term Performance presented at Babson College Entrepreneurship Research Conference 2005, Babson Park.
- IPO Pricing, Flipping and Long-Term Performance presented at
 - European Finance Management Association 2004, Basel, Switzerland.
 - Financial Management Association 2004, New Orleans.
- The Valuation Effect and Determinants of Corporate Contracting presented at Financial Management Association 2004, New Orleans.
- The Determinants and Impact of Government Contract Award on the Market Value of the Winning Firms presented at Financial Management Association 2004, New Orleans.
- Expensing Executive Stock Options and Firm Performance presented at Financial Management Association 2004, New Orleans.
- IPO Misvaluation, Flipping and Long-Term Performance presented at Midwest Finance Association 2003, St. Louis.
- The Valuations of High-tech and Non-high-tech IPOs: How are they different? at Midwest Finance Association 2003, St. Louis.