KANGYING ZHOU

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ACADEMIC APPOINTMENTS

Assistant Professor of Finance, Texas A&M University Mays Business School, 2025–present

EDUCATION

Ph.D. in Financial Economics, Yale University, 2019–2025

M.S. in Financial Mathematics, The University of Chicago, 2016–2017

B.S. in Economics, Huazhong University of Science and Technology, 2012–2016

RESEARCH INTERESTS

Empirical Asset Pricing, Behavioral Finance, Machine Learning, Natural Language Processing

PUBLICATIONS

The Virtue of Complexity in Return Prediction
with Bryan Kelly and Semyon Malamud
The Journal of Finance 79, no. 1 (2024): 459-503.

Much of the extant literature predicts market returns with "simple" models that use only a few parameters. Contrary to conventional wisdom, we theoretically prove that simple models severely understate return predictability compared to "complex" models in which the number of parameters *exceeds* the number of observations. We empirically document the virtue of complexity in US equity market return prediction. Our findings establish the rationale for modeling expected returns through machine learning.

WORKING PAPERS

The Macro Alibi: Subjective Risk Attribution in Analyst Scenarios
with Chen Wang

Sell-side analysts over-attribute a stock's downside risk to macroeconomic forces, near-unconditionally. We document this *Macro Bear Bias* in scenario-based valuation reports: bear-case narratives overemphasize aggregate macro risk relative to base- or bull-case narratives, even though realized CAPM R^2 is similar across bear, base, and bull outcomes conditional on the same market state. The bear–base macro-attention gap predicts systematic pessimism in subsequent base-case forecasts, and portfolios formed on a nonlinear bias-adjusted signal earn monthly CAPM alphas of up to 1.9%. Mechanism tests favor a cognitive availability-heuristic explanation—analysts anchor downside narratives on salient macro-crisis templates—over a strategic career-concerns explanation. Narrative templates analysts use to rationalize risk can distort analysts' numerical forecasts and asset prices.

Professional Investors and Media Topics

I investigate the impact of media topics on the portfolio strategies of active equity mutual funds. Using 1.5 million *Wall Street Journal* articles from 1984 to 2023, I use ChatGPT to distill media news into 59 distinct topics, and quantify each topic's time-varying share of news attention and sentiment. I then define a fund as having exposure to a topic if it overweights stocks expected to perform well when the topic grows in importance, and hence attention. I find that the topics that fund managers choose to have high exposure to are high-sentiment topics, but not those with high attention. This strategy leads to mutual fund underperformance but attracts investor flows. Topic-oriented strategies account for a large fraction, specifically 37%, of mutual fund tilts, and are a key driver of the underperformance associated with active tilts.

The Virtue of Complexity Everywhere
with Bryan Kelly and Semyon Malamud

We investigate the performance of *non-linear* return prediction models in the high complexity regime, i.e., when the number of model parameters exceeds the number of observations. We document a "virtue of complexity": Return prediction R^2 and optimal portfolio Sharpe ratio generally increase with model parameterization in all asset classes that we study (US equities, international equities, bonds, commodities, currencies, and interest rates). The virtue of complexity is present even in extremely data-scarce environments, e.g., for predictive models with less than twenty observations and tens of thousands of predictors. The empirical association between model complexity and out-of-sample model performance exhibits a striking consistency with theoretical predictions.

Robust Prediction after Structural Breaks

I propose a new modeling approach for time series prediction after structural breaks. The method incorporates a time trend variable into non-linear predictive models to effectively handle coefficient variations over time. By optimizing the bias-variance tradeoff, this approach significantly improves prediction accuracy and optimal portfolio Sharpe ratio compared to both linear and non-linear standard models. I construct Monte Carlo simulations to examine the finite sample performance of the proposed procedures. Empirically, the paper demonstrates improved prediction performance for U.S. equity market returns. These findings establish the robustness of machine learning predictions in the presence of structural breaks.

TEACHING EXPERIENCE

Instructor for Financial Modeling, Undergraduate and Master's level, Texas A&M University, 2026

TA for Financial Econometrics and Machine Learning, Master's level, Yale University, 2022–2023

Instructor: Professor Bryan Kelly

TA for Empirical Asset Pricing, Ph.D. Level, Yale University, 2021
Instructor: Professor Bryan Kelly

AWARDS

CIRF Lindner College of Business Research Excellence Award, 2022

Best Paper Award, Hong Kong Conference for Fintech, AI, and Big Data in Business, 2022

Bates-White Best Paper Award (Runner-up), SoFiE annual meeting, 2022

Stanford Institute for Theoretical Economics (SITE) Travel Grant, 2022

Wolfe Annual Global Quantitative and Macro Investment Conference Travel Grant, 2022

Adam Smith Workshop Travel Grant, 2022

Yale Graduate Fellowship, 2019–2024

PRESENTATIONS

2026 Bayes Junior Asset Management and Asset Pricing Workshop, The Oxford-Man Institute (OMI) Machine Learning in Quantitative Finance Conference, The China International Conference in Finance (CICF), INFORMS Annual Meeting

2025 FMA Annual Meeting at Vancouver, Yale SOM, University of Wisconsin-Madison WSB, Texas A&M University Mays, Cornell SC Johnson, Rotman, Imperial Business School, INSEAD, University of Illinois Urbana-Champaign Gies

2024 Yale SOM

2023 AEA Annual Meeting at New Orleans, Deep Learning for Solving and Estimating Dynamic Models (DSE) at Lausanne, Yale SOM, Hong Kong University of Technology

2022 Stanford Institute for Theoretical Economics (SITE) on "New Frontiers in Asset Pricing", SFS Cavalcade at University of North Carolina, WOLFE Annual Global Quantitative and Macro Investment Conference, China International Risk Forum (CIRF), Hong Kong Conference for Fintech, AI, and Big Data in Business, Research Symposium on Finance and Economics (RSFE), EPFL, Yale SOM

2021 Yale SOM

SERVICE

Discussions

2025 *Machine Learning Mutual Fund Flows* (Fausch, Frigg, Ruenzi, and Weigert) at 2025 FMA Annual Meeting

Feeling My Friend's Pain: Social Connections and Mutual Fund ES Voting (Ren) at 2025 FMA Annual Meeting

2022 *Does the Mad Money Show cause investors to go madly attentive?* (Kryzanowski and Rouhghalandari) at Research Symposium on Finance and Economics (RSFE)

E-commerce Livestream, Social Interaction, and Equity Returns (Chang and Cong) at CIRF

Referee

Management Science

U.S. National Science Foundation (NSF)

Journal of Banking and Finance

Emerging Markets Review

Finance Research Letters

Review of Asset Pricing Studies

WORKSHOP PARTICIPATION

2023 Deep Learning for Solving and Estimating Dynamic Models (DSE) Summer School

Ken Singleton Celebration at Stanford Graduate School of Business

2022 Adam Smith Asset Pricing Conference at INSEAD

Macro Finance Society Virtual Summer School

2021 NBER Entrepreneurship Research Boot Camp

NBER Economics of Artificial Intelligence (AI) Conference

2020 Princeton Financial Economics of Insurance Workshop

OTHER EMPLOYMENT

Bloomberg LP
Data Scientist in Chief Technology Office, 2019

Sheffield Asset Management, L.L.C.
Quantitative Analyst, 2018

The University of Chicago Booth School of Business
Research Assistant for Professor Dacheng Xiu, 2017-2019

REFERENCES

Nicholas C. Barberis (co-Chair)
Stephen and Camille Schramm
Professor of Finance
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Bryan T. Kelly (co-Chair)
Frederick Frank '54 and Mary C. Tanner
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