

Mo WANG

ESSEC Business School
Department: Finance
Email: mo.wang@essec.edu
Date of Birth: 1996/02/14



Research Interest

Empirical Asset Pricing, Machine Learning, Large Language Models

Education

2019-present	ESSEC Business School, France PhD in Finance
2021-2022	School of Management, Fudan University, China Visiting Scholar
2018-2020	University of Liverpool, UK MSc in Financial Mathematics (with Distinction)
2014-2018	University of Liverpool, UK BSc in Economics and Finance (with First Class)

Working Paper

Expected Option Returns and Large Language Models (Solo-Authored, Job Market Paper)

Abstract: I employ Large Language Models (LLMs), including BERT and an OpenAI model, to extract information from news articles and predict option returns. LLM-based news portfolios achieve annualized Sharpe ratios of up to 3.15 and outperform those constructed using other methods. Commonly used observable and latent factors in the stock and options markets do not explain the returns of these news portfolios. Firm-specific and pharmaceutical-related news play important roles in predicting option returns. These portfolios perform better for firms with high R&D expenditures or high stock volatility.

Option Mispricing and Alpha Portfolios (with Andras Fulop and Junye Li)

Reject & Resubmit in *Journal of Financial Economics*
Best Paper Award, 2023 Paris December Finance Meeting

Abstract: Employing a latent factor model that incorporates the time-varying dependence of systematic risk and mispricing on firm and option characteristics, we reveal economically substantial mispricing in the options market. The option alpha portfolio, constructed from individual option mispricing associated with these characteristics, yields an out-of-sample annualized Sharpe ratio of 2.70 for call options and 2.77 for put options. Commonly used observable and latent factors in both the stock and options markets fail to explain the returns of the option alpha portfolio. Risk-neutral moments, stock and option liquidity, and their interactions largely contribute to option mispricing.

Mispricing and Arbitrage Portfolios in China (with Jiawei Hong, Junye Li and Chuyu Wang)

Abstract: Relying on a latent factor model that accommodates evident structural changes and time-varying dependence of mispricing on firm characteristics, we reveal economically substantial mispricing in the Chinese stock market. For the reasonable number of latent factors equal to 4, the arbitrage portfolio constructed from estimated mispricing can earn an out-of-sample annualized Sharpe ratio of 1.79, which cannot be explained by common factor models constructed for the Chinese stock market. We find that size and book-to-market consistently contribute to both mispricing and systematic risk over time. Mispricing is

much more severe in non-state-owned, high-subsidy, and small stocks than in state-owned, low-subsidy, and large stocks. We show that mispricing in China is more severe than and has low correlation with that in the US.

Conference and Workshop Participation

2024	SoFiE Financial Econometrics Summer School 2024, China (Presenter)
2024	The 17 th Financial Risks International Forum, France (Presenter)
2023	The 21 st Paris December Finance Meeting, France (Presenter & Discussant)
2023	Financial Econometrics meets Machine Learning 2023, Netherland (Presenter)
2023	The 5 th Quantitative Finance and Financial Econometrics, France (Presenter)
2023	The 6 th Asset Pricing Breakfast, France (Presenter)
2023	ESSEC Student Research Seminar, France (Presenter)
2022	SoFiE Financial Econometrics Summer School 2022, China
2022	The 19 th Chinese Finance Annual Meeting, China (Presenter)

Honors and Awards

2023	The 21 st Paris December Finance Meeting Best Paper Award (1,500 euros)
2023	ESSEC-Amundi PhD Scholarship, France (15,000 euros)
2019-present	PhD Scholarship, ESSEC Business School, France
2019	Undergraduate Award for Econ. Division, XJTU, China
2018	University Academic Excellence Award, XJTU, China

Teaching

2023	Lecturer, Finance 2 (Undergraduate), ESSEC Business School (Evaluation: 4.01/5 and 3.94/5)
------	---

Skills

Language	Chinese (Native), English (Fluent)
Programming	SAS, Python, Matlab, Stata

References

Andras Fulop (Supervisor)

Professor of Finance
ESSEC Business School
Paris, France
fulop@essec.edu

Junye Li (Supervisor)

Li Dasan Chair Professor of Finance
School of Management, Fudan University
Shanghai, China
li_junye@fudan.edu.cn

Dacheng Xiu

Professor of Econometrics and Statistics
Booth School of Business, University of Chicago
Chicago, US
dacheng.xiu@chicagobooth.edu