Weifang Zhang

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Education

Southwestern University of Finance and Economics(SWUFE), Chengdu, China   **Sep.2018–Jun.2022**
Bachelor of Economics, School of Statistics, Major in Economic Statistics
- **GPA:** 3.91/5.00 **Rank:** 2/122
- **Economics Courses**: Microeconomics, Macroeconomics, Monetary Finance, Corporate Finance, Investments, Accounting, Financial Risk Management, Econometrics, Financial Statistics Analysis
- **Math and Statistics Courses**: Mathematical Analysis, Advanced Algebra, Probability, Mathematical Statistics, Time Series Analysis, Stochastic Process, Multivariate Statistical Analysis
- **CS Courses**: Statistical Programming (R), Data Mining and Application (Python)

Renmin University of China(RUC), Beijing, China   **Sep.2022–Jun.2024(Expected)**
Master of Economics, School of Statistics, Major in Applied Statistics
- **GPA:** 3.91/4.00
- **CS Courses**: Machine Learning, Data Mining, Database System, Distributed Computing

Publications

* indicates corresponding author
- Wu Liang and **Weifang Zhang***, *Co-movement between RMB and Bitcoin with effects of DCEP using wavelet coherence analysis*, accepted by Fluctuation and Noise Letters (FNL) 2023.

Research Experience

Co-movement between RMB and Bitcoin with effects of DCEP   **Apr.2021–Oct.2021**
Member, advised by Associate Professor Liang Wu, School of Statistics, SWUFE
- Focus on the co-movement (correlation of fluctuations and phase differences) between Bitcoin and RMB and try to find the capital flows between them which are important for capital supervision.
- Results show that the RMB exchange rate leads the price of Bitcoin in all significant co-movement areas. The Sino-US trade frictions and US dollar interest rate hikes can cause a long-term negative co-movement led by RMB, which may reflect capital flows from RMB to Bitcoin. Moreover, the DCEP trial event may strengthen the positive co-movement between them.

Portfolio Optimization with Tail Quantile Clustering (In preparation)   **Mar.2023–present**
Member, advised by Assistant Professor Xing Yan, Institute of Statistics and Big Data, RUC
- In the stock market, there are many stocks exhibiting similar tail characteristics. This study investigates whether clustering these stocks with similar tail risk and then optimizing them further can enhance portfolio performance.
- We employ tail quantile clustering based on profit and loss (PnL) strategy distributions, grouping stocks with similar tail features together and conducting dual optimization within and between clusters. At each investment date, we simulate new samples from an AR(1)-GARCH(1,1) model with incorporated factor structure. These simulated samples are then utilized for subsequent CVaR portfolio optimization, creating a dynamic investment strategy. The numerical experiments using stock data demonstrate that the clustered model can achieve more prudent investments, resulting in higher risk-adjusted returns and lower tail risk.

Hornors and Awards

College Scholarship ×2 (Top 2%), SWUFE	2018-2020
Sichuan Province Third Prize in Chinese Mathematics Competitions(CMC)	2020
Meritorious Winner in Mathematical Contest in Modeling (Top 7%)	2021
National Encouragement scholarship, SWUFE (Top 10%)	2020
Merit Student of SWUFE (Top 10%)	2020
Gratitude to Chinese Modern Scientists Scholarship, SWUFE (Top 1%)	2020
Outstanding Graduates of SWUFE	2022

Language/Skills/Others

Language: IELTS 6.5 (6.0); GRE 316 (V149+Q167+AW3.0)
Skills: MATLAB, Python, R, SQL, LATEX, Linux/Unix
Qualifications: CFA level II candidate