Xinyu Wang

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Education Background

- **Huazhong University of Science and Technology** — Wuhan, China
  Ph.D. Candidate *Econometrics; Supervisor: Prof. Shaoping Wang* — *Sep 2021 - present*
- **Nanyang Technological University** — Singapore
  Visiting Ph.D. Student — *Jan 2024 - Jan 2025*
- **Huazhong University of Science and Technology** — Wuhan, China
  M.Phi. *Finance* — *Sep 2018 - Jun 2021*
- **Central China Normal University** — Wuhan, China
  B.Ec. *Financial Engineering* — *Sep 2014 - Jun 2018*
  Get a Postgraduate Recommendation; Top 4 out of 54

Publications

- **Wang Xinyu**, Huang Zaixin*. The Estimation and Backtesting of Expected Shortfall Based on SGT Distribution with Application to Chinese Stock Markets[J]. Journal of Applied Statistics and Management (in Chinese), 2020, 39(02): 341 - 353.

Papers in Progress

- The Extreme Risk Spillover Effect from the Real Estate Industry to the Real Industries based on the EGARCH-SGT-Dynamic Copula-CoVaR Model, with Huang Zaixin, Tong Yu.
- The contagion and determinants of the Chinese stock market bubble, with Feng Hao, Wang Shaoping.

Working papers

- **The Applicability of Prominent Factor Models in the Evolving Chinese Stock Market**, *with Wang Shaoping, Feng Hao.*
  This study conducted a comprehensive evaluation of prominent factor models within the Chinese A-shares market by assessing their applicability under evolving market conditions. Employing a modified version of backward sup Dickey-Fuller method by Phillips et al. (2015) alongside the Augmented Dickey-Fuller test on Generalized Least Squares-detrended data by Elliott et al. (1996), we identified distinct market phases over the past decade, including bubble periods, random walk phases, and a stationary ARCH period with significant downward trend. Furthermore, the wild-bootstrap GRS test was used to evaluate the applicability of leading pricing factor models across these conditions. Our findings are threefold. First, the behavioral factor model by Daniel et al. (2020) consistently outperformed other models during bubble periods. This implies that explosive pricing behaviors and the significant proportion of retail investors work in tandem, exacerbating the mispricing due to overconfidence and limited attention. Second, the q-factor model by Hou et al. (2015) demonstrated superior performance in efficient market. It supports the redundancy of the value factor and underscores the well-documented absence of momentum effects in the Chinese stock market, and highlights the relevance of firms' future growth potential in pricing mechanisms. Lastly, our empirical evidence suggested that all these prevalent asset pricing models struggled to capture the market dynamics during the stationary ARCH phase with a significant market decline, indicating substantial distortions in market pricing mechanisms due to the sustained economic downturn.

- **Portfolio Efficiency Test under Non-normality and Conditional Heteroskedasticity**, *with Wang Shaoping, Peng Bin.*
  This paper develops a novel test statistic based on the GRS test and examines its limiting distribution under a non-normal, globally stationary, conditionally heteroskedastic process. To improve finite sample performance, we introduce a wild-bootstrap algorithm, demonstrating that the wild-bootstrap statistic replicates the first-order asymptotic null distribution of the proposed statistic. Numerical results show that the wild-bootstrap test significantly outperforms both the standard GRS test and the newly proposed test in small samples, across various scenarios involving conditional heteroskedasticity and non-normality. We apply these tests to evaluate the Fama-French factor models' effectiveness in explaining excess returns in the U.S. stock market.

- **The Dual Role of Sentiment on Housing Prices in China**, *with Fang Zhuangzhi, Wang Zhenxin.*
  This research investigated the potential role of sentiment on housing prices in China from 2013 to 2022, with highlighting the underexplored liquidity channel. We constructed a housing sentiment index by analyzing over 2.44 million social media posts using the Bidirectional Encoder Representations from Transformers (BERT) technique, recognized for its advanced capability in processing natural language. With a Time-Varying Coefficient Vector Autoregression (TVC-VAR) model, we estimated the time-varying impulse response of housing prices to sentiment and liquidity shocks, as well as the response of liquidity to sentiment shocks. Our findings revealed that positive public sentiment not only directly pushes housing prices upwards but also indirectly inflates them through an enhanced liquidity, a byproduct of optimism. Notably, the dual role of sentiment becomes more pronounced during the periods with high uncertainty, such as COVID-19 epidemic period. Moreover, our conclusions survived a battery of robustness checks. The results underscore the importance of integrating psychological factors and market dynamics to understand the complexities of real estate markets, particularly in turbulent times.

Teaching Assistant

- **Advanced Econometrics for Postgraduates** Autumn 2022-2023
  Prof. Shaoping Wang *School of Economics, Huazhong University of Science and Technology*

Invited Talks

- **Jingshi Learning Centre - The Dual Role of Sentiment on Housing Prices in China** Jun 2021
  Department of Finance, Central China Normal University *Wuhan, China*

Academic Conferences

- **The Theory and Application of Big Data Econometrics Symposium** Nov 2023
  Presenter *Wuhan University*
- **Annual Academic Conference for Economics Postgraduates** May 2021
  Presenter; Win the Best Paper Award *Huazhong University of Science and Technology*

Skills

- **Languages**: Chinese (Native); English (Fluent; TOEFL: 103; GMAT: 690+IR8+AWA5); Korean (Basic)
- **Programming**: R; Matlab; Python; Latex; STATA; SPSS

Main Honors and Awards

- Awarded the Chinese Government Scholarship of visiting Ph.D. student, Nanyang Technological University, 2023.
- Doctoral Scholarship, Huazhong University of Science and Technology, 2021-2023.
- Best papers awarded at the Seventh Annual Academic Conference for Economics Postgraduates, 2021.
- Outstanding Undergraduate Student, Central China Normal University, 2018.
- Best Undergraduate Thesis, Central China Normal University, 2018.
- Merit Student, Central China Normal University, 2016.
- National Third Prize in National English Competition for College Students, 2016.
- Merit Scholarship, Central China Normal University, 2016.

Services

- **Anonymous Referee**:
  Emerging Markets and Finance and Trade, Economic Analysis and Policy, Singapore Economic Review