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Tiange Wen

Education

2019–2021 **Master, Financial Engineering**, *Nankai University (985)*, Tianjin City, P.R. China.
Graduation expected in June 2022

Score 88.69/100

Courses Financial Economics (99), Topics of the Securities Investment and Financial Market (98)

2015–2019 **Bachelor, Financial Management (Financial Engineering)**, *Hunan University (985)*, Hunan Province, P.R. China.

GPA 4.15/4.5

Rank 4/67 (top 10%)

Courses Operation Research (92), Ordinary Differential Equation (100), Stochastic Process (96), Optimization Theory and Method (91), Partial Differential Equation (97), Real Variable Function and Functional Analysis (97), Probability theory (98), Mathematical Statistics (98), Applied Statistics (97), Programming Practice (C and C^{++} Programming, 92), Data Structure and Algorithm (Theory, 98), Financial Computational Experiment (Excel VBA and Matlab, 91), Financial Econometrics (EViews, R and Matlab, 94), Computational Simulation and Modeling (Anylogic, 96)

English Language Proficiency

TOEFL Reading(28) + Listening(27) + Speaking(19) + Writing(24)

GRE Verbal(158) + Quantitative(169) + Analytical Writing(3.5)

Technical Experience

Programming C, C^{++}, Matlab, R, Python, Stata, EViews

Others Anylogic (Simulation and Modeling), Pajek (Network Visualization), Gephi (Network Visualization), LaTeX (Typesetting)

Research Experience

2018–2020 **Financial Networks and Systematic Risk**, *Hunan University*, Bachelor.

Developed both static and dynamic volatility connectedness measures of global foreign exchange (forex) markets based on LASSO-VAR approaches in the variance decomposition framework.
Constructed high dimensional volatility connectedness network linking 65 major currencies and explored factors driving risk contagion between forex markets by analyzing properties of the complex networks.
Collected data, calculated the volatility spillover index, enabled the network visualization, completed and revised the manuscript which has been published by *Journal of Multinational Financial Management* (cited by SSCI, IF = 3.945).

2020–present **Portfolio Optimization based on Multilayer Spillover Network**, *Nankai University*, Master.
Proposed portfolio optimization methods based on the dynamic multilayer spillover network topology.
Evaluated portfolio performances regarding Sharpe ratio, Carhart alpha, turnover, cumulative return, and etc.
Make investment suggestions on which assets and industries are worth investing.
Now I've finished the empirical experiments and am about to finish the paper writing.

2021–present **Analysis of Machine Learning Fairness in Bank Credit Risk Detection**, *Summer Research Intern*.
I am working on the empirical experiments now.

Publications

Wen, T., Wang, G.J.*, 2020. Volatility connectedness in global foreign exchange markets. *Journal of Multinational Financial Management*, 100617.
DOI: 10.1016/j.mulfin.2020.100617

Undergraduate thesis

Title *Research on volatility connectedness in global forex markets based on LASSO-VAR models*

Supervisor Pr G.-J., Wang

Final Score 92/100

Abstract LASSO-VAR models are constructed to measure static and dynamic volatility connectedness using exchange rates of 42 currencies from 4 January 1999 to 15 February 2019. According to static analysis on full sample, directional volatility connectedness is mostly driven by forex turnover, trade relations, and exchange rate systems. Besides, the network of global forex markets volatility connectedness has a strong geographic component, meaning higher connectedness in country neighborhoods. Total volatility connectedness in global forex markets shows an obvious rise trend during periods of crisis. US dollars and Euros are major sources of volatility in global forex markets, while currencies with lower trading volumes are receivers of volatility.

Honors

Contests "FLTRP Cup" English Reading Contest (Second Prize), Hunan University Mathematical Modelling Contest (Third Prize)

Scholarships Offered Hunan University Scholarships (2017, 2018)