SILIANG WEI

Mobile: +447419780094   Email: siliang.wei@manchester.ac.uk
Personal Website: https://wyattswei.github.io/

Education:

The University of Manchester   09/2020-present
PhD in Finance (Supervised by Prof. Ser-Huang Poon and Dr. Yoichi Otsubo)
The University of Manchester   09/2018-11/2019
MSc in Quantitative Finance   Distinction
Shandong University   09/2014-06/2018
BA in Economics (Finance)   GPA: 85.81

Research Interests:

Empirical Asset Pricing, ESG (Corporate Social Responsibility), Machine Learning, Natural Language Processing, Behavioural Finance.

Job Market Paper:

Intensity Bursts in WallStreetBets Discussion and Stock Markets Trading (with Yoichi Otsubo and Ser-Huang Poon)

- Abstract: This study examines the impact of social media activity on stock market dynamics, focusing on upsurges (intensity bursts, IBs) in Reddit's WallStreetBets (WSB) submissions. By analysing trading turnover, returns, and short-selling activities, we reveal that IBs lead to significant increases in trading turnover and stock returns, with discussions inside regular trading hours (RTH) having a more pronounced impact than the ones outside RTH. Conversely, we find that high levels of short-selling pressure prior to IB events, suggesting complex dynamics associated with short selling. Our findings highlight the crucial role of social media discussion timing in influencing market movements, contributing to the understanding of social finance dynamics.
- Presentations (*by co-author): Financial Econometrics Conference to mark Stephen Taylor's Retirement, Sofia University*, 2023 Nippon Finance Association Annual Conference*, 12th International Conference of the Financial Engineering and Banking Society (FEBS), 2024 British Accounting and Finance Association (BAFA) Annual Conference

Publication:

Vocabulary Herfindahl Index (Vocahin): Linguistic Dominance and Collective Effervescence in Wallstreetbets (with Ko Hayakawa, Yoichi Otsubo and Ser-Huang Poon), Economics Letters, Forthcoming

- Abstract: Analysis of over 150,000 WallStreetBets comments identifies dominant phrases during Collective Effervescence (CE), a state where individuals experience collective excitements and solidarity. With our proposed Vocabulary Herfindahl Index (VocaHIn), measuring the prevalence of specific phrases, we find an upsurge in stock returns volatility following CE and similarly, CE tends to intensify after experiencing a volatile market.
- Accepted by Economics Letters

Work in Progress:

LLM and Transparency in Supply Chains (with Ser-Huang Poon)

- In this paper, we apply a state-of-art Large Language Model to evaluate Social reports related to business supply chains. We also explore a number of factors that are crucial for evaluating corporate disclosure quality.
- Presentations: 2022 British Academy of Management (BAM)

User Patterns in Financial Social Media (with Yoichi Otsubo and Ser-Huang Poon)

- In this paper, we implement Prompt Engineering, the process of structuring an instruction that can be interpreted and understood by a generative AI model, in specific financial social media text data. We also find an intriguing behavioural pattern that shows how the users on financial social media interact with each other.

Teaching Experience:

Teaching assistant

Financial Derivatives (UG)   2021-2024
o   Received 2022 AMBS Teaching Excellence with 4.9/5
Interest Rate Derivatives (PGT)   2021-2022

Key Achievements:

2023 AFA PhD Student Travel Grant.   09/2022
Alliance MBS PhD Studentship.   09/2020
Represented the dissertation group to present the work in Santander, London.   07/2019
Excellent Graduation Thesis for Undergraduate.   06/2018
Third Prize Scholarship for Outstanding Students.   09/2017

Professional Experience:

Quant Assistant, Everbright Securities   05/2020-09/2020
- Researched on stock index options volatility strategies (including applying Gurobi as the optimisation tool).
- Backtested R-Breaker strategy in the Chinese index futures market and constructed an automatisation connection between the strategy and the programming trading system.
- Assisted to build sentiment factor in the Chinese stock market by applying BERT from Google.
- Implemented Factor Mimicking Portfolio from BlackRock on economic growing risk and inflation risk

Intern, East Area Management Dept., Ping An Medical Technology of Ping An Insurance   01/2018-02/2018
Company of China, Head Office
- Organised and updated the information of business opportunities and projects from eight branch offices.

Intern, Risk Management Dept., Zhejiang Chouzhou Commercial Bank, Shanghai Branch   01/2017-02/2017
- Data update in the post loan management system.
- In charge of the routine examinations and approvals of loans.

Skills:

- Python, Matlab, Stata, R, C++, HTML, Latex, SPSS, Eviews
- Machine learning, Natural language processing, Deep learning

Languages:

- English (Advanced), Mandarin (Native), German (Beginner)

Other Studies (selected):

- Built up a web portal for labelling text data by Python and Flask.
- Gave internal presentations and held workshops to explain machine learning and neural network to colleagues from different background.
- Master Dissertation: Implemented artificial neural network (FNN, RNN and LSTM) to predict stock realised volatility.
- Experienced with a large range of Machine Learning models including k-nearest neighbour (KNN), RBF kernel SVM, VGG net, etc.
- Simulated stock price paths under the physical and the risk-neutral probability measure to price derivatives and compared the results with those produced by the Black-Scholes formula.
- Calibrated the Hull-White one factor model to the caplet prices.
- Applied Z-Score, O-Score and KMV-Merton in Matlab to estimate company's default probability.

Extracurricular Activities:

Lab Assistant   10/2016-06/2018
Assistant Instructor for freshmen   09/2015-10/2015
Cadre of Sports Department   09/2014-07/2015

Contact of Referees:

Dr. Ser-Huang Poon	Dr. Yoichi Otsubo	Dr. Eirini Konstantinidi
Professor in Finance	Associate Professor in Finance	Lecturer in Finance
University of Manchester	Kobe University	University of Manchester
ser-huang.poon@manchester.ac.uk	otsubo@econ.kobe-u.ac.jp	eirini.konstantinidi@manchester.ac.uk