Yuxin (Vivian) ZHOU

2nd Year Ph.D. Candidate in Quantitative Finance

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Affliated to: AIM Quant Center, emlyon business school | Coactis, Université Lyon II

EDUCATION

UNIVERSITE DE LYON & EMLYON BUSINESS SCHOOL **Sep 2022 - Present**

Ph.D. in Economics (Major in Sustainable and Quantitative Finance)

- Ph.D. Thesis: *Sustainability and Commodity Asset Pricing*
- Under the Supervision of Pr. Guillaume COQUERET
- Main Courses: Economics and Management of Organizations (by Pr. Brice CORGNET); Applied Econometrics (by Pr. Florence GOFFETTE-NAGOT); Qualitative Research Design (by Pr. Emmanuel JOSSERAND)
- Pedagogical Teaching: Intro to Business Statistics; Financial Risk Management; Advanced Quantitative Portfolio Management at emlyon Business School; Data Analytics and Visualization for Finance at IÉSEG Business School

CA' FOSCARI UNIVERSITY OF VENICE **Oct 2021 - Dec 2022**

Master II - International Master in Economics and Finance

- Head: Pr. Roberto CASARIN
- Master Thesis: *Systemic Risk during COVID-19: an Analysis Based on Machine Learning and Sparse Principal Component Methods*
- Main Courses: Advanced Financial Econometrics (8.7/10, by Pr. Yacine AIT-SAHALIA and Pr. Alain MONFORT); Econometrics (10/10, by Pr. Massimiliano CAPORIN); Real Estate (by Pr. Walter TOROUS); Corporate Finance (10/10, by Pr. Alberto PLAZZI); Stochastic Process (10/10, by Pr. Martina NARDON)
- **GPA: 15.5/20** (23.3/30)

EMLYON BUSINESS SCHOOL **Sep 2019 - Jul 2021**

M.Sc. in Finance (Major in Quantitative Finance)

- Head: Pr. Eric ANDRE
- Master Thesis: *Volatility Management Strategy in China: Effective or Not?*
- Main Courses: Statistics (19.1/20); Advanced Fixed Income (19/20); Data Analytics: 17.2/20; Advanced Quantitative Portfolio Management: 16.3/20; Advanced Derivatives: 16/20; Risk Management: 15/20
- **GPA: 15.3/20**

FUDAN UNIVERSITY (QS: World 34th) **Sep 2019 - Jul 2021**

M.Sc. in Finance (Major in Quantitative Finance)

- Head: Pr. Jun ZHANG
- Joint Program with emlyon business school
- Main Courses: Statistics (4/4); Financial Market (4/4); Financial Policies (4/4); Investment (3.7/4); Portfolio Management (3.7/4)
- **GPA: 16.0/20**

XIAMEN UNIVERSITY **Sep 2015 - Jun 2019**

Bachelor of Management (Major in Financial Management)

- Head: Pr. Yuhui WU
- Main Courses: Probability and Statistics (4/4); Principles of Financial Management (4/4); Capital Budgeting (4/4); Macroeconomics (4/4); Quantitative Finance and R Coding (4/4); Intro to Accounting (4/4)
- **GPA: 17.0/20**

EXTRA EDUCATION

VRIJE UNIVERSITEIT   **July 2024**

Summer School - Statistical Methods for Causal Inference

- Main Courses: Panel Data Models; Differences-in-Differences; RCTs and Matching

HARVARD BUSINESS SCHOOL   **Feb 2024 - Apr 2024**

Global Doctoral Course - Financial Economics of Climate and Sustainability

- Main Courses: Climate, Sustainability, Economic and Finance Theory; Climate and Asset Pricing; Climate and Corporate Finance

LUDWIG-MAXIMILIANS-UNIVERSITAT MUNCHEN   **July 2023 - Aug 2023**

Summer School - Machine Learning and Data Analytics

- Main Courses: Intro to Python; Machine Learning; Data Analytics
- **Grade: 1.0** (The Best Tier in Germany)

ACADEMIC PROJECTS

Sustainable Commodity Factors and Green Diversification Benefits

(with Pr. Guillaume COQUERET and Pr. Bertrand TAVIN)

- Available at SSRN: http://dx.doi.org/10.2139/ssrn.4698258
- This research quantifies metal and agricultural commodities' sustainability and crafts a commodity factor based on each product's *green* performance. We consider 3 cohorts of the factor: GreenHouse Gas (GHG) emission, water consumption throughout their production process and contribution to energy transition (considered only when the metal family is involved). 21 metal and 20 agricultural products are considered. Based on their GHG and water intensities over their prices, these commodities are grouped into *green* and *brown* according to the dimensions above. The Green-minus-Brown portfolio's return and risk profile is investigated with prevalent commodity pricing multi-factor model. We also the diversification benefits of the green portfolios. According to our observation, correlation between green portfolio returns and bond or equity index is lower than that between bond and equity (which is highly correlated). Moreover, including a green commodity component reduces volatility. In our sample, given the average returns of the commodity factors, it also improves risk-adjusted performance.

Oil Shock, ESG Performance and Firm Value (Work-in-Progress)

(solo-author paper)

- This study examines the firm value variation during energy crises. Regarding ESG orientation is a must-take path to energy transition and fossil fuel exiting process, the role of ESG in this linkage is also measured. I hereafter apply the structural models in order to test the indirect impact that the oil price risk has on corporate value with ESG performance as a mediator. This potential effect provided by ESG score alteration will be further confirmed by a difference-in-difference analysis during several oil shocks in 2008, 2011, and recently 2022 with the heterogeneous treatment effect Sun-Abraham model.

ESG Disclosure and Firm Performance: A Sub-Industrial Research on Commodity Producers

- By focusing on commodity production companies, I investigate the relationship between ESG disclosure and firm performance. The list of those metal and agricultural commodity producers could be drawn from the GICS classification of commodities. As a more commodity-oriented study based on previous literature showing this impact in environmental-sensitive industries, firm value, profitability, growth and performance on the stock market will be compared from green and brown production group as defined in previous chapters.

REFEREES AND CONFERENCES

ACADEMIC REFEREE REPORTS

- **Computational Management Science** (AJG:1; *Scimago Q3 Business, Management and Accounting*);
- **European Journal of Operational Research** (AJG:4; *Scimago Q1 Management Science and Operations Research*)
- **Finance** (AJG:1; *Scimago Q4 Economics, Econometrics and Finance*)

CONFERENCES

- European Financial Management Association 2024 Annual Meeting, "Merton H. Miller" Doctoral Student Seminar (Accepted, Jun 2024, the thesis)
- Workshop EDSEG 2024 (Lyon, Apr 2024, 1 paper and 1 discussion)
- China Derivatives Youth Forum and China Financial Risk Managment Forum 2022 (Dec 2022, 1 paper)
- The 3rd Financial Economics Meeting (Paris, Jul 2022, 1 paper and 1 discussion)

TEACHING

CLASS TEACHING

- **Data Analytics and Visualization for Finance** (Fall 2024) for Master students at IESEG business school
- **Intro to Business Statistics** (Feb 2023 - Present) for *Grande Ecole* at emlyon business school
- **Financial Risk Management** (Jan 2023 - Feb 2023) for for *Grande Ecole* and *M.Sc.* at emlyon business school
- **Advanced Quantitative Portfolio Management** (June 2022 - July 2022) for *Grande Ecole* and *M.Sc.* at emlyon business school
- **Intro to Financial Markets Q&A Session** (Sep 2022 - Nov 2022) for *Grande Ecole* and *M.Sc.* at emlyon business school

MASTER THESIS FOLLOWED

- Jérémy Joseph Lachkar, (2023), *Pair Trading Strategies in a Cointegration Framework*, 45 pages, emlyon business school
- Ziqi Yu, (2022), *Climate Change Financial Risk Management*, 41 pages, emlyon business school

WORKING EXPERIENCES

- **Full-Time Fixed Income Analyst, Haitong Securities**, Shanghai, China, Jan 2021 - Oct 2021
- **Financial Analyst Intern, Guangfa Securities**, Shanghai, China, May 2020 - Sep 2020
- **Risk Manager Summer Intern, Bank of China**, Jiangxi, China, Jun 2018 - Aug 2018
- **Research Assistant** of Academic Project *Role of Media Report in Financial Markets Study* (awarded by the grant by National Natural Science Foundation of China, No. 71102061), Xiamen, China, Sep 2017 - Nov 2017

ADDITION

- **Programming Skills:**: Python; Matlab; R; Stata; LaTeX; Microsoft Suite
- **Financial Knowledge**: Bloomberg Terminal; Refinitiv; Wind; CSMAR
- **Languages**: Chinese Mandarin (Native); English (C1, Fluent - IELTS: 7.5); French (B1); Italian (A1)
- **Leisure**: Scuba Diving; Hiking; Ukulele