Application: Digital Economics and AI Tutorial

Kanying Xu

PhD Student in Finance

University of Vaasa
School of Accounting and Finance
Wolffintie 32
65200 Vaasa, Finland
kanying.xu@uwasa.fi | +358 41 7422869

Introduction

I am a **third-year** PhD student in Finance at the University of Vaasa, where I began my doctoral studies in 2024. My doctoral training is primarily conducted through the Graduate School of Finance (GSF), Finland's national doctoral program in finance, which offers advanced doctoral courses, research seminars, and workshops across its member universities. This training is further complemented by specialized doctoral-level courses offered through the Finnish Graduate School of Economics (GSE), the Nordic Finance Network (NFN), and Finland's Doctoral+ program. Together, these programs provide rigorous training in financial economics, econometrics, and quantitative methods, with courses taught by leading scholars from universities worldwide. Having completed two years of doctoral coursework, I have developed a strong foundation for conducting independent research in finance. Selected relevant courses are listed below.

Finance: Financial Economics; Theoretical Asset Pricing; Empirical Asset Pricing; Big Data Asset Pricing; Machine Learning for Asset Pricing; Theoretical Corporate Finance; Empirical Corporate Finance; Behavioral Finance; The Social Value of Financial Market Information; Machine Learning for Finance; AI and FinTech Research; Modeling Risky Financial Institutions.

Economics and Econometrics: Advanced Microeconomics I–II; Macroeconomics I–II; Industrial Organization; Labor Economics; Productivity and Efficiency Analysis; Advanced Econometrics I–III; Advanced Time Series Econometrics.

Mathematics, Statistics and Machine Learning: Real Analysis; Probability and Stochastic Processes; Stochastic Analysis; Mathematical Statistics; Bayesian Data Analysis; Convex Optimization; Dynamic Optimization; Machine Learning; Applied Machine Learning; Probabilistic Graphical Models; Network Analysis; Random Graphs and Network Statistics.

Research Interests and Working Papers

My research interests lie in asset pricing and information in financial markets. I currently have two solo-authored working papers, both of which I have presented at several international conferences. My thesis supervisors are Professor Vanja Piljak (University of Vaasa) and Professor Christian Schlag (Goethe University Frankfurt and Leibniz Institute for Financial Research SAFE).

Peer Composition and the Predictive Value of Aggregate Signals

Solo-authored working paper

Abstract: I show that the predictive value of aggregate peer signals depends on the composition of the peer set. To characterize this composition empirically, I construct Peer Information Dispersion (PID) from the distribution of analyst-linked peer exposure across industries. I document a non-monotonic pattern: peer signals are more informative about future profitability when peers are moderately dispersed across industries. This informativeness arises from aggregating individually weak but economically relevant signals beyond historical common components. At moderate dispersion, peer signals are associated with stronger short-term price responses, little evidence of subsequent return drift, and greater convergence in analyst beliefs.

Presentations: 2026 GSF PhD Summer Workshop; 3rd Frankfurt Summer School; Aarhus University; The Inter-Finance PhD Seminar 2026 Autum; CEPR Paris Symposium 2026 (poster, *scheduled*); FMA Asia/Pacific Conference 2026 (*scheduled*); 2026 Örebro Workshop on Macro- and Financial Econometrics (*scheduled*), CAFM 2026 (*scheduled*).

The Informativeness of Green Commitments across Bond Maturities

Solo-authored working paper

Abstract: I study how green commitments are reflected in corporate bond valuations across maturities. Using U.S. corporate bonds from 2005–2024, I find that credit spreads decline following commitments, with larger declines for short-maturity bonds than for long-maturity bonds. This maturity difference is greater among firms with higher pre-commitment carbon intensity. I also develop a signaling model in which commitments can reveal stronger operating capability and greater investment needs for future abatement. In the model, favorable operating information lowers spreads across maturities, while these investment needs can partly offset the decline for long-maturity bonds.

Presentations: ISCFS-2026 Paris; NCGN Workshop 2026; CREDIT 2026 conference (poster); Sustainable Finance Conference 2026; The 7th Vaasa Banking Research Workshop; WHU Conference CSR, the Economy and Financial Market (scheduled); Sydney Banking and Financial Stability Conference 2026 (*scheduled*); The 39th Australasian Finance and Banking Conference (*scheduled*); GRASFI PhD workshop 2026 (*scheduled*); GRASFI Asia 2nd Conference (*scheduled*); 2026 Green Finance Research Advances (Banque de France, poster, *Scheduled*).