

Yu Xu, Ph.D.

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Finance professor with a strong academic research background. Research specialization in macro-finance using HPC (including GPUs) and AI/ML to develop empirically grounded quantitative models of asset prices and portfolio choice. Adept at conducting research within team project environments while managing large classes of students alongside teaching and research assistants. My teaching experience, combined with regular presentations at major universities, conferences, and central banks, allows me to connect with audiences at their levels.

EDUCATION

MIT Sloan School of Management, Ph.D., Finance, June 2015.

Committee: Hui Chen, Leonid Kogan, Adrien Verdelhan.

University of Iowa, B.S., Actuarial Science and Mathematics, Dec 2008, with Honors and Highest Distinction in both majors.

EMPLOYMENT

Cornell University, Visiting Assistant Professor of Finance, 2024-present.

University of Delaware, Assistant Professor of Finance, 2020-present.

University of Hong Kong, Assistant Professor of Finance, 2015-2020.

Einaudi Inst. for Economics and Finance, Visiting Researcher, June 2019.

Federal Reserve Bank of Atlanta, Visiting Researcher, September 2022.

RELEVANT RESEARCH

1. Research [1] applying ML methods (Deep Kernel Gaussian Process Regression) to quantify optimal dynamic private asset allocation
 - Project sponsored by Liberty Mutual Investments
 - Vision: make the “AlphaZero” of investment decision making models
 - Methodology can potentially be adapted to systematic trading setting
2. Research [2] on how Fed’s communication of its economic outlook impacts firms’ investment decisions
3. Research [3] linking interest rate risk to risks originating from labor markets. Part of broader research agenda on linkages between financial and labor markets [6, 7]
4. Research [4] developing credit risk model linking firms’ granular debt maturity dynamics to equity returns and term structure credit spreads
5. Research [5] developing sovereign default model quantifying default-liquidity feedback loop

SKILLS

Coding: C++, CUDA, Matlab, Python

Numerical analysis & ML: I am familiar with using HPC and ML methods to solve models involving stochastic dynamic programming, PDEs (especially HJB equations), and fixed points.

Data analysis: I have used data from Bloomberg, Compustat, CRSP, FRED, IBES, and LEHD to make the quantitative models I develop practically relevant.

Model development: I have developed quantitative models of portfolio choice and asset prices (interest rates, corporate and sovereign credit risk, and monetary policy). These models generate trading insights in a broad range of markets including equity and fixed income markets.

Communication: I have taught ~ 1500 students Derivatives, Investments, Introductory Finance, and Fixed Income to at undergraduate, MBA, MFE, MFIN, and MS students. My research has been presented ~ 100 times across conferences, universities, and research institutions, including the AFA, WFA, NBER, Cornell, MIT, UPenn, Bank of Canada, Central Bank of Chile, Central Bank of Uruguay, Atlanta Fed, New York Fed, and the Fed Board.

PERSONAL

Immigration status: South African citizen, U.S. permanent resident.

Hobbies: Rock Climbing; Chess: 3^{rd} in South Africa in U/12 age group, provincial age group champion U/12 through U/18. Rating: ~ 2100 on chess.com.

Selected Publications & Current Research

(Authorship listed alphabetically by last name following the convention in academic finance.)

- [1] Chen, H., Gambarotta, G., Scheidegger, S., **Xu, Y.**, 2025. A Dynamic Model of Private Asset Allocation. *Working Paper*, [Link to SSRN].
- [2] Hsu, A., Mitra, I., **Xu, Y.**, Zeng, L., 2025. The Fed Information Effect and the Profitability Channel of Monetary Policy: Evidence and Theory. *Working Paper*, [Link to SSRN].
- [3] Mitra, I., **Xu, Y.**, 2024. A Theory of the Term Structure of Interest Rates under Limited Household Risk Sharing. **Review of Financial Studies**, <https://doi.org/10.1093/rfs/hhae011>.
- [4] Chen, H., **Xu, Y.**, Yang, J., 2020, Systematic Risk, Debt Maturity, and the Term Structure of Credit Spreads. **Journal of Financial Economics**, <https://doi.org/10.1016/j.jfineco.2020.09.002>.
- [5] Passadore, J., **Xu, Y.**, 2022, Illiquidity in Sovereign Debt Markets. **Journal of International Economics**, <https://doi.org/10.1016/j.jinteco.2022.103618>.
- [6] Mitra, I., **Xu, Y.**, 2020, Time-varying Risk Premium and Unemployment Risk across Age Groups. **Review of Financial Studies**, <https://doi.org/10.1093/rfs/hhz122>.
- [7] Mitra, I., Seo, T., **Xu, Y.**, 2024. High Discounts and Low Fundamental Surplus: An Equivalence Result for Unemployment Fluctuations. **Management Science**, <https://doi.org/10.1287/mnsc.2022.03712>.