

**Ivilina T. Popova**

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 [Ivilina Popova](#)

**Academic Positions**

- Visiting Distinguished Watson Fellow, Department of Finance, Oklahoma State University, Stillwater, OK, Spring 2025.
  - *Developed and taught Artificial Intelligence in Finance (MSQF graduate program).*
- Professor, Department of Finance & Economics, McCoy College of Business, Texas State University, San Marcos, TX, 9/1/2016–present.
  - *Developed and taught courses in financial engineering, financial derivatives with Python, portfolio management and derivatives markets.*
  - *Conducting research in the area of FinTech, asset management, commodity risk management and machine learning.*
- Patrick and Amy McCarter Fellow in Residence, Department of Industrial Engineering and Management Sciences, Robert R. McCormick School of Engineering and Applied Science, Northwestern University, Chicago, Spring 2021.
  - *Designed and delivered Financial Engineering; conducted collaborative research in quantitative asset management.*
- Associate Professor, Department of Finance & Economics, McCoy College of Business Administration, Texas State University, San Marcos, TX, 9/1/2009–9/1/2016.
- Assistant Professor, Department of Finance, Albers School of Business, Seattle University, Seattle, WA, 9/1/2005–9/1/2009.
  - *Taught courses in derivatives, fixed income and research in alternative investments, specifically hedge funds.*
- Assistant Professor, Quantitative Methods, Krannert School of Management, Purdue University, West Lafayette, IN, 9/1/1996–5/1/2002.
  - *Taught courses in statistics, derivatives, fixed income, stochastic processes and research in derivatives pricing.*
- Lecturer and Senior Lecturer of Mathematics, Department of Mathematics, University of Ruse, Ruse, Bulgaria, 9/15/1985–5/31/1991.
  - *Taught courses in calculus, real analysis, ordinary and differential equations, numerical analysis, game theory.*

## Professional Positions

- Head of Equity Research, Koch Capital Markets, Houston, TX, 5/1/2003–4/30/2004.
  - *Managed group of financial analysts and provided research support for internal hedge funds based on growth, value and statistical arbitrage. Conducted due - diligence for external hedge funds.*
- Founding Partner, Ceiba Asset Management, Austin, TX, 10/1/2002 – 5/1/2003.
  - *Created and traded a statistical arbitrage hedge fund strategy based on Bayesian mixture models.*
- Director, Deutsche Asset Management, New York, NY, 7/1/2000–2/1/2002.
  - *Participated in designing a new portfolio management product, Portfolio Choice, that was used to manage billions of dollars of clients' money. Provided research support for external hedge funds due diligence.*
- Research Scholar, Summer Intern, Federal Reserve Bank of Cleveland, Cleveland, OH, summers of 1993, 1994 and 1995.
  - *Research in the area of principal agent models and deposit guarantees.*

## Education

- Ph.D., Operations Research, Weatherhead School of Management, Case Western Reserve University, Cleveland, OH, 1996.
- M.S., Mathematics, Faculty of Mathematics and Informatics, Sofia University “St. Kliment Ohridski“, Sofia, Bulgaria, 1985.

## Honors and Awards

- Member of the Bulgarian Academy of Arts and Sciences, 2014–Present.
- National Mathematical Olympiad in Bulgaria - Ranked in the top 10, 1980.
- Golden Medal for graduating with 4.0 GPA from the Mathematical High School in Ruse, Bulgaria, 1980.

## Journal Articles

1. Y. Liu, I. Popova and Ha-Chin Yi, “Anchoring on Safe Haven: Russia-Ukraine War Effects on the Cryptomarket“, *Journal of Behavioral and Experimental Finance*. (2025).
2. M. Stutz and I. Popova, “JDAPP: Reinforcement Learning with Phaseshift Jump Diffusion and Fourier Randomization for Robust Financial Agent Training,”” *Finance Research Letters*. (2025).
3. Liu, Y., Hood, M. E., & Popova, I. T. (2024). Socially Important Weekends and Monday Stock Volatility: Evidence from High-Frequency Data. *Applied Economics Letters*.
4. Popova, I. T., and Liu, Y. Threats to Central Bank Independence and Exchange Rate Volatility: High-Frequency Identification with Trump’s Fed Tweets. *Finance Research Letters*, 53. (2023).
5. D. Morton, S. Dokov and I. Popova , ”Efficient Portfolios Computed via Moment – Based Bounds”, *Finance Research Letters*, 51, (2023).

6. Popova, I. T., Hupka, Y., Simkins, B., and Lee, T. A review of the literature on LNG: Hubs development, market integration, and price discovery. *Journal of Commodity Markets*, 31. (2023).
7. Popova, I. T., and Yau, J, “Computing optimal portfolios of multi-assets with tail risk: The case of Bitcoin”, *Applied Economics Letters*, (2022).
8. Popova, I. T., Simkins, B., and Byers, J., “Robust Estimation of Conditional Risk Measures Using Machine Learning Algorithm for Commodity Futures Prices in the Presence of Outliers”, *Journal of Commodity Markets*, 24, (2021).
9. Y. Jia and I. Popova and B. Simkins and Q. Wang, “Second and higher moments of fundamentals: A literature review,” *European Financial Management*, 26 (1), 216–237, (2020).
10. I. Popova and B. Simkins, “An imperfect exchange,” *Energy Risk*, October 2015, 72–77 (2015).
11. I. Popova and B. Simkins, “OTC vs. exchange traded derivatives and their impact on hedging effectiveness and corporate capital requirements,” *Journal of Applied Corporate Finance* 27 (1), 63–70 (2015).
12. A. Camara, I. Popova and B. Simkins, “Options on troubled stocks,” *Journal of Futures Markets* 34 (7), 637–657 (2014).
13. D.P. Morton and I. Popova, “Modeling hedge fund leverage via power utility with subsistence,” *Journal of Derivatives and Hedge Funds* 19, 77–85 (2013).
14. A. Camara, I. Popova and B. Simkins, “A comparative study of the probability of default for global financial firms,” *Journal of Banking and Finance* 36, 717–732 (2012).
15. A. Galenko, I. Popova and E. Popova, “Trading in the presence of cointegration,” *Journal of Alternative Investments* 15(1), 85–97 (2012).
16. A. Galenko, I. Popova and E. Popova, “Exploiting long term price dependencies for trading strategies,” *Journal of Applied Business and Economics*, 12(6), 11–25 (2011).
17. A. Camara, A. Camara, I. Popova and B. Simkins, “FX risk neutral valuation relationships for the  $S_u$  jump-diffusion family,” *International Journal of Finance and Economics* (16), 339–356 (2011).
18. E. Popova and I. Popova, “Estimation of performance and execution time effect on high-frequency statistical arbitrage strategies,” *Journal of Trading* 5(2), 23–30 (2010).
19. P. Brous, U. Ince and I. Popova, “Volatility forecasting and liquidity: evidence from individual stocks,” *Journal of Derivatives and Hedge Funds* (16), 144–159 (2010).
20. E. George, E. Popova and I. Popova, “Bayesian forecasting of prepayment rates for individual pools of mortgages,” *Bayesian Analysis* 3(1), 1–34 (2008).
21. I. Popova, D.P. Morton, E. Popova and J. Yau, “Optimizing benchmark-based portfolios with hedge funds,” *The Journal of Alternative Investments* 10, 35–55 (2007).
22. D.P. Morton, E. Popova and I. Popova, “Efficient fund of hedge funds construction under downside risk measures,” *Journal of Banking and Finance* 30, 503–518 (2006).
23. D.P. Morton, E. Popova, I. Popova and M. Zhong, “Optimizing benchmark-based utility functions,” *Bulletin of the Czech Econometric Society* 10, 1–18 (2003).
24. J. Duan, I. Popova and P. Ritchken, “Option pricing under regime switching,” *Quantitative Finance* 2, 116–132 (2002).

25. J. Haubrich and I. Popova, “Executive compensation - a calibration approach,” *Economic Theory* 12(3), 561–581 (1998).
26. I. Popova and P. Ritchken, “On bounding option prices in Paretian stable markets,” *Journal of Derivatives* 5(4), 32–43 (1998).
27. P. Ritchken, I. Popova and J. Thomson, “The changing role of banks and the changing value of deposit guarantees,” *Advances in International Banking and Finance*, JAI Press, 3, 1–22 (1998).
28. A. Janicki, I. Popova, P. Ritchken and W. Woyczynski, “Option pricing bounds in an  $\alpha$ -Stable security market,” *Stochastic Models* 13(4), 817–839 (1997).

### Working Papers

1. M. Stutz and I. Popova, “MFGAN: Functional Realism through Multifractal and Regime-Aware Synthetic Market Generation“.
2. M. Stutz, I. Popova and Ha-Chin Yi, “Reinforcement Learning for Cointegrated Pairs“.
3. M. Flynn, Y. Liu and I. Popova, “Do Retail Traders Gamble on Stock Options? “. Revise & Resubmit at *Journal of Financial Markets*

### Book Chapters

1. I. Popova and B. Simkins, “Introduction to energy risk management,” in *Energy Finance and Economics: Analysis and Valuation, Risk Management, and the Future of Energy*, B. Simkins and R. Simkins (eds.), The Robert W. Kolb Series in Finance, Wiley, 2013, 379–410.
2. E. Popova and I. Popova, “Replacement strategies,” in *Encyclopedia of Statistics in Quality and Reliability*, Fabrizio Ruggeri, Ron Kenett and Frederick Faltin (eds.), John Wiley & Sons, Ltd., Chichester, UK, 2008, 1647–1653.

### Professional Service

- Organized and Chaired, 1<sup>st</sup> and 2<sup>nd</sup> *Artificial Intelligence in Finance Conference*, Texas State University, April 2024, 2025.
- Faculty adviser for the *Society of Computational Finance*, Texas State University, 2024–now.
- Associate Editor, *Journal of Commodity Markets*, 2015–Now.
- Associate Editor, *International Review of Financial Analysis*, 2012–2017.
- Associate Editor, *Journal of Applied Finance*, November 2012–December 2013.

### Consulting

- International Swaps and Derivatives Association.
- Energy Consulting Company International.
- KNF Consulting.
- Marketing Investment Decision Analysis.
- Idaho National Labs.