

EDUCATION

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| University of Wisconsin-Madison PhD Student in the Joint Economics Finance Program Amherst College B.A., <i>magna cum laude</i> in Economics and Mathematics | Madison, WI Aug 2022 Present Amherst, MA Sep 2015 May 2019 |
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RELEVANT PHD COURSEWORK

Microeconomics • Macroeconomics • Econometrics • Industrial Organization • Finance Theory • Computational Economics

RELEVANT UNDERGRADUATE COURSEWORK

Economics: Advanced Econometrics • Advanced Macroeconomics • Advanced Microeconomics • Industrial Organizations • Game Theory • Mechanism Design • Senior Thesis
Mathematics: Multivariable Calculus • Linear Algebra • Real Analysis • Complex Analysis • Stochastic Processes • Abstract Algebra • Lie Algebras

RESEARCH INTERESTS

Industrial Organization • Finance

WORK EXPERIENCE

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| Federal Reserve Bank of New York <i>Senior Research Analyst, Financial Stability Oversight Council</i> <ul style="list-style-type: none">Conducted research with economist Richard Crump and assisted with the production of the Financial Stability Oversight Council's Annual Report. <i>Senior Research Analyst, Capital Markets</i> <ul style="list-style-type: none">Conducted research with economists Fernando Duarte and Peter Van Tassel. <i>Summer Analyst, Capital Markets</i> <ul style="list-style-type: none">Conducted research with economist Peter Van Tassel. | New York, NY Jul 2021 Jul 2022 Jul 2019 Jul 2021 Jun 2018 Aug 2018 |
| Amherst College Economics <i>Research Assistant for Professor Jun Ishii</i> Amherst College Mathematics <i>Research Assistant for Professor Gabriel Sosa</i> | Amherst, MA Sep 2016 May 2018 Amherst, MA Jun 2017 May 2019 |

TEACHING EXPERIENCE

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| University of Wisconsin-Madison <i>Teaching Assistant for MSFE 721 - Financial Microeconomics</i> | Madison, WI Sep 2023 Present |
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PAPERS & BLOG POSTS (BLUE TEXT IS HYPERLINKED)

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| Congressional Polarization, the Incumbency Advantage, and Campaign Advertising <i>Advised by Jun Ishii and Christopher Kingston</i> <ul style="list-style-type: none">Awarded The James R. Nelson Prize for its economic analysis of an important question of public policy.Developed a tractable model of campaign spending during a two-candidate election in order to explain how changes in advertising markets can simultaneously lead candidates to adopt more polarized campaign positions and weaken the incumbency advantage. | 2019 Senior Thesis |
| Short-Dated Term Premia and the Level of Inflation <i>With Richard Crump and Peter Van Tassel</i> <ul style="list-style-type: none">We measure short-dated term premia using both a dynamic term-structure model (DTSM) and a survey-based model.Using the DTSM, the term premium is the difference between the fitted yield of a zero-coupon bond and the model's forecast for the average short-term risk-free rate over a horizon equal to the bond's maturity. Using the survey-based model, the short-date term premium is measured as the market-implied path of short-term interest rates from derivatives less the survey-expected path.We find both similar dynamics for both measures of short-dated term premia. In particular, we find that the short-dated term premia was higher during periods of high inflation and low during the past decade. Despite this historic relationship, the short-dated term premia has remained low despite the rise of inflation in 2022. | 2022 FRBNY Blog Post |

The Law of One Price in Equity Volatility Markets

With Peter Van Tassel

2021
FRBNY Blog Post

- Using our option database, we identify that VIX future prices exceed their option-implied upper bounds (indicating Law of One Price violations) on 12 percent of days from 2004 to 2020.
- We find that the frequency of Law of One Price violations increases in times of market distress, including the 2020 pandemic.

Equity Volatility Term Premia

With Peter Van Tassel

2021
FRBNY Blog Post

- We estimate the realized variance and implied volatility term premia, a measure of the cost of insuring against volatility.
- The term premia increase during times of distress and in response to VIX shocks.

NOTABLE RA CONTRIBUTIONS (* IN PROGRESS OR UNCREDITED)

- Cattaneo, Matias., Crump, Richard., Farrell, Max., and Feng, Yingjie., [On Binscatter](#) (2021). *Federal Reserve Bank of New York Staff Reports 881.**
- Crump, Richard., Eusepi, Stefano., Giannoni, Marc., and Sahin, Aysegul., [The Unemployment-Inflation Trade-off Revisited: The Phillips Curve in COVID Times](#) (2022). *NBER Working Paper No. w29785.*
- Duarte, Fernando and Eisenbach, Thomas M., [Fire-sale Spillovers and Systemic Risk](#) (2021). *Journal of Finance.*
- Duarte, Fernando and Jones, Collin., [Empirical Network Contagion for U.S. Financial Institutions](#) (2017). *Federal Reserve Bank of New York Staff Report No. 826.**
- Duarte, Fernando and Rosa, Carlo., [The Equity Risk Premium: A Review of Models](#) *Federal Reserve Bank of New York Economic Policy Review.**
- Van Tassel, Peter., [The Law of One Price in Equity Volatility Markets](#) (2020). *Federal Reserve Bank of New York Staff Report No. 953.**
- Van Tassel, Peter., [Equity Volatility Term Premia](#) (2020). *Federal Reserve Bank of New York Staff Report No. 867.**

ACCOLADES

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| On the Spot Vault Award | Federal Reserve Bank of New York |
| Awarded for contributions to the <i>U.S. Economy in the a Snapshot</i> | 2021 |
| Propel for Execution Vault Award | Federal Reserve Bank of New York |
| Award for contributions to policy work during the COVID-19 crisis | 2020 |
| The James R. Nelson Prize | Amherst College Economics Department |
| Awarded to senior thesis for its economic analysis of an important question of public policy | 2019 |
| The Sylvia and Irving Lerner Piano Prize | Amherst College Music Department |
| Awarded to the student who demonstrated the greatest skill and musicianship as a pianist | 2019 |

LEADERSHIP EXPERIENCE

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| Madison Senior Center | Madison, WI |
| <i>Background Piano</i> | March 2023 Present |
| Upper Manhattan Mutual Aid | New York, NY |
| <i>Delivery Volunteer</i> | Sep 2020 Aug 2021 |
| Amherst College Music Department | Amherst, MA |
| <i>Pianist; Jazz Combo, Jazz Band, Jazz Quartet</i> | Sep 2015 May 2019 |

SKILLS AND INTERESTS:

Programming: Julia • MATLAB • L^AT_EX • LyX • Stata • Python • SAS • SQL • Excel
Interests: Jazz Piano • Classical Piano • Hiking • Running • Reading