

Education

- 2018- **Fordham University**, *Ph.D., Economics (Econometrics & Quantitative Economics)*, New York, NY, USA.
Graduate Student Council President, GSAS Graduate Fellowship
◦ *Dissertation*: "Essays on Empirical Macroeconomics and Expectations"
Advisor: Professor Arunima Sinha, Economics
- 2016-2018 **Montclair State University**, *B.A., Economics*, Montclair, NJ, USA.
Convocation Speaker, Omicron Delta Epsilon, magna cum laude
◦ *Thesis*: "Business Improvement Districts Efficacy: Evidence from New Orleans"
Advisor: Professor Vidya Atal, Economics
- 2021 **Columbia University**, *Visiting Ph.D. Student, Department of Economics*, New York, NY, USA.

Personal

- Languages Spanish (native), English (fluent)
Citizenship El Salvador, United States (Permanent Residency)
Technical R, MATLAB, Dynare, Python, HTML, \LaTeX , Tableau, VBA, Markdown, SQL
Interests Expectations Modeling, Machine Learning, Macroeconomics, Econometrics

Working Papers

- 2023 **Household Sentiment Analysis: A Hierarchical Bayesian Latent Class Approach.**
Abstract: This paper analyzes observed heterogeneity in categorical expectations data from the Survey of Consumer Expectations through a hierarchical Bayesian latent class model. I identify three belief types that can be observed in the data and show how they co-move with published indices of monetary policy uncertainty (uncertain sentiment), unemployment (pessimistic sentiment) and consumer confidence from the OECD (optimism). These belief types are interpreted through a corresponding structural model of information acquisition where information sources create predictability in survey responses through time. These belief type indices can be considered auxiliary categorical information about households and can be used to control for omitted variable bias and to estimate heterogeneous effect in a parsimonious way, as is a goal for a governing body like a central bank.
- 2022 **Foreign Interest Rates shocks and Shadow Short Rates in a Small Open Economy.**
Abstract: This paper studies the interplay between errors in credit spread expectations and macroeconomic indicators between 1948 and 2022. I approach this by deriving a proxy for credit market sentiment using textual analysis on Wall Street Journal title pages that aid me in filling in historical credit spread expectations from 1919 onward, using the Survey of Professional Forecasters as my training data. After validating my textual analysis approach, I find that one-standard deviation jumps in credit spread forecast errors are associated with predicted declines in economic activity, at most with a 3% decline in GDP growth during the sample period. This finding supports the behavioral models highlighting the importance of sentiment in the credit market as a key driver in cycles in the macroeconomy.
- 2022 **Monetary Policy Announcements and Household Expectations of the Future.**
Abstract: This paper analyzes the impact of various measures of monetary policy announcements on household expectations between 2013 and 2021. I approach this through an event study and a local projections methodology that exploits the microdata found in the Survey of Consumer Expectations as well as the timing of the FOMC meeting announcements in this time period. Across the different measures of monetary policy, I find that, on average, a lack of a tightening announcement decreases household expectations of the one-year ahead path for interest rates on savings accounts by 3.1%, while tightening announcements increase one year inflation expectations by up to 3.6% and decrease their one-year ahead home price growth between 1.4 - 2.0%. This finding is corroborated by the local projections in a one year ahead time horizon and emphasizes the need for the central bank to improve on the timing of its communication strategy. Expectations of other variables such as household spending and various commodity prices are scarcely affected, results which stand in contrast to the literature in laboratory settings which find strong effects on information treatments about policy changes.

Higher Education Experience

- 2021 - **Fordham's Graduate Student Council**, *President (2022)/Vice President (2021)*, New York, NY, USA.
- Develop the vision and budget strategy for the Graduate Student Council which represents the student body for the Graduate School of Arts and Sciences. This includes professional development event planning, managing a \$600,000 budget, leading a Council of 17 department representatives, and collaborating with GSAS Deans to better serve the graduate community at Fordham
 - Automate administrative procedures for the Graduate Student Support Grant, the Excellence in Graduate Teaching Award, GSAS Reimbursement Process, and Budgetary Tracking for departmental development fund allocation
 - Served on the Presidential Student Advisory Council; served on the GSAS Council and advised the Academic Affairs and Curriculum Revision Committees; Collaborated with the Office of Admissions on Admitted Students Programming; hosted various alumni and industry partner panels and presentations; collaborated with the Office of Student Professional Development on judging the 3-Minute Thesis Competition and hosting Wellness Week events
- 2018 - 2021 **Fordham University**, *Graduate Assistant to Economics Department Chair*, New York, NY, USA.
- Spearheaded over 13 seminar events, 8 white papers for department circulation, and online development including writing web-page content, over 15 diversity, equity, and inclusion (DEI) resources, and 6 alumni newsletters

Professional Experience

- 2022 **KPMG**, *Economic & Valuation Services Summer Associate*, New York, NY, USA.
- 2021-2022 **Central Bank of Chile**, *Visiting Researcher*, Monetary Policy Division, Santiago, Chile.
- 2021 **REEF Technology**, *Economist/Data Consultant*, Miami, FL, USA.
- 2019 **DiMassimo Goldstein**, *PhD Intern*, *Predictive Analytics*, New York, NY, USA.
- 2018 - 2019 **United Nations Association of El Salvador**, *Advisor*, *Sustainable Development*, New York, NY, USA.
- 2017 - 2018 **TIAA**, *Research Consultant for Macro & Country Risk & Summer Risk Analyst*, New York, NY, USA.

Awards and Other

- Nov. 2020 Participant (500 selected worldwide), The Economy of Francesco
- Summer 2020 GSAS Summer Graduate Assistant, Fordham University
- Spring 2019 Christina Seix Dow Fellowship, Fordham University
- 2016 - 2018 Continuing Honors Full Scholarship, Montclair State University
- 2016 - 2018 Dean's List, Feliciano School of Business, Montclair State University
- 2014 Hispanic Recognition Program Scholar, College Board National Recognition Program

References

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