Federico Marciano

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Education

Stanford University — Sep. 2023 – Expected June 2028
PhD in Economics, GPA: 4.2/4.0, Exams Taken — *Stanford, CA*

Tor Vergata University — Sep. 2019 – June 2021
MSc in Economics, GPA: 30.0/30.0, Exams Taken — *Rome, Italy*

Tor Vergata University — Sep. 2016 – June 2019
BSc in Economics and Management, GPA: 29.9/30.0, Exams Taken — *Rome, Italy*

Quantitative Research Experience

Doctoral Research Assistant — June 2024 – Present
Stanford University and Stanford Graduate School of Business — *Stanford, CA*

- Quantified the redistributive effects of the changing correlation between government bond and stock returns
- Measured the exposure to duration and stock market risk for households and financial intermediaries
- Developed a valuation model for the joint dynamics of inflation as well as stock and government bond returns
- Estimated an exponential-affine term structure model for government bonds
- Analyzed the properties of government bonds as a hedge against stock market risk
- **Advisors:** Profs. H. Lustig, M. Piazzesi, and M. Schneider

Pre-Doctoral Research Assistant — July 2021 – July 2023
The University of Chicago Booth School of Business: Stigler Center — *Chicago, IL*

- Estimated the causal effects of pollution on health outcomes using openings/closings of incinerators as experiments
- Analyzed the panel of the entire Danish population observed between 1980 and 2018
- Modeled the air dispersion of pollutants emitted by Danish incinerators using HyADS
- Quantified the exposure to pollutants of individuals based on the position of their residence relative to incinerators
- **Advisor:** Prof. L. Zingales

Quantitative Projects

"Negative Bond-Stock Beta and Positive Term Spread" — June 2025 – Present

- Developed a quantitative two-agent model with market segmentation
- Solved the model as a system of PDEs with multiple state variables using deep learning
- Calibrated the model with simulated method of moments to match bond-stock beta and term spread
- **Presentations:** "Macro, Money, and International Finance Conference" organized by Princeton University
- **Awards:** "Sean Buckley Award: Best 2nd-Year Paper" at Stanford - PhD in Economics

"Safe Assets and the Time-Varying Bond-Stock Beta" — Jan. 2025 – Present

- Solved a quantitative heterogeneous-agent model with idiosyncratic shocks using finite differences

"US Corporate Bonds and Subjective Expectations" — June 2024 – Present

with F. Spizzuoco and E. Vollmer

- Inferred subjective probability measure from analyst forecast data to match credit spreads

"Measuring the Long-Term Impact of Environmental Externalities" — July 2021 – Present

with L. Bruno, L. Guiso, P. Sapienza, and L. Zingales

- Estimated the causal effects of pollution on health outcomes
- **Presentations:** "Summer Institute 2023: Environmental & Energy Economics" organized by NBER

Awards

Sean Buckley Award: Best 2nd-Year Paper at Stanford PhD in Economics ($2,000) — Oct. 2025
Bank of Italy Mortara Scholarship ($156,000) — Sep. 2023 – June 2025
UniCredit Fanno Scholarship ($65,000) — Sep. 2023 – June 2025

Programming Skills

Languages: Python (Deep Learning), R (Air Dispersion Modeling), MATLAB (Time Series), Stata (Causal Inference)
Libraries: PyTorch, scikit-learn, deep-macrofin, numpy, pandas