Tommaso Di Francesco
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tommasodf.github.io

Research Interests

Behavioral Economics, Non-linear Dynamics, Macroeconomics

Academic Employment

2025 - **Postdoctoral researcher**, Finance group, University of Bonn.

Education

2025 **Ph.D.**, Economics, University of Amsterdam. Joint with Ca' Foscari University of Venice
Advisors: Cars Hommes (UVA) and Paolo Pellizzari (UNIVE)
EU MSCA programme Economic Policy in Complex Environments (EPOC)
2020 **M.A.**, Economics and Finance, Ca' Foscari University of Venice
2017 **B.Sc.** Economics and Management, University of Rome Tor Vergata

Teaching

Ca'Foscari University of Venice

2024 Computational Tools for Economics and Finance (ET4010)
Trained a custom version of GPT 3.5 on the material of the course. The resulting software was made accessible to students as a Virtual Teaching Assistant.
2019, 2022 Teaching Assistant, Optimization (EM2Q12)
2019 Teaching Assistant, Financial Mathematics (ET0046)
2019 Tutorial Assistance, Mathematics For Economics (ET0047)

University of Amsterdam

2024 Tutorial Assistance, Mathematics 1 for Economics (6011P0236Y)
2024 Tutorial Assistance, Microeconomics (6011P0139Y)
2025 Tutorial Assistance, Statistics 1 for Economics (6011P0245Y)
2025 Tutorial Assistance, Econometrics 2 (6012B0378Y_B5)

Work Experience

2019-2020 Financial Consultant, Ernst&Young, Milan, Italy

Research

Publications

- **Sentiment-Driven Speculation in Financial Markets with Heterogeneous Beliefs: A Machine Learning Approach** (with Cars Hommes)
  Journal of Economic Dynamics and Control, 2025. Accessible here.

- **(Mis)information diffusion and the financial market** (with Daniel Torren Peraire)
  Journal of Economic Behavior and Organization. Accessible here.

Work In Progress

Sticky Information across the Wealth Distribution

This paper investigates the role of wealth-dependent information stickiness in the transmission of monetary policy in a Heterogeneous Agent New Keynesian (HANK) model. Using survey data, I provide empirical evidence that households do not form expectations according to the full-information rational expectations (FIRE) hypothesis but instead exhibit stickiness in updating their information, with wealthier households updating more frequently. I evaluate the effect of this evidence on macroeconomic dynamics using a quantitative model. My findings reveal that inequality significantly affects the aggregate responses to monetary shocks. Specifically, models that neglect heterogeneity in information updating underestimate both the magnitude and the delay of the peak response to monetary policy shocks. Estimating the model by matching simulated impulse response functions (IRFs) to empirical ones shows that stickiness is crucial for accurately capturing the dynamics observed in the data.

Programming

Python, Julia, R, Stata

Last updated: September 15, 2025