Tibor Pál

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Research Interests

My research focuses on developing and applying Score-Driven Time-Varying Parameter Models and State-Space Models in macroeconomics and finance, and modeling volatility through semi-parametric approaches using high-frequency data. My primary empirical interests include the estimation of latent macroeconomic variables—such as the natural rate of interest, uncertainty, and other risk-related factors—the interaction between financial and real sectors, the quantitative analysis of speculative behavior in housing and financial asset markets, monetary policy transmission mechanisms, and inflation dynamics. Preliminary work has begun to advance Structural Vector Autoregressive (SVAR) models and Quantile Regression techniques to expand the methodological toolkit for the empirical analysis of dynamic macro-financial relationships.

Education

2022–2025	Ph.D. in Statistical Methods – Economics and Policy Analysis of Markets and Firms, University of Salerno. *Focus: Score-Driven Models, State-Space Models, Volatility Modeling.*
2024–2025	Visiting Ph.D. Student, University of Malaya. *Focus: Semi-Parametric Volatility Modeling.*
2019–2022	Ph.D. in Economics (*incomplete; transferred to current program*), University of Valladolid. *Focus: Macroeconometrics, Monetary GE Models.*
2021–2022	Visiting Ph.D. Student, University of Verona. *Completed first-year Ph.D. coursework.*
2017–2018	Ph.D. in Management (*part-time; transferred*), AGH University of Krakow.
2011–2015	M.A. in International Business (English), Krakow University of Economics. *Thesis: The Evolvement of the Spanish Housing Boom in the Context of EMU Membership.*
2005–2010	B.A. in Finance and Economics, Károly Róbert College. *Thesis: The U.S. Mortgage Crisis and Its Aftermath.*
2009	Academic Scholarship (English), University of Economics, Bydgoszcz, Poland.

Research Projects

1	**Estimating the R-Star in the US: A Score-Driven State-Space Model with Time-Varying Volatility Persistence**. Supervisor and co-author: Giuseppe Storti (University of Salerno). *Working paper.* *Keywords:* R-Star, State-Space Models, Kalman filter, Score-Driven Models.
2	**Score-Driven Realized Exponential GARCH Modeling with Range-Based Realized Measure of Volatility**. Supervisors and co-authors: Giuseppe Storti (University of Salerno), Ng Kok Haur (University of Malaya). *Advanced stage.* *Keywords:* Score-Driven Models, Burr Distribution, Realized Volatility.

Publications and Working Papers

2025	Pál, Tibor and Storti, Giuseppe. *Estimating the R-Star in the US: A Score-Driven State-Space Model with Time-Varying Volatility Persistence.* Working paper, July.
2023	Gutiérrez-Diez, Pedro J. and Pál, Tibor. *Monetary Policy Models: Lessons from the Eurozone Crisis.* Humanities and Social Sciences Communications (Nature), October.
2018	Pál, Tibor. *The Effects of Monetary Policy on House Prices in Spain: The Role of Economic and Monetary Union Membership in the Housing Bubble.* Central European Review of Economics and Management, June.

Teaching Experience

2023	Econometrics (MSc) – University of Verona (English)
2022	Macroeconomics (BSc) – AGH University of Krakow (English)

Presentations

2025	*Estimating the R-Star in the US: A Score-Driven State-Space Model with Time-Varying Volatility Persistence.* July: Int. Society for the Advancement of Financial Economics (ISAFE), Beijing. May: Seminar at the University of Malaya.
2024	*Estimating the Natural Rate of Interest in the US: An Accelerating Score-Driven State-Space Model.* August: 7th International Conference on Econometrics and Statistics (EcoSta), Beijing. July: Int. Society for the Advancement of Financial Economics (ISAFE), Pattaya.
2022	*The Real Effect of the (De)Leverage Pressure.* Brownbag Seminar, University of Verona.
2022	*Rethinking Monetary Policy Models: Lessons from the 2008–2018 Crisis in the Eurozone.* Seminar at the University of Windsor (online).
2019	*A Debt Deflation Stylized Model: The Effects of Deleveraging in the Eurozone.* 2nd International Conference on Modern Tendency in Social Science, Singapore.
2018	*The Real Effects of Deleveraging in the Eurozone.* 32nd Conference of International Applied Economics, Huelva.
2018	*The Credit View on the Output Gap and the Concept of the Non-Accelerating Inflation Rate of Credit Expansion (NAIRCE).* 15th International Conference on Developments in Economic Theory and Policy, Bilbao.
2017	*The Effects of Monetary Policy on House Prices in Spain: The Role of the European Economic and Monetary Union Membership in the Latest Housing Bubble.* Fifth International Conference, WSB University, Wroclaw.

Further Trainings and Attendances

2023	Methods in Time Series Econometrics, Bertinoro. *Summer school by Francesco Bianchi and Karel Mertens.*
2023	Financial Time Series and High-Frequency Econometrics, Perugia. *Postgraduate course by Massimiliano Caporin, Walter Distaso, among others.*

2023	Tenth Italian Congress of Econometrics and Empirical Economics, Cagliari.
2023	Financial Time Series and Tail Risk Forecasting with Python, University of Salerno. *Workshop by Richard Gerlach.*
2022	Padova Macro Talks, University of Padova. *Workshop organized by Efrem Castelnuovo.*

Work Experience

2018–2024	Omni Calculator (part-time). *Financial Specialist, Reviewer, and Advisor.*
2014–2017	Shell BSC. *Financial Analyst.*
2010–2014	IBM BTO. *GL Accountant.*

Skills

Technical: MATLAB, R, Stata, Python, JavaScript.

Languages: English (C2), Spanish (B1), Italian (A2), Polish (A1), Chinese (A1), Hungarian (native).