

Tibor Pál

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Research Interests

Score-Driven Time-Varying Parameter Models;
State-Space Models and Kalman Filtering;
Semi-Parametric Volatility Models with High-Frequency Data;
Latent Macroeconomic Variables (Natural Rate of Interest, Output Gap, Risk Attitude);
Macro-Financial Interactions; Speculative Dynamics in Asset Markets;
Structural VAR Models; Monetary Policy Transmission;
Dynamic Multiple-Quantile Models; Inflation Distribution Dynamics; Phillips Curve

Education

2022–2026	Ph.D. in Statistical Methods – Economics and Policy Analysis of Markets and Firms University of Salerno (<i>expected completion: 2026</i>) <i>Thesis: Essays on the Development and Application of Score-Driven Models in Finance and Macroeconomics</i> <i>Research focus: Score-Driven Models, State-Space Models, Volatility Modeling, Dynamic Multiple Quantile Models</i>
2024–2025	Visiting Ph.D. Student at University of Malaya, <i>Research focus: Semi-Parametric Volatility Modeling</i>
2019–2022	Ph.D. in Economics (<i>program not completed; transferred to University of Salerno</i>), University of Valladolid <i>Research focus: Macroeconometrics, Monetary GE Models</i>
2021–2022	Visiting Ph.D. Student at University of Verona, <i>Completed Ph.D. coursework</i>
2011–2015	M.A. in International Business (English), Krakow University of Economics <i>Thesis: The Evolvement of the Spanish Housing Boom in the Context of EMU Membership</i>
2005–2010	B.A. in Finance and Economics, Károly Róbert College <i>Thesis: The U.S. Subprime Crisis and Its Aftermath</i>
2009	Erasmus Exchange (English Program), University of Economics, Bydgoszcz, Poland

Awards and Grants

2022–2025	PhD Scholarship, University of Salerno, Italy
2021	Short-term Research Grant, Spain
2019	Erasmus+ Traineeship Grant
2009	Erasmus+ Study Mobility Grant

Research Projects

- 1 **Inflation Dynamics Beyond the Mean: A Time-Varying Multiple Quantile Phillips Curve with Quantile-Heterogeneous Slopes**
Keywords: Dynamic multiple quantile model, Phillips curve, Inflation Dynamics
- 2 **Estimating the R-Star in the US: A Score-Driven State-Space Model with Time-Varying Volatility Persistence**
with Giuseppe Storti (University of Salerno), *Working paper*
Keywords: Natural Rate of Interest, State-Space Models, Kalman filter, Score-Driven Models
- 3 **The Realized Dynamic Score Exponential GARCH**
with Giuseppe Storti (University of Salerno) and Ng Kok Haur (University of Malaya)
Keywords: realized EGARCH, Score-driven model, Component models, Value-at-Risk, Expected Shortfall
- 4 **Nonlinear Phillips Curve Dynamics in Japan: Evidence from a Multiple Quantile Approach**
Keywords: Dynamic multiple quantile model, Phillips curve, Inflation Dynamics

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

- 2026 *Inflation Dynamics Beyond the Mean: A Time-Varying Multiple Quantile Phillips Curve with Quantile-Heterogeneous Slopes*
May: 3rd Verona Early Career Workshop in Economics & Financial Mathematics, Verona
March: 33rd Symposium of the Society for Nonlinear Dynamics & Econometrics, Lisbon
- 2026 *Score-Driven Time-Varying Parameter Models for Macroeconomic Dynamics: Estimating the R-Star and the Phillips Curve in the US*
March: Seminar at the University of Valladolid

2025	<i>Estimating the R-Star in the US: A Score-Driven State-Space Model with Time-Varying Volatility Persistence</i> December: World Finance Banking Symposium, Brno November: Warsaw Economic Seminars, Warsaw July: Int. Society for the Advancement of Financial Economics (ISAFE), Beijing May: Seminar at the University of Malaya, Kuala Lumpur
2024	<i>Estimating the Natural Rate of Interest in the US: An Accelerating Score-Driven State-Space Model</i> August: 7th International Conference on Econometrics and Statistics (EcoSta), Beijing July: Int. Society for the Advancement of Financial Economics (ISAFE), Pattaya
2022	<i>The Real Effect of the (De)Leverage Pressure</i> Brownbag Seminar, University of Verona
2022	<i>Rethinking Monetary Policy Models: Lessons from the 2008–2018 Crisis in the Eurozone</i> Seminar at the University of Windsor (online)
2019	<i>A Debt Deflation Stylized Model: The Effects of Deleveraging in the Eurozone</i> 2nd International Conference on Modern Tendency in Social Science, Singapore
2018	<i>The Real Effects of Deleveraging in the Eurozone</i> 32nd Conference of International Applied Economics, Huelva
2018	<i>The Credit View on the Output Gap and the Concept of the Non-Accelerating Inflation Rate of Credit Expansion (NAIRCE)</i> 15th International Conference on Developments in Economic Theory and Policy, Bilbao
2017	<i>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</i> Fifth International Conference, WSB University, Wrocław

Additional Training

2023	Methods in Time Series Econometrics, Bertinoro <i>Summer school by Francesco Bianchi and Karel Mertens</i>
2023	Financial Time Series and High-Frequency Econometrics, Perugia <i>Postgraduate course by Massimiliano Caporin, Walter Distaso, among others</i>
2023	Financial Time Series and Tail Risk Forecasting with Python, University of Salerno <i>Workshop by Richard Gerlach</i>
2022	Padova Macro Talks, University of Padova <i>Workshop organized by Efrem Castelnuovo</i>

Work Experience

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

Skills

Technical: MATLAB, R, Stata, Python, JavaScript

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