# Curriculum Vitæ NIKO HAUZENBERGER

# CONTACT INFORMATION

Department of Economics Paris Lodron University of Salzburg (PLUS) Mönchsberg 2A AT-5020 Salzburg **☎** +43 676 76 34 490

₱ niko.hauz@gmail.com

nhauzenb.github.io

ORCiD 0000-0002-2683-8421

# **PERSONAL**

Nationality: Austrian. Languages: German (mother tongue), English.

# RESEARCH INTERESTS

Bayesian econometrics and empirical macroeconomics with a focus on: structural and predictive inference, forecasting under instability, asymmetries in transmission channels of structural shocks, non-linear vector autoregressions, (non-)parametric modeling.

# **EDUCATION**

10/2018 - 08/2020	Ph.D., Economics, Vienna University of Economics and Business (WU), Austria.  Thesis: "Fast and flexible Bayesian inference in time-varying parameter models,"  Committee: Florian Huber (supervisor), Jesús Crespo Cuaresma, and Sylvia Frühwirth-Schnatter.
10/2016 - 07/2018	M.Sc., Economics (Math Major), WU, Austria.  Thesis: "Model instability in predictive exchange rate regressions," Supervisor: Florian Huber.
10/2013 — 07/2016	B.Sc., Business, Economics and Social Sciences (Economics Major), WU, Austria. Thesis: "Allowing for volatility clustering in time series: A comparision between homoscedastic, GARCH and SV models," Supervisor: Gregor Kastner.
01/2016 - 05/2016	ERASMUS Exchange Semester, University of Edinburgh, United Kingdom.

# **AWARDS**

- Würdigungspreis Award for Outstanding Academic Performance (Austrian Federal Ministry of Education, Science and Research, 2018).
- Scholarship for Outstanding Academic Performance (WU, 2014, 2015, 2016, 2017, 2019).

# **CURRENT ACADEMIC POSITION**

SINCE 11/2020 | Postdoctoral Researcher, Department of Economics, Paris Lodron University of Salzburg (PLUS), Austria.

# PAST ACADEMIC POSITIONS

07/2022 - 12/2022	Postdoctoral Fellow, Institute for Statistics and Mathematics, WU, Austria.
11/2019 - 12/2021	Research Fellow, Department of Socioeconomics, WU, Austria.
09/2019 - 10/2020	Research Associate, Department of Economics, PLUS, Austria.
09/2018 - 08/2019	Research Associate, Department of Economics, WU, Austria.

#### POLICY-ORIENTED PROFESSIONAL EXPERIENCE

Consultancy and Knowledge Exchange, Macro Modeling and Nowcasting Team of the Financial and Economic Analysis Unit, Joint Research Centre (JRC) of the European Commission, Italy.

Research Scholar, Integrated Biosphere Futures Research Group, International Institute for Applied Systems Analysis (IIASA), Austria.

O9/2018 – 08/2021

Consultant, Foreign Research Division, Austrian Central Bank (OeNB), Austria.

Research Assistant, Foreign Research Division, OeNB, Austria.

#### PUBLICATIONS IN REFEREED JOURNALS

- (11) Niko Hauzenberger, Florian Huber, and Karin Klieber. Real-time inflation forecasting using non-linear dimension reduction techniques. *International Journal of Forecasting*.
- (10) Jan Čapek, Jesús Crespo Cuaresma, Niko Hauzenberger, and Vlastimil Reichel. Macroeconomic forecasting in the euro area using predictive combinations of DSGE models. *International Journal of Forecasting*.
- 2023
- (9) Manfred M Fischer, Niko Hauzenberger, Florian Huber, and Michael Pfarrhofer. General Bayesian time-varying parameter VARs for predicting government bond yields. *Journal of Applied Econometrics*, 38(1):69–87.
- 2022
- (8) Niko Hauzenberger, Florian Huber, Gary Koop, and Luca Onorante. Fast and flexible Bayesian inference in time-varying parameter regression models. *Journal of Business & Economic Statistics*, 40(4):1904–1918.
- 2021
- (7) Niko Hauzenberger, Michael Pfarrhofer, and Anna Stelzer. On the effectiveness of the European central bank's conventional and unconventional policies under uncertainty. *Journal of Economic Behavior & Organization*, 191:822–845.
- (6) Niko Hauzenberger and Michael Pfarrhofer. Bayesian state-space modeling for analyzing heterogeneous network effects of US monetary policy. *Scandinavian Journal of Economics*, 123(4):1261–1291.
- (5) Niko Hauzenberger, Florian Huber, and Luca Onorante. Combining shrinkage and sparsity in conjugate vector autoregressive models. *Journal of Applied Econometrics*, 36(3):304–327, among the top 10 most downloaded papers accepted between 01/2019 12/2020.
- (4) Niko Hauzenberger. Flexible mixture priors for large time-varying parameter models. *Econometrics & Statistics*, 20:87–108.
- (3) Markus Eller, Niko Hauzenberger, Florian Huber, Helene Schuberth, and Lukas Vashold. The impact of macroprudential policies on capital flows in CESEE. *Journal of International Money & Finance*, 119:102495.
- (2) Niko Hauzenberger, Florian Huber, Michael Pfarrhofer, and Thomas O Zörner. Stochastic model specification in Markov switching vector error correction models. *Studies in Nonlinear Dynamics & Econometrics*, 25(2):20180069.

2020

(1) Niko Hauzenberger and Florian Huber. Model instability in predictive exchange rate regressions. *Journal of Forecasting*, 39(2):168–186.

# PUBLICATIONS IN INSTITUTIONAL JOURNALS

2021 (2) Niko Hauzenberger, Florian Huber, Daniel Kaufmann, Rebecca Stuart, and Cédric Tille. Interest rates in Switzerland 1852–2020. *Grundlagen für die Wirtschaftspolitik Nr. 24*, State Secretariat for Economic Affairs (SECO).

2019

(1) Martin Feldkircher and Niko Hauzenberger. How useful are time-varying parameter models for forecasting economic growth in CESEE? Focus on European Economic Integration, (Q1/19):29–48.

# MEDIA APPEARANCE AND POLICY BRIEFS

- Markus Eller, Niko Hauzenberger, Florian Huber, Helene Schuberth, and Lukas Vashold. The impact of macroprudential policies on capital flows in CESEE. SUERF Policy Brief, No 199, 10/2021.
- Niko Hauzenberger and Michael Pfarrhofer. Wie sich ein zweiter Lockdown auf Österreichs Wirtschaft auswirken würde (in German). Die Presse, Blog of the Austrian Economic Association (NOeG), 08/2020.
- Niko Hauzenberger, Julia Wörz, and Angelika Knollmayer. Aktuelle Entwicklung der Weltwirtschaft und des Welthandels (in German). Schwerpunkt Außenwirtschaft 2017/2018, 29–56.

# **WORKING PAPERS**

2023

(7) Niko Hauzenberger, Florian Huber, Gary Koop, and James Mitchell. Bayesian modeling of time-varying parameters using regression trees. *FRBC WP 23-05*, under review.

2022

- (6) Niko Hauzenberger, Florian Huber, Karin Klieber, and Massimiliano Marcellino. Enhanced Bayesian neural networks for macroeconomics and finance. *arXiv:2211.04752*, under review.
- (5) Niko Hauzenberger, Florian Huber, Massimiliano Marcellino, and Nico Petz. Gaussian process vector autoregressions and macroeconomic uncertainty. *CEPR DP 17646*, under review.
- (4) Niko Hauzenberger, Daniel Kaufmann, Rebecca Stuart, and Cédric Tille. What drives long-term interest rates? Evidence from the entire Swiss Franc history 1852–2020. IRENE WP 22-03, under review.

2021

- (3) Niko Hauzenberger, Michael Pfarrhofer, and Luca Rossini. Sparse time-varying parameter VECMs with an application to modeling electricity prices. *arXiv:2011.04577*, reject and resubmit.
- (2) Niko Hauzenberger, Florian Huber, and Gary Koop. Dynamic shrinkage priors for large time-varying parameter regressions using scalable Markov Chain Monte Carlo methods. arXiv:2005.03906, revise and resubmit.

2018

(1) Maximilian Böck, Niko Hauzenberger, Michael Pfarrhofer, Anna Stelzer, and Gregor Zens. Implications of macroeconomic volatility in the Euro area. *ESRB: Working Paper Series*, No. 2018/80.

#### RESEARCH GRANTS

#### I. CURRENT PROJECTS

- Niko Hauzenberger (principal investigator). Non-parametric volatility modeling in macroeconomics and finance. Funding: EUR 232,000.00 from the OeNB's Anniversary Fund. Project duration: 11/2022 – 10/2025.
- Bettina Grün, Niko Hauzenberger, and Paul Hofmarcher (principal investigator). Textual inference for central bank communication. Funding: EUR 240,910.00 from the *OeNB's Anniversary Fund*. Project duration: 07/2022 – 06/2025.

#### II. COMPLETED PROJECTS

 Niko Hauzenberger, Florian Huber, Daniel Kaufmann (principal investigator), Rebecca Stuart, and Cédric Tille. Interest rate and exchange rate fluctuations over two centuries. Funding: State Secretariat for Economic Affairs (SECO). Project duration: 08/2020 – 06/2021.

# **TEACHING ACTIVITIES**

#### I. GRADUATE

- Bayesian econometrics (University of Neuchâtel, Summer 2021), with Florian Huber.
- Macroeconometrics: structural and predictive inference (PLUS 987.013, Summer 2021, 2023), with Michael Pfarrhofer.
- Quantitative methods in economics (PLUS 900.003, Winter 2019/20, 2020/21, 2021/22, 2022/23;
   PLUS 900.029, Summer 2023), with Klaus Nowotny and Hannes Winner.
- Advanced macroeconometrics (WU 6048, Summer 2019), with Michael Pfarrhofer and Thomas O Zörner.

#### II. UNDERGRADUATE

- Mathematical foundations (PLUS 699.000, Winter 2020/21, 2021/22, 2022/23)
- Economic and financial policy for legal professionals (WU 5208, Summer 2019)

#### III. SUPERVISION

Galina Evchenko (master thesis, ongoing). Heterogeneous effects of monetary policy in the euro area.

#### OTHER PROFESSIONAL ACTIVITIES

REFEREE: Bayesian Analysis, CESifo Economic Studies, Computational Economics, Computational Statistics, Empirica, Empirical Economics, Energy Economics, German Economic Review, International Economics, International Journal of Forecasting, Journal of Applied Econometrics, Journal of Econometrics, Journal of Economic Behavior & Organization, Journal of International Money & Finance, Oxford Bulletin of Economics & Statistics, PLOS ONE, Prague Economic Papers, Review of International Economics, Scottish Journal of Political Economy, Studies in Nonlinear Dynamics & Econometrics.

#### - CONFERENCE AND SESSION ORGANIZATION:

Scientific programme committee, Annual Meeting of the Austrian Economic Association (NOeG) 2023, Salzburg, Austria.

Scientific programme committee and session organizer (joint with Karin Klieber), 17th International Conference on Computational and Financial Econometrics (CFE) 2023, Berlin, Germany.

Local organizing committee, 12th European Seminar on Bayesian Econometrics (ESOBE) 2022, Salzburg, Austria.

Session organizer (joint with Michael Pfarrhofer), 16th International Conference on CFE 2022, "Structural and predictive inference with non-linear macroeconometric methods," London, United Kingdom.

Session organizer, Annual Meeting of the NOeG 2021, "Machine learning for central bankers," Virtual.

# **CONFERENCES AND SEMINARS**

Econometrics Seminar Series (Adam Smith Business School, University of Glasgow), "Bayesian modeling of TVPs using regression trees," Glasgow, United Kingdom, March. Invited talk.

2022 16th International Conference on CFE (King's College London), "Gaussian process VARs and macroeconomic uncertainty," London, United Kingdom, December. Invited talk.

8th Annual Conference of the International Association for Applied Econometrics (IAAE, King's College London), "Gaussian process VARs and macroeconomic uncertainty," London, United Kingdom, June.

Decision Making under Uncertainty Workshop (Aix-Marseille School of Economics), "Gaussian process VARs and macroeconomic uncertainty," Marseille, France, May. Invited talk.

JRC – Meeting on Big Data and Nowcasting (Joint Research Centre of the European Commission), "Hedging climate change news," Ispra, Italy, May. Invited talk.

4th Annual Workshop on Financial Econometrics (Örebro University), "General Bayesian time-varying parameter VARs for predicting government bond yields," Virtual, November.

KOF – Research Seminar (Konjunkturforschungsstelle, ETH Zürich), "Real-time inflation forecasting using non-linear dimension reduction techniques," Zürich, Switzerland, November. **Invited talk**.

11th ESOBE, "Dynamic shrinkage priors for large TVP regressions using scalable MCMC methods," Virtual, September.

IRENE PhD Meeting (Department of Economics, University of Neuchâtel), "On the effectiveness of the European central bank's conventional and unconventional policies under uncertainty," Virtual, June. Invited talk.

2020 14th International Conference on CFE, "Flexible mixture priors for large TVP models," Virtual, December. Invited talk.

Bayes@Austria, "Dynamic shrinkage priors for large TVP regressions using scalable MCMC methods," Virtual, November. Invited talk.

Annual Meeting of the NOeG (WU Vienna), "Fast and flexible Bayesian inference in TVP regression models," Vienna, Austria, February.

NBP Workshop on Short-term Forecasting (Narodowy Bank Polski), "Fast and flexible Bayesian inference in TVP regression models," Warsaw, Poland, November. Invited talk.

10th ESOBE, "Stochastic model specification in Markov switching VECMs," St. Andrews, United Kingdom, September.

Annual Meeting of the NOeG (University of Graz), "Decoupling shrinkage and sparsity in conjugate VAR models." Graz, Austria, April.

Business and Economics Research Seminar (Department of Economics, PLUS), "Model instability in predictive exchange rate regressions," Salzburg, Austria, January.

Annual Meeting of the NOeG (TU Vienna), "Implications of macroeconomic volatility in the Euro area," Vienna, Austria, May.