MAXIMILIAN SCHRÖDER

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RESEARCH INTERESTS

Applied Macroeconomics; Time-series Econometrics; Machine Learning

PROFESSIONAL EXPERIENCE

Central Bank Experience:

Intern, *Norges Bank*, PPO	*Aug 2021 - present*
MP Analyst, *European Central Bank*, Directorate General Monetary Policy	*Jun 2020 - Aug 2020*
Trainee, *European Central Bank*, Directorate General Monetary Policy	*May 2019 - May 2020*
Intern (Master's Thesis), *Deutsche Bundesbank*, Economics Department	*Oct 2018 - Dec 2018*
Intern, *Deutsche Bundesbank*, Research Department	*Sep 2017 - Dec 2017*

Reasearch Assistance:

Research Assistant, *University of Tübingen*, Chair of Econometrics	*Oct 2016 - Aug 2019*
Research Assistant, *Institute for Applied Economic Research*	*Nov 2016 - Apr 2019*
Intern, *Institute for Applied Economic Research*	*Aug 2016 - Oct 2016*

EDUCATION

PhD candidate in Economics,*CAMP, BI Norwegian Business School* *2020 - 2024 exp.*
Title: Modeling Macroeconomic Uncertainty and its Drivers
Advisers: Leif A. Thorsrud (BI), Dimitris Korobilis (University of Glasgow)
Committee: Hilde Bjørnland (BI), Silvia Miranda-Agrippino (New York Fed)
Pre-doc examination passed in June 2023

MSc in Economics, *University of Tübingen*	*2016 - 2019*
BSc in Economics, *University of Tübingen*	*2013 - 2016*

JOB MARKET PAPER

Mixing it up: Inflation at risk

Measuring and monitoring macroeconomic uncertainty has become a key concern of contemporary monetary policy and an active field of academic research. In this paper, a joint approach is proposed that allows to construct risk measures that capture the unknown and non-standard distribution of inflation in a way that consistent with central bank preferences. In addition, two algorithms are proposed that enable to monitor how economic predictors affect the risk outlook and how they shift probability mass across the forecast distribution. Both are widely applicable, enhance the interpretability of a broad class of models, and are suitable for real-time applications. In the empirical exercises, the model yields superior point and density forecasts of U.S. CPI inflation. During the recent high-inflation period, inflation risk predominantly increased due to a recovery of the U.S. business cycle and rising commodity prices and was in part balanced by monetary policy and credit spreads.

PUBLICATIONS

Nowcasting GDP with a pool of factor models and a fast estimation algorithm, 2023, *International Journal of Forecasting*, 39(3), 1460-1476. (With Sercan Eraslan)

What drives euro area financial market developments? The role of US spillovers and global risk, 2021, *ECB Working Paper No. 2560/May 2021.* (With Lennart Brandt, Arthur Saint Guilhem, and Ine Van Robays)

WORKING PAPER

Monitoring macroeconomic risk (R&R in the Journal of Econometrics)
We propose a multicountry quantile factor augmeneted vector autoregression (QFAVAR) to model heterogeneities both across countries and across characteristics of the distributions of macroeconomic time series. The presence of quantile factors allows for summarizing these two heterogeneities in a parsimonious way. We develop two algorithms for posterior inference that feature varying level of trade-off between estimation precision and computational speed. Using monthly data for the euro area, we establish the good empirical properties of the QFAVAR as a tool for assessing the effects of global shocks on country-level macroeconomic risks. In particular, QFAVAR short-run tail forecasts are more accurate compared to a FAVAR with symmetric Gaussian errors, as well as univariate quantile autoregressions that ignore comovements among quantiles of macroeconomic variables. We also illustrate how quantile impulse response functions and quantile connectedness measures, resulting from the new model, can be used to implement joint risk scenario analysis. (With Dimitris Korobilis)

Probabilistic quantile factor analysis (With Dimitris Korobilis)
Under review at the *Journal of Business & Economic Statistics*

MANUSCRIPTS UNDER PREPARATION

When it rains it pours: Drivers of joint uncertainty
Commodity price forecasting with text data (With Dimitris Korobilis and Leif A. Thorsrud)

TEACHING EXPERIENCE

PhD/Expert level:
Advanced Summer School 2023: Bayesian Machine Learning Methods for Modelling Macroeconomic and Financial Time Series, University of Crete.

Bachelor & Master level:
Data Analysis with Programming, (BSc, BI)
Causality, Machine Learning and Forecasting (BSc, BI)
International Macroeconomics and Finance (MSc, BI)
Trends, Cycles, and Signal Extraction from a Macroeconomic Perspective (MSc, BI)
Statistical machine learning (Lab Sessions, University of Glasgow)

REFEREEING ACTIVITY

Journal of Applied Econometrics, Latin American Economic Review, International Journal of Forecasting, Studies in Nonlinear Dynamics & Econometrics, Journal of Economics and Finance.

CONFERENCE PRESENTATIONS

2023	Junior Workshop in Econometrics and Applied Economics, Rome; 3rd Sailing the Macro Workshop, Siracusa; ESOBE 2023, Glasgow; IAAE Annual Conference 2023, Oslo ; 3rd Dolomiti Macro Meetings, San Candido; 27th International Conference on Macroeconomic Analysis and International Finance, Rethymno; SNDE Symposium 2023, Orlando.
2022	Advances in alternative data and machine learning for macroeconomics and finance, Paris; Workshop on Recent Advances in Econometrics, Glasgow.
2019	Third Research Conference of the CEPR Network on Macroeconomic Modelling, Frankfurt.

ADDITIONAL SKILLS

Language skills: German (Native Language); English (Proficient: CPE, Toefl); Spanish (Intermediate); Norwegian (Intermediate)

Software and coding skills: Matlab, Python, Julia