MAXIMILIAN SCHRÖDER

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RESEARCH INTERESTS

Applied Macroeconomics; Time-series Econometrics; Machine Learning

PROFESSIONAL EXPERIENCE

Central Bank Experience:

Intern, *De Nederlandsche Bank*, Research	*May 2024 - present*
Intern, *Norges Bank*, Monetary Policy	*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*

OTHER ROLES AND AFFILIATIONS

Student Council Member, *Norwegian Artificial Intelligence Research Consortium* — *2023 - present*

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.

Awarded with the *Richard T. Baillie award in Time Series Modeling* at the SNDE Symposium 2024 in Padova.

PUBLICATIONS

Monitoring macroeconomic risk, 2024,
Journal of Econometrics, 105730. (With Dimitris Korobilis)

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

Probabilistic quantile factor analysis (R&R, Journal of Business & Economic Statistics)
This paper extends quantile factor analysis to a probabilistic variant that incorporates regularization and computationally efficient variational approximations. By means of synthetic and real data experiments it is established that the proposed estimator can achieve, in many cases, better accuracy than a recently proposed loss-based estimator. We contribute to the literature on measuring uncertainty by extracting new indexes of low, medium and high economic policy uncertainty, using the probabilistic quantile factor methodology. Medium and high indexes have clear contractionary effects, while the low index is benign for the economy, showing that not all manifestations of uncertainty are the same.
(With Dimitris Korobilis)

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

2024	Workshop in Empirical Macroeconomics, Innsbruck, SNDE Symposium 2024, Padova.
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