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Curriculum Vitae

Personal Information

- Date of Birth: 02. September 1978
- Place of Birth: Berlin
- Nationality: German

Employment

- Aug. 2007 - **Norges Bank (Central Bank of Norway), Norway**
 - Advisor, Research Department. Academic research and assistance to the policy department in forecasting.

Education

- 2003 - 2007 **European University Institute (EUI), Italy**
 - Ph.D. Student, Degree: September 2007
 - Supervisor: Prof. Helmut Lutkepohl
 - Thesis Title: Three Essays in Time Series Econometrics
- June 2004 **CIdE, Summer School of Econometrics, Italy**
- 2001 - 2003 **Humboldt Universität zu Berlin, Germany**
 - Master of Science in Economics, (Diplom-Volkswirt), Grade: 1.3
 - Master Thesis: Optimal Fiscal Policy in a Baxter-King Economy
- Sept. 2000 - March 2001 **Libera Università Internazionale degli Studi Sociali - Guido Carli (Luiss), Italy**
 - Graduate Studies within the framework of the European Erasmus Program.
- 1998 - 2000 **Universität Potsdam, Germany**
 - Undergraduate Studies in Economics.

Research

Publications

- Kascha, C. and Ravazzolo, F. (2009). Combining Inflation Density Forecasts. *Journal of Forecasting*, (forthcoming).
- Kascha, C. and Mertens, K. (2009). Business Cycle Analysis and VARMA Models. *Journal of Economic Dynamics and Control*, Vol. 33 (2), pp. 267-282.

Working Papers

- Kascha, C. and Trenkler, C. Bootstrapping the Likelihood Ratio Cointegration Test in Error Correction Models with Unknown Lag Order. Norges Bank working paper 2009/12. Submitted to *Computational Statistics and Data Analysis*.
- Kascha, C. (2007). A Comparison of Estimation Methods for VARMA Models. *EUI working paper 2007/12*. Submitted to *Econometric Reviews*.

Work in Progress

- Kascha, C. and Vahey, S. Combination of Normal Density Forecasts.
- Kascha, C. and Herwartz, H. Forecasting Interest Rates at the Zero-Lower-Bound.

Teaching Experiences

- March – April 2006 **European University Institute**
Teaching Assistant of Prof. Helmut Lütkepohl, “Time Series Econometrics”
- Feb. – April 2005 **European University Institute**
Teaching Assistant of Prof. Helmut Lütkepohl, “Time Series Econometrics”
- Jan. 2002 – Aug. 2003 **Humboldt Universität zu Berlin**
Student Assistant of Prof. Helmut Herwartz. Teaching of exercise sessions: “Introduction to Econometrics”

Awards

- 2006 – 2007 EUI Ph.D. Scholarship
- 2003 – 2006 Ph.D. Scholarship of the German Academic Exchange Service (DAAD)

Skills

- Languages: German (mother-tongue), English (fluent), Italian (fluent), Spanish (good)
- Computing Skills: Proficient in GAUSS, MATLAB, LATEX, JMULTI. Good knowledge of Microsoft Word, Excel.

Abstracts of Research Papers

Bootstrapping the Likelihood Ratio Cointegration Test in Error Correction Models with Unknown Lag Order (2009)

Christian Kascha, Carsten Trenkler

We investigate the small-sample size and power properties of bootstrapped likelihood ratio systems cointegration tests via Monte Carlo simulations when the true lag order of the data generating process is unknown. A recursive bootstrap scheme is employed. We estimate the order by minimizing different information criteria. In comparison to the standard asymptotic likelihood ratio test based on an estimated lag order we found that the recursive bootstrap procedure can lead to improvements in small samples even when the true lag order is unknown while the power loss is moderate.

Combining Inflation Density Forecasts (2009)

Christian Kascha, Francesco Ravazzolo

In this paper, we empirically evaluate competing approaches for combining inflation density forecasts in terms of Kullback-Leibler divergence. In particular, we apply a similar suite of models to four different data sets and aim at identifying combination methods that perform well throughout different series and variations of the model suite. We pool individual densities using linear and logarithmic combination methods. The suite consists of linear forecasting models with moving estimation windows to account for structural change. We find that combining densities is a much better strategy than selecting a particular model ex-ante. While combinations do not always perform better than the best individual model, combinations always yield accurate forecasts and, as we show analytically, provide insurance against selecting inappropriate models. Combining with equal weights often outperforms other weighting schemes. Also, logarithmic combinations can be advantageous, in particular if symmetric densities are preferred.

Business Cycle Analysis and VARMA Models (2009)

Christian Kascha, Karel Mertens

Can long-run identified structural vector autoregressions (SVARs) discriminate between competing models in practice? Several authors have suggested SVARs fail partly because they are finite-order approximations to infinite-order processes. We estimate vector autoregressive moving average (VARMA) and state space models, which are not misspecified, using simulated data and compare true with estimated impulse responses of hours worked to a technology shock. We find few gains from using VARMA models. However, state space algorithms can outperform SVARs. In particular, the CCA subspace method consistently yields lower mean squared errors, although even these estimates remain too imprecise for reliable inference. The qualitative differences for algorithms based on different representations are small. The comparison with estimation methods without specification error suggests that the main problem is not one of working with a VAR approximation. The properties of the processes used in the literature make identification via long-run restrictions difficult for any method.

A Comparison of Estimation Methods for VARMA Models (2007)

Christian Kascha

Classical Gaussian maximum likelihood estimation of mixed vector autoregressive moving-average models is plagued with various numerical problems and has been considered difficult by many applied researchers. These disadvantages could have led to the dominant use of vector autoregressive models in macroeconomic research. Therefore, several other, simpler estimation methods have been proposed in the literature. In this paper these simpler methods are compared by means of a Monte Carlo study. Different evaluation criteria are used to judge the relative performances of the algorithms. The results suggest that the algorithm of Hannan & Kavalieris (1984b) is the only simple algorithm that reliably outperforms the other algorithms and the benchmark VARs.