Christian Matthes

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Personal

- **Date of Birth**
  August 20th, 1979
- **Citizenship**
  Germany

Current Position

- **Universitat Pompeu Fabra** — Barcelona, Spain
  Assistant Professor of Economics — *September 2010 -*

Education

- **Goethe University** — Frankfurt am Main, Germany
  Diplom, Economics — *1999 - 2004*
  - Undergraduate Thesis: A Bayesian VAR Analysis Using Priors from a DSGE Model
  - Advisor: Volker Wieland
- **New York University** — New York, NY
  Ph. D., Economics — *2004-2010*
  - M.A., Economics, 2008
  - Advisors: Timothy Cogley and Thomas Sargent
  - Thesis: Figuring Out the Fed - Beliefs about Policymakers and Gains from Transparency

Visiting Positions

- **University of Chicago** — Chicago, IL
  Visiting Student — *Winter Quarter 2007*
- **Federal Reserve Bank of Atlanta, Research Department** — Atlanta, GA
  Visiting Scholar — *Summers 2007, 2008, 2009, 2010*
- **Federal Reserve Bank of New York** — New York, NY
  Visiting Scholar — *August 2010 - September 2010*

Teaching and Research Fields

Macroeconomics, Econometrics, Monetary Economics

Research Interests

Optimal Monetary and Fiscal Policy, Learning and Imperfect Information, Econometric Analysis of Dynamic Equilibrium Models

References

- Timothy Cogley
  NYU Department of Economics
  New York University
  19 W. 4th St., 6 FL
  New York, NY 10012
  Email: tim.cogley@nyu.edu
  Phone: 212-992-8679

- Thomas Sargent
  NYU Department of Economics
  New York University
  19 W. 4th St., 6 FL
  New York, NY 10012
  Email: thomas.sargent@nyu.edu
  Phone: 212-998-3548

- Tao Zha
  Research Department
  Federal Reserve Bank of Atlanta
  1000 Peachtree Street, N.E.
  Atlanta, GA 30309
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Teaching Experience

- **Undergraduate Econometrics** — New York University
  Teaching Assistant for Jushan Bai — *Spring 2006*
- **First Year Ph.D. Econometrics** — New York University
  Teaching Assistant for Nazgul Jenish and Jörg Stoye — *Fall 2008*
- **Second Year Ph.D. Course** — New York University, *Spring 2007*
  - Topics: Computational Methods for Macroeconomics and Bayesian Econometrics
  - co-taught with Francisco Barillas, Jesus Fernandez-Villaverde, Juan Rubio-Ramirez and Thomas Sargent

- **Undergraduate Statistics** — Goethe University
  Teaching Assistant for Werner Neubauer and Ulrich Rendtel — *Summer and Fall 2001*

Research Assistant Positions

- **R. A. for Timothy Cogley** — New York University
  Fall 2009 - Summer 2010
- **R. A. for Thomas Sargent** — New York University
  Summer 2006 - Summer 2008
- **Undergraduate R. A. for Volker Wieland** — Goethe University
  Summer 2002 - Summer 2004

Awards, Grants & Honors

Henry Mitchell McCracken Fellowship, NYU 2004-2008
CV Starr Fellowship, NYU 2009

Working Papers

Figuring Out the Fed - Beliefs about Policymakers and Gains from Transparency
Abstract:
In this paper, I estimate a macroeconomic model of private sector behavior that does not feature rational expectations and, instead, leaves firms and households uncertain about how monetary policy is set. In particular, the private sector is endowed with two competing views of monetary policy making, optimal monetary policy under discretion and under commitment. Firms and households use Bayes' law on a rolling data sample to distinguish between those two models.
I then use this setup to study the evolution of beliefs about the Federal Reserve since 1960, the effect of particular policy actions on beliefs of the private sector and the possible gains from transparency (i.e. convincing the public that the Federal Reserve is committed to a certain policy) during that period, especially during the great inflation at the end of the 1970s and beginning of the 1980s.
Technically this paper contributes to the growing literature on the estimation of learning models in macroeconomics by presenting a likelihood-based approach that allows the econometrician to leave unspecified the "true" data generating process for the aspects of the economy that the economic agents are uncertain about. Instead, the econometrician can focus on the perceived law of motion of the agents. This approach is embedded in a Markov Chain Monte Carlo algorithm to calculate posterior distributions of statistics of interest.

A Bayesian Approach to Optimal Monetary Policy with Parameter and Model Uncertainty (submitted)
with Bianca De Paoli, Tim Cogley, Kalin Nikolov and Tony Yates
Abstract:
This paper undertakes a Bayesian analysis of optimal monetary policy for the U.K. We estimate a suite of monetary-policy models that include both forward and backward-looking representations as well as large- and small-scale models. We find an optimal simple Taylor-type rule that accounts for both model and parameter uncertainty. For the most part, backward-looking models are highly fault tolerant with

respect to policies optimized for forward-looking representations, while forward-looking models have low fault tolerance with respect to policies optimized for backward-looking representations. In addition, backward-looking models often have lower posterior probabilities than forward-looking models. Bayesian policies therefore have characteristics suitable for inflation and output stabilization in forward-looking models.

The Real Predictive Ability of New Keynesian Models
with Mu-Chun Wang
Abstract:
This paper examines the out of sample forecasting performance of the New Keynesian dynamic general equilibrium model of Smets & Wouters (2007). In particular, we assess the forecasting performance of the Smets & Wouters (2007) model vis-a-vis two variants of Real Business Cycle models that lack nominal frictions. Thus we are able to quantify the contribution of nominal frictions to the forecasting performance with regard to real variables. We find that some nominal frictions are indeed helpful to forecast real variables while indexation in the price and wage setting process seems to add little information.

Likelihood-based Estimation of Dynamic Equilibrium Models in the Frequency Domain: A MCMC Approach
Abstract:
This paper describes a Markov Chain Monte Carlo algorithm that can be used to perform likelihood-based inference in the frequency domain for linear Gaussian state space models. Certain frequencies of the data and the time series of observables implied by the model can be omitted, leading to estimates based only on the likelihood for non-omitted frequencies. The algorithm thus allows a model-consistent investigation of issues such as seasonality and low frequency movements in economic time series. A Monte Carlo study is carried out using a benchmark 'New Keynesian' dynamic equilibrium model of Del Negro & Schorfheide (2004), which is log- linearized to fit into the framework presented here.

Work in Progress

- Optimal Disinflation Under Learning - joint with T. Cogley and A. Sbordone
- The New Keynesian Phillips Curve and Measures of Real Activity - joint with Mu-Chun Wang

Other Work

- Practicing Dynare - joint with Francisco Barillas, Riccardo Colacito, Sagiri Kitao, Thomas Sargent and Yongs Shin

Seminars and Conference Presentations

- 2010: Emory, Richmond Fed, Federal Reserve Board, Pompeu Fabra, Tilburg, Paris School of Economics, Dallas Fed, Dynare Conference (Helsinki), DNB-ECB-RUG Conference on Central Bank Communication (Amsterdam), Conference on Macroeconomic Modeling and Policy Analysis after the Global Financial Crisis (Frankfurt, discussant only)
- 2009: Atlanta Fed, NYU

Other Activities

- Referee, B.E. Journal of Macroeconomics, Economic Journal, Journal of Monetary Economics
- Participant, CFS Summer School on Macroeconomic Modeling, Summer 2006, taught by Michael Binder, Charles Engel, Philip Lane and Kenneth West