Goethe University of Frankfurt
IMFS
House of Finance
Department of Money and Macroeconomics
Professor Volker Wieland, Ph.D.

Winter Semester 2016/17

Ph.D. Program Seminar
Macro-Financial Modeling: Economic Frictions, Monetary and Fiscal Policy

Description:
The purpose of this seminar is to give advanced doctoral students a hands-on introduction to frontier research in empirical macroeconomics and the development and application of structural macroeconomic models. The seminar will consist of a combination of lectures, supervision of modeling projects, student presentations and group discussions with extensive feedback. Each project, which should ideally be pursued by a team of two students, will involve studying an existing macroeconomic model from the literature. Students will then be guided in the development of a software implementation of the model in DYNARE with a policy application. At the end of the seminar, students should be able to start working on a dissertation project that involves structural macroeconomic modeling. Successful participation in this seminar is a precondition for the supervision of a dissertation at the chair.

Time and Location:
We will be meeting repeatedly throughout the semester for lectures and student presentations in the House of Finance. The introductory meeting will take place on Tuesday 18th of October 2-3 pm at HoF, room Chicago 3.36.

Registration:
To register for the course, students should send an e-mail to Meguy Kuete (Meguy.Kuete@hof.uni-frankfurt.de). The e-mail should contain the participant's name and contact details. Registration should take place as soon as possible. The maximum number of students participating in the course for credit will need to be restricted to twelve.

Requirements:
Students will be expected to give two short presentations for group feedback. The first presentation will discuss the assigned paper from the literature and modeling project. It will take place in the middle of the semester. The second presentation will report on the implemented model and policy application. Grading for the seminar course will be based on a problem set, presentations and model implementation.

Literature: The Comparative Approach (required reading for all students)

Wieland, Volker, Tobias Cwik, Gernot J. Müller, Sebastian Schmidt, and Maik Wolters (2012). "A New Comparative Approach to Macroeconomic Modeling and Policy Analysis," *Journal of Economic Behavior and Organisation*, Elsevier, Vol. 83, Issue 3: 523-541, also available at http://www.macromodelbase.com.

Wieland, Volker and Sebastian Schmidt (2013), "The New Keynesian Approach to Dynamic General Equilibrium Modelling: Models, Methods and Macroeconomic Policy Evaluation", *Handbook of Computable General Equilibrium Modeling*, Elsevier.

Wieland, Volker, Elena Afanasyeva, Meguy Kuete and Jinhyuk Yoo. New Methods for Macro-Financial Model Comparison and Policy Analysis. Forthcoming in *Handbook of Macroeconomics*, Volume 2, Elsevier. Working Paper version available at http://www.macromodelbase.com/documentation-support/modelbase-documents/.

Literature: For Student Projects

Models with Financial Frictions

1. Carlstrom, Charles T., Timothy S. Fuerst, and Matthias Paustian (forthcoming). "Targeting Long Rates in a Model with Segmented Markets." *American Economic Journal: Macroeconomics*. (estimated model, Dynare codes available)
2. Ajello, Andrea (2016). "Financial Intermediation, Investment Dynamics, and Business Cycle Fluctuations." *American Economic Review* 106(8): 2256-2303. (Model Dynare codes available, estimated model)
3. Christiano, Lawrence J., Martin S. Eichenbaum, and Mathias Trabandt (2015). "Understanding the Great Recession." *American Economic Journal: Macroeconomics* 7(1): 110-167. (estimated model, Dynare codes available)
4. Del Negro, Marco, Marc P. Giannoni, and Frank Schorfheide (2015). "Inflation in the Great Recession and New Keynesian Models." *American Economic Journal: Macroeconomics* 7(1): 168-196. (estimated model of SW07 with BGG financial accelerator, Matlab codes available).
5. De Fiore, Fiorella, Pedro Teles and Oreste Tristani. 2011. "Monetary Policy and the Financing of Firms." *American Economic Journal: Macroeconomics*, 3(4): 112-42. (calibrated model, Dynare codes available).

Monetary Policy

1. Cogley, Timothy, Giorgio E. Primiceri and Thomas J. Sargent (2010). "Inflation-Gap Persistence in the US." *American Economic Journal: Macroeconomics*, 2(1): 43-69. (estimated model, Matlab codes available).

Fiscal Policy

1. Nakamura, Emi and Jón Steinsson (2014). "Fiscal Stimulus in a Monetary Union: Evidence from US Regions." *American Economic Review* 104(3): 753-792. (Matlab codes available, calibrated model)
2. Fernández-Villaverde, Jesús, Pablo Guerrón-Quintana, Keith Kuester, and Juan Rubio-Ramírez (2015). "Fiscal Volatility Shocks and Economic Activity." *Amercian Economic Review* 105(11): 3352-3384. (Dynare codes, available 3rd order perturbation, estimated by SMM)
3. Fève, Patrick, Julien Matheron, and Jean-Guillaume Sahuc (2013). "A Pitfall with Estimated DSGE-Based Government Spending Multipliers." *American Economic*

Journal: Macroeconomics 5(4): 141-178. (Dynare codes available, includes SW07 estimated version)

Term-Structure in DSGE Models

1. Rudebusch, Glenn D. and Eric T. Swanson (2012). "The Bond Premium in a DSGE Model with Long-Run Real and Nominal Risks." *American Economic Journal: Macroeconomics,* 4(1): 105-43. (Mathematica codes available, implementable with Dynare, 3rd order perturbation)

Money Demand in DSGE Models

1. Aruoba, S. Borağan and Frank Schorfheide (2011). "Sticky Prices versus Monetary Frictions: An Estimation of Policy Trade-Offs." *American Economic Journal: Macroeconomics*, 3(1): 60-90. (estimated models, GAUSS codes available)

Labor Market Frictions in DSGE

1. Blanchard, Olivier and Jordi Galí (2010). "Labor Markets and Monetary Policy: A New Keynesian Model with Unemployment." *American Economic Journal: Macroeconomics*, 2(2): 1-30. (Matlab codes available, calibrated model)

Sticky Information in DSGE Models

1. Reis, Ricardo. 2009. "Optimal Monetary Policy Rules in an Estimated Sticky-Information Model." *American Economic Journal: Macroeconomics*, 1(2): 1-28. (estimated model, Matlab codes available)

Schedule:

October 18, 14:00-15:00 (Chicago, HoF 3.36)

1st meeting to discuss course plan and potential projects. Students may state preferences for projects and assignments can be made.

October 26

Last day for signing up for a particular project. Availability to be cleared with Meguy Kuete.

November 8, 12:00-14:00 (Room Dubai, HoF 1.27)

Lecture on Macroeconomic Modelling I (Prof. Wieland)

November 15, 12:00-14:00 (Room Dubai, HoF 1.27)

Lecture on Macroeconomic Modelling II (Meguy Kuete)

November 22, 12:00-14:00 (Room Dubai, HoF 1.27)

Introduction to Dynare and Macro Model Data Base. Computer Session (Macro Model Base Team).

December 13-16 (to be confirmed)

Late December: Student presentations explaining the model and paper chosen for the project. Time: 30 minutes for each presentation including discussion.

From January 31 to February 2 (to be confirmed)

Early February: Student presentations of model implementation. Time: 35 minutes for each presentation including discussion.

March (to be confirmed)

End of semester deadline for turning in the write-up describing model implementation (equations, data etc.), replication and comparison exercises.