Advanced Macroeconomic Theory 2, Part 1
Summer Semester 2022
Prof. Dr. Alexander Meyer-Gohde
Chair of Financial Markets and Macroeconomics

Lecture: HoF - HoF E.20 / DZ Bank
14/04/2023 – 26/05/2023
08:30 a.m. - 12:00 noon

28. März 2023

Faculty of Economics and Institute for Monetary and Financial Stability

Chair of Financial Markets and Macroeconomics

Prof. Dr. Alexander Meyer-Gohde

House of Finance
Goethe University of Frankfurt
Theodor-W.-Adorno-Platz 3
60629 Frankfurt am Main
Germany

Tel.   +49 (0)69 798 34501
meyer-gohde@econ.uni-frankfurt.de
http://www.imfs-frankfurt.de

Professor: Alexander Meyer-Gohde
     Office Hours: By appointment
     Office: House of Finance, Room 4.47
     E-mail: meyer-gohde@econ.uni-frankfurt.de
https://www.imfs-frankfurt.de/professuren/finanzmaerkte-und-makrooekonomie

Administrative Assistant: Pamela Spiegel
     Office: House of Finance, Room 4.44
     E-mail: office.amg@its.uni-frankfurt.de

Teaching Assistant: Johanna Saecker
     Office: House of Finance, Room 4.54
     E-mail: saecker@hof.uni-frankfurt.de

Teaching Assistant: Mary Tzaawa-Krenzler
     Office: House of Finance, Room 4.60
     E-mail: tzaawakr@its.uni-frankfurt.de

Hybrid Course: Due to the ongoing COVID-19 pandemic, this course will be offered in a hybrid format. Alongside the complete in-person offering, all material including videos of lectures and recitations will be available online. The exact modalities will be communicated via OLAT. Please contact us if you have any concerns and, most importantly, stay safe!

Course Grade: The grade will be based on a final exam.

Course Description: This course will introduce students to the rigorous solution, estimation, and analysis of business cycle models. Numerical solution methods will be compared in the analysis of the real business cycle (RBC) model and numerical estimation techniques introduced in the analysis of New Keynesian models. Thus, the course will have a twofold focus on models and techniques.

Textbook:

Recursive Macroeconomic Theory
4th Edition, MIT Press, 2018
By Thomas J. Sargent and Lars Ljungqvist

Numerical Methods in Economics
MIT Press, 1998
By Kenneth L. Judd

Monetary Policy, Inflation, and the Business Cycle
Princeton University Press, 2015
By Jordi Galí

Course Outline

Part I: RBC and Solution Methods
1. Benchmark RBC model
2. Analytic Case: Value Function Iteration, Howard's Improvement, (Log)linearization
3. Linearization / Solving linear rational expectations models
4. Numerical Case: VFI
5. Numerical Case: Projections and Parameterized Expectations
6. Numerical Case: Local Nonlinear Approximation Perturbation

Part II: New Keynesian and Estimation
7. Monopolistic Competition and Nominal Rigidities (Calvo and Rotemberg)
8. Basic New Keynesian Model
9. Likelihood based estimation
10. Positive analysis of the NKM
11. Normative analysis of the NKM

Learning Goals

LGB-1: Students will understand and apply state-of-the-art structural macroeconomic models of the business cycle.
LGB-2: Students will master the numerical techniques for solving, estimating, and analyzing state-of-the-art structural macroeconomic models.
LGB-3: Students will able to apply the techniques and their understanding of the course's models in their further studies and use them to inform their understanding and discussion of the macroeconomy.
LGB-5: Students will be able to use and apply the numerical analysis programs Matlab and Dynare
LGB-7: Students will be able to express, explain and analyze state-of-the-art models formally, verbally and graphically.