

Syllabus

Name:			
DSGE Modelling			
Responsible:			
Assistant Professor Eric Mayer, Monetary Policy and International Economics			
Program:	Type:	Term:	ECTS:
Master	Lecture	Summer	6 CP
Contents & Objectives:			
<p>The course offers a primer into advanced business cycle analysis. The focus lies in understanding and applying modern analytical approaches, in particular Dynamic Stochastic General Equilibrium Models (DSGE), which are utilized in central banks and other international institutions, e.g., Europeans Commission and International Monetary Fund (IMF).</p> <p>The following topics will be addressed: Micro founded approach to analyze key determinants of the business cycle: Households consumption, labor and savings decisions and firm's labor, capital demand and pricing decisions. Design of monetary policy: Simple rules versus optimal discretion. The analytical approaches will be evaluated in depth with case studies and simulations implemented with Dynare. In addition, specific topics that extend the basic framework, will be discussed.</p>			
Prerequisites:			
The course is designed for students in the Master's program with a basic knowledge of macroeconomics and basic working knowledge in quantitative methods. International exchange students from Bachelor programs may attend this course if they have good quantitative skills and some background in macroeconomics.			
Course Structure:			
Week	Content		
1	I. Introduction to classical monetary model		
2	I. The households optimization program: consumption, hours worked and savings		
3	I. The firms optimization program: labor and capital demand and the role of monetary policy		
4	I. A primer in evaluating a classical monetary model with Dynare		
5	II. Introduction to the basic New Keynesian model		
6	II. The firms optimization problem in a sticky price environment		
7	II. Monetary policy design in the basic New Keynesian framework		
8	II. A primer in evaluating a basic New Keynesian model with Dynare		
9	III. Topics: A look behind the scene: Minimum state variable solution and determinacy		
10	III. Topics: Investment and capital accumulation in a New Keynesian framework		
11	III. Topics: Sticky wages in a New Keynesian model		
12	III. Topics: Business cycle analysis in a medium scaled New Keynesian model		

Literature:

- [1] Gali, J., (2015), Monetary Policy, Inflation, and the Business Cycle, 2nd edition, University Press Group Ltd.
- [2] Adjemian, S., Bastini, H., Karane, F., Juillard, M., Maih, J., Perendis, G., Pfifer, J., Ratto, M., and Sébastien Villemot. (2015), Dynare Reference Manual, version 4.4.3.
- [3] Mayer, E., (2015), A Helicopter Tout through New Keynesian Models, script.

[4] Walsh, C., (2010), Monetary Theory and Policy, 3rd edition, The MIT Press.

Grading:

60-minute final written exam + optional bonus assignment

Contact:

Dr. Eric Mayer, Assistant Professor (eric.mayer@uni-wuerzburg.de)