Module title: DSGE Modelling

Module coordinator: holder of the Chair of Monetary Policy and International Economics

Module offered by: Faculty of Business Management and Economics

Abbreviation: 12-M-DMM-161-m01

ECTS: 5

Method of grading: numerical grade

Duration: 1 semester

Module level: graduate

Other prerequisites: --

Contents:
The course offers an introduction to "Dynamic Stochastic General Equilibrium Modelling" (DSGE). These models are designed to describe the business cycle at the macro level. In a first step, we analyse the behaviour of a representative household. In particular, we describe how consumption, asset allocation and labour supply plans are formulated. In a second step, we focus on the firm sector and address how firms solve for optimal production plans. In a third step, we explain what role the central bank plays in stabilising the business cycle. Thereby, we show how changes in interest rates interact with optimal decisions taken by households and firms. We also discuss hot topics such as CAPM models and monetary policy in the euro area.

Intended learning outcomes:
The course offers analytical tools designed to solve DSGE models. These analytical skills encompass:

-- Solving of intertemporal optimization problems (e.g., consumption Euler-equations).
-- Linearization methods (e.g., Taylor-expansions).
-- Solving linear difference expectations by minimum state variable techniques (MSV-solution).
-- Basic time series concepts such as impulse response functions, variance decompositions.
-- Basic insights in MATLAB/Dynare programming: specifying, solving and estimating DSGE models.

Courses:
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Method of assessment:
a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)
Language of assessment: German and/or English

Allocation of places:
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Additional information:
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Referred to in LPO I:
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Module appears in:
Master's degree (1 major) Economathematics (2016)
Master's degree (1 major) Business Management (2015)
Master's degree (1 major) China Business and Economics (2016)
Master's degree (1 major) China Language and Economy (2016)