Module title			Abbreviation
DSGE Modelling			12-M-DMM-161-m01
Module coordinator		**Module offered by**	
Head of the Work Group of Empirical Economics		Faculty of Business Management and Economics	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

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 encompas:

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

Based on the course students are able themselves to design and implement DSGE models.

Courses (type, number of weekly contact hours, language — if other than German)

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Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

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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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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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) International Economic Policy (2015)
Master's degree (1 major) China Language and Economy (2016)

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