

Advanced Macroeconomics

Winter 2022/23

Prof. Dr. Jürgen Bitzer

Course Meeting Time and Place:

Videoaufzeichnung/Online

Starts: 17th October 2022 Ends: 3rd February 2023

Content

“Why are some countries rich and others poor?” is the question at the heart of the research on economic growth and development. In the course, the students will be introduced to the basic economic growth models and the empirical research, which try to answer this question.

Structure of the course and prerequisites

The structure of the course is given in the Course Outline on the next page of this syllabus. The course deals with theoretical models, which requires a sound knowledge of mathematics. Those who lack this knowledge should first participate in the course “Intensive Course in Economics (Foundations of Economic Policy)”. Furthermore, to be able to follow the empirical papers on economic growth basic econometric knowledge is required. Therefore, the modules “Ökonometrie” or “Multivariate Statistik” are useful prerequisites.

Grading

Grade will be based on a written exam.

Course Outline

1. Introduction

⇒ Some stylised facts on economic growth?

⇒ Which questions should be answered?

Literature: Barro and Sala-i-Martin (2004), S. 1-22;
Acemoglu (2009), Chapter 1.

Videos: AM-VL-1-T1 to AM-VL-1-T3

2. The Solow model

⇒ A short reminder: The Solow model without technological progress

Videos: AM-VL-2-T1 to AM-VL-2-T8

⇒ The Solow model with technological and its implications

Videos: AM-VL-2-T9 to AM-VL-2-T12

⇒ The Solow model with technology diffusion

Videos: AM-VL-3-T1 to AM-VL-3-T4

Literature: Barro and Sala-i-Martin (2004), Chapter 1;
Acemoglu (2009), Chapter 18.2.1.

3. The Solow model and the data

⇒ Convergence

Video: AM-VL-3-T5

⇒ Growth Accounting

Video: AM-VL-3-T6

Literature: Barro and Sala-i-Martin (2004), Chapter 1 and 10;
Acemoglu (2009), Chapter 3.

4. An Introduction to dynamic optimisation

⇒ A short remainder: Static optimisation

Video: AM-VL-4-T1

⇒ Dynamic optimisation

Videos: AM-VL-4-T2 to AM-VL-4-T8

⇒ Dynamic optimisation in economic growth models

Video: AM-VL-4-T8

Literature: Barro and Sala-i-Martin (2004), Chapter A.3.

5. The Ramsey-Cass-Koopman model

⇒ The Ramsey-Cass-Koopman model with endogenous saving rate

Videos: AM-VL-5-T1 to AM-VL-5-T10

Literature: Barro and Sala-i-Martin (2004), Chapter 2.

6. The Romer Model

⇒ The Romer model

Videos: [AM-VL-6-T1](#) to [AM-VL-6-T12](#)

Literature: Romer (1990).

7. The Aghion and Howitt Model

⇒ The Aghion and Howitt model

Videos: [AM-VL-7-T1](#) to [AM-VL-7-T8](#)

Literature: Aghion and Howitt (1998), chapter 2.

8. Institutions and growth

Types of institutions

The impact of institutions on growth

Videos: [AM-VL-8-T1](#) to [AM-VL-8-T3](#)

Literature: Acemoglu (2009), chapter 22 and 23.

Literature

Acemoglu, Daron (2009): Introduction to Modern Economic Growth. Princeton University Press: Princeton.

Aghion, Philippe, and Peter W. Howitt (1998): Endogenous Growth Theory. MIT Press, Cambridge, Mass.

Barro, Robert J., Xavier Sala I. Martin (2004): Economic Growth: Second Edition. MIT Press, Cambridge, Mass.

Romer, Paul M. (1990): Endogenous Technical Change, Journal of Political Economy, Vol. 98, No. 5, p. S71-S102.

Literature on the mathematical background

Chiang, Alpha C. and Kevin Wainwright (2005): Fundamental Methods of Mathematical Economics, 4th edition, McGraw-Hill: New York.

Sydsaeter, Knut, Peter Hammond, Atle Seierstand, and Arne Strom (2008): Further Mathematics for Economic Analysis, 2nd edition, Prentice Hall: Harlow.

Sydsaeter, Knut and Peter Hammond (2008): Essential Mathematics for Economic Analysis, 3rd edition, Prentice Hall: Harlow. (Oder die deutsche Fassung “Mathematik für Wirtschaftswissenschaftler”, 3. Auflage, erschienen 2008 bei Pearson Studium.)

Tietze, Jürgen (2009): Einführung in die angewandte Wirtschaftsmathematik, 15. Auflage, Vieweg: Wiesbaden.