



## Introduction to Economic Growth

Summer Semester 2023

### Synopsis

Why are some countries rich and some countries poor? Exploring modern theories of economic growth and their empirical applications, this course provides fundamental insights on the determinants of long-run economic growth and cross-country differences in income levels and dynamics.

### Modules

Programmes of Faculty of Business and Economics: BA-WW-VWL-2707a, D-WW-WIWI-2707a

Bachelor / Master International Relations:  
BA-IB-ECG / MA-IB-ECG

Other programmes: according to export and/or learning agreements

### Assessment

Written exam, duration 90 minutes; offered in summer semester 2023 and alternatively in the following winter semester 2023/24.

### Instructors

Prof. Dr. Alexander Kemnitz, office hour: Tue, 2:50-4:20 pm, by appointment, SCH C 265, email: [alexander.kemnitz@tu-dresden.de](mailto:alexander.kemnitz@tu-dresden.de)

Olga Tcaci, M.Sc., office hour: Wed, 4:40-6:10 pm, by appointment, SCH C 261, email: [olga.tcaci@tu-dresden.de](mailto:olga.tcaci@tu-dresden.de)

### Teaching Format

The lecture will be offered exclusively in electronic format via OPAL, see below.

The tutorial will be held in presence in SCH A118/H from 11:10 to 12:40 on the following dates: April 03rd, April 17th, April 24th, May 08th, May 22th, June 12th, June 26th, July 03rd, July 07th.

### Resources

Starting April 03rd, lecture slides and videos, their release schedule, and questions for the tutorial will be supplied on the OPAL-site of this course. Access requires login to OPAL via your TU Dresden account and registration on the course site.

For voluntary introductory reading, we recommend the following textbooks, all available at DrePunct:

Barro, R. J. & X. Sala-i-Martin (2004): Economic Growth, 2nd Edition, MIT Press

Jones, C. I. & D. Vollrath (2013): Introduction to Economic Growth, 3rd Edition, Norton

Weil, D. (2013): Economic Growth, 3rd Edition, Pearson

## Contents

- I. Introduction: Some Facts and Data on Economic Growth
- II. Factor Accumulation
  - A. The Solow Model
    - 1. Neoclassical Production Function
    - 2. Physical Capital Accumulation
    - 3. Population Growth
  - B. Implications and Evidence
    - 1. Differences in Per Capita Income
    - 2. Convergence
  - C. Some Further Issues
    - 1. Markets
    - 2. The Golden Rule of Capital Accumulation
  - D. Perpetual Growth
    - 1. CES-Production Functions
    - 2. The AK Model
    - 3. Human Capital
    - 4. Public Infrastructure
- E. Growth Accounting
- III. Technological Progress
  - A. Categories of Technological Progress
  - B. Exogenous Technological Progress
  - C. Endogenous Technological *Progress*
    - 1. The Economics of Ideas
    - 2. Learning-by-Investing
    - 3. Research and Development
- IV. Fundamentals
  - A. Globalisation and Economic Integration
    - 1. Capital Mobility
    - 2. Technology Transfer
    - 3. Trade
  - B. Social Infrastructure and Institutions
    - 1. The Evidence
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