



**Institute of Economics**

**Department of Economic Theory**

Prof. Dr. Marten Hillebrand

**Tel:** +49 761 / 203-2326

**E-mail:** [marten.hillebrand@vwl.uni-freiburg.de](mailto:marten.hillebrand@vwl.uni-freiburg.de)

Rempartstrasse 10-16

D-79085, Freiburg im Breisgau

**URL:** [www.macro.uni-freiburg.de](http://www.macro.uni-freiburg.de)

Syllabus for the Master's seminar

## **Topics in Macroeconomics II**

*Engines of Prosperity: the Macroeconomics of Growth*

Winter semester 2025/26

- Content:

This seminar explores drivers and obstacles of economic growth through the lens of modern growth theory. Participants will engage with both classical models and recent contributions at the research frontier, examining the roles of innovation, capital accumulation, environmental constraints, and demographics for welfare and macroeconomic policy. The seminar encourages critical discussion of quantitative and conceptual frameworks that address the feasibility and desirability of sustaining or accelerating economic growth.

- Grading:

- To obtain 6 ECTS, participants
  1. deliver a presentation on their topic.
  2. write a report on three of the topics presented in class (except their own).
  3. attend and actively participate in all in-class discussions.
- The final grade depends on the contributions in 1.-3.

- Areas of specialization for M.Sc. Economics:

- Economics and Politics
- Finance
- Information Systems and Network Economics

- Areas of specialization for M.Sc. VWL:

- Accounting, Finance and Taxation
- International and Development Economics
- Public Sector Economics and International Taxation

- Prerequisites:
  - Successful participation in Advanced Macroeconomics I or II is required.
  - A strong interest in macroeconomic models and their application to growth phenomena.
- Participation and topic allocation:
  - To sign up for the seminar, please send an email to [markus.epp@vwl.uni-freiburg.de](mailto:markus.epp@vwl.uni-freiburg.de) no later than **October 5<sup>th</sup>**. You will receive notification about admission to the seminar by **October 8<sup>th</sup>**.
  - In your mail, please include a **transcript of records** and provide a ranked list of your **three favorite seminar articles**. This ranking should be of the form, e.g., 2B > 3C > 5A (s. list of topics & articles below).
  - Each student will be assigned a topic and one of the articles. This allocation will be announced during the kick-off.
  - While we will do our best to assign topics based on your preferences, we cannot guarantee that everybody will get their most favorite topic.
- Organization:
  - The total number of sessions and presentations will depend on the number of students and their most preferred topics.
  - All seminar sessions take place in-person. Remote participation is not possible.
  - The seminar kicks off on **October 14<sup>th</sup>** at **10:15 am**. Participation in the kick-off is mandatory.
  - Seminar presentations take place on **Tuesdays** from **10:15 to 13:00** starting **October 28<sup>th</sup>** and ending (latest) on **December 16<sup>th</sup>**. Details will be announced in the kick-off meeting.
  - The kick-off and all seminar talks take place in **R01 012** (Rempartstr. 16, 1st level).
- Guidelines regarding the reports and presentations are attached to the end of this document.
- All organizational details (ILIAS passwords etc.) will be announced during the kick-off meeting.
- For further information and requests, please contact [markus.epp@vwl.uni-freiburg.de](mailto:markus.epp@vwl.uni-freiburg.de).

- Seminar topics:

1. **Unpacking and accounting for cross-country income differences**

- 1A: Robert E. Lucas Jr (1988). "On the mechanics of economic development". In: *Journal of Monetary Economics* 22.1, pp. 3–42
- 1B: Edward C. Prescott (2002). "Prosperity and depression". In: *American Economic Review* 92.2, pp. 1–15

2. **Growth miracles**

- 2A: Robert E. Lucas Jr (1993). "Making a miracle". In: *Econometrica*, pp. 251–272
- 2B: Jesús Fernández-Villaverde, Lee E Ohanian, and Wen Yao (2023). *The neoclassical growth of China*. Tech. rep. National Bureau of Economic Research

3. **Growth puzzles**

- 3A: Robert J Barro, N Gregory Mankiw, and Xavier Sala-i Martin (1995). "Capital mobility in neoclassical models of growth". In: *American Economic Review* 85.1, pp. 103–115
- 3B: Pierre-Olivier Gourinchas and Olivier Jeanne (2013). "Capital flows to developing countries: The allocation puzzle". In: *Review of Economic Studies* 80.4, pp. 1484–1515

4. **Directing and selecting growth**

- 4A: Daron Acemoglu (2002). "Directed technical change". In: *The Review of Economic Studies* 69.4, pp. 781–809
- 4B: Daron Acemoglu, Philippe Aghion, and Fabrizio Zilibotti (2006). "Distance to frontier, selection, and economic growth". In: *Journal of the European Economic Association* 4.1, pp. 37–74

5. **Innovation and regulation policies**

- 5A: Andrew Atkeson and Ariel Burstein (2019). "Aggregate implications of innovation policy". In: *Journal of Political Economy* 127.6, pp. 2625–2683
- 5B: Philippe Aghion, Antonin Bergeaud, and John Van Reenen (2023). "The impact of regulation on innovation". In: *American Economic Review* 113.11, pp. 2894–2936

6. **Limits to growth: demographics**

- 6A: Tiloka De Silva and Silvana Tenreyro (2020). "The fall in global fertility: A quantitative model". In: *American Economic Journal: Macroeconomics* 12.3, pp. 77–109
- 6B: Jesús Fernández-Villaverde, Gustavo Ventura, and Wen Yao (2025). "The wealth of working nations". In: *European Economic Review* 173, p. 104962

7. **Limits to growth: the environment**

- 7A: Daron Acemoglu et al. (2012). "The environment and directed technical change". In: *American Economic Review* 102.1, pp. 131–166
- 7B: John Hassler, Per Krusell, and Conny Olovsson (2021). "Directed technical change as a response to natural resource scarcity". In: *Journal of Political Economy* 129.11, pp. 3039–3072

- Prerequisite and motivational readings for all participants:

- Robert E. Lucas Jr (2003). "Macroeconomic priorities". In: *American Economic Review* 93.1, pp. 1–14
- The Economist (July 2025). *What if AI made the world's economic growth explode?* URL: <https://www.economist.com/briefing/2025/07/24/what-if-ai-made-the-worlds-economic-growth-explode>

- Guidelines for reports:
  - The reports summarize and discuss one of the two papers in each block, connecting it to the previously discussed topics and the overarching theme of the seminar (topic).
  - Reports should take the form of a self-contained research paper including, aside the main text:
    1. Titlepage (topic, personal information of author, seminar title, date);
    2. List of references;
    3. Mathematical appendix, if necessary.
  - The main text comprises:
    1. A summary part (2 pages max.), consisting of a brief description of the article's research question, a concise description of the model, and the main results.
    2. A discussion part (1 page max.), reviewing the article critically by means of critique and comparison to the literature.
  - Proofs or lengthy formal derivations may be collected in a mathematical appendix.
  - The report must comply with the usual formatting guidelines:
    - Din A4 paper, 12pts lettering in standard font styles, 1.5 line spacing.
    - Margins: 2cm
    - Citations should be done in the American Psychological Association style.
  - Reports must be submitted within one week after the presentation/discussion of the respective topic.
- Guidelines for presentation:
  - Each student is assigned a presentation block of 60 minutes, distributed between talk (45 minutes) and discussion (15 minutes).
  - The presentations should take the form of a self-contained talk on the assigned research article, including
    1. An introduction (research question, contribution);
    2. A reproduction of the model and the main theoretical arguments;
    3. A summary of the main results and limitations.
  - Slides should ideally not contain full sentences or paragraphs, but keywords and short sentences, organized in bullet points.
  - Slides must be submitted one day before the presentation.
- General guidelines:
  - Attendance in all seminar meetings is mandatory.
  - The use of generative AI is permitted but must be stated openly.
  - Undeclared use of online tools, or internet-sourced materials is strictly prohibited. Violations result in failure of the course and a formal report to the examination office.