

# Advanced Macroeconomics

## Growth and stabilization: theoretical background, policies, and empirical applications

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### Lecturer:

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### Motivation and Overview:

This course will look at two key macroeconomic issues and how they are related:

- What drives growth in the long run?
- How does output fluctuate in the short run?

To address these issues, the course will rely on graduate-level textbook models (Solow model, IS-LM) and focus particularly on empirical and applied/policy aspects.

### Prerequisites:

Students are expected to have a basic understanding of algebra (solving equations), calculus (derivatives/first-order conditions) and econometrics (simple OLS regressions). An introductory knowledge of macroeconomics is advisable. Students who do not possess this background can still participate in the course but are required to catch up on principles. Those can be especially found in the standard textbooks such as [OB], [GM] and, for concepts such as exchange rates, capital flows, and balance of payment essentials: [FT: ch. 13-14], [KO: ch. 13] (see key references).

### Course organization:

The course is blocked over 2 weeks. Grading is based on a final exam.

About 2/3 of the 32 course units will be organized as lecture, the remaining 1/3 as tutorials, which will deepen and apply the covered concepts (and thereby prepare for the final examination). Details will be announced during the first lecture.

Slides/lecture notes will be provided. The course is based on standard macro textbooks and a number of journal/handbook articles.

## Key references

- [OB]: Blanchard, Olivier: Macroeconomics. Seventh Edition (Global edition)
- [GM]: Mankiw, Greg: Macroeconomics. Ninth Edition.
- [FT]: Feenstra, Robert C. and Alan M. Taylor: International Economics. Third Edition.
- [KO]: Krugman, Paul R. and Maurice Obstfeld: International Economics. Fifth Edition.
- [DR]: Romer, David: Advanced Macroeconomics. Second Edition.

Key references for a topic are highlighted with an asterisk (\*).

## Course Outline

### I. The long run: growth

#### Monday:

Lectures 1 & 2: course overview and stylized facts of growth

Lecture 3 [tutorial]: growth empirics: data sources and growth rate calculations

\*Jones, Charles I. (2016): The Facts of Economic Growth. In: *Handbook of Macroeconomics*. Vol. 2: 3-69. Also available as NBER Working Paper.

Summers, L. and L. Pritchett, 2014, 'Asiaphoria meets Regression to the Mean', NBER Working Paper 20573.

#### Tuesday:

Lecture 4 - 6: Production functions, growth & development accounting & the Solow model

Lecture 7 - 8 [tutorial]: application of growth and development accounting & Solow exercises

\*Jones (2016)

\*[GM]: ch. 8 (Economic Growth I)

[DR]: ch. 1

Hsieh, Chang-Tai and Peter J. Klenow (2010): "Development Accounting." *American Economic Journal: Macroeconomics* 2(1): 207-223

Hulten, Charles R. (2010): Growth Accounting. In: Hall, Bryn and Nathan Rosenberg (eds.): *Handbook of the Economics of Innovation*. Vol. 2: 987-1031

### Wednesday:

Lecture 9 - 11: Growth empirics, endogenous growth & the role of FDI for growth

Lecture 12 [tutorial]: exercises

\*[GM]: ch. 9 (Economic Growth II)

[DR]: ch. 3

\*Borensztein, E., J. De Gregorio, J.-W. Lee (1998): "How does foreign direct investment affect economic growth?" *Journal of International Economics* 45(1): 115-135

Alfaro, Laura (2017): "Gains from Foreign Direct Investment: Macro and Micro Approaches." *World Bank Economic Review*, 30(S1):S2–S15, 2017

### Thursday:

Lecture 13: FDI and growth (continued)

Lecture 14 - 15: Structural change

Lecture 16 [tutorial]: structural change application

\*McMillan, M., D. Rodrik, D., and I. Verduzco (2014): "Globalization, structural change and productivity growth with an update on Africa." *World Development* 63: 11–32.

de Vries, Gaaitzen, Marcel Timmer and Klaas de Vries (2015): "Structural Transformation in Africa: Static Gains, Dynamic Losses." *Journal of Development Studies* 51(6): 674-688

Timmer, Marcel P. and Gaaitzen J. de Vries (2009): "Structural change and growth accelerations in Asia and Latin America: a new sectoral data set." *Cliometrica* 3(2): 165-190

## **II. The short run: fluctuations and stabilization**

### Friday:

Lecture 17: IS-LM model: basics

Lecture 18 [tutorial]: policy in the IS-LM model and applications

\*[GM]: ch. 11-12 (Aggregate Demand I & II)

[OB]: ch. 3-6 (The Short Run), esp. ch. 5

### Monday:

Lecture 19-20: Extending the IS-LM model into the open economy: the Mundell-Fleming model

Lecture 21-22 [tutorial]: policy in the Mundell-Fleming model and applications

\*[GM]: ch. 13 (The Open Economy Revisited)

[OB]: ch. 18 – 19

## Tuesday:

Lecture 23-24: Exchange rate regime choice and currency crises

Lecture 25 [tutorial]: applications & exercises

Lecture 26: Principles of NOEM models

\*[OB]: ch. 20, esp. 20-4

\*Corsetti, Giancarlo (2008): New Open Economy Macroeconomics. In: New Palgrave dictionary of economics

De Grauwe, Paul: Economics of Monetary Union. Ch. 1-3.

## Wednesday:

Lecture 27: Dealing with capital flows

Lecture 28 [tutorial]: exercises

## **III. Conclusion**

Lecture 29: Why do we do stabilization policies?

Ramey, Garey and Valerie A. Ramey (1995): "Cross-Country Evidence on the Link between Volatility and Growth." *American Economic Review* 85(5): 1138-1151

Ball, Lawrence (2014) Long-Term Damage from the Great Recession in OECD Countries, National Bureau of Economic Research, Cambridge, MA

## Thursday:

Lecture 30-31: Putting the short and long run together

Lecture 32 [tutorial]: exercises

### Other resources:

There is an excellent webpage hosting an **interactive macro applet** that allows you to play around with the key variables in the IS-LM and Mundell Fleming model and see the outcomes. It also allows you to review all the equations that underlie the model.

See: <http://www.eurmacro.eu/tutor/interactivemacro.html>

A collection of links to relevant **macro data** sets can be found on my website:

<http://www.trade.economics.uni-mainz.de/183.php>