LH Monetary Policy and Dynamic Macroeconomics - 1st Part

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Contact Information

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Course Description

This course covers core topics in dynamic macroeconomics and monetary policy, from simple one-period model to neoclassical growth model, fiscal policy, monetary frictions, new-keynesian model. We put greater focus on formal economic models and analytical methods, especially dynamics. Goal is to build intuition and to learn key macro tools, concepts and to make better sense of on-going macro policy debates.

In the **first part** of the course, I will cover real dynamic models of the macroeconomy: there is perfect competition and prices are fully flexible in all markets. While unrealistic, the real model provides a benchmark that will be useful in the second part when some of its strong assumptions are relaxed. Indeed, in the **second part** of the course, Prof. Raffaele Rossi will introduce models with frictions where money plays an important role.

Topics and Organization

- Topic 0: Course introduction, a first look at stylized facts.
- Topic 1: One-period, general equilibrium model of the macroeconomy
  - The aim of this part is to introduce students to some key important concepts used in modern macroeconomics: namely competitive equilibrium and Pareto optimality, in the simplest possible setup. We will explore also the effects of

changes in productivity and government spending through the lens of this very simple model and see if the model's predictions resemble the data.

  - References: Lecture slides, Romer (2019).

- Topic 2: The neoclassical growth model

  - After understanding the key concepts of Pareto optimality and competitive equilibrium in the simple, one-period model, we study the neoclassical growth model, a cornerstone of dynamic macroeconomics. The neoclassical growth model has been extended in several ways: real business cycles, monetary models, models with price and wage frictions, etc.
  - References: Lectures slides. Useful textbooks to have a deeper look, in increasing order of difficulty: Wickens (2011), Novales et al. (2008), Azzimonti et al. (2024), Acemoglu (2008), Ljungqvist and Sargent (2018). For the neoclassical growth model in continuous time, see Romer (2019).

- Topic 3: Fiscal policy

  - We are going to use the neoclassical growth model to analyze a number of issues related to government and public policies (depending on time left before the end of the first part of the course). What is the effect of distortionary taxes? What is the optimal tax rate on factors of production? Is there a role for redistribution? What is the optimal growth rate of money?
  - References: Azzimonti et al. (2024) and Walsh (2017).

Course evaluation

- 1500-Word Individual Coursework (50%)
- 2-Hour Final Examination (50%)
- (Reassessment by failed component)

Lectures and Seminars

Lectures times		
Mondays	$09:00-11:00$	Watson, WATN-LT B (101)
Fridays	$14:00-16:00$	University House, UNIH-110

Tutorial times (2 groups)		
Thursday	$11:00-12:00$	University House, UNIH-106
Thursday	$12:00-13:00$	University House, UNIH-106

Three seminar classes between week 3 and week 5. Consult your personal timetables for details and contact the Programme Administrator (Undergraduate Office) if you are

experiencing any timetabling issues. n.b. you must attend your allocated class group and only that group.

You are expected to attempt the questions prior to each class. Class teachers are entitled to assume that students have done so. Questions will be posted to Canvas during the week before each session; solutions will be posted once all students have completed the class.

Seminar class exercises offer a means of self-assessment. You are advised to complete the exercises in advance, contribute to the discussion facilitated by the class teacher and study the solutions posted to Canvas after the class.

References

Acemoglu, Daron, *Introduction to Modern Economic Growth*, Princeton, NJ: Princeton University Press, 2008.

Azzimonti, Marina, Per Krusell, Alisdair McKay, and Toshihiko Mukoyama, "Macroeconomics: A Comprehensive Textbook for First-Year Ph.D. Courses in Macroeconomics," 2024. Unpublished manuscript.

Ljungqvist, Lars and Thomas J. Sargent, *Recursive Macroeconomic Theory, Fourth Edition*, Vol. 1 of *MIT Press Books*, The MIT Press, September 2018.

Novales, Alfonso, Esther Fernandez, and Jesus Ruiz, *Economic Growth: Theory and Numerical Solution Methods*, Berlin, Heidelberg: Springer, 2008.

Romer, David, *Advanced Macroeconomics*, 5th ed., New York, NY: McGraw-Hill Education, 2019.

Walsh, Carl E., *Monetary Theory and Policy*, 4th ed., Cambridge, MA: MIT Press, 2017.

Wickens, Michael, *Macroeconomic Theory: A Dynamic General Equilibrium Approach*, 2nd ed., Princeton, NJ: Princeton University Press, 2011.