

Syllabus

Organization and Overview

This course provides an introduction to modern macroeconomics. The first two days introduce a number of essential tools for macroeconomic research, in particular dynamic programming and dynamic stochastic general equilibrium theory, and there will be a brief overview of real business cycle theory. On Wednesday, we discuss asset pricing and models that incorporate income and wealth heterogeneity in the population. On Thursday, we explore how recursive methods and dynamic programming can be used to handle economic environments that are characterized by private information or limited commitment. The final day of the course provides an introduction to political economy in a macroeconomic setting. The course will conclude with a review of the recent financial crisis and a discussion of implications of the crisis for macroeconomic research.

The daily schedule will be:

9:00–10:30 First Lecture

11:00–12:30 Second Lecture

14:00–16:30 Problem Sets

17:00–18:30 Discussion of Problem Sets and Review

On Friday, instead of problem sets there will be a final review session from 14:00 to 15:00.

Textbooks

Ljungqvist and Sargent is the main (i.e., required) text.

LS: Lars Ljungqvist and Thomas J. Sargent (2004), *Recursive Macroeconomic Theory*, 2nd edition, MIT Press.

SLP: Nancy L. Stokey and Robert E. Lucas (1989), *Recursive Methods in Economic Dynamics*, Harvard University Press.

Preliminary Course Outline and Reading List

Monday: Introduction to Dynamic Stochastic Macroeconomics I

The origin of modern macroeconomics; dynamic stochastic general equilibrium; dynamic programming.

- LS, chapters 3, 4, 7, 8.
- SLP, chapters 3, 4, 5, 9, 10.

Tuesday: Introduction to Dynamic Stochastic Macroeconomics II

More on dynamic programming; the standard model and the growth facts; uncertainty; lottery spaces. Real business cycle theory.

- LS, chapter 12.
- SLP, chapter 15.
- Timothy J. Kehoe, (1989), "Intertemporal General Equilibrium Models," in F. Hahn (ed.), *The Economics of Missing Markets, Information and Games*, Clarendon Press.
- Edward C. Prescott and Rajnish Mehra (1980), "Recursive Competitive Equilibrium: the Case of Homogeneous Households," *Econometrica* 48(6):1356–79.
- Thomas F. Cooley and Edward C. Prescott (1995), "Economic Growth and Business Cycles", in *Frontiers of Business Cycle Research*, Thomas F. Cooley, ed., Princeton University Press.

Wednesday: Further Topics in Dynamic Stochastic General Equilibrium

Asset pricing; heterogeneity in macroeconomics.

- LS, chapter 13, 16, 17.
- Rajnish Mehra and Edward Prescott (2005), "The Equity Premium: A Puzzle," *Journal of Monetary Economics* 15(2): 145–61.
- Aiyagari, Rao (1994): "Uninsured Idiosyncratic Risk and Aggregate Saving," *Quarterly Journal of Economics* 109(3), 659–684.

- Aiyagari, Rao (1995): "Optimal Capital Income Taxation with Incomplete Markets and Borrowing Constraints," *Journal of Political Economy* 103(6), 1158–1175.
- Krusell, Per and Tony Smith (1998): "Income and Wealth Heterogeneity in the Macroeconomy," *Journal of Political Economy* 106(5), 867–896.

Thursday: Recursive Methods for Environments with Private Information and Limited Commitment

Moral hazard; adverse selection; limited commitment.

- LS, chapters 18, 19, 20.
- Stephen Spear and Sanjay Srivastava (1987), "On Repeated Moral Hazard with Discounting," *Review of Economic Studies* 54(4): 599–617.
- Christopher Phelan and Robert Townsend (1991), "Computing Multi-period, Information-Constrained Optima," *Review of Economic Studies* 58(5): 853–81.
- Andrew Atkeson and Robert Lucas (1992), "On Efficient Distribution with Private Information," *Review of Economic Studies* 59(3): 427–53.
- Narayana Kocherlakota (1996), "Implications of Efficient Risk Sharing without Commitment," *Review of Economic Studies* 63(4): 595–609.

Friday: Introduction to Political Economy in Macroeconomics

Majority voting; probabilistic voting; macroeconomic applications.

- Torsten Persson and Guido Tabellini (2002), *Political Economics*, MIT Press.
- Hassler, John, and Jose V. Rodriguez Mora, Kjetil Storesletten, and Fabrizio Zilibotti. 2005. "A Positive Theory of Geographic Mobility and Social Insurance." *International Economic Review* 46(1):263–303.
- Hassler, John, and Jose V. Rodriguez Mora, Kjetil Storesletten, and Fabrizio Zilibotti. 2003. "The Survival of the Welfare State." *American Economic Review* 93(1):87–112.
- Acemoglu, Daron and James A. Robinson. 2000. "Why Did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective." *Quarterly Journal of Economics* 115(4):1167–99.
- Doepke, Matthias and Fabrizio Zilibotti. 2005. "The Macroeconomics of Child Labor Regulation." *American Economic Review* 95(5), 1492–1524.