

Syllabus

Organization and Overview

This course provides an introduction to modern macroeconomics, with a special emphasis on macroeconomic modeling of household behavior and household heterogeneity. The first day provides an overview of the course and gives an introduction to dynamic programming techniques. We continue by discussing the permanent income hypothesis as an introduction to macroeconomic models featuring incomplete markets and income risk. A number of applications of the incomplete-markets framework will be discussed. On Thursday and Friday, we will discuss models where market incompleteness arises from endogenous participation constraints. The final lectures on Friday will give an overview of recent applications of the type of models discussed in class at the current research frontier.

The daily schedule will be:

- 9:00–10:30** First Lecture
- 10:30–11:00** Coffee Break
- 11:00–12:30** Second Lecture
- 12:30–14:00** Lunch
- 14:00–16:00** Problem Sets
- 16:00–16:30** Coffee Break
- 16:30–18:00** Discussion of Problem Sets and Review
- 18:00–19:30** Free Time
- 19:30** Dinner

Please note that the course will start on Sunday, September 25, in the evening with a welcome meeting at 19:00 followed by dinner. On Friday, instead of problem sets there will be a final review session from 14:00 to 15:00.

Technology and Software

It is recommended that students bring a laptop to the course with software that can be used to carry out numerical computations, ideally MATLAB. Knowledge of computational methods will not be tested in the final exam, but computation is an essential part of modern macroeconomics, and there will be a discussion of computational methods with some examples.

Readings and Course Materials

The required text for the course is Ljungqvist and Sargent:

Lars Ljungqvist and Thomas J. Sargent (2012), *Recursive Macroeconomic Theory*, 3rd edition, MIT Press.

Registered students will be provided with additional readings and lecture notes for topics not covered in Ljungqvist and Sargent ahead of the course.

Recommended Background Readings

The following list contains seminal journal articles on which much of the material in the course is based. These are not required readings, but recommended readings in particular for those who plan to work in macroeconomics in their own dissertation research.

- 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.
- Narayana Kocherlakota (1996), "Implications of Efficient Risk Sharing without Commitment," *Review of Economic Studies* 63(4): 595–609.
- Alvarez, Fernando and Urban Jermann (2000): "Efficiency, Equilibrium, and Asset Pricing with Risk of Default," *Econometrica* 68(4), 775–797.

- Krueger, Dirk and Fabrizio Perri (2005): “Does Income Inequality Lead to Consumption Inequality? Evidence and Theory,” *Review of Economic Studies* 73(1), 163–193.
- Kaplan, Greg, and Gianluca Violante. 2014. A Model of the Consumption Response to Fiscal Stimulus Payments. *Econometrica*, 82(4), 1199–1239.
- Kaplan, Greg, Benjamin Moll, and Gianluca Violante, Monetary Policy According to HANK, Manuscript, January 2016.