

**DEPARTMENT OF ECONOMICS**  
**MACROECONOMIC THEORY II**  
**Spring 2015**

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<b>Professor:</b>	Dr. Caroline Betts
<b>Class Meeting:</b>	Tues, Thurs 12.00pm - 1:50pm
<b>Class Location:</b>	KAP 148
<b>Office Hours:</b>	Tues 11.00pm - 12.00pm, and by appointment
<b>Office Location:</b>	KAP 316C
<b>Email:</b>	cbetts@usc.edu
<b>T.A.:</b>	Bilal Khan, email: <a href="mailto:ibne.shah@gmail.com">ibne.shah@gmail.com</a>

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## **OVERVIEW**

In this class we follow Macroeconomic Theory I in studying the tools and workhorse models of modern macroeconomics. The two workhorse models for most macroeconomic research are 1) the overlapping-generations model and 2) the neoclassical growth model.

This course is devoted to the study of variants of these two models which have been developed to answer specific research questions. The economies we study feature substantive deviations from the assumptions and results of the one sector neoclassical growth model which was the focus of Macroeconomic Theory I. For example, in economies inhabited by overlapping generations of agents, equilibria may be inefficient, there may be multiple equilibria, and fiat money may be valued. We study economies in which households are heterogeneous with respect to the income risks that they face, may invest in a variety of financial instruments, and may not confront complete asset markets. And we analyze the features of economic growth when multiple production sectors are characterized by heterogeneous technologies or sector-specific factors, and may confront externalities.

There are two lectures per week, and discussion sessions with the teaching assistant (TA) focusing on analytical and computational problem solving involving the models that we develop in lectures.

## **PROBLEM SETS**

There will be four to six take home problem sets assigned throughout the semester which will be graded and returned. Some of the problems will require written and mathematical analysis; others will involve numerical and computational analysis. Answers will either be provided in TA discussion sessions, or in answer guides that will be made available by the teaching assistant. Students are encouraged to work together in solving the problem sets. However, each problem set submitted for grading must ultimately be a student's own work, i.e., copying of problem sets is not allowed. All problem sets must be submitted in order for a final grade for the course to be assigned.

## **GRADING AND EXAMS**

There will be a mid-term examination, and a final examination. The midterm examination will be on *Tuesday, February 25* in class time (from 12.00 p.m. to 1.50 p.m.) and the final examination will be on *Wednesday, May 14* from 2.00 p.m. to 4.00 p.m. final grade in the course will weight problem sets, the mid-term and the final examination equally;

Midterm Exam:	Tuesday February 25, 12-1.50 PM	(1/3)
Final Exam:	Wednesday, May 14, 2-4.00 PM	(1/3)
Assignments:	Every two-three weeks	(1/3)

The midterm exam and final exam are not cumulative. The midterm and final examinations are mandatory and can be "made up" only on the basis of a documented medical or family emergency.

## **ACADEMIC ACCOMMODATIONS**

Any student requesting academic accommodations based on a disability is required to register with Office of Student Accessibility Services (OSAS) each semester. Such a student must acquire a letter of verification for approved accommodations from OSAS and deliver it to the instructor as early as possible in the semester. OSAS is located in GFS 120 and is open 8.30am-5.00pm, Monday through Friday. The phone number for OSAS is (213) 740-0776 and the website address is <https://osas.usc.edu/>.

## **ACADEMIC INTEGRITY**

The Department of Economics and this instructor in particular will be vigilant in supporting academic integrity practices and rules of this University, in investigating suspected violations of academic integrity, and in enforcing recommended sanctions including recommending dismissal from the university. For details on the rules and guidelines see SCAMPUS.

## RECOMMENDED READING

There is no required textbook for this course. The following are some recommended textbooks, each of which covers some but not all of the topics that we will cover in class, but all of which are valuable references.

1. Lars Ljungqvist and Thomas J. Sargent, *Recursive Macroeconomic Theory*, MIT Press. (Most editions will suffice).
2. Thomas J. Sargent, *Dynamic Macroeconomic Theory*, Harvard University Press, 1987.
3. Nancy L. Stokey and Robert E. Lucas Jr. with Edward C. Prescott, *Recursive Methods in Economic Dynamics*, Harvard University Press, 1989.

In addition, some core research papers will be assigned as reading material as the course progresses. Below is an outline of topics, and a preliminary set of textbook and research paper readings, although others will be referenced in class.

## OUTLINE

### 1. Overlapping Generations Economies

Pure exchange economy and monetary equilibria  
Production and growth  
Comparison to infinite horizon model

#### Readings

Ljungqvist and Sargent, Chapter 8 (or 9, depending on edition) “Overlapping Generations Models.”

Sargent, Chapter 7.

Stokey et al., Chapter 17.

Diamond, P.A. “National Debt in a Neo-Classical Growth Model,” *American Economic Review*, 55 (1965), 1126–1150.

Kehoe, T.J. “Intertemporal General Equilibrium Models,” in F. Hahn, editor, *The Economics of Missing Markets, Information, and Games*. Claredon Press, 1989, 363–393.

Kehoe, T.J. and D. K. Levine, “The Economics of Indeterminacy in Overlapping Generations Models,” *Journal of Public Economics*, 42 (1990), 219–243.

Gale, D. “Pure Exchange Equilibrium of Dynamic Economic Models,” *Journal of Economic Theory*, 6 (1973), 12–36.

Samuelson, P.A. “An Exact Consumption Loan Model of Interest, With or Without the Social Contrivance of Money,” *Journal of Political Economy*, 66 (1958), 467–482.

Wallace, N. "The Overlapping Generations Model of Fiat Money," in J. H. Kareken and N. Wallace, editors, *Models of Monetary Economies*, Federal Reserve Bank of Minneapolis, (1980).

## 2. Asset Pricing

Review of the optimal and stochastic optimal growth model

Lucas Tree model

Equity Premium Puzzle

### Readings

Ljungqvist and Sargent, Chapters 7 (review) and 10

Sargent, Chapters 1 and 3

Stokey and Lucas, Chapters 2-4 and 10

Hall, R. E. "Stochastic implications of the life-cycle - permanent income hypothesis: theory and evidence," *Journal of Political Economy*, 86(6) (1978): 971-988.

Lucas, R.E. Jr. "Asset Prices in an Exchange Economy," *Econometrica*, 46 (6) (1978) 1426-1445.

Mehra, R. and E.C. Prescott "The Equity Premium: a puzzle," *Journal of Monetary Economics*, 15(2) (1985)145-162.

## 3. Heterogeneous Agents in the Growth Model

Wealth distribution in the optimal growth model

Idiosyncratic uncertainty

Aggregate uncertainty

### Readings

Ljungqvist and Sargent, Chapters 13 -14

Chatterjee, S. "Transitional dynamics and the distribution of wealth in a neoclassical growth model", *Journal of Public Economics* 54 (1994) 97-119. North-Holland.

Guvenen, F. "Macroeconomics with Heterogeneity: A Practical Guide", (2012).

Heathcote, J., K. Storesletten, and G. Violante "Quantitative Macroeconomics with Heterogeneous Households", working paper, (2008).

Huggett, M. "The risk-free rate in heterogeneous-agent incomplete-insurance economies," *Journal of Economic Dynamics and Control* 17 (1993) 953-969. North-Holland.

## 4. Externalities and Endogenous Growth

Review of empirical growth evidence  
Human capital models  
Research and development models

### Readings

Ljungqvist and Sargent, Chapter 11

Lucas, R.E. Jr. “On the Mechanics of Economic Development”, *Journal of Monetary Economics* (22) (1988) 3-42

Romer, P.M. “Increasing Returns and Long-Run Growth,” *Journal of Political Economy* (94) (1986) 1002-1037

Romer, P.M. “Growth Based on Increasing Returns Due to Specialization”, *American Economic Review Papers and Proceedings* (77) (1987) 56-62

Rebelo, S. “Long-Run Policy Analysis and Long-Run Growth,” *Journal of Political Economy* (99) (1991) 500-521

## 5. Structural Change

Review of empirical evidence  
Models of structural change  
Structural change and balanced growth

### Readings

Gollin, D., S. Parente, and R. Rogerson, “The Role of Agriculture in Development,” *American Economic Review, Papers and Proceedings*, 92 (2) (2002) 160– 164.

Herrendorf, B., R. Rogerson, and A. Valentinyi, “Growth and Structural Transformation,” *Handbook of Economic Growth*, (2013).

Matsuyama, K. “Structural Change in an Interdependent World: A Global View of Manufacturing Decline,” *Journal of the European Economic Association*, 7 (2-3) (2009) 478–486.

Ngai, L. R. and C. Pissaridis “Structural Change in a Multi-Sector Model of Growth”, *American Economic Review* 97 (1) (2007).

Rogerson, R. “Structural Transformation and the Deterioration of European Labor Market Outcomes,” *Journal of Political Economy* (116) (2008) 235-259.