

Macroeconomics I
September 10 to December 17, 2020
Andrés Erosa

Office number: 15.1.17	Telephone: + 34 91 624 9600
Office hours: Monday 16:00-17:00	E-mail: aerosa@eco.uc3m.es
Lectures: T and Th 9:00 - 10:30	Rm 18.0.A07
Practical Class: M 12:30-14:00	Rm 18.0.A07

Readings

- T.F. Cooley, *Frontiers of Business Cycle Research*, Princeton University Press, 1995.
- L. Ljungqvist and T.J. Sargent, *Recursive Macroeconomic Theory*, Cambridge MA., MIT Press, 2004, Second Edition.
- Macroeconomic Theory, Dirk Krueger. Mimeo. University of Pennsylvania.
- D. Romer, *Advanced Macroeconomics*, Edited by Mc Graw Hill, Fourth Edition, 2012.

Grading

There will be homework assignments, a midterm exam and a final exam. They will count towards your grade as follows: Homework 20%, Midterm Exam 30%, and Final Exam 50%. The Midterm exam will take place during the period 21-30 October and the final exam during the period January 11 to 19, 2021.

Cooperation on Assignments

Students are permitted (and encouraged) to discuss the answers to problem sets together. Copying from another student's answers is not allowed.

List of Topics

1. Introduction to Dynamic General Equilibrium Theory

1. Arrow-Debreu competitive equilibrium
2. Necessary and sufficient conditions for optimality.
3. Sequence-of-markets equilibrium (equivalence to Arrow-Debreu).
4. Social planner's problem.

5. Welfare Theorems.
6. Ricardian Equivalence.

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

Ljungqvist and Sargent, chapter 8 and 10.

Krueger, chapter 2.

2. Neoclassical Growth Theory

1. Optimal Growth.
2. Competitive Equilibrium and the Ownership of Factors.
3. Mapping the Model to the data.
4. A Preview of Dynamic Programming.
5. Taxation and Government Expenditures.
6. Endogenous Growth.

Cooley, chapters 1, 2.

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

T. J. Kehoe and E. C. Prescott, Great Depressions of the Twentieth Century, in T. J. Kehoe and E. C. Prescott, editors, *Great Depressions of the Twentieth Century*, Federal Reserve Bank of Minneapolis, 2007.

Krueger, chapter 3.

3. Uncertainty. Consumption and Risk Sharing

1. The structure of information and complete markets
2. The price of an asset
3. Arrow Securities

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

Ljungqvist and Sargent, chapter 13.

Krueger, chapter 6

4. Overlapping Generations Models

1. Arrow-Debreu versus Sequential Markets
2. The value of outside money.
3. Social Planner's Problem.
4. Welfare Theorems.
5. Ricardian Equivalence.

T.J. Kehoe, "Intertemporal General Equilibrium Models," in F. Hahn, editor, *The Economics of Missing Markets, Information, and Games*. Claredon Press, 1989, 363-393. Sargent-Ljungqvist, ch. 9.

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

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

Ljungqvist and Sargent, chapter 9.

Krueger, chapter 8

Romer, chapters 1- 2.

5. Continuous Time Growth Theory

1. The Ramsey-Cass-Koopmans Model.
2. Social planner's problem.
3. Decentralization.
4. Government Expenditures and Taxation.
5. Endogenous Growth Models.

D. Romer, chapters 1-2.

Krueger, chapter 9.

6. Economies with Distortions

1. Cash in Advanced Models
2. Money in the Utility Function.
3. The Friedman Rule

4. Economies with Externalities.

R. Lucas. 1984. Money in a Theory of Finance. *Carnegie Rochester Series on Public Policy* 21, 9-45.

T. Cooley and G. Hansen. 1989. The inflation tax in a real business cycle model. *American Economic Review* 79, 733-48.

Ljungqvist and Sargent, chapter 14 and 24.

P. Romer 1986. Increasing Returns and Long-Run Growth. *Journal of Political Economy*. October 1986, 1002-1037.

7. Optimal Taxation

1. Optimal Fiscal Policy with Commitment.

2. Tax Smoothing.

Lucas, Robert E. 1990. Supply Side Economis: An Analytical Review. *Oxford Economic Papers* 42 (April): 293-316.

Chari, V.V., Christiano, Lawrence, and Kehoe, Patrick. 1994. Optimal Fiscal Policy in a Business Cycle Model. *Journal of Political Economy* 102, no4 (August): 617-652.

Chamley, Christophe. 1986, Optimal taxation of capital income in general equilibrium with infinite lives. *Econometrica* 54, no.3 (May): 607-622.

Ljungqvist and Sargent, chapter 15.