

UNIVERSITY OF COLORADO
Department of Economics

REQUIRED TEXT

Ljungqvist, Lars and Thomas J. Sargent, Recursive Macroeconomic Theory Cambridge: MIT Press.

BACKGROUND TEXTS

Adda, Jerome and Russell W. Cooper, Dynamic Economics Cambridge: MIT Press.

Barro, Robert J. and Xavier Sala-i-Martin, Economic Growth, New York: McGraw Hill.

Blanchard, Olivier J. and Stanley Fischer, Lectures on Macroeconomics Cambridge: MIT Press.

Farmer, Roger E., The Macroeconomics of Self-Fulfilling Prophecies Cambridge: MIT Press.

Romer, David, Advanced Macroeconomics New York: McGraw-Hill.

Sargent, Thomas J., Dynamic Macroeconomic Theory, Cambridge: Harvard University Press.

Stokey, Nancy L. and Robert E. Lucas, Recursive Methods in Economic Dynamics Cambridge: Harvard University Press.

COURSE OUTLINE

I. Introduction

1. National Income Accounting
2. Two Period Economies
Boileau: Two Period Economies: A Review

II. Discrete Time

1. Dynamic Programming
Boileau: A Child's Guide to Dynamic Programming
Ljungqvist and Sargent: 2.A.1, 3.1
2. The One-Sector Neoclassical Growth Model
3. Overlapping Generations Model
Romer: Chapter 2

III. Continuous Time

1. Dynamic Programming and Hamiltonian
Boileau: A Child's Guide to Optimal Control Theory
2. The One-Sector Neoclassical Growth Model
Romer: Chapter 2
Blanchard and Fisher: Chapter 2
3. Perpetual Youth
Blanchard, O., 1985. Debt, Deficits, and Finite Horizon. *Journal of Political Economy* 93.
Blanchard and Fisher: Chapter 3.3

III. Dynamic Stochastic General Equilibrium Models

1. Dynamic Programming
Ljungqvist and Sargent: 2.1, 2.2, 2.4, 3.2
2. A Real Business Cycle Model
Farmer: Chapters 2 and 3

Ljungqvist and Sargent Chapter 12

Romer: Chapter 4

King, Robert G., Charles I. Plosser, and Sergio T. Rebelo, 1988. Production, Growth, and Business Cycles: I. The Basic Neoclassical Model, *Journal of Monetary Economics* 7.

3. Numerical Issues

Ljungqvist and Sargent: Chapters 4 and 5

King, Robert G., Charles I. Plosser, and Sergio T. Rebelo, 2002. Production, Growth, and Business Cycles: Technical Appendix, *Computational Economics* 20.

Uhlig, Harald, 1997. A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily.

Grioli, Tommaso M., 2013. Dynare: User Guide.

IV. Advances in DSGE Models

1. Monopolistic Competition and Sticky Prices
2. Monetary Economies: CIA, MIU, and Cashless Economies
3. Preferences: Non-Homotheticity, Habit, GHH, Endogenous Discount, Epstein-Zin
4. Shocks: Investment-specific, News, and Noise

V. Search and Matching

1. Matching and Bargaining
2. Monopsony
3. Directed Search
4. Search and Money

V. Policy

1. Time Inconsistency
2. Monetary Policy: Optimal Inflation Rate and Policy Reaction Function
3. Monetary Policy Issue: Zero Lower Bound
4. Fiscal Policy: Ricardian Equivalence and Taxation in Dynamic Economies

University Policies

You should familiarize yourself with the following University of Colorado policies:

1. If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by email at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see Temporary Injuries guidelines under the Quick Links at the Disability Services website and discuss your needs with your professor.
2. Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, (insert

