James Hamilton
University of California, San Diego
Economics 210A
Fall 2004
Office hours: Econ 307 Tuesdays 9:30-11:00

Obtaining the Reading Material

Books available at UCSD bookstore:

Thomas J. Sargent, *Dynamic Macroeconomic Theory,* Harvard University Press. 1987.

Olivier Jean Blanchard and Stanley Fischer, *Lectures on Macroeconomics,* MIT Press, 1989.

Journal articles:

Hard copies of all articles are available in the Graduate Student Lounge (Room 106 of the Economics Building). Please keep these articles in the lounge at all times. You can also try to obtain the articles from the original sources referenced here. The books can also be checked out on reserve from the Economics Library. Starred readings are optional and will not be covered on exams except to the extent discussed in lectures.

Alternatively, any of the articles can be downloaded online from JSTOR or other sources. The syllabus you are now reading can also be viewed as an HTML document on http://weber.ucsd.edu/~jhamilto/econ210a.html. If you are viewing this as an HTML document, clicking on any active link will take you immediately to the source where the article can be viewed online or downloaded. You will need the Adobe Acrobat Reader to view these, which can be downloaded from Adobe.

Grading Policy

Grades for Econ 210A will be determined as follows:

20%: Problem Sets. You may work together on these, but must hand in your own write-up of the answers. These are used as a study guide and supplement to the reading and lectures. You can expect to see similar questions on the exams.

30%:Midterm Exam. This will be on Thursday, October 14. No books or notes allowed.

50%: Final Exam. This will be on Tuesday, Dec. 7, from 8:00-11:00 a.m. No books or notes allowed.

Course outline

I. DISCRETE-TIME DYNAMIC PROGRAMMING

A. Simple two-period models

Obstfeld and Rogoff, *Foundations of International Macroeconomics,* MIT Press, 1999, Sections 1.1-1.2, pp. 1-22.

B. T-period decision problems with no uncertainty

Sargent, Sections 1.1-1.5, pp. 11-29.

C. Infinite-horizon problems with uncertainty

Sargent, Sections 1.6-1.11, pp. 29-47.

D. Neoclassical approach to fiscal policy

Robert J. Barro, "The Neoclassical Approach to Fiscal Policy," Chapter 3 in *Modern Business Cycle Theory,* edited by Robert J. Barro, Harvard University Press, 1989, pp. 178-235.

E. Asset pricing: the Lucas tree model

Sargent, Sections 3.1-3.3, pp. 92-100.

II. CONTINUOUS-TIME DYNAMIC PROGRAMMING

A. Continuous-time models with no uncertainty

Robert Dorfman, "An Interpretation of Optimal Control Theory," American Economic Review, December 1969, pp. 817-831.

Maurice Obstfeld, "Dynamic Optimization in Continuous-Time Economic Models (A Guide for the Perplexed," Mimeographed, University of California, Berkeley, 1992. Part 1 (deterministic) available at http://elsa.berkeley.edu/~obstfeld/ftp/perplexed/cts4a.pdf

(*) Michael D. Intriligator, *Mathematical Optimization and Economic Theory,* Chapter 14, Prentice-Hall, 1971.

B. Continous-time models with uncertainty

Obstfeld, Part 2 (stochastic) available at http://elsa.berkeley.edu/~obstfeld/ftp/perplexed/cts4b.pdf

III. ECONOMIC GROWTH

A. Growth accounting

David Romer, *Advanced Macroeconomics,* McGraw Hill, 1996, Sections 1.1-1.2, pp. 5-12, and Section 1.7, pp. pp. 26-33

Chrys Dougherty and Dale W. Jorgenson, "International Comparisons of the Sources of Economic Growth," American Economic Review, 86, May 1996, pp. 25-29

Alwyn Young, "The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience," Quarterly Journal of Economics, 110, August 1995, pp. 641-680

Robert M. Solow, "Technical Change and the Aggregate Production Function," Review of Economics and Statistics 39, August 1957, pp. 312-320

B. Solow-Swan growth model

N. Gregory Mankiw, David Romer, and David Weil, "A Contribution to the Empirics of Economic Growth," Quarterly Journal of Economics, 107, May 1992, pp. 407-437

(*) James D. Hamilton and Josefina Monteagudo, "The Augmented Solow Model and the Productivity Slowdown,*Journal of Monetary Economics,* 42, December 1998, pp. 495-509

C. Ramsey-Cass-Koopmans model

Blanchard and Fischer, Chapter 2, pp. 37-90.

D. Empirical evidence and other approaches to economic growth

Robert J. Barro, "Economic Growth in a Cross Section of Countries," Quarterly Journal of Economics, 106, May 1991, pp. 407-443

Robert E. Hall and Charles I. Jones, "Why Do Some Countries Produce so Much More Output per Worker than Others?", *Quarterly Journal of Economics,* 114, February 1999, pp. 83-116

(*) John Luke Gallup and Jeffrey D. Sachs, "Geography and Economic Development, Harvard Center for International Development Paper No. 39, 1999, http://www.earthinstitute.columbia.edu/about/director/pubs/paper39.pdf. Also in Pleskovic, Boris and Joseph E. Stiglitz, eds., *Annual World Bank Conference on Development Economics* 1998 (April), The World Bank: Washington, DC; *Harvard International Review* Winter 1998/1999, and in *International Science Review* 22, 2: 179-232, August 1999.

David Romer, *Advanced Macroeconomics,* McGraw-Hill, 1996, Sections 3.1-3.7, pp. 95-126.

IV. OVERLAPPING GENERATIONS MODELS

A. Basic set-up

Blanchard and Fischer, Sections 3.1-3.2, pp. 91-114.

B. Model with perpetual youth

Blanchard and Fischer, Sections 3.3-3.5, pp. 115-153.

V. MONETARY MODELS

A. Overlapping generations models of money

Blanchard and Fischer, Section 4.1, pp. 154-164.

B. Cash in advance models

Blanchard and Fischer, Section 4.2, pp. 164-168.

Andrew B. Abel, "Dynamic Behavior of Capital Accumulation in a Cash-in-Advance Model," *Journal of Monetary Economics,* 16, July 1985, pp. 55-71

C. Money in the utility function

Blanchard and Fischer, Section 4.5, pp. 188-193.

D. Empirical evidence on money, inflation, and output

Robert C. Vogel, "The Dynamics of Inflation in Latin America, 1950-1969," *American Economic Review* 64, March 1974, pp. 102-114

George T. McCandless, Jr., and Warren E. Weber, "Some Monetary Facts," *Quarterly Review of the Federal Reserve Bank of Minneapolis,* Summer 1995, pp. 2-11.

James R. Lothian, "Equilibrium Relationships between Money and Other Economic Variables," *American Economic Review* 75, September 1985, pp. 828-835

Thomas J. Sargent, "The Ends of Four Big Inflations," pp. 41-97, in Robert E. Hall (ed.), *Inflation: Causes and Effects,* University of Chicago Press, 1982. Reprinted in Thomas J. Sargent (ed.), *Rational Expectations and Inflation,* pp. 40-109, New York: Harper and Row, 1986

Tentative schedule

Thu Sep 23

IA. Simple two-period models

Fri Sep 24 **[special make-up lecture at 9:00]**

IB. T-period decision problem with no uncertainty

Tue Sep 28

IC. Infinite-horizon problems with uncertainty

Thu Sep 30 **[no scheduled class]**

Tue Oct 5 **[Prob set 1 due]**

ID. Neoclassical approach to fiscal policy

Thu Oct 7

IE. Asset pricing: the Lucas tree model

Fri Oct 8 **[special make-up lecture at 9:00]**

IIA. Continuous-time models with no uncertainty

Tue Oct 12 **[Prob set 2 due]**

IIB. Continuous-time models with uncertainty

Thu Oct 14

[Midterm exam]

Tue Oct 19

IIIA. Growth accounting and IIIB. Solow-Swan growth model

Thu Oct 21 **[no scheduled class]**

Tue Oct 26

IIIC. Ramsey-Cass-Koopmans model

Thu Oct 28

continued discussion of Ramsey-Cass-Koopmans

Tue Nov 2 **[Prob set 3 due]**

IIID. Empirical evidence and other approaches

Thu Nov 4

IVA. OLG basic set-up

Tue Nov 9

IVB. Model with perpetual youth

Thu Nov 11 **[university holiday-- no class]**

Tue Nov 16 **[Prob set 4 due]**

VA. OLG models of money

Thu Nov 18

VB. Cash in advance models

Fri Nov 19

Potential catch-up lecture at 9:00

Tue Nov 23

continued discussion of cash in advance models

Thu Nov 25 **[university holiday-- no class]**

Tue Nov 30

VC. Money in the utility function

Thu Dec 2

VD. Empirical evidence on money, inflation, and output

Tue Dec 7 **[final exam 8:00-11:00 a.m.]**