Economics 303: Advanced Macroeconomics I
Brandeis University
Fall 2012
Fabià Gumbau-Brisa

Course Outline and Reading List

Version 1.0

This course is the first of a two-semester sequence in Ph.D. level macroeconomics. The goal of this course is to introduce students to modern macroeconomic theory. It will focus on contemporary theories of economic growth, short-run fluctuations, fiscal policy, and the current account. The course will also cover methods to solve and evaluate relevant models.

The learning goals for this course are:

1. Learn how to use time series analysis to summarize basic facts about macroeconomic data.

2. Learn contemporary theories of growth, consumption/saving, optimal government taxation, and international borrowing.

3. Learn how to solve dynamic optimization models via dynamic programming.

Lectures will be given on Fridays from 10:00 am to 1:00pm, with a 15 minutes break during the class. These lectures will take place in Sachar International Center, Chancellor's Suite.

The primary references for the course are

- Wickens, Michael (2012) *Macroeconomic Theory: A Dynamic General Equilibrium Approach,* Princeton University Press.

- Obstfeld, Maurice and Kenneth Rogoff (1996) *Foundations of International Macroeconomics,* MIT Press.

These texts are available from the Brandeis University Bookstore and most on-line booksellers. Both books are oriented toward models and methods for solving and analyzing them, and this course will share this emphasis. Specific chapters of other textbooks might be referenced and used during the course. Students may also wish to have on their bookshelf a good undergraduate intermediate macroeconomics text.

The readings focus on material that you are expected to become familiar with. Additional readings will be brought up throughout the course, and some are tentatively listed below. These additional readings might be mentioned in class, time permitting, or might be helpful for students seeking further coverage of specific topics discussed in the classroom. This list is not anything like a full bibliography of interesting work on the topics covered or on macroeconomics in general. The two text books contain many suggestions for further reading, as do the assigned papers. Much of the omitted material in these books is useful too, but there is a limit to what one can expect to do in one semester.

The course requires an extensive mathematics background. At least three semesters of calculus and one semester of linear algebra are required. The computer program, Matlab (or Octave), will also be used throughout the semester. The course is designed for IBS doctoral students, but some masters and undergraduate students may wish to take the course. It is expected, though not required, that students will be taking the companion course in microeconomics (Econ 301a) concurrently.

My contact information is:

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Office Hours: Fridays, 2pm – 5pm.

The teaching fellow for this course is Miao Ouyang (mouyang@brandeis.edu), who will run weekly recitation sessions. Students are expected to attend these sessions.

The home page for this course is available through LATTE. Announcements, problem sets, computer programs, and additional handouts will be posted on this page. You are encouraged to check the web page regularly.

If you are student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please contact me immediately.

There will be regular problem sets and two examinations. While you are encouraged to discuss and work on the problems with others, you are expected to answer problems on your own. Resist the temptation to simply copy someone else's answer. This is worse than useless as it is not only a violation of Brandeis University rules but also will lull you into a false sense that you understand the material. More generally, you are expected to be familiar with and to follow the University's policies on academic integrity (see http://www.brandeis.edu/studentlife/sdc/ai). Instances of alleged dishonesty will be forwarded to the Department of Student Rights and Community Standards for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University.

The course grade will be based on the problem sets (10 percent), a midterm examination (40 percent), and a final examination (50 percent).

Reading List:

1- Macroeconomic Facts, Overview. Important Tool I: Time Series Analysis.
   - Notes and readings will be distributed.
   - Federal Reserve Economic Data (FRED): http://research.stlouisfed.org/fred2/
   - Google's international public data portal: http://www.google.com/publicdata/directory

2- Economic Growth.
   - Wickens, Chapter 3.
   - Obstfeld and Rogoff, Chapter 7.

- Mankiw, N. Gregory, David Romer, and David Weil (1992) “A Contribution to the Empirics of Economics Growth” Quarterly Journal of Economics 107, 407-437.
- Solow, Robert (1956) “A contribution to the Theory of Economic Growth”, Quarterly Journal of Economics 70, pp. 65-94.

Additional Readings:

- Robert J. Barro (1998) “The Determinants of Economic Growth”, MIT Press, 1998.
- Xavier Sala-i-Martin (1990) “Lecture Notes on Economic Growth”, NBER working paper 3563.
- Domar, Evsey D (1946) “Capital Expansion, Rate of Growth, and Employment” Econometrica 14, pp. 137 – 147.
- Harrod, Roy F. (1939) “An Essay in Dynamic Theory” Economic Journal, 49, pp. 14 – 33.
- Kremer, Michael (1993) “Population Growth and Technological Change: One Million B.C. to 1990”, Quarterly Journal of Economics, 108(3), pp. 681 – 716.

3- Consumption and Saving

- Wickens, chapter 4.1 – 4.5.
- Obstfeld and Rogoff, chapters 1-2.
- Hall, Robert E. (1978) “Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence” Journal of Political Economy 86, 971-988.
- Sahm, Claudia R., Matthew D. Shapiro, and Joel Slemrod (2010) ”Check in the Mail or More in the Paycheck: Does the Effectiveness of Fiscal Stimulus Depend on How It Is Delivered?" Federal Reserve Board of Governors, Finance and Economics Discussion Series (FEDS) 2010-40.
- Gourinchas, Pierre-Olivier and Jonathan Parker (2002) “Consumption over the Life Cycle" Econometrica 70:1, 47-89.
- Love, David (2006) “Buffer-Stock Saving in Retirement Accounts" Journal of Monetary Economics 53, 1473-1492.
- Michaelides, Alexander (2003) “A reconciliation of two Alternative Approaches Towards Buffer Stock Savings”, Economics Letters 79.
- Aguiar, Mark and Erik Hurst (2005) “Consumption versus Expenditure” Journal of Political Economy 113, 919-948.
- Angeletos, George-Marios, David Laibson, Andrea Repetto, Jeremy Tobacman, and Stephen Weinberg (2001) “The Hyperbolic Consumption Model: Calibration, Simulation, and Empirical Evaluation” Journal of Economic Perspectives 15, 47-68.
- Ted O'Donoghue and Matt Rabin (1999) “Doing It Now or Later" American Economic Review 89:1, 103-24.

Additional Readings:

- Deaton, Angus (1992) “Understanding Consumption”, Oxford University Press.

4- Important Tool II: Dynamic Programming.

- Wickens, Mathematical Appendix 15.5.
- King, Ian (2002) “A Simple Introduction to Dynamic Programming in Macroeconomic Models" Working Paper, The University of Auckland http://researchspace.auckland.ac.nz/bitstream/handle/2292/190/230.pdf.

5- The Labor Market Without and With Unemployment.

- Wickens, chapter 4.6 – 4.7.
- Rogerson, Richard (2006) “Understanding Differences in Hours Worked" Review of Economic Dynamics 9, 365-409.
- Stigler, George (1961) “The Economics of Information” Journal of Political Economy 69:3, 213-225.
- McCall, John J. (1970) “Economics of Information and Job Search” Quarterly Journal of Economics 84:1, 113-126.

Additional Readings:

- Mortensen, Dale T. and Christopher A. Pissarides (1994) "Job Creation and Job Destruction in the Theory of Unemployment" Review of Economic Studies 61, pp. 397-415.

6- General Equilibrium, The Centralized Economy, and an Introduction to Business Cycle Dynamics

- Wickens, Chapter 2, and 4.8.

Additional Reading:

- Gumbau-Brisa, F. (2005) “Heterogeneous beliefs and inflation dynamics: a general equilibrium approach”, FRBB Working Paper Series, Number 05-16.

7- Government: Expenditures and Public Finances

- Wickens, chapter 5.
- Barro, Robert (1974) “Are Government Bonds Net Wealth?” Journal of Political Economy 82, 1095-1117.
- Barro, Robert (1979) “On the Determination of Public Debt,” Journal of Political Economy 87, 940-971.
- Lucas, Robert and Nancy Stokey (1983) “Optimal Fiscal and Monetary Policy in an Economy Without Capital” Journal of Monetary Economics 12:1, 55-94.
- Chari, V.V., Larry Christiano and Patrick Kehoe (1994) “Optimal Fiscal Policy in a Business Cycle Model” Journal of Political Economy 102:4, 617-652.
- Chari V.V. and Patrick Kehoe (1999) “Optimal Fiscal and Monetary Policy” in Handbook of Macroeconomics (ed. John Taylor and Mike Woodford) Vol 1C, 1671-1745. Amsterdam: Elsevier.
- Aiyagari, Rao, Albert Marcet, Thomas Sargent and Juha Seppela (2002) “Optimal Taxation without State-Contingent Debt,” Journal of Political Economy 110:6, 1220-1254.
- Hall, George and Thomas Sargent (2010) “Interest Rate Risk and Other Determinants of Post WW-II U.S. Government Debt/GDP Dynamics," manuscript, Brandeis University.

Additional Readings:

- Angeletos, George-Marios (2002) “Fiscal Policy With Noncontingent Debt And The Optimal Maturity Structure” Quarterly Journal of Economics 117 (3): 1105-1131.
- Buera, Francisco and Juan Pablo Nicolini (2004) “Optimal Maturity Of Government Debt Without State Contingent Bonds” Journal of Monetary Economics 51(3), pp. 531-554.
- Chari, V. V., Lawrence J. Christiano, Patrick J. Kehoe, , (1996). “Optimality of the Friedman Rule in Economies with Distorting Taxes” Journal of Monetary Economics 37, pp. 203-223.

8- Fiscal Policy: Overlapping Generations, Social Security, and Current Issues

- Wickens, chapter 6
- Samuelson, Paul (1958) “An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money." Journal of Political Economy 66:6, 467-482.
- Diamond, Peter (1965) “National Debt in a Neoclassical Growth Model" American Economic Review 55:5, 1126-1150.

Additional Readings:

- Diamond, Douglas (2007) “Banks and Liquidity Creation: A Simple Exposition of the Diamond-Dybvig Model”, Economic Quarterly 93(2), pp. 189-200.
- Samuelson, Paul (1975) “Optimum Social Security In A Life Cycle Growth Model” International Economic Review 16(3), pp. 539-544.
- Kimball, Miles (1987) “Making Sense of Two-Sided Altruism” Journal of Monetary Economics 20(2), pp. 301-326.

9- An introduction to the Open Economy

- Wickens, chapter 7.
- Mann, Catherine L. (2002) “Perspectives on the U.S. Current Account Deficit and Sustainability" Journal of Economic Perspectives, 16(3), pp. 131-152.
- Obstfeld, Maurice and Kenneth Rogoff (2000) “The Six Major Puzzles in International Finance: Is There a Common Cause?" NBER Macroeconomics Annual, 15, pp. 339-390.