

Macroeconomic Theory II.

14.452, Spring 2002,

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This is the second course in the four-quarter graduate sequence in macroeconomics. Its purpose is to introduce the basic models macroeconomists use to study fluctuations.

My email is blanchar@mit.edu. The TA for the course is Thomas Philippon (philippo@mit.edu). The course web page can be accessed from <http://web.mit.edu/course/14/14.452/www>

NEW: to access the problem sets, the programs and the handouts, please use FTP.

1. *FTP into your Athena account: **athena.dialup.mit.edu***
2. *Change the directory from **/afs/athena.mit.edu/user/p/h/"your username"** to **/afs/athena.mit.edu/course/14/14.452***
3. *Then you see different folders. The folder **NOTES** contains handouts and programs. In each program folder, there is a tutorial that describes the programs. The folder **PROBSETS** contains the problems sets and their solutions.*

It is essential that you be familiar with macroeconomics at the intermediate undergraduate level. If you have not done so yet, read an intermediate macroeconomic text (This statement is not pro forma. If you are not familiar with macroeconomics, the risk is high that you will perceive the course as a series of methods and models, not as an attempt to understand fluctuations)

There are no textbooks for the course. However, I shall use material from:

Blanchard, O. and S. Fischer, Lectures on Macroeconomics, MIT Press 1989. (BF in what follows) [covers most bases, but is aging]

Obstfeld, M. and K. Rogoff, Foundations of International Economics, MIT Press 1996. (OR in what follows) [focuses more on open economy issues]

Ljungqvist, L. and T. Sargent, Recursive Macroeconomic Theory, MIT Press 2000 [focuses more on techniques]

Woodford, M. Interest and Prices, mimeo Princeton, 2002. [focuses more on nominal rigidities, and the role of monetary policy]. Available at www.princeton.edu/~woodford/

Macroeconomics is a rapidly changing field. To get a sense of the geography, you might find it useful to read two recent surveys:

Blanchard, O., “What Do We Know About Macroeconomics that Fisher and Wicksell Did Not?” QJE, November 2000, 115:4, 1375-1410.

Woodford, M., “Revolution and Evolution in Twentieth-Century Macroeconomics,” forthcoming in P. Gifford, ed., Frontiers of the Mind in the Twenty-First Century, Harvard University Press. (Available at www.princeton.edu/~woodford/macro20c.pdf)

The course is organized around nine topics/sections. For each topic, I have included basic readings, as well as a few papers showing further applications or extensions. A star denotes required reading.

1. Fluctuations. Facts.

Covariance stationarity. Trends/cycles decompositions. Shocks and propagation mechanisms. Wold representation. ARMA, VAR, SVAR. Impulse responses.

Co-movements of GDP components. Correlations between real wages, interest rates, and output. The correlations of output and money.

Cycles, slumps, and depressions. Non linearities?

* BF, Chapter 1

* Stock, J. and Watson, M., "Business Cycle Fluctuations in U.S. Macroeconomic Time Series," Chapter 1, Volume 1A, Handbook of Macroeconomics, J. Taylor and M. Woodford eds, North Holland, 1999

Christiano L. and T. Fitzgerald, "The Business Cycle: It's Still a Puzzle", Economic Perspectives, Federal Reserve Bank of Chicago, 1998-4, 56-83 (available at <http://faculty.econ.nwu.edu/faculty/christiano/research/ep98/ep4q98a.pdf>)

Abraham, K. and J. Haltiwanger, "Real Wages and the Business Cycle," JEL, September 1995, Volume 33-3, 1215-1264

Christiano, L., Eichenbaum M., and C. Evans, "The Effects of Monetary Policy Shocks: Evidence from the Flow of Funds," REStat, February 1996, 78-1, 16-34

2. The basic model. The consumption/saving choice.

Setting up the optimization problem. Intertemporal choice, shocks, uncertainty. The first order conditions.

Solving the model. Numerically. Value functions. Log linearization. Special cases and other short cuts.

Equivalence between centralized and decentralized economies. The consumption problem in the decentralized economy.

* BF, Chapters 2 and 6-2.

OR, Chapters 1 and 2

* LS, Chapters 2 and 3

* Campbell J., Inspecting the Mechanism: An Analytical Approach to the Stochastic Growth Model, JME, 33, June 1994, 463-506

3. Allowing for a labor/leisure choice. (the RBC model)

Why the extension? Movements in employment/unemployment. Interpreting the first order conditions. Solving the model numerically, and by log linearization. Special case: log and full depreciation.

Evidence on labor supply elasticity. Evidence on high frequency technological shocks. Solow residuals and their interpretation. Alternative models of innovation--driven booms.

Prescott, E. C., "Theory Ahead of Business Cycle Measurement," Quarterly Review, Federal Reserve Bank of Minneapolis, Fall 1986, 9-22

* BF, Chapter 7

* King, R. and S. Rebelo, "Resuscitating Real Business Cycles," Chapter 14, Volume 1B, Handbook of Macroeconomics, J. Taylor and M. Woodford eds, North Holland, 927-1007

Basu, S. and Fernald, J., "Why is Productivity Procyclical? Why Do We Care?," NBER W7940, October 2000

Jorgenson, D. and K. Stiroh, "Raising the Speed Limit: U.S. Economic Growth in the Information Age," BPEA, 2000-1, 125-235

Shleifer, A., "Implementation Cycles," JPE, 94-6, December 1986, 1163-1190

4. Allowing for non trivial investment decisions.

Costs of adjustment for investment. Investment, consumption, and interest rates in the decentralized economy. The role of the term structure of interest rates. The stock market and investment. The effects of shocks on output, investment, the stock market, and the term structure.

The open economy version. Shocks, investment, saving, and movements in the current account.

* BF, Chapters 2-4, 6-3

Kraay, Aart, and Jaume Ventura, "Current Accounts in Debtor and Creditor Countries", QJE, 2000-4, 1137-1166

5. Allowing for two goods.

Why introduce two goods? The pitfalls of one-good models.
Capital/consumption goods. Tradable/non tradable goods. Domestic/foreign goods.
The consumer problem with two goods. Intratemporal and intertemporal first order conditions.
Closing the model if tradables/non tradables. The Balassa-Samuelson effect.
The transfer problem. Effects of technological shocks on relative prices, and on the current account.

OR, Chapter 4

* Obstfeld, M. and K. Rogoff, "The Intertemporal Approach to the Current Account", Chapter 34, Volume 3, Handbook of International Economics, G. Grossman and K. Rogoff eds, 1731-1799

6. Introducing money.

Decentralized exchange and the use of money. Cash-in-advance models.
Money in the utility function. The effects of money growth on capital accumulation.
Dynamics of hyperinflation. The Cagan model. The budget deficit and money growth.

* BF, Chapter 4, sections 4.3 to 4.7; and Chapter 10, section 10.2

Dornbusch, R., Sturzenegger, F., and H. Wolf, "Extreme Inflation: Dynamics and Stabilization", Brookings Papers on Economic Activity, 1990-2, 1-84

7. Introducing price setting.

Decentralized exchange, money, and price setters. A yeoman farmer model of price setting under monopolistic competition. The role of price above marginal cost, markups. Predetermined prices. The effects of money on output and welfare.

Role of wage versus price setting. The behavior of real wages. Revisiting the effects of technological and other shocks. Indexation. Macro-implications of the choice of numeraire.

The monetary policy problem. Time consistency.

* Blanchard, O., "Why Does Money Affect Output? A Survey," in B. Friedman and F. Hahn eds, Handbook of Monetary Economics, North Holland, 1990, 779-835

* BF, Chapters 8-1, 11-4

* Woodford, M., Chapter 3-1 ("Optimizing Models with Nominal Rigidities. A Basic Sticky-Price Model")

8. Introducing staggering of price decisions.

Staggering of price decisions. Fischer-Taylor-Calvo models. Coordination problems. The "modern Phillips curve." Inflation inertia? The "modern IS-LM model", the "modern AS-AD model".

* BF, Chapter 8-2, 8-3

* Woodford, M., Chapter 3-2 ("Optimizing Models with Nominal Rigidities. Inflation Dynamics with Staggered Price Setting.")

King, R., "The New IS-LM model: Language, Logic, and Limits," Economic Quarterly, Federal Reserve Bank of Richmond, 86-3, Summer 2000, 45-103

Blanchard, O., "Output, The Stock Market, and Interest Rates," AER, March 1981, 71-1, 132-143.

Dornbusch, R., "Expectations and Exchange Rate Dynamics," JPE, December 1976, 84, 1161-1176.

Tobin, J. "Keynesian Models of Recession and Depression", AER, 65-2, May 1975, 195-202

9. Applications to fiscal and monetary policy.

Inflation targeting. Interest rate rules. The Liquidity Trap. Perverse effects of fiscal expansions.

Woodford, M., Chapter 4-1, 4-2 ("A Neo-Wicksellian Framework for the Analysis of Monetary policy")

* Clarida, R., J. Gali, and M. Gertler, "The Science of Monetary Policy: A New Keynesian Perspective," NBER W7147, May 1999

Krugman, P. "It is Baaack: Japan's Slump and the Return of the Liquidity Trap," BPEA, 1998-2, 137-201

Giavazzi, F., and M. Pagano, "Non-Keynesian Effects of Fiscal Policy Changes: International Evidence and the Swedish Experience," NBER W5332, October 1996.