Columbia University
Department of Economics

Professor Stephanie Schmitt-Grohé
Fall 2010

Economics G6215:
Macroeconomic Analysis I
Part II

This course covers the second half of the first semester first-year Ph.D. sequence in macroeconomics. It introduces students to the core tools and themes in business cycle theory and monetary and fiscal policy analysis.

Lectures: Mondays and Wednesdays 2:40-3:55pm in IAB 403.

Office Hours: Mondays, 4-5:30 pm in IAB 1109B and by appointment.

Teaching Assistant: Nicolas Crouzet, `nc2371@columbia.edu`

TA Session: Fridays 2-3:50pm in Mudd 337.

TA Office Hours: Mondays and Tuesdays 11:00-1:00pm in Study Room of Lehman Library.

Requirements: The grade will be based on homework assignments (20%) and a final examination (80%).

Final Exam: Wednesday, December 22, 2010, 1:10pm - 4:00pm, IAB 403.

Texts: There is no required textbook. The following two titles are recommended references for the material to be covered in this course.

1. Lars Ljungqvist and Thomas J. Sargent, *Recursive Macroeconomic Theory*, Second Edition, MIT Press, 2004.
2. Michael Woodford, *Interest & Prices: Foundations of a Theory of Monetary Policy,* Princeton University Press, 2003.

Outline of the Material to be Covered in Class

1. Real Business Cycle Theory

Topics

- The canonical real business cycle model
- First-order approximations to dynamic stochastic general equilibrium models
- Sources of business cycle fluctuations
- Evaluating real business cycle models

Readings

Kydland, Finn E. and Edward C. Prescott. "Time to Build and Aggregate Fluctuations." *Econometrica* 50 (November 1982): 1345-1370.

Barro, Robert, and Robert G. King. "Time Separable Preferences and International Substitution Models of Business Cycles." *Quarterly Journal of Economics* 99 (1984): 817-839.

King, Robert G. Charles I. Plosser, and Sergio T. Rebelo. "Production, growth and business cycles: I. The basic neoclassical model." *Journal of Monetary Economics* 21 (March-May 1988): 195-232.

King, Robert G. Charles I. Plosser, and Sergio T. Rebelo. "Production, growth and business cycles: II. New directions." *Journal of Monetary Economics* 21 (March-May 1988): 309-341.

King, Robert G. and Sergio T. Rebelo. "Resuscitating Real Business Cycles."In *Handbook of Macroeconomics,* edited by John B. Taylor and Michael Woodford. Elsevier Science 1999, 927-1007.

Prescott, Edward C. "Theory Ahead of Business Cycle Measurement." *Quarterly Review, The Federal Reserve Bank of Minneapolis* 10 (Fall 1986): Number 4.

Summers, Lawrence H.. "Some Skeptical Observations on Real Business Cycle Theory." *Lawrence H. Summers* Quarterly Review, The Federal Reserve Bank of Minneapolis (10): Fall 1986/ Number 4.

Prescott, Edward C. "Response to a Skeptic." *Quarterly Review, The Federal Reserve Bank of Minneapolis* 10 (Fall 1986): Number 4.

Stock, James H. and Mark W. Watson. "Business Cycle Fluctuations in U.S. Macroeconomic Time Series."In *Handbook of Macroeconomics,* edited by John B. Taylor and Michael Woodford. Elsevier Science 1999, 3-64.

Schmitt-Grohé, Stephanie. "Perturbation Methods for the Numerical Analysis of DSGE Models." Lecture Notes, Duke University, 2005.

Schmitt-Grohé, Stephanie and Martín Uribe. "Solving Dynamic General Equilibrium Models Using a Second-Order Approximation to the Policy Function." *Journal of Economic Dynamics and Control* 28 (January 2004): 755-75.

Galí, Jordi and Pau Rabanal. "Technology Shocks and Aggregate Fluctuations: How Well Does the Real Business Cycle Model Fit Postwar U.S. Data?."In *NBER Macroeconomics Annual 2004,* edited by Mark Gertler and Kenneth Rogoff. MIT Press 2005, 225-288.

Greenwood, Jeremy, Zvi Hercowitz, and Per Krusell. "The role of investment-specific technological change in the business cycle." *European Economic Review* 44 (2000): 91-115.

Fisher, Jonas D. M. "The Dynamic Effects of Neutral and Investment-Specific Technology Shocks.." *Journal of Political Economy* 114 (June 2006): 413-51.

Beaudry, Paul, and Franck Portier. "Stock Prices, News, and Economic Fluctuations.." *American Economic Review* 96 (September 2006): 1293-1307.

Galí, Jordi and Thijs van Rens. "The Vanishing Procyclicality of Labor Productivity." CREI, Universitat Pompeu Fabra, July 2010.

2. Fiscal Policy Analysis

Topics

- The observed effects of fiscal shocks
- The size of the government spending and tax multiplier
- Explaining the observed effects of fiscal shocks
- The Ramsey approach to optimal taxation

Readings

Perotti, Roberto. "In Search of the Transmission Mechanism of Fiscal Policy." NBER Macroeconomics Annual 2007, 169-226.

Romer, Christina D., and David H. Romer. "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks." *American Economic Review* 100 (June 2010): 763801.

Baxter, Marianne, and Robert G. King. "Fiscal Policy in General Equilibrium." *American Economic Review* 83 (1993): 315-334.

Chapter 15 of Ljungqvist and Sargent's *Recursive Macroeconomic Theory*

Chari, V. V., Christiano, Lawrence; and Kehoe, Patrick J. "Policy Analysis in Business Cycle Models."In *Frontiers of Business Cycle Research,* edited by Thomas F. Cooley. Princeton, New Jersey: Princeton, University Press, 1995, 357-91.

3. Monetary Theory in Flexible Price Economies

Topics

- Price level determination
- Optimal monetary policy
- The fiscal theory of the price level
- Liquidity Traps

Readings

Chapters 2.3-2.4 of Woodford's *Interest & Prices.*

Chapter 24 of Ljungqvist and Sargent's *Recursive Macroeconomic Theory.*

Woodford, "Monetary policy and price level determinacy in a cash-in-advance economy," 1994.

Chari, V. V., Christiano, Lawrence, and Kehoe, Patrick. "Optimal Fiscal and Monetary Policy: some recent results." *Journal of Money Credit and Banking* 23 (1991): 519-539.

Sections 1 - 5 of Schmitt-Grohé, Stephanie, and Martín Uribe, The Optimal Rate of Inflation, forthcoming in the *Handbook of Monetary Economics* edited by Benjamin M. Friedman and Michael Woodford, Elsevier Science, 2010.

Benhabib, Jess, Stephanie Schmitt-Grohé and Martín Uribe. "Avoiding Liquidity Traps." *Journal of Political Economy* 110 (June 2002): 535-563.

Schmitt-Grohé, Stephanie, and Martín Uribe. "Liquidity Traps: An Interest-Rate-Based Exit Strategy." manuscript, Columbia University, September 2010.