

Economics 7720
Advanced Monetary Economics II
Spring 2010

Instructor: Professor Gregory Givens, office: BAS N328, email: ggivens@mtsu.edu

Time and Location: Tuesday, 2:40 - 5:40 PM, BAS S336

Office Hours: By appointment

Required Textbook:

C. Walsh, *Monetary Theory and Policy* (2nd Edition), MIT Press, 2003.

Additional References:

M. Woodford, *Interest and Prices*, Princeton University Press, 2003.

J Galí, *Monetary Policy, Inflation, and the Business Cycle*, Princeton University Press, 2008

J. Taylor (Editor), *Monetary Policy Rules*, University of Chicago Press, 1999.

L. Ljungqvist and T. Sargent, *Recursive Macroeconomic Theory* (2nd Edition), MIT Press, 2004.

T. Cooley (Editor), *Frontiers of Business Cycle Research*, Princeton University Press, 1995.

R. Marimon and A. Scott (Editors), *Computational Methods for the Study of Dynamic Economies*, Oxford University Press, 1999.

J. Hamilton, *Time Series Analysis*, Princeton University Press, 1994.

Course Website: <http://www.mtsu.edu/~ggivens>

Course Evaluation: Grades for this course will be based on the following weighted average of three components: classroom participation and completion of the reading assignments, a research project, and a comprehensive final examination.

Participation	20%
Research Project	40%
Final Examination	40%

Participation Policy: It is absolutely essential that you complete all of the required readings prior to attending class. In order to get the most out of every lecture, it is best that you familiarize yourself with the material early because the models and methods that we will confront are very challenging. This is precisely why I have included a nontrivial participation component of the course grade. Hopefully, it will provide you with the extra incentive you need to carefully read all of the required materials before lecture.

Research Project Guidelines: You will be required to complete a semester-long research project on a topic authorized by the instructor. Ideally, the project will contain original contributions that could eventually be incorporated into a dissertation or an academic publication. A full and thorough replication of the results in a fairly recent publication, however, will satisfy the research requirement. The broad goals of the project are to familiarize students with many of the issues surrounding the frontier research in monetary economics and to equip each student with some of the modern computational and empirical tools used to conduct publishable research.

At the end of the semester, you will be required to submit a paper and conduct a thirty-minute presentation outlining the chosen topic and discussing the economic model used as well

as the principal findings of the work. The grade for the research paper will be based on content, methodology, and clarity of the exposition. I expect the presentations to be fashioned in the likeness of a seminar at a professional meeting. In addition, all students will be required to attend all presentations and will be encouraged to discuss the paper and make general comments following each.

Final Exam Policy: During the course of the semester, I will post a number of candidate exam questions on the course webpage, three of which I will select for the final examination. Some of the questions will be of the essay/discussion variety while others will ask you to work a specific economic model introduced and solved during class. The examination will cover all of the relevant material discussed in class, but will not cover new material introduced in the student presentations.

Lecture Schedule and Reading List

(† indicates required reading)

I. Empirical Evidence on Money, Prices, and Output

- Blanchard, O. J. and D. Quah. 1989. "The Dynamic Effects of Aggregate Demand and Supply Disturbances." *American Economic Review* 79: 655-673.
- Christiano, L., M. Eichenbaum, and C. Evans. 1996. "The Effects of Monetary Policy Shocks: Evidence from the Flow of Funds." *Review of Economics and Statistics* 78: 16-34.
- † Christiano, L., M. Eichenbaum, and C. Evans. 1999. "Monetary Policy Shocks: What Have We Learned and to What End?" *Handbook of Macroeconomics* Vol 1A: 65-148.
- Cochrane, J. H. 1998. "What Do the VARs Mean? Measuring the Output Effects of Monetary Policy." *Journal of Monetary Economics* 41: 277-300.
- Leeper, E. M., C. A. Sims, and T. Zha. 1996. "What Does Monetary Policy Do?" *Brookings Papers on Economic Activity* 2: 1-63.
- McCandless, G. T. and W. E. Weber. 1995. "Some Monetary Facts." Federal Reserve Bank of Minneapolis *Quarterly Review* 19: 2-11.
- Romer, C. D. and D. H. Romer. 1989. "Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz." *NBER Macroeconomics Annual*.
- † Walsh, C. 2003. *Monetary Theory and Policy*, Chapter 1.

II. Flexible Price Models (Part A): Money-in-the-Utility Function

- Brock, W. A. 1974. "Money and Growth: The Case of Long-Run Perfect Foresight." *International Economic Review* 15: 750-777.
- Carlstrom, C. T. and T. S. Fuerst. 2001. "Timing and Real Indeterminacy in Monetary Models." *Journal of Monetary Economics* 47: 285-298.

- † Sidrauski, M. 1967. “Rational Choice and Patterns of Growth in a Monetary Economy.” *American Economic Review* 57: 534-544.
- † Walsh, C. 2003. *Monetary Theory and Policy*, Chapter 2.

III. Solving Linear Rational Expectations Models

- Blanchard, O. J. and C. M. Kahn. 1980. “The Solution of Linear Difference Models under Rational Expectations.” *Econometrica* 48: 1305-13.
- King, R. G. and M. W. Watson. 1998. “The Solution of Singular Linear Difference Systems Under Rational Expectations.” *International Economic Review* 39: 1015-26.
- † Klein, P. 2000. “Using the Generalized Schur Form to Solve a Multivariate Linear Rational Expectations Model.” *Journal of Economic Dynamics and Control* 24: 1405-1423.
- † Oviedo, P. 2005. “A Toolbox for the Numerical Study of Linear Dynamic Rational Expectations Models.” Iowa State University, mimeo.
- Sims, C. A. 2002. “Solving Linear Rational Expectations Models.” *Computational Economics* 20: 1-20.
- Uhlig, H. 1999. “A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily.” *Computational Methods for the Study of Dynamic Economies* 30-61.

IV. Flexible Price Models (Part B): Cash-in-Advance Models

- † Cooley, T. F. and G. Hansen. 1989. “The Inflation Tax in a Real Business Cycle Model.” *American Economic Review*, 79: 733-748.
- Cooley, T. F. and G. D. Hansen. 1995. “Money and the Business Cycle.” *Frontiers of Business Cycle Research* 175-216.
- Lucas, R. E. and N. L. Stokey. 1987. “Money and Interest in a Cash-in-Advance Economy.” *Econometrica* 55: 491-514.
- Svensson, L. E. O. 1985. “Money and Asset Prices in a Cash-in-Advance Economy.” *Journal of Political Economy* 93: 919-944.
- † Walsh, C. 2003. *Monetary Theory and Policy*, Chapter 3, section 3.3.

V. Sticky Price Models: A New Keynesian Approach

- Blanchard, O. J. and N. Kiyotaki. 1983. “Monopolistic Competition and the Effects of Aggregate Demand.” *American Economic Review* 77: 647-666.
- Calvo, G. A. 1983. “Staggered Prices in a Utility Maximizing Framework.” *Journal of Monetary Economics* 12: 383-398.

- † Chari, V. V., Kehoe, P. J., and E. R. McGrattan. 2000. “Sticky Price Models of the Business Cycle: Can the Contract Multiplier Solve the Persistence Problem?” *Econometrica* 68: 1151-79.
- Christiano, L. J., Eichenbaum, M., and C. Evans. 2005. “Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy.” *Journal of Political Economy* 113: 1-45.
- Fuhrer, J. and G. Moore. 1995. “Inflation Persistence.” *The Quarterly Journal of Economics* 110: 127-159.
- Galí, J. 2002. “New Perspectives on Monetary Policy, Inflation, and the Business Cycle.” NBER Working Paper No. 8767.
- † Goodfriend, M. and R. King. 1997. “The New Neoclassical Synthesis and the Role of Monetary Policy.” *NBER Macroeconomics Annual*, 231-283.
- McCallum, B. and E. Nelson. 1999. “An Optimizing IS-LM Specification for Monetary Policy and Business Cycle Analysis.” *Journal of Money, Credit, and Banking* 31: 296-316.
- Taylor, J. B. 1980. “Aggregate Dynamics and Staggered Contracts.” *Journal of Political Economy* 88: 1-24.
- † Walsh, C. 2003. *Monetary Theory and Policy*, Chapter 5, sections 5.3 – 5.4.1.
- Woodford, M. 2003. *Interest and Prices*, Chapter 3, sections 3.1 – 3.3.
- Yun, T. 1996. “Nominal Price Rigidity, Money Supply Endogeneity, and Business Cycles.” *Journal of Monetary Economics* 37: 345-370.

VI. Interest Rate Rules and Equilibrium Determinacy

- Benhabib, J., Schmitt-Grohé, S., and M. Uribe. 2001. “Monetary Policy and Multiple Equilibria.” *American Economic Review* 91: 167-186.
- Benhabib, J., Schmitt-Grohé, S., and M. Uribe. 2001. “The Perils of Taylor Rules.” *Journal of Economic Theory* 96: 40-69.
- Carlstrom, C. T. and T. S. Fuerst, 2005. “Investment and Interest Rate Policy: A Discrete Time Analysis.” forthcoming in *Journal of Economic Theory*.
- † Clarida, R., Galí, J., and M. Gertler. 2000. “Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory.” *The Quarterly Journal of Economics* 115: 147-180.
- Kerr, W. and R. G. King. 1996. “Limits on Interest Rate Rules in the IS Model.” Federal Reserve Bank of Richmond *Economic Quarterly* 82: 47-75.
- Lubik, T. and F. Schorfheide. 2004. “Testing for Indeterminacy: An Application to U.S. Monetary Policy.” *American Economic Review* 94: 190-217.

- Marzo, M. and T. Lubik. 2006. “An Inventory of Simply Monetary Policy Rules in a New Keynesian Macroeconomic Model.” forthcoming in *International Review of Economics and Finance*.
- † Taylor, J. B. 1993. “Discretion vs. Policy Rules in Practice.” *Carnegie-Rochester Conference Series on Public Policy* 39: 195-214.
- Walsh, C. 2003. *Monetary Theory and Policy*, Chapter 5, sections 5.4.2 – 5.4.3.
- Weder, M. 2005. “Taylor Rules and Macroeconomic Instability or How the Central Bank can Pre-empt Sunspot Expectations.” *Journal of Money, Credit, and Banking* 38: 655-677.
- † Woodford, M. 2003. *Interest and Prices*, Chapter 4, section 2.2.

VII. Maximum Likelihood Estimation of Sticky Price Models Using the Kalman Filter

- Bouakez, H., Cardia, E., and F. J. Ruge-Murcia. 2005. “Habit Formation and the Persistence of Monetary Shocks.” *Journal of Monetary Economics* 52: 1073-88.
- † Hamilton, J. 1994. *Time Series Analysis*, Chapter 13, sections 13.1 – 13.7.
- † Ireland, P. 2004. “Money’s Role in the Monetary Business Cycle.” *Journal of Money, Credit, and Banking* 36: 969-983.
- Ireland, P. 2004. “Technology Shocks in the New Keynesian Model.” *Review of Economics and Statistics* 86: 923-36.
- Ireland, P. 2003. “Endogenous Money or Sticky Prices.” *Journal of Monetary Economics* 50: 1623-48.
- Ireland, P. 2001. “Sticky Price Models of the Business Cycle: Specification and Stability.” *Journal of Monetary Economics* 47: 3-18.
- Ireland, P. 1997. “A Small, Structural, Quarterly Model for Monetary Policy Evaluation.” *Carnegie-Rochester Conference Series on Public Policy* 47: 83-108.
- Lindé, J. 2005. “Estimating New-Keynesian Phillips Curves: A FIML Approach.” *Journal of Monetary Economics* 52: 1135-49.

VIII. Optimal Monetary Policy within the New-Keynesian Framework

- † Clarida, R., Galí, J., and M. Gertler. 1999. “The Science of Monetary Policy: A New Keynesian Perspective.” *Journal of Economic Perspectives* 37: 1661-1707.
- Giannoni, M. P. and M. Woodford. 2004. “Optimal Inflation-Targeting Rules.” in *The Inflation Targeting Debate* 93-162.
- Khan, A., King, R. G., and A. L. Wolman. 2003. “Optimal Monetary Policy.” *Review of Economic Studies* 70: 825-860.

- Levin, A., Wielend, V., and J. C. Williams. 1999. “Robustness of Simple Monetary Policy Rules under Model Uncertainty.” in *Monetary Policy Rules* 263-318.
- † McCallum, B. T. 1997. “Issues in the Design of Monetary Policy Rules.” *Handbook of Macroeconomics*.
- McCallum, B. T. and E. Nelson. 1999. ”Performance of Operational Policy Rules in an Estimated Semiclassical Structural Model.” in *Monetary Policy Rules* 15-56.
- Rotemberg, J. J. and M. Woodford. 1999. “Interest Rate Rules in an Estimated Sticky Price Model.” in *Monetary Policy Rules* 57-126.
- Rudebusch, G. D. and L. E. O. Svensson. 1999. “Policy Rules for Inflation Targeting.” in *Monetary Policy Rules* 203-262.
- † Schmitt-Grohé, S. and M. Uribe. 2006. “Optimal Simple and Implementable Monetary and Fiscal Rules.” forthcoming in *Journal of Monetary Economics*.
- Schmitt-Grohé, S. and M. Uribe. 2006. “Optimal Inflation Stabilization in a Medium-Scale Macroeconomic Model.” forthcoming in *Monetary Policy Under Inflation Targeting*, Proceedings of the Ninth Annual Central Bank of Chile Conference.
- † Walsh, C. 2003. *Monetary Theory and Policy*, Chapter 11, sections 11.1 – 11.3.
- Woodford, M. 1999. “Optimal Monetary Policy Inertia.” NBER Working Paper No. 7261.

IX. Inflation Stabilization and Welfare: A Linear-Quadratic Approach

- Amato, J. D. and T. Laubach. 2003. “Rule-of-Thumb Behavior and Monetary Policy.” *European Economic Review* 47: 791-831.
- Amato, J. D. and T. Laubach. 2004. “Implications of Habit Formation for Optimal Monetary Policy.” *Journal of Monetary Economics* 51: 305-325.
- Benigno, P. and M. Woodford. 2005. “Inflation Stabilization and Welfare: The Case of a Distorted Steady State.” *Journal of European Economic Association* 3: 1185-1236.
- Erceg, C., Henderson, D., and A. Levin. 2000. “Optimal Monetary Policy with Staggered Price and Wage Contracts.” *Journal of Monetary Economics* 46: 281-313.
- Steinsson, J. 2003. “Optimal Monetary Policy in a Model with Inflation Persistence.” *Journal of Monetary Economics* 50: 1425-56.
- † Walsh, C. 2003. *Monetary Theory and Policy*, Chapter 11, section 11.6.
- † Woodford, M. 2003. *Interest and Prices*, Chapter 6, sections 1 – 3.