

Economics 862.01

Monetary Theory II Part II: Monetary Policy Spring 2001

Lectures: Tuesday and Thursday, 11:30 am - 1:15 pm
Carney Hall, Room 11

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Course Description

The course will focus on the modeling of monetary policy, the evaluation of its performance, and the measurement of its effects. We will spend a substantial amount of time discussing the pros and cons of different monetary policy rules.

This course is meant to give you ideas for dissertation research. I will take knowledge of a number of modeling tools that have been covered in the macro sequence as granted, aside from reviewing some fundamental concepts in the first lectures.

Course Materials

I will make copies of my lecture notes available. Four books provide extensive surveys of several topics we will discuss.

Bernanke, Ben S., Thomas Laubach, Frederic S. Mishkin, and Adam S. Posen, 1999: *Inflation Targeting: Lessons from the International Experience*, Princeton: Princeton University Press.

Mankiw, N. Gregory (ed.), 1994: *Monetary Policy*, Chicago: University of Chicago Press.

Taylor, John B. (ed.), 1999: *Monetary Policy Rules*, Chicago: University of Chicago Press.

Walsh, Carl E., 1998: *Monetary Theory and Policy*, Cambridge: MIT Press.

The Taylor book (henceforth, TAYLOR99) is a required reading. The other three volumes (BetAL99, MANKIW94, and WALSH98) are strongly recommended (you should already have WALSH98 from the macro sequence). In addition, you find a list of papers (or book chapters) on specific topics below.

This syllabus should be a resource for you. It contains links to papers, research departments, and people's web pages.

Course Requirements

The total requirement of the course is that you write six referee reports and one short paper. As far as Part II of the course is concerned, if you chose to write a paper on a Part I topic, you must write four referee reports on four papers in the list below. The papers must be chosen from four different sections of the list. I encourage you to work on unpublished papers for your reports, i.e., papers that have not yet appeared in journals or books. (Double check on this. Do not trust my references blindly. I may have missed publication of some articles.) If you choose to write a paper on a topic in Part II of the course, you must also write two referee reports on papers from two different sections of the list below. The paper must be between 10 and 15 pages, 1.5 spacing, plus appendix and references.

Incentive Scheme

If I conclude that a referee report that has been submitted in partial satisfaction of the course requirements is of sufficiently high quality, I will ask for the author's permission to send the report to the author of the paper. I will endorse the report as containing comments that the author of the paper may find useful in revising her/his work. (This is one of the reasons why I encourage you to work on unpublished papers. The other is that these are typically closer to the frontier of research.) This will give you an early opportunity to have your work recognized outside the BC Economics Department and will give visibility to the quality of what is done here. There will be no consequence if permission to send the report is denied.

Reading List

Preface; Introductory; Money, Output, and Nominal Rigidity; Time Inconsistency, Rules vs. Discretion, Transparency; Evidence on the Effects of Monetary Policy; Reflections on Monetary Policy Rules; Price Stability in the Policy Debate; Interest Rate Rules: Introduction; Inflation, Welfare, and Optimal Monetary Policy/Interest Rate Rules; Inflation Targeting; More on Optimal Monetary Policy, Comparison of Rules, and Rules vs. Discretion Revisited; Monetary Policy and Asset Bubbles; Evidence on Interest Rate Rules; Indeterminacy, Liquidity Traps, the Zero Bound: Drawbacks of Interest Rate Rules?; Monetary Policy Without Money; Parameter Uncertainty, Model Uncertainty, Measurement Errors; Learning; Monetary Policy Rules for Open Economies; Fiscal Policy and Inflation

Preface

This is an incomplete list of papers on the various topics we will cover. It is meant as a source of references for you: It contains a mixture of "classics" and new research. I will use lectures to go over papers that will give you the flavor of the field and a sense of

where research is going. It will be up to you to strengthen your knowledge of the field by doing additional readings and working on your paper and reports.

The list includes links to downloadable files for a number of papers. You should be able to access several of those published in journals through JSTOR. For some published papers, I included links to working paper versions.

In addition to the papers in the list, John Taylor's "Monetary Policy Rule Home Page" is an excellent reference source. It also contains a number of interesting links.

Introductory

Clarida, Richard, Jordi Galí, and Mark Gertler (1997): "The Science of Monetary Policy: A New Keynesian Perspective," *Journal of Economic Literature* 37: 1661-1707.

Goodfriend, Marvin S. (2000): "Maintaining Low Inflation: Rationale and Reality," unpublished manuscript, Federal Reserve Bank of Richmond.

Greenspan, Alan (1999): "Opening Remarks," in *New Challenges for Monetary Policy*, proceedings of a symposium organized by the Federal Reserve Bank of Kansas City.

King, Mervyn (1999): "Challenges for Monetary Policy: New and Old," in *New Challenges for Monetary Policy*, proceedings of a symposium organized by the Federal Reserve Bank of Kansas City (with John B. Taylor's commentary and the general discussion).

Walsh, Carl E. (1998): "Empirical Evidence on Money and Output," Chapter 1 in *WALSH98*.

Money, Output, and Nominal Rigidity

Blanchard, Olivier J., and Nobuhiro Kiyotaki (1983): "Monopolistic Competition and the Effects of Aggregate Demand," *American Economic Review* 77: 647-666.

Blinder, Alan S. (1994): "On Sticky Prices: Academic Theories Meet the Real World," in *MANKIW94* (with Olivier J. Blanchard's comment).

Calvo, Guillermo A. (1983): "Staggered Prices in a Utility Maximizing Framework," *Journal of Monetary Economics* 12: 383-398.

Chari, V. V., Patrick J. Kehoe, and Ellen R. McGrattan (2000): "Sticky price Models of the Business Cycle: Can the Contract Multiplier Solve the Persistence Problem?" *Econometrica* 68: 1151-1179 (link: Federal Reserve Bank of Minneapolis Staff Report version).

Dotsey, Michael, Robert G. King, and Alexander L. Wolman (1999): "State Dependent Pricing and the General Equilibrium Dynamics of Money and Output," *Quarterly Journal of Economics* 114: 655-690.

Fuhrer, Jeff, and George Moore (1995): "Inflation Persistence," *Quarterly Journal of Economics* 110: 127-159.

Galí, Jordi, and Mark Gertler (1999): "Inflation Dynamics: A Structural Econometric Analysis," *Journal of Monetary Economics* 44: 195-222.

Goodfriend, Marvin S., and Robert G. King (1997): "The New Neoclassical Synthesis and the Role of Monetary Policy," in Ben S. Bernanke and Julio J. Rotemberg (eds.), NBER Macroeconomics Annual 1997, Cambridge: MIT Press (with Olivier J. Blanchard's comments; link: Federal Reserve of Richmond WP version).

Ireland, Peter N. (1996): "The Role of Countercyclical Monetary Policy," *Journal of Political Economy* 104: 704-724.

McCallum, Bennett T., and Edward Nelson (1999): "An Optimizing IS-LM Specification for Monetary Policy and Business Cycle Analysis," *Journal of Money, Credit, and Banking* 31: 296-316 (link: NBER WP version).

Nelson, Edward (1998): "Sluggish Inflation and Optimizing Models of the Business Cycle," *Journal of Monetary Economics* 42:303-322.

Roberts, John M. (2001): "How Well Does the New Keynesian Sticky-Price Model Fit the Data?" Finance and Economics Discussion Series, Staff WP 2001-13, Board of Governors of the Federal Reserve System.

Rotemberg, Julio J. (1982): "Monopolistic Price Adjustment and Aggregate Output," *Review of Economic Studies* 49: 517-531.

Rotemberg, Julio J. (1987): "The New Keynesian Microfoundations," in NBER Macroeconomics Annual 1987, Cambridge: MIT Press.

Rotemberg, Julio J., and Michael Woodford (1999): "The Cyclical Behavior of Prices and Costs," in John B. Taylor and Michael Woodford (eds.), *Handbook of Macroeconomics*, Amsterdam: Elsevier Science (link: NBER WP version).

Sbordone, Argia M. (1998): "Prices and Unit Labor Costs: A New Test of Price Stickiness," unpublished manuscript, Rutgers University

Sims, Christopher A. (1998): "Stickiness," Carnegie-Rochester Conference Series on Public Policy 49: 317-356 (link: C. A. Sims' web page).

Taylor, John B. (1980): "Aggregate Dynamics and Staggered Contracts," *Journal of Political Economy* 88: 1-24.

Taylor, John B. (1999): "Staggered Price and Wage Setting in Macroeconomics," in John B. Taylor and Michael Woodford (eds.), *Handbook of Macroeconomics*, Amsterdam: Elsevier Science (link: NBER WP version).

Walsh, Carl E. (1998): "Money and Output in the Short Run," Chapter 5 in WALSH98.

Time Inconsistency, Rules vs. Discretion, Transparency

Albanesi, Stefania, V. V. Chari, and Lawrence J. Christiano (2000): "Expectation Traps and Monetary Policy" unpublished manuscript, Northwestern University and University of Minnesota.

Albanesi, Stefania, V. V. Chari, and Lawrence J. Christiano (2001): "How Severe Is the Time Inconsistency Problem in Monetary Policy?" unpublished manuscript, Northwestern University and University of Minnesota.

Barro, Robert J., and David B. Gordon (1983): "A Positive Theory of Monetary Policy in a Natural-Rate Model," *Journal of Political Economy* 91(4): 589-610 (link: NBER WP version).

Barro, Robert J., and David B. Gordon (1983): "Rules, Discretion, and Reputation in a Model of Monetary Policy," *Journal of Monetary Economics* 12(1): 101-121 (link: NBER WP version).

Calvo, Guillermo A. (1978): "On the Time Consistency of Optimal Monetary Policy in a Monetary Economy," *Econometrica* 46(6): 1411-1428.

Chari, V. V., Lawrence J. Christiano, and Martin Eichenbaum (1998): "Expectation Traps and Discretion," unpublished manuscript, University of Minnesota and Northwestern University.

Christiano, Lawrence J., and Christopher Gust (2000): "The Expectations Trap Hypothesis," Federal Reserve Bank of Chicago.

Faust, Jon, and Lars E. O. Svensson (1998): "Transparency and Credibility: Monetary Policy with Unobservable Goals," NBER WP 6452.

Faust, Jon, and Lars E. O. Svensson (1999): "The Equilibrium Degree of Transparency and Control in Monetary Policy," NBER WP 7152.

Geraats, Petra (2000): "Precommitment, Transparency and Monetary Policy," unpublished manuscript, University of Cambridge.

Geraats, Petra (2001): "Why Adopt Transparency? The Publication of Central Bank Forecasts," ECB WP 41.

Ireland, Peter N. (1998): "Does the Time-Consistency Problem Explain the Behavior of Inflation in the United States?" Boston College Economics Department WP 415.

Ireland, Peter N. (1998): "Expectations, Credibility, and Time-Consistent Monetary Policy," Boston College Economics Department WP 425.

Jensen, Henrik (1999): "Optimal Degrees of Transparency in Monetary Policymaking," CEPR DP 2689.

Lucas, Robert E. (1980): "Rules, Discretion, and the Role of the Economic Advisor," in Stanley Fisher (ed.), *Rational Expectations and Economic Policy*, Chicago: University of Chicago Press.

Kydland, Finn E., and Edward C. Prescott (1977): "Rules Rather Than Discretion: The Inconsistency of Optimal Plans," *Journal of Political Economy* 85(3): 473-491 (link: JSTOR).

Walsh, Carl E. (1998): "Discretionary Policy and Time Inconsistency," Chapter 8 in WALSH98.

[An excellent treatment of this topic is also in Cukierman, Alex (1995): *Central Bank Strategy, Credibility, and Independence: Theory and Evidence*, Cambridge: MIT Press.]

Evidence on the Effects of Monetary Policy

Bernanke, Ben S., and Ilian Mihov (1995): "Measuring Monetary Policy," NBER WP 5145.

Bernanke, Ben S., and Ilian Mihov (1998): "The Liquidity Effect and Long-Run Neutrality," NBER WP 6608.

Faust, Jon (1998): "The Robustness of Identified VAR Conclusions About Money," *Carnegie-Rochester Conference Series on Public Policy* 49: 207-244 (with Harald Uhlig's comment, pp. 245-263).

Blanchard, Olivier, and Danny Quah (1989): "The Dynamic Effects of Aggregate Demand and Supply Disturbances," *American Economic Review* 79: 655-673.

Christiano, Lawrence J., Martin Eichenbaum, and Charles Evans (1996): "The Effects of Monetary Policy Shocks: Evidence from the Flow of Funds," *Review of Economics and Statistics* 78: 16-34.

Christiano, Lawrence J., Martin Eichenbaum, and Charles Evans (1998): "Monetary Policy Shocks: What Have We Learned and To What End?" unpublished manuscript, Northwestern University and Federal Reserve Bank of Chicago.

Cochrane, John H. (1998): "What Do the VARs Mean? Measuring the Output Effects of Monetary Policy," *Journal of Monetary Economics* 41: 277-300.

Faust, Jon, and Eric Leeper (1997): "When Do Long-Run Identifying Restrictions Give Reliable Results?" *Journal of Business Economics and Statistics* 15: 345-354.

Gordon, David, and Eric Leeper (1994): "The Dynamic Impacts of Monetary Policy: An Exercise in Tentative Identification," *Journal of Political Economy* 102: 1228-1247.

Ireland, Peter N. (1999): "A Method for Taking Models to the Data," Boston College Economics Department WP 421.

Ireland, Peter N. (1999): "Sticky-Price Models of the Business Cycle: Specification and Stability," Boston College Economics Department WP 426.

Ireland, Peter N. (2000): "Money's Role in the Monetary Business Cycle," Boston College Economics Department WP 458.

Leeper, Eric M., Christopher A. Sims, and Tao Zha (1996): "What Does Monetary Policy Do?" *Brookings Papers on Economic Activity* 2: 1-63 (with Ben S. Bernanke's discussion, pp. 69-73; link: C.A. Sims' web page).

Mankiw, N. Gregory (2000): "The Inexorable and Mysterious Tradeoff Between Inflation and Unemployment," NBER WP 7884.

McCallum, Bennett T. (1999): "Analysis of the Monetary Transmission Mechanism: Methodological Issues," unpublished manuscript, Carnegie Mellon University.

Rudebusch, Glenn (1997): "Do Measures of Monetary Policy in a VAR Make Sense?" *Brookings Papers on Economic Activity* 2: ??? (with Christopher A. Sims' discussion; link: C.A. Sims' web page).

Sims, Christopher A. (1980): "Macroeconomics and Reality," *Econometrica* 48: 1-48.

Sims, Christopher A. (1992): "Interpreting the Macroeconomic Time Series Facts: The Effects of Monetary Policy," *European Economic Review* 36: 975-1011.

Sims, Christopher A., and Tao Zha (1996): "Does Monetary Policy Generate Recessions?" unpublished manuscript, Princeton University and Federal Reserve Bank of Atlanta.

Strongin, S. (1995): "The Identification of Monetary Policy Disturbances: Explaining the Liquidity Puzzle," *Journal of Monetary Economics* 35: 463-497.

Uhlig, Harald (2001): "What Are the Effects of Monetary Policy? Results from an Agnostic Identification Procedure," unpublished manuscript, Humboldt University.

Reflections on Monetary Policy Rules

McCallum, Bennett T. (1999): "Recent Developments in the Analysis of Monetary Policy Rules," Holmer Jones Memorial Lecture at the University of Missouri.

McCallum, Bennett T. (2000): "The Present and Future of Monetary Policy Rules," International Finance, forthcoming.

Poole, William (1999): "Monetary Policy Rules?" Review, Federal Reserve Bank of St. Louis, Vol. 81, no. 2.

Tobin, James (1998): "Monetary Policy: Recent Theory and Practice," unpublished manuscript, Yale University.

Price Stability in the Policy Debate

In 1996, the Federal Reserve Bank of Kansas City organized a symposium on "Achieving Price Stability." The proceedings were published in a volume with the same title. Here are some contributions (in the order in which they appear in the volume):

Greenspan, Alan (1996): "Opening Remarks."

Fischer, Stanley (1996): "Why Are Central Banks Pursuing Long-Run Price Stability?" (with Lawrence Summers' commentary and the general discussion).

King, Mervyn (1996): "How Should Central Banks Reduce Inflation? Conceptual Issues" (with commentaries—Rudiger Dornbusch and Bennett T. McCallum--and general discussion).

Freedman, Charles (1996): "What Operating Procedures Should Be Adopted to Maintain Price Stability?--Practical Issues" (with commentaries--Otmar Issing and Donald L. Kohn--and general discussion).

Taylor, John B. (1996): "How Should Monetary Policy Respond to Shocks While Maintaining Long Run Price Stability" (with commentaries--David W. Mullins and Lars E. O. Svensson--and general discussion).

You can find the remaining contributions at

<http://www.kc.frb.org/PUBLICAT/SYMPOS/1996/Sym96prg.htm>. FYI, the Federal Reserve Bank of Kansas City organizes a symposium on an important policy issue each year. The proceedings of recent symposia can be found at <http://www.kc.frb.org/PUBLICAT/SYMPOS/SYMMAIN.HTM>.

Interest Rate Rules: Introduction

Romer, David (2000): "Keynesian Macroeconomics Without the LM Curve," NBER WP 7461.

Taylor, John B. (1999): "A Historical Analysis of Monetary Policy Rules," in TAYLOR99 (with Richard Clarida's comment).

Walsh, Carl E. (1998): "Interest Rates and Monetary Policy," Chapter 10 in WALSH98.

Woodford, Michael (1999): "Price-Level Determination under Interest-Rate Rules," Chapter 2 in Interest and Prices, unpublished manuscript, Princeton University.

Woodford, Michael (2000): "A Neo-Wicksellian Framework for the Analysis of Monetary Policy," Chapter 4 in Interest and Prices, unpublished manuscript, Princeton University.

Inflation, Welfare, and Optimal Monetary Policy/Interest Rate Rules

Ball, Laurence (1997): "Efficient Monetary Policy Rules," NBER WP 5952.

Cecchetti, Stephen G., and Erica L. Groshen (2000): "Understanding Inflation: Implications for Monetary Policy," NBER WP 7482.

Chari, V.V., and Patrick J. Kehoe (1999): "Optimal Fiscal and Monetary Policy," in John B. Taylor and Michael Woodford (eds.), *Handbook of Macroeconomics*, Amsterdam: Elsevier Science.

Clark, Peter, Charles Goodhart, and Haizhou Huang (1999): "Optimal Monetary Policy Rules in a Rational Expectations Model of the Phillips Curve," FMG DP 0247, London School of Economics.

Dotsey, Michael, and Peter N. Ireland (1996): "The Welfare Cost of Inflation in General Equilibrium," *Journal of Monetary Economics* 37: 29-47.

Giannoni, Marc P. (2000): "Optimal Interest-Rate Rules in a Forward-Looking Model, and Inflation Stabilization versus Price-Level Stabilization," unpublished manuscript, Federal Reserve Bank of New York.

Goodfriend, Marvin S., and Robert G. King (2000): "The Case for Price Stability," unpublished manuscript, Federal Reserve Bank of Richmond and Boston University.

Khan, Aubhik, Robert G. King, and Alexander L. Wolman (2000): "Optimal Monetary Policy," Federal Reserve Bank of Richmond WP 00-10.

King, Robert G., and Alexander L. Wolman (1999): "What Should the Monetary Authority Do When Prices Are Sticky?" in TAYLOR99 (with Benjamin M. Friedman's comment).

Lucas, Robert E., and Nancy L. Stokey (1983): "Optimal Fiscal and Monetary Policy in an Economy Without Capital," *Journal of Monetary Economics* 12: 55-93.

McCallum, Bennett T. (1997): "Issues in the Design of Monetary Policy Rules," in John B. Taylor and Michael Woodford (eds.), *Handbook of Macroeconomics*, Amsterdam: Elsevier Science (link: NBER WP version).

Rotemberg, Julio J., and Michael Woodford (1997): "An Optimization-Based Framework for the Evaluation of Monetary Policy," in Ben S. Bernanke and Julio J. Rotemberg (eds.), *NBER Macroeconomics Annual 1997*, Cambridge: MIT Press (link: NBER WP version).

Rotemberg, Julio J., and Michael Woodford (1999): "Interest Rate Rules in an Estimated Sticky Price Model," in TAYLOR99 (with Martin Feldstein's comment).

Schmitt-Grohé, Stephanie, and Martín Uribe (2000): "Optimal Fiscal and Monetary Policy under Imperfect Competition," unpublished manuscript, Rutgers University and University of Pennsylvania.

Svensson, Lars E. O. (1999): "How Should Monetary Policy Be Conducted in an Era of Price Stability?" in *New Challenges for Monetary Policy*, proceedings of a symposium organized by the Federal Reserve Bank of Kansas City (with commentaries--Allan Meltzer and Michael Woodford--and general discussion).

Steinsson, Jon (2000): "Optimal Monetary Policy in an Economy with Inflation Persistence," unpublished manuscript, Princeton University.

Woodford, Michael (1999): "Inflation Stabilization and Welfare," Chapter 6 in *Interest and Prices*, unpublished manuscript, Princeton University.

Inflation Targeting

Batini, Nicoletta, and Andrew G. Haldane (1999): "Forward-Looking Rules for Monetary Policy," in TAYLOR99 (with Donald L. Khon's comment; link: Bank of England WP version).

Batini, Nicoletta, and Edward Nelson (2000): "Optimal Horizons for Inflation Targeting," WP 119, Bank of England.

Bernanke, Ben S., and Frederic S. Mishkin (1997): "Inflation Targeting: A New Framework for Monetary Policy?" *Journal of Economic Perspectives* 11: 97-116 (link: NBER WP version).

Bernanke, Ben S., and Michael Woodford (1997): "Inflation Forecasts and Monetary Policy," NBER WP 6157.

Cecchetti, Stephen G. (1995): "Inflation Indicators and Inflation Policy," in Ben S. Bernanke and Julio J. Rotemberg (eds.), *NBER Macroeconomics Annual 1995*, Cambridge: MIT Press (link: NBER WP version).

Cecchetti, Stephen G., and Michael Ehrmann (1999): "Does Inflation Targeting Increase Output Volatility? An International Comparison of Policymakers' Preferences and Outcomes," NBER WP 7426.

Cukierman, Alex (2000): "Establishing a Reputation for Dependability by Means of Inflation Targets," *Economics of Governance*, February.

Erceg, Christopher J., Dale W. Henderson, and Andrew T. Levin (1999): "Tradeoffs Between Inflation and Output-Gap Variances in an Optimizing Agent Model," unpublished manuscript, Board of Governors of the Federal Reserve System.

European Central Bank (1999): "The Monetary Policy Strategy and the Operational Framework of the Eurosystem," from the ECB's web site.

Galí, Jordi (2001): "Targeting Inflation in an Economy with Staggered Price Setting," unpublished manuscript, Universitat Pompeu Fabra.

King, Mervyn (1997): "Changes in UK Monetary Policy: Rules and Discretion in Practice," *Journal of Monetary Economics* 39: 81-97.

King, Robert G., and Alexander L. Wolman (1996): "Inflation Targeting in a St. Louis Model of the 21st Century," *Federal Reserve Bank of St. Louis Review* 78: 83-107 (with commentaries: Edward C. Prescott and Julio J. Rotemberg).

Kuttner, Kenneth N., and Adam S. Posen (1999): "Does Talk Matter After All? Inflation Targeting and Central Bank Behavior," Staff Report 88, Federal Reserve Bank of New York.

McDonough, William J. (1997): "A Framework for the Pursuit of Price Stability," *Economic Policy Review*, Federal Reserve Bank of New York, Vol. 3, No. 3.

Mishkin, Frederic S., and Adam S. Posen (1997): "Inflation Targeting: Lessons from Four Countries," *Economic Policy Review*, Federal Reserve Bank of New York, Vol. 3, No. 3.

Rudebusch, Glenn D., and Lars E. O. Svensson (1999): "Policy Rules for Inflation Targeting," in TAYLOR99 (with Frederic S. Mishkin and James H. Stock's comments).

Rudebusch, Glenn D., and Lars E. O. Svensson (1999): "Eurosystem Monetary Targeting: Lessons from U.S. Data," NBER WP 7179.

Smets, Frank (2000): "What Horizon for Price Stability?" ECB WP 24.

Svensson, Lars E. O. (1997): "Inflation Forecast Targeting: Implementing and Monitoring Inflation Targets," *European Economic Review* 41: 1111-1146 (link: NBER WP version).

Svensson, Lars E. O. (1999): "Inflation Targeting as a Monetary Policy Rule," *Journal of Monetary Economics* 43: 607-654 (link: NBER WP version).

Svensson, Lars E. O. (1999): "Inflation Targeting: Some Extensions," NBER WP 5962.

Svensson, Lars E. O. (1999): "Monetary Policy Issues for the Eurosystem," NBER WP 7177.

Svensson, Lars E. O. (1999): "Price Stability as a Target for Monetary Policy: Defining and Maintaining Price Stability," NBER WP 7276.

Svensson, Lars E. O. (2000): "The First Year of the Eurosystem: Inflation Targeting or Not?" NBER WP 7598.

Svensson, Lars E. O., and Michael Woodford (1999): "Implementing Optimal Policy Through Inflation Forecast Targeting," unpublished manuscript, IIES and Princeton University.

Végh, Carlos A. (1998): "Monetary Policy, Interest Rate Rules, and Inflation Targeting: Some Basic Equivalences," unpublished manuscript, University of California, Los Angeles.

[In addition, BetAL99 is an excellent reading on this topic.]

More on Optimal Monetary Policy, Comparison of Rules, and Rules vs. Discretion Revisited

Canzoneri, Matthew B., Dale W. Henderson, and Kenneth S. Rogoff (1983): "The Information Content of the Interest Rate and Optimal Monetary Policy," *Quarterly Journal of Economics* 98(4): 545-566.

Christiano, Lawrence J., and Christopher J. Gust (1999): "Taylor Rules in a Limited Participation Model," NBER WP 7017.

Cooley, Thomas F., and Vincenzo Quadrini (2000): "Optimal Monetary Policy in a Phillips-Curve World," unpublished manuscript, New York University.

Dupor, William (1999): "Optimal Monetary Policy with Nominal Rigidities," unpublished manuscript, University of Pennsylvania.

Erceg, Christopher J., Dale W. Henderson, and Andrew T. Levin (2000): "Optimal Monetary Policy with Staggered Wage and Price Contracts," *Journal of Monetary Economics* 46: 281-313.

Feldstein, Martin, and James H. Stock (1994): "The Use of a Monetary Aggregate to Target Nominal GDP," in MANKIW94 (with John B. Taylor and Bennett T. McCallum comments; link: NBER WP version).

Galí, Jordi (2000): "New Perspectives on Monetary Policy, Inflation, and the Business Cycle," unpublished manuscript, Universitat Pompeu Fabra.

Gerlach, Stefan, and Lars E. O. Svensson (2000): "Money and Inflation in the Euro Area: A Case for Monetary Indicators?" NBER WP 8025.

Hall, Robert E., and N. Gregory Mankiw (1994): "Nominal Income Targeting," in MANKIW94 (with Kenneth D. West's comment; link: NBER WP version).

Henderson, Dale W., and Jinill Kim (1999): "Exact Utilities under alternative Monetary Rules in a Simple Macro Model with Optimizing Agents," International Finance Discussion Paper 635, Board of Governors of the Federal Reserve System.

Henderson, Dale W., and Jinill Kim (2000): "Exactly How Suboptimal Are Inflation Targeting and Nominal Income Growth Targeting?" unpublished manuscript, Board of Governors of the Federal Reserve System and University of Virginia.

Ireland, Peter N. (2000): "Implementing the Friedman Rule," Boston College Economics Department WP 460.

Jensen, Henrik (1999): "Targeting Nominal Income Growth or Inflation?" CEPR DP 2341.

Lengwiler, Yvan, and Athanasios Orphanides (1999): "Optimal Discretion," Finance and Economics Discussion Series, Staff WP 1999-42, Board of Governors of the Federal Reserve System.

McCallum, Bennett T. (1997): "The Alleged Instability of Nominal Income Targeting," NBER WP 6291.

McCallum, Bennett T. (1999): "Recent Developments in Monetary Policy Analysis: The Roles of Theory and Evidence," unpublished manuscript, Carnegie Mellon University.

McCallum, Bennett T. (2001): "Should Monetary Policy Respond Strongly to Output Gaps?" unpublished manuscript, Carnegie Mellon University.

McCallum, Bennett T., and Edward Nelson (1999): "Performance of Operational Policy Rules in an Estimated Semiclassical Structural Model," in TAYLOR99 (with Mark Gertler's comment; link: NBER WP version).

McCallum, Bennett T., and Edward Nelson (2000): "Timeless Perspective vs. Discretionary Monetary Policy in Forward-Looking Models," NBER WP 7915.

Mishkin, Frederic S. (1999): "International Experiences with Different Monetary Policy Regimes," NBER WP 7044.

Neiss, Katharine S., and Edward Nelson (2000): "The Real Interest rate Gap as an Inflation Indicator," unpublished manuscript, Bank of England.

Sack, Brian, and Volker Wieland (1999): "Interest-rate Smoothing and Optimal Monetary Policy: A Review of Recent Empirical Evidence," Finance and Economics Discussion Series, Staff WP 1999-39, Board of Governors of the Federal Reserve System.

Svensson, Lars E. O. (2000): "Does the P* Model Provide Any Rationale for Monetary Targeting?" NBER WP 7178.

Taylor, John B. (1993): "Discretion vs. Policy Rules in Practice," Carnegie-Rochester Conference Series on Public Policy 39: 195-214.

Uhlig, Harald (1999): "Should We Be Afraid of Friedman's Rule?" Journal of the Japanese and International Economies, forthcoming.

Williams, John C. (1999): "Simple Rules for Monetary Policy," Finance and Economics Discussion Series, Staff WP 1999-12, Board of Governors of the Federal Reserve System.

Woodford, Michael (1994): "Nonstandard Indicators for Monetary Policy: Can Their Usefulness Be Judged from Forecasting Regressions?" in MANKIW94.

Woodford, Michael (1999): "Optimal Monetary Policy Inertia," NBER WP 7261.

Monetary Policy and Asset Bubbles

Bernanke, Ben S., and Mark Gertler (1999): "Monetary Policy and Asset Price Volatility," in *New Challenges for Monetary Policy*, proceedings of a symposium organized by the Federal Reserve Bank of Kansas City (with Rudiger Dornbusch's commentary and the general discussion).

Bernanke, Ben S., and Mark Gertler (2001): "Should Central Bankers Respond to Asset Prices?" *American Economic Review Papers and Proceedings*, forthcoming.

Evidence on Interest Rate Rules

Christiano, Lawrence J., and Christopher Gust (1999): "The Great Inflation of the 1970s," unpublished manuscript, Northwestern University and Board of Governors of the Federal Reserve System.

Clarida, Richard, Jordi Galí, and Mark Gertler (1997): "Monetary Policy Rules in Practice: Some International Evidence," *European Economic Review* 42: 1033-1067.

Clarida, Richard, Jordi Galí, and Mark Gertler (1998): "Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory," *Quarterly Journal of Economics* 115: 147-180.

Galí, Jordi, J. David López-Salido, and Javier Vallés (2000): "Technology Shocks and Monetary Policy: Assessing the Fed's Performance," unpublished manuscript, Universitat Pompeu Fabra and Bank of Spain.

Ireland, Peter N. (1999): "Interest Rates, Inflation, and Federal Reserve Policy Since 1980," Boston College Economics Department WP 419.

McCallum, Bennett T. (2000): "Alternative Monetary Policy Rules: A Comparison with Historical Settings for the United States, the United Kingdom, and Japan," *Economic Quarterly*, Federal Reserve Bank of Richmond.

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Orphanides, Athanasios (2000): "Activist Stabilization Policy and Inflation: The Taylor Rule in the 1970s," Finance and Economics Discussion Series, Staff WP 2000-13, Board of Governors of the Federal Reserve System.

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Indeterminacy, Liquidity Traps, the Zero Bound: Drawbacks of Interest Rate Rules?

Benhabib, Jess, Stephanie Schmitt-Grohé, and Martín Uribe (1999): "The Perils of Taylor Rules," *Journal of Economic Theory* 96: 40-69 (link: M. Uribe's web page).

Benhabib, Jess, Stephanie Schmitt-Grohé, and Martín Uribe (1999): "Monetary Policy and Multiple Equilibria," *American Economic Review*, forthcoming.

Benhabib, Jess, Stephanie Schmitt-Grohé, and Martín Uribe (2000): "Avoiding Liquidity Traps," unpublished manuscript, New York University, Rutgers University, and University of Pennsylvania.

Bernanke, Ben S. (2000): "Japanese Monetary Policy: A Case of Self Induced Paralysis?" Institute for International Economics.

Blanchard, Olivier (2000): "Bubbles, Liquidity Traps, and Monetary Policy: Comments on Jinushi et al. and on Bernanke," unpublished manuscript, MIT.

Buiter, Willem H., and Nikolaos Panigirtzoglou (1999): "Liquidity Traps: How to Avoid Them and How to Escape Them," NBER WP 7245.

Clouse, James, Dale Henderson, Athanasios Orphanides, David Small, and Peter Tinsley (2000): "Monetary Policy When the Nominal Short-Term Interest Rate Is Zero," Finance and Economics Discussion Series, Staff WP 2000-51, Board of Governors of the Federal Reserve System.

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Dupor, William (2000): "August 14, 1990: Monetary Policy and Confidence," unpublished manuscript, University of Pennsylvania.

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McCallum, Bennett T. (1999): "Theoretical Analysis Regarding a Zero Lower Bound on Nominal Interest Rates," unpublished manuscript, Carnegie Mellon University (with Lawrence J. Christiano's comment).

Orphanides, Athanasios (1999): "The Quest for Prosperity Without Inflation," Board of Governors of the Federal Reserve System.

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Orphanides, Athanasios, and Volker Wieland (1999): "Efficient Monetary Policy Design Near Price Stability," Finance and Economics Discussion Series, Staff WP 1999-67, Board of Governors of the Federal Reserve System.

Reifschneider, David, and John C. Williams: "Three Lessons for Monetary Policy in a Low Inflation Era," Finance and Economics Discussion Series, Staff WP 1999-44, Board of Governors of the Federal Reserve System.

Schmitt-Grohé, Stephanie, and Martín Uribe (2000): "Liquidity Traps with Global Taylor Rules," unpublished manuscript, Rutgers University and University of Pennsylvania.

Woodford, Michael (2000): "Pitfalls of Forward-Looking Monetary Policy," American Economic Review Papers and Proceedings 90: 100-104.

Monetary Policy Without Money

McCallum, Bennett T. (1999): "Role of the Minimal State Variable Criterion in Rational Expectation Models," *International Tax and Public Finance* 6: 621-639.

McCallum, Bennett T. (2000): "Monetary Policy Analysis in Models Without Money," unpublished manuscript, Carnegie Mellon University.

Woodford, Michael (2000): "Monetary Policy in a World Without Money," NBER WP 7853.

Parameter Uncertainty, Model Uncertainty, Measurement Errors

Estrella, Arturo, and Frederic S. Mishkin (1999): "Rethinking the Role of NAIRU in Monetary Policy: Implications of Model Formulation and Uncertainty," in TAYLOR99 (link: NBER WP version).

Galí, Jordi (2000): "The Conduct of Monetary Policy in the Face of Technological Change: Theory and Postwar U.S. Evidence," unpublished manuscript, Universitat Pompeu Fabra.

Giannoni, Marc P. (2000): "Does Model Uncertainty Justify Caution? Robust Optimal Monetary Policy in a Forward-Looking Model," *Macroeconomic Dynamics*, forthcoming.

Giannoni, Marc P. (2000): "Robust Optimal Monetary Policy in a Forward-Looking Model with Parameter and Shock Uncertainty," unpublished manuscript, Federal Reserve Bank of New York.

Levin, Andrew, Volker Wieland, and John C. Williams (1998): "Robustness of Simple Monetary Policy Rules under Model Uncertainty," in TAYLOR99 (with Lawrence J. Christiano and Christopher J. Gust's comment).

Meyer, Laurence H., Eric T. Swanson, and Volker W. Wieland (2001): "NAIRU Uncertainty and Nonlinear Policy Rules," *Finance and Economics Discussion Series, Staff WP 2001-1*, Board of Governors of the Federal Reserve System.

Orphanides, Athanasios (1997): "Monetary Policy Rules Based on Real Time Data," *Finance and Economics Discussion Series, Staff WP 1998-03*, Board of Governors of the Federal Reserve System.

Orphanides, Athanasios (1998): "Monetary Policy with Noisy Information," *Finance and Economics Discussion Series, Staff WP 1998-50*, Board of Governors of the Federal Reserve System.

Orphanides, Athanasios, Richard D. Porter, David Reifschneider, Robert Tetlow, and Frederico Finan (1999): "Errors in the Measurement of the Output Gap and the Design of Monetary Policy," *Finance and Economics Discussion Series, Staff WP 1999-45*, Board of Governors of the Federal Reserve System.

Smets, Frank (1998): "Output Gap Uncertainty: Does It Matter for the Taylor Rule?" *BIS WP 60*.

Svensson, Lars E. O., and Michael Woodford (2000): "Indicator Variables for Optimal Policy," unpublished manuscript, IIES and Princeton University.

Tetlow, Robert J. (2000): "Inflation Targeting and Target Instability," *Finance and Economics Discussion Series, Staff WP 2000-1*, Board of Governors of the Federal Reserve System.

Tetlow, Robert J., and Peter von zur Muehlen (2000): "Robust Monetary Policy with Misspecified Models: Does Model Uncertainty Always Call for Attenuated Policy?"

Finance and Economics Discussion Series, Staff WP 2000-28, Board of Governors of the Federal Reserve System.

von zur Muehlen, Peter (2001): "Activist vs. Non-Activist Monetary Policy: Optimal Rules Under Extreme Uncertainty (A Primer on Robust Control)," Finance and Economics Discussion Series, Staff WP 2001-2, Board of Governors of the Federal Reserve System.

Learning

Bullard, James, and Kaushik Mitra (1999): "Learning About Monetary Policy Rules," Federal Reserve Bank of St. Louis WP 2000-001.

Tetlow, Robert J., Peter von zur Muehlen, and Frederico S. Finan (1998): "Learning and the Complexity of Monetary Policy Rules," Reserve Bank of New Zealand.

Tetlow, Robert J., and Peter von zur Muehlen (1999): "Simplicity Versus Optimality: The Choice of Monetary Policy Rules When Agents Must Learn," Finance and Economics Discussion Series, Staff WP 1999-10, Board of Governors of the Federal Reserve System.

Wieland, Volker (1999): "Monetary Policy, Parameter Uncertainty, and Optimal Learning," Finance and Economics Discussion Series, Staff WP 1999-48, Board of Governors of the Federal Reserve System.

Monetary Policy Rules for Open Economies

Time permitting, we may go over one or two papers from those listed at the following URL:

<http://socrates.berkeley.edu/~gbenigno/mpoe.htm>

A web page on monetary policy rules for open economies created and maintained by Gianluca Benigno (Bank of England), Pierpaolo Benigno (New York University), and myself.

Another topic we may discuss is

Fiscal Policy and Inflation

Buiter, Willem H. (1998): "The Young Person's Guide to Neutrality, Price Level Indeterminacy, Interest Rate Pegs, and Fiscal Theories of the Price Level," NBER WP 6396.

Buiter, Willem H. (1999): "The Fallacy of the Fiscal Theory of the Price Level," NBER WP 7302.

Canzoneri, Matthew B., Robert E. Cumby, and Behzad T. Diba (2000): "Is the Price Level Determined by the Need for Fiscal Solvency?" American Economic Review, forthcoming.

Christiano, Lawrence J., and Terry J. Fitzgerald (2000): "Understanding the Fiscal Theory of the Price Level," unpublished manuscript, Northwestern University.

- Cochrane, John H. (1999): "A Frictionless View of U.S. Inflation," unpublished manuscript, University of Chicago.
- Cochrane, John H. (1999): "Money as Stock: Price Level Determination with No Money Demand," unpublished manuscript, University of Chicago.
- Cochrane, John H. (2001): "Long-Term Debt and Optimal Fiscal Policy in the Fiscal Theory of the Price Level," *Econometrica* 69: 69-116 (link: J. H. Cochrane's web page).
- Drazen, Allan, and Elhanan Helpman (1990): "Inflationary Consequences of Anticipated Macroeconomic Policies," *Review of Economic Studies* 57: 147-166.
- Sargent, Thomas J., and Neil Wallace (1981): "Some Unpleasant Monetarist Arithmetic," *Federal Reserve Bank of Minneapolis Quarterly Review* 5: 1-17.
- Sims, Christopher A. (1993): "A Simple Model for the Study of the Determination of the Price Level and the Interaction of Monetary and Fiscal Policy," unpublished manuscript, Princeton University.
- Sims, Christopher A. (2000): "Whither ISLM," unpublished manuscript, Princeton University.
- Taylor, John B. (1995): "Monetary Policy Implications of Greater Fiscal Discipline," in *Budget Deficits and Debt: Issues and Options*, proceedings of a symposium organized by the Federal Reserve Bank of Kansas City (with commentaries--Mervyn King and Helmut Schieber--and general discussion).
- Woodford, Michael (1998): "Public Debt and the Price Level," unpublished manuscript, Princeton University.
- Woodford, Michael (2000): "Fiscal Requirements for Price Stability," *Journal of Money, Credit, and Banking*, forthcoming.

Additional Topics for a Full Semester Course (possibly, Fall 2001)

In addition to the material in this syllabus, the course would cover:

- models of money demand;
- monetary policy issues for open economies, including: policy rules for open economies, choice of exchange rate regime (flexible exchange rates, managed exchange rates and target zones, currency boards, dollarization, monetary union),
- international monetary policy coordination;
- political economy models of inflation and monetary policymaking.