Course Outline and Reading List*

Items marked "W" are available on the web. If viewed on screen with an up to date viewer, this file will show links to the bibliography at the end and to URL's where the paper can be downloaded (in cases where they exist).

Topic 1: *The Fiscal Theory of the Price Level*

Existence and uniqueness with active and passive monetary and fiscal policies; liquidity traps; central bank balance sheets.

References:

"Paper Money"
(Sims, 2013)

"Equilibria Under 'Active' and 'Passive' Monetary And Fiscal Policies"
(Leeper, 1991)

"Price Level Determinacy Without Control of a Monetary Aggregate"
(Woodford, 1995)

"A Simple Model for Study of the Determination of the Price Level and the Interaction of Monetary and Fiscal Policy" (Sims, 1994)

"Money as Stock: Price Level Determination with No Money Demand"
(Cochrane, 1999)

"Limits to Inflation Targeting" (Sims, 2005)

"Monetary Policy and Multiple Equilibria", (Benhabib, Schmitt-Grohe, and Uribe, 2001)

"The Zero Interest-Rate Bound and Optimal Monetary Policy" (Eggertsson and Woodford, 2003)

Topic 2: *Transversality and Stochastic Lagrange Multipliers*

Pitfalls of conventional TVC's. Sufficiency for concave problems. The linear-quadratic permanent income model revisited. Setting up a DSGE for solution.

References:

Notes: "Random Lagrange Multipliers and Transversality" (Sims, 2000) W

Notes: "Stochastic Lagrange Multipliers for Problems with Lagged Expectations" W

Topic 3: *Linearizing and SolvingRE DSGE Models*

Getting the computer to do the hard work for bigger models. Continuous and discrete time. Avoiding the need to discover artificial

predetermined variables in DSGE's. Perils of root counting. Pitfalls of linearization.

References:

"Solving Linear Rational Expectations Models" (Sims, 2001b) W

"Spurious Welfare Reversals in International Business Cycle Models" (Kim and Kim, 2003)W

Notes on pitfalls of linearization.

Woodford (2003, Sections 6.1-2)

Topic 4: *Intertemporal Aspects of Fiscal Policy*

Identification problems in estimating effects; tax smoothing; optimal capital taxation; optimal inflation taxes; the burden of public debt; natural resource exhaustion.

References:

"Optimal Fiscal Policy in a Business Cycle Model" (Chari, Christiano, and Kehoe, 1994)

"Optimal Fiscal and Monetary Policy in an Economy without Capital" (Lucas and Stokey, 1983)

"Federal Deficit Policy and the Effects of Public Debt Shocks" (Barro, 1980)

"Fiscal Consequences for Mexico of Adopting the Dollar" (Sims, 2001a)

"Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives" (Chamley, 1986)

"Optimal Taxation Without State-Contingent Debt" (Marcet, Sargent, and Seppälä, 2000)

"National Debt in a Neoclassical Growth Model" (Diamond, 1965)

"Debt, Deficits, and Finite Horizons" (Blanchard, 1985)

Topic 5: *International Risk Sharing and Transmission of Business Cycles*

References:

"Domestic Savings and International Capital Flows" (Feldstein and Horioka, 1991)

"Commodity Trade and International Risk Sharing: How Much Do Financial Markets Matter?" (Cole and Obstfeld, 1991)

"Tastes and Technology in a Two-Country Model of the Business Cycle: Explaining International Comovements" (Stockman and Tesar, 1995)

Topic 6: *Exchange Rates and Exchange Rate Crises*

First generation; second generation; fiscal.

References:

Rogoff and Obstfeld (1996, Sections 8.1-8.4)

"Fiscal Foundations of Price Stability in Open Economies", (Sims, 1997)

"On the Fundamentals of Self-Fulfilling Speculative Attacks",
(Burnside, Eichenbaum, and Rebelo, 2000)

Topic 7: *Policy Games and Learning*

References:
"Rules rather than discretion: The inconsistency of optimal plans"
(Kydland and Prescott, 1977)
"A Positive Theory of Monetary Policy in a Natural Rate Model"
(Barro and Gordon, 1983)
The Conquest of American Inflation (Sargent, 1999)
"Projecting Policy Effects with Statistical Models" (Sims, 1988)
"Laboratory Experiments with an Expectational Phillips Curve"
(Arifovic and Sargent, 2003)

Topic 8: *Using Models to Formulate Policy*
Comparing quantitative policy models to academic models; the
role of quantitative models in the policy process — rules, commit-
ment, targets; does the Lucas critique imply there is no such thing
as real time policy analysis?
References:
"Macroeconomic Modeling for Monetary Policy Evaluation",
(Galí and Gertler, 2007)
"Policy Rules for Inflation Targeting" (Rudebusch and Svensson, 1999)
"Modest Policy Interventions" (Leeper and Zha, 2001)
"Autoregressions, Expectations and Advice" (Sargent, 1984)
"A Rational Expectations Framework for Short Run Policy Analysis"
(Sims, 1987)

Topic 9: *(Possible topic if we have time: A Brief Survey of Solution Methods for Nonlinear*
Equilibrium Models
Higher order expansions; Projection methods; parameterized ex-
pectations; fixed-point methods; checking accuracy.
References:
Numerical Methods in Economics (Judd, 1998)
"Solving the Stochastic Growth Model by Parameterizing Expectations",
(den Haan and Marcet, 1990)
"Accuracy in Simulations", (den Haan and Marcet, 1994)

REFERENCES

ARIFOVIC, J., AND T. J. SARGENT (2003): "Laboratory Experiments with an Ex-
pectational Phillips Curve," in *Evolution and Procedures in Central Banking*, ed. by
D. E. Altig, and B. D. Smith, pp. 23–55. Cambridge University Press.

BARRO, R. J. (1980): "Federal Deficit Policy and the Effects of Public Debt Shocks," *Journal of Money, Credit, and Banking*, 12(4:part 2), 747–762.

BARRO, R. J., AND D. B. GORDON (1983): "A Positive Theory of Monetary Policy in a Natural Rate Model," *Journal of Political Economy*, 91(4), 589–610.

BENHABIB, J., S. SCHMITT-GROHE, AND M. URIBE (2001): "Monetary Policy and Multiple Equilibria," *American Economic Review*, 91, 167–186.

BLANCHARD, O. J. (1985): "Debt, Deficits, and Finite Horizons," *Journal of Political Economy*, 93(2), 223–247.

BURNSIDE, C., M. EICHENBAUM, AND S. REBELO (2000): "On the Fundamentals of Self-Fulfilling Speculative Attacks," Discussion paper, Northwestern University.

CHAMLEY, C. (1986): "Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives," *Econometrica*, 54(3), 607–622.

CHARI, V., L. J. CHRISTIANO, AND P. J. KEHOE (1994): "Optimal Fiscal Policy in a Business Cycle Model," *Journal of Political Economy*, 102(4), 617–652.

COCHRANE, J. H. (1999): "Money as Stock: Price Level Determination with No Money Demand," Discussion paper, University of Chicago Graduate School of Business, http://gsbwww.uchicago.edu/fac/john.cochrane.

COLE, H. L., AND M. OBSTFELD (1991): "Commodity Trade and International Risk Sharing: How Much Do Financial Markets Matter?," *Journal of Monetary Economics*, 28, 3–24.

DEN HAAN, W. J., AND A. MARCET (1990): "Solving the Stochastic Growth Model by Parameterizing Expectations," *Journal of Business and Economic Statistics*, 8(1), 31–34.

——— (1994): "Accuracy in Simulations," *The Review of Economic Studies*, 61(1), 3–17.

DIAMOND, P. A. (1965): "National Debt in a Neoclassical Growth Model," *American Economic Review*, 55(5), 1126–1150.

EGGERTSSON, G., AND M. WOODFORD (2003): "The Zero Bound on Interest Rates and Optimal Monetary Policy," *Brookings Papers on Economic Activity*, (1), 139–211.

FELDSTEIN, M., AND C. HORIOKA (1991): "Domestic Savings and International Capital Flows," *Economic Journal*, 90, 314–29.

GALÍ, J., AND M. GERTLER (2007): "Macroeconomic Modeling for Monetary Policy Evaluation," *Journal of Economic Perspectives*, 21(5), 25–45.

JUDD, K. L. (1998): *Numerical Methods in Economics*. MIT Press, Cambridge, Mass.

KIM, J., AND S. KIM (2003): "Spurious Welfare Reversals in International Business Cycle Models," *Journal of International Economics*, 60, 471–500.

KYDLAND, F. E., AND E. C. PRESCOTT (1977): "Rules Rather Than Discretion: The Inconsistency of Optimal Plans," *Journal of Political Economy*, 85(3), 473–492.

LEEPER, E., AND T. ZHA (2001): "Modest Policy Interventions," Discussion paper, Indiana University and Federal Reserve Bank of Atlanta, `http://php.indiana.edu/~eleeper/Papers/lz0101Rev.pdf`.

LEEPER, E. M. (1991): "Equilibria Under 'Active' and 'Passive' Monetary And Fiscal Policies," *Journal of Monetary Economics*, 27, 129–47.

Lucas, R. E. J., and N. Stokey (1983): "Optimal Fiscal and Monetary Policy in an Economy without Capital," *Journal of Monetary Economics*, 12(1), 55–93.

Marcet, A., T. J. Sargent, and J. Seppälä (2000): "Optimal Taxation Without State-Contingent Debt," Discussion paper, Hoover Institution, Stanford University, http://www.stanford.edu/~sargent/.

Rogoff, K., and M. Obstfeld (1996): *Foundations of International Macroeconomics*. MIT Press, Cambridge, Massachusetts and London, England.

Rudebusch, G. D., and L. E. O. Svensson (1999): "Policy Roles for Inflation Targeting," in *Monetary Policy Rules*, ed. by J. B. Taylor, chap. 5, pp. 203–262. University of Chicago Press, Chicago and London.

Sargent, T. J. (1984): "Autoregressions, Expectations, and Advice," *American Economic Review*, 74, 408–15, Papers and Proceedings.

——— (1999): *The Conquest of American Inflation*. Princeton University Press, Princeton, NJ.

Sims, C. A. (1987): "A rational expectations framework for short-run policy analysis," in *New approaches to monetary economics*, ed. by W. A. Barnett, and K. J. Singleton, pp. 293–308. Cambridge University Press, Cambridge, England.

——— (1988): "Projecting Policy Effects with Statistical Models," *Revista de Analysis Economico*, 3(2), 3–20, www.princeton.edu/~sims.

——— (1994): "A Simple Model for Study of the Determination of the Price Level and the Interaction of Monetary and Fiscal Policy," *Economic Theory*, 4, 381–99.

——— (1997): "Fiscal Foundations of Price Stability in Open Economies," Discussion paper, Department of Economics, Princeton University, http://www.princeton.edu/~sims/.

——— (2000): "Random Lagrange Multipliers and Transversality," notes, Princeton University, http://www.princeton.edu/~sims/, http://sims.princeton.edu/yftp/Macro2010/rlg.pdf.

——— (2001a): "Fiscal Consequences for Mexico of Adopting the Dollar," *Journal of Money, Credit, and Banking*, 33(2,part2), 597–616.

——— (2001b): "Solving Linear Rational Expectations Models," *Computational Economics*, 20(1-2), 1–20, http://www.princeton.edu/~sims/.

——— (2005): "Limits to Inflation Targeting," in *The Inflation-Targeting Debate*, ed. by B. S. Bernanke, and M. Woodford, vol. 32 of *National Bureau of Economic Research Studies in Business Cycles*, chap. 7, pp. 283–310. University of Chicago Press, Chicago and London, presented at an NBER conference in Miami, January 2003.

——— (2013): "Paper Money," *American Economic Review*, 103(2), 563–84.

Stockman, A. C., and L. L. Tesar (1995): "Tastes and Technology in a Two-Country Model of the Business Cycle: Explaining International Comovements," *American Economic Review*, 85, 168–85.

Woodford, M. (1995): "Price Level Determinacy Without Control of a Monetary Aggregate," *Carnegie-Rochester Conference Series on Public Policy*, 43, 1–46.

——— (2003): *Interest and Prices: Foundations of a Theory of Monetary Policy*. Princeton University Press.