

## Preliminary 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). This version of the reading list marks with a "\*" items that either go over material that we covered in nearly the same form in lectures or that add material related to the lectures that you are expected to have read about. The unstarred readings are related to the lectures, but go substantially beyond them to cover material that you will not be responsible for on the exam. In many cases reading the unstarred papers could nonetheless be useful to you. Note that the section on solution methods, which we did cover in one lecture, was not on the original reading list.

### Topic 1: *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 2: *Linearizing and Solving RE 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 to be posted, on pitfalls of linearization.

### Topic 3: *Micro-foundations for price stickiness*

Dixit-Stiglitz-Blanchard-Kiyotaki-Calvo; "non-allocative" inertial contract prices; time-dependent vs. state-dependent adjustment; inattention; micro evidence

References:

---

\*Copyright 2007 by Christopher A. Sims. This document may be reproduced for educational and research purposes, so long as the copies contain this notice and are retained for personal use or distributed free.

- ★“Some Evidence on the Importance of Sticky Prices”,  
(Bils and Klenow, 2004)
  - ★“Stickiness” (Sims, 1998) W (Only the models of “neutral stickiness”, in  
the first part of the paper, are relevant here.)
- More TBA

**Topic 4:** *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:

- ★“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)

**Topic 5:** *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 6:** *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 7:** *A Brief Survey of Solution Methods for Nonlinear Equilibrium Models*

Higher order expansions; Projection methods; parameterized expectations; 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)

**Topic 8:** *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 9:** *Policy Games and Learning*

References:

★“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 10:** *Using Models to Formulate Policy*

Comparing quantitative policy models to academic models; the role of quantitative models in the policy process — rules, commitment, targets; does the Lucas critique imply there is no such thing as real time policy analysis?

References:

“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)

## REFERENCES

- ARIFOVIC, J., AND T. J. SARGENT (2003): “Laboratory Experiments with an Expectational 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.
- BILS, M., AND P. KLENOW (2004): ““Some Evidence on the Importance of Sticky Prices”,” *Journal of Political Economy*, 112, 947–985.
- 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.
- FELDSTEIN, M., AND C. HORIOKA (1991): “Domestic Savings and International Capital Flows,” *Economic Journal*, 90, 314–29.
- 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.
- 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, ROBERT 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 Analisis Economico*, 3(2), 3–20, [www.princeton.edu/~sims](http://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/>.
- (1998): "Stickiness," *Carnegie-rochester Conference Series On Public Policy*, 49(1), 317–356.
- (2000): "Random Lagrange Multipliers and Transversality," notes, Princeton University, <http://www.princeton.edu/~sims/>.
- (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.
- 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.