

## 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). The outline and reading list are a bit overstuffed. The topics will be pruned as we go along, if necessary.

### 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

### Topic 3: *Real Business Cycle Models*

As substantive claims; as a modeling style; compatibility with observed price stickiness.

References:

"Technology Shocks and Aggregate Fluctuations: How Well Does the RBC Model Fit Postwar U.S. Data?" (Galí and Rabanal, 2005)

"Some Evidence on the Importance of Sticky Prices", (Bils and Klenow, 2004)

"Measures of Fit for Calibrated Models" (Watson, 1993)

"Loss Function-Based Evaluation of DSGE Models" (Schorfheide, 2000)

"Stickiness" (Sims, 1998) W (Only the models of "neutral stickiness", in the first part of the paper, are relevant here.)

---

\*Copyright 2005 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.

**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, 2003)

**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:** *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 8:** *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 9:** *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.
- 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.
- GALÍ, J., AND P. RABANAL (2005): "Technology Shocks and Aggregate Fluctuations: How Well Does the RBC Model Fit Postwar U.S. Data?," *NBER Macroeconomics Annual 2004*, 19, 225–288, Also available as NBER working paper 10636.
- 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.
- SCHORFHEIDE, F. (2000): "Loss Function-Based Evaluation of DSGE Models," *Journal of Applied Econometrics*, 15(6), 645–670.

- SIMS, C. A. (1987): "A Rational Expectations Framework for Short Run Policy Analysis," in *New Approaches to Monetary Economics*, ed. by W. Barnett, and K. Singleton, pp. 293–310. Cambridge University Press.
- (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/>.
- (2003): "Limits to Inflation Targeting," Discussion paper, Princeton University, 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.
- WATSON, M. (1993): "Measures of Fit for Calibrated Models," *Journal of Political Economy*, 101, 1011–41.
- WOODFORD, M. (1995): "Price Level Determinacy Without Control of a Monetary Aggregate," *Carnegie-Rochester Conference Series on Public Policy*, 43, 1–46.