Econ. 8106
Prof. Jones
Fall 2000

Macroeconomic Theory Part II

The purpose of this course is to continue building your foundation knowledge in the area of Macroeconomics. Here, we will concentrate on using simple economic models to generate time series that can be compared with those that we observe. We will concentrate on several questions:

1.   What properties do those models have?

2.   What types of time series do they generate?

3.   What are the effects of various types of policy in those models?

4.   What do these models say about what policy 'should' be?

Course Requirements

There will be 4 graded homework assignments, a midterm exam and a final exam. The problem sets will count 40% of your grade, the midterm will count 25% and the final will be the remaining 35%.

Office Hours

My office hours are Wednesdays from 3:30 to 5 pm. My office is 1108 Heller Hall, 624-4553, lej@econ.umn.edu.

Teaching Assistant

The TA for the course is Mikhail Goloslov. His email address is golosov@atlas.socsci.umn.edu. He will hold a discussion session each week.

Syllabus

Part I: Putting the Growth Model to Work: (approximately 2.5 weeks)

      A.   The Neoclassical Growth Model: Competitive Interpretation and the Time Series generated by the Solution

      B.   The Effects of Taxes in the Model

      C.   Optimal Taxation in the Exogenous Growth Model

      D.   The Reasons for Spending and Optimal Spending

      E.   Simple Versions of Monetary Policy and Optimal Monetary Policy

Readings:

A:

Solow, Robert, (1956), "A Contribution to the Theory of Economic Growth," *Quarterly Journal of Economics*, 70, 65-94.

Koopmans, Tjalling, (1965), "On the Concept of Optimal Economic Growth," in *The Economic Approach to Development Planning*, North Holland, Amsterdam.

Cass, David, (1965), "Optimum Growth in an Aggregative Model of Capital Accumulation," *Review of Economic Studies*, 32, 233-240.

Stokey, N. and R. E. Lucas, with E. Prescott, *Recursive Methods in Economic Dynamics*, Harvard University Press, 1989.

B and C:

Ramsey, F. P., "A Contribution to the Theory of Taxation," *Economic Journal,* Vol. 37, (1927), 47-61.

Chamley, C., "Efficient Taxation in a Stylized Model of Intertemporal General Equilibrium," *Int. Econ. Rev.,* Vol. 26, No. 2, (1985), 451-468.

Chamley, C., "Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives," *Econometrica,* 54, No. 3, (1986), 607-622.

Judd, K. L., "Redistributive Taxation in a Simple Perfect Foresight Model," *Journal of Public*

Economics, Vol. 28, (1985), 59-83.

Auerbach, A. J. and L. J. Kotlikoff, *Dynamic Fiscal Policy*, Cambridge University Press, Cambridge, 1987.

D:

Barro, R. and X. Sala-i-Martin, 1995, *Economic Growth*, McGraw-Hill, New York, Saint Louis.

Barro, R. J., "Government Spending in a Simple Model of Endogenous Growth," *Journal of Political Economy,* Vol. 98, part 2, (1990), S103-S125.

E:

Lucas, R. and N. Stokey, (1987), "Money and Interest in a Cash-in-Advance Economy," *Econometrica*, 55, 491-513.

Cooley, T. and G. Hansen, (1989), "The Inflation Tax in a Real Business Cycle Model," *American Economic Review*, 79, 733-748.

Cooley, T. and G. Hansen, (1992), "Tax Distortions in a Neoclassical Monetary Economy," *Journal of Economic Theory*, Vol. 58, No. 2, December, 290-316.

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

Part II: Modeling the Trend: Endogenizing the Growth Rate (approximately 2.5 weeks)

   A.   Endogenous Growth and the Ak, and A(k,h) models

   B.   Taxation and Its Effects, Optimal Taxation

   C.   Monetary Policy and Its Effects, Optimal Monetary Policy

Readings

A:

Romer, Paul M., (1986), "Increasing Returns and Long Run Growth," *Journal of Political Economy*, 944, 1002-1037.

Romer, Paul M., (1987), "Growth Based on Increasing Returns Due to Specialization," *American Economic Review*, 77, 56-62.

Lucas, Robert E., Jr., (1988), "On the Mechanics of Economic Development," *Journal of Monetary Economics*, 22, 3-42.

Jones, Larry E. and Rodolfo E. Manuelli, (1992), "Finite Lifetimes and Growth," *Journal of Economic Theory*, Vol. 58, No. 2, 171-197.

Barro, R. and X. Sala-i-Martin, 1995, *Economic Growth*, McGraw-Hill, New York, Saint Louis.

A and B:

Jones, Larry E. and Rodolfo E. Manuelli, (1990), "A Convex Model of Equilibrium Growth: Theory and Policy Implications," *Journal of Political Economy*, 98, 1008-1038.

Rebelo, Sergio, (1991), "Long Run Policy Analysis and Long Run Growth," *Journal of Political Economy*, 99, 500-521.

Jones, L. E., R. E. Manuelli and P. E. Rossi, "Optimal Taxation in Models of Endogenous Growth," *Journal of Political Economy,* Vol. 101, No. 3, (1993), 485-517.

Jones, L. E., R. E. Manuelli and P. E. Rossi,"On the Optimal Taxation of Capital Income," *Journal of Economic Theory*, Vol. 73, No.1, 1997, 93-117.

C:

Jones, L. E. and R. E. Manuelli, "Growth and the Effects of Inflation," *Journal of Economic Dynamics and Control*, November 1995, Vol. 19, No. 8, 1405-1448.

V. V. Chari, Jones, L. E., and R. E. Manuelli, "The Growth Effects of Monetary Policy," *The Quarterly Review of the Federal Reserve Bank of Minneapolis*, Fall 1995, 18-32.

Gomme, P. J., 1993, "Money and Growth Revisited: Measuring the Costs of Inflation in an Endogenous Growth Model," *Journal of Monetary Economics*, 32, August, pp: 51-77.

Part III.   Adding 'Wiggles' to the Time Series: Models with Uncertainty (approximately 2 weeks)

   A.   Competitive Models with Uncertainty with or without time

   B.   The Real Business Cycle Model: Exogenous and Endogenous Growth Versions

Readings:

B:

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

Cooley, T.F and, E. C. Prescott, 1995, "Economic Growth and Business Cycles," in Cooley, T.F. (ed), *Frontiers in Business Cycle Research*, Princeton University Press, Princeton, New Jersey, pp: 1-38.

Eaton, J., 1981, "Fiscal Policy, Inflation and the Accumulation of Risky Capital," *Review of Economic Studies*, XLVIII, 435-445.