

**Econ 322**  
**Macroeconomic Analysis II**  
SPRING 2005, JANUARY 13 - MARCH 1  
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**Instructor:** Prof. Stefania Albanesi, Fuqua School of Business W418, 660-7968, email: albanesi@duke.edu.

**Time and Location:** Tues/Thurs, from 8:30 - 9:45, Social Sciences Room 225.

**Office Hours:** By appointment.

**Reference Textbook:**

(LS) Sargent and Ljungqvist, 2001, *Recursive macroeconomic theory*, MIT Press.

**Additional Material:** A number of research papers are required reading for the course, as well as several handouts. They will be made available electronically if possible or distributed in print.

**Course website:** <http://faculty.fuqua.duke.edu/%7Ealbanesi/bio/ainfo/Econ322.htm>

**Grading:** The grading for this fragment of the course will be based on five assignments and a final. They will count toward the grade as follows:

|             |      |
|-------------|------|
| Assignments | 10%  |
| Final       | 40%. |

The other 50% of the grade will be based on the second half of the course, taught by Prof. Pietro Peretto.

**Assignment Policies:** You are encouraged to work in groups on the assignments, however, you must turn in an *individual* solution. Late assignments are unacceptable and will not be graded. You may skip one assignment without penalty. If you turn in all assignments, your four best assignments will be counted towards the final grade.

**Exams:** The midterm exam will be on March 8, 2005.

**Teaching Assistants:** Arthur Liu xl8@duke.edu, Anamaria Pieschacon ap38@duke.edu..

### Description of the Course

Macroeconomics is about: (i) developing positive models that can help us understand the dynamics of key macroeconomic variables: employment, unemployment, interest rates, output, etc.; and (ii) using these models to make judgements about what policies the government should, or should not, pursue. Classic questions include the proper setting of taxes and monetary policy over the business cycle.

This course will mostly be focussed on addressing (ii). We will first introduce money in the canonical business cycle model. After a brief review of cash-in-advance models, we will discuss the role of timing in monetary models. We will study two benchmark monetary models, sticky price and limited participation models, which are very widely used for policy analysis. These models differ in the mechanism through which monetary policy affects real variables in the economy. In sticky price models, monopolistically competitive firms set their prices to maximize profits. A subset of the firms cannot change their prices in response to current monetary shocks. In limited participation models, firms must borrow to finance working capital and households cannot adjust their portfolios in response to current shocks. In addition, in both these models, agents hold money because they are exogenously required to use currency to purchase consumption goods. To explore the microfoundations of the transaction role of currency, we will then briefly introduce search theoretic models of money. In the second part of the course, we will study the determination of fiscal and monetary policies. Initially, we will assume the government optimally chooses policies at some initial date for all dates and states, and that it can then commit itself to actually implementing these policies. We will go on to study the more realistic and complex case where the government lacks the ability to commit. The analysis of optimal policies will be conducted in variants of the monetary models introduced in the first part of the course.

## Detailed Topics and Tentative Lecture Plan.

- Review of cash-in-advance models. Role of timing in monetary economies (1 lecture). Readings: Handout. (LS Ch. 24 is a good background.)
- Monetary models and monetary facts- limited participation and sticky prices models of money (3 lectures). Readings: Christiano, Eichenbaum and Evans (1996).
- Deep models of money (2 lectures). Readings: Kiyotaki and Wright (1993), LS Ch. 26.
- Optimal fiscal and monetary policy with commitment
  - Optimal Taxation with Commitment (3 lectures). Readings: Lucas and Stokey (1983), LS Ch. 15.
  - Optimality of the Friedman rule (1 lecture). Readings: Chari, Christiano, Kehoe (1996), LS Ch 24, Section 5.
- Fiscal and monetary policies and inflation (1 lecture). Readings: LS Ch. 24.
- Time consistency of optimal policies (2 lectures). Readings: Chari (1989).

## Required Readings

V.V. Chari, 1989, "Time Consistency and Optimal policy Design", Federal reserve Bank of Minneapolis, Quarterly Review, Vol. 12, No.4.

Lawrence J. Christiano, Martin Eichenbaum, Charles Evans, "Sticky Price Models or Limited Participation Models: A Comparison", *European Economic Review*, 1996.

V. V. Chari, Lawrence J. Christiano and Patrick J. Kehoe, "Optimality of the Friedman rule in economies with distorting taxes," *Journal of Monetary Economics*, Volume 37, Issues 2-3, April 1996, Pages 203-223

Lawrence J. Christiano, V.V. Chari, Patrick Kehoe, "Optimal Fiscal Policy in a Business Cycle Model", *The Journal of Political Economy*, Vol. 102, No. 4. (Aug., 1994), pp. 617-652.

Nobuhiro Kiyotaki and Randall Wright, 1993, "A Search Theoretic Approach to Monetary Economics", *American Economic Review*, Vol. 83, No. 1.

Robert E. Lucas and Nancy Stokey, "Optimal Fiscal and Monetary Policy in Economies without Capital", *Journal of Monetary Economics*, 1983.

## Related Readings

Stefania Albanesi, V.V. Chari and Lawrence J. Christiano, "Expectations Traps and Monetary Policy", *The Review of Economic Studies*, November 2003.

V. V. Chari, Lawrence J. Christiano and Patrick J. Kehoe, "Optimal Fiscal and Monetary Policy: Some Recent Results", *Journal of Money, Credit and Banking*, Vol. 23, No. 3, Part 2: Price Stability. (Aug., 1991), pp. 519-539.

Lawrence J. Christiano and Martin Eichenbaum, "Liquidity Effects and the Monetary Transmission Mechanism" (in Recent Developments in Macroeconomics), *The American Economic Review*, Vol. 82, No. 2, Papers and Proceedings of the Hundred and Fourth Annual Meeting of the American Economic Association. (May, 1992), pp. 346-353.

V. V. Chari, and Patrick J. Kehoe, 1998, "Optimal Fiscal and Monetary Policy", Federal Reserve Bank of Minneapolis, Staff Report 251 (also in Handbook of Macroeconomics, Elsevier, 2000).

Peter Ireland, "Sustainable Monetary Policies," *Journal of Economic Dynamics and Control*, November 1997.

Per Krusell, Vincenzo Quadrini, and Victor Rios-Rull, 1997, "Politico-Economic Equilibrium and Economic Growth", *Journal of Economic Dynamics and Control*.

Narayana Kocherlakota, "Wedges and Taxes" *AER Papers and Proceedings*, May 2004.