Econ 7040: Macroeconomic Theory II
Spring 2024

Time and Location: Monday & Wednesday 2:00 PM – 3:15 PM, 114 Monroe Hall
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Recitation Time and Location: Friday 2:00 – 2:50 PM, 315 New Cabell Hall
Office Hours: Thursday 11 AM, Basement of Monroe

General Information

Course Overview

The course consists of several parts: permanent income hypothesis, optimal taxation with commitment, complete vs. incomplete markets, solving linear rational expectations models, overlapping generations models, monetary models and doctrines, new Keynesian model with nominal rigidities, optimal monetary policy, and monetary-fiscal policy interactions. Solving linear rational expectations models will require you to use Matlab to compute equilibria and plot impulse response functions.

I recommend that you read Ljungqvist and Sargent (2018), which is the 4^{th} edition. Earlier editions may also serve you well. Other readings will be papers or slides, though you might find the books by Galí (2008), Walsh (2003), and Woodford (2003) to be helpful for various topics.

Required readings and notes for the course will be available on collab whenever possible, though many can be easily found on the internet or through UVA Library's web pages.

Assessment

1. There will be **seven (7)** homework assignments. These are to be completed on the due dates and handed in for grading. **No exceptions.** Assignments are due on these Mondays before class

    - January 29: #1
    - February 12: #2
    - February 26: #3
    - March 18: #4
    - April 1: #5
    - April 15: #6

- April 29: #7

I encourage you to work in small groups on the homework assignments. This is an excellent way to learn and to acquire deeper understandings of the results. **But every student must hand in an *independently* written assignment.**

Emphasis in grading will be placed on your ability to *explain* the economics behind your results. Simply getting the "right answer" is not sufficient to earn full points.

2. Active participation in the class discussions. To do this, *every student must read every paper*. I expect lively and informed discussion from the class. I also expect you to ask thoughtful questions that reflect that you have read the material and are thinking about it carefully.

3. There will be a midterm exam on **Wednesday, March 13 from 2:00 PM – 3:15 PM**.

4. There will be a final exam on **Monday, May 6 from 2:00 PM – 5:00 PM**.

Grading

There is a midterm and a final exam. Your course grade will be based on your performance on homework assignments (50%) and the two exams (25% each).

Course Plan

Turning to the Course Outline below, I expect you to read the material before class meetings. I recognize that you may not have time to read every document that I recommend, but learning how to read papers is an essential aspect of graduate education. The more you practice, the easier it gets.

It is always difficult to judge *ex-ante* how much time each topic will take.

Course Outline

It is essential that you read the papers that appear in **bold** typeface.

1. **Permanent Income Hypothesis**

   Leeper (2024f), many other expositions available online

2. **Optimal Taxation with Commitment**

   Ljungqvist and Sargent (2018, chapter 16), **Leeper (2024g,j)**, **Barro (1979)**, **Lucas and Stokey (1983)**

3. **Transversality in Growth Model**

   Leeper (2024k), Becker and Boyd (1997), Obstfeld and Rogoff (1996, Chapter 2)

4. **Complete vs. Incomplete Markets**

   Korinek (2019b,a), **Ljungqvist and Sargent (2018, chapter 18)**

5. **Solving Linear Rational Expectations Models**

   Sims (2002), **Leeper (2024h)**, Blanchard and Kahn (1980), Uhlig (1999), see Traum (2008)

6. **Overlapping Generations Models**

   Ljungqvist and Sargent (2018, chapter 9), **Leeper (2024d,e,b) Acemoglu (2011)**, **Fernández-Villaverde (2016)**, Samuelson (1958), Diamond (1965)

7. **Monetary Models and Doctrines**

   Ljungqvist and Sargent (2018, Chapters 27 and 28), **Leeper (2024l,i)**, **Sargent and Wallace (1981)**,

8. **The New Keynesian Model**

   Lee (2021a,b)

9. **Optimal Monetary Policy**

   Leeper (2024c), **Lee (2021c)**

10. **Monetary-Fiscal Policy Interactions**

    Leeper (2024a), **Leeper (1991)**, **Leeper and Walker (2013)**, **Leeper and Leith (2017)**, **Sims (2013)**, **Woodford (2001)**, Cochrane (2017, 2018a, 2023), Aiyagari and Gertler (1985), Leeper (1993), Sims (1994, 2004, 2011), Woodford (1994, 1995, 1998), Cochrane (1999, 2005, 2018b), Buiter (2002), Kocherlakota and Phelan (1999), Canzoneri, Cumby, and Diba (2001, 2011), Bassetto (2002)

References

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Barro, R. J. (1979): "On the Determination of the Public Debt," *Journal of Political Economy*, 87(5), 940–971.

Bassetto, M. (2002): "A Game-Theoretic View of the Fiscal Theory of the Price Level," *Econometrica*, 70(6), 2167–2195.

Becker, R. A., and J. H. I. Boyd (1997): *Capital Theory, Equilibrium Analysis, and Recursive Utility*. Blackwell Publishers, Inc., Malden, MA.

Blanchard, O. J., and C. M. Kahn (1980): "The Solution of Linear Difference Models Under Rational Expectations," *Econometrica*, 48(5), 1305–1311.

Buiter, W. H. (2002): "The Fiscal Theory of the Price Level: A Critique," *Economic Journal*, 112(481), 459–480.

Canzoneri, M. B., R. E. Cumby, and B. T. Diba (2001): "Is the Price Level Determined by the Needs of Fiscal Solvency?," *American Economic Review*, 91(5), 1221–1238.

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Cochrane, J. H. (1999): "A Frictionless View of U.S. Inflation," in *NBER Macroeconomics Annual 1998*, ed. by B. S. Bernanke, and J. J. Rotemberg, vol. 13, pp. 323–384. MIT Press, Cambridge, MA.

——— (2005): "Money as Stock," *Journal of Monetary Economics*, 52(3), 501–528.

——— (2017): "The New-Keynesian Liquidity Trap," *Journal of Monetary Economics*, 92, 47–63.

——— (2018a): "Michelson-Morley, Fisher, and Occam: The Radical Implications of Stable Quiet Inflation at the Zero Bound," in *NBER Macroeconomics Annual 2017*, ed. by M. Eichenbaum, and J. A. Parker, vol. 32, pp. 113–226. University of Chicago Press, Chicago.

——— (2018b): "Stepping on a Rake: The Fiscal Theory of Monetary Policy," *European Economic Review*, 101, 354–375.

——— (2023): *The Fiscal Theory of the Price Level*. Princeton University Press, Princeton, N.J.

Diamond, P. A. (1965): "National Debt in a Neoclassical Growth Model," *American Economic Review*, 55(5, Part 1), 1126–1150.

Fernández-Villaverde, J. (2016): "OLG Models," Notes, University of Pennsylvania, February 12.

Galí, J. (2008): *Monetary Policy, Inflation, and the Business Cycle*. Princeton University Press, Princeton, NJ.

Kocherlakota, N., and C. Phelan (1999): "Explaining the Fiscal Theory of the Price Level," *Federal Reserve Bank of Minneapolis Quarterly Review*, 23, 14–23.

Korinek, A. (2019a): "Security Market Economy and Asset Pricing," Lecture Notes, University of Virginia, Fall.

——— (2019b): "A Simple Two-Period Exchange Economy," Lecture Notes, University of Virginia, Fall.

Lee, J. W. (2021a): "A Basic New Keynesian Model," Lecture Slides, University of Virginia.

——— (2021b): "Interest Rate Rules and Determinacy of Equilibrium," Lecture Slides, University of Virginia.

——— (2021c): "Optimal Monetary Policy," Lecture Slides, University of Virginia.

Leeper, E. M. (1991): "Equilibria Under 'Active' and 'Passive' Monetary and Fiscal Policies," *Journal of Monetary Economics*, 27(1), 129–147.

——— (1993): "The Policy Tango: Toward a Holistic View of Monetary and Fiscal Effects," *Federal Reserve Bank of Atlanta Economic Review*, 78(4), 1–27.

——— (2024a): "Monetary & Fiscal Policy Interactions," Lecture Notes, University of Virginia, Spring.

——— (2024b): "An OLG Model Without Ricardian Equivalence," Lecture Notes, University of Virginia.

——— (2024c): "Optimal Monetary Policy in a Simple Model," Lecture Notes, University of Virginia.

——— (2024d): "Overlapping Generations Models," Lecture Notes, University of Virginia, Spring.

——— (2024e): "Overlapping Generations Models: Part II," Lecture Notes, University of Virginia, Spring.

——— (2024f): "Permanent Income Hypothesis," Lecture Notes, University of Virginia.

——— (2024g): "Ricardian Equivalence: A Simple Example," Lecture Notes, University of Virginia.

——— (2024h): "Solving Linear Models," Lecture Notes, University of Virginia, Spring.

——— (2024i): "Some Monetary Doctrines," Lecture Notes, University of Virginia, Spring.

——— (2024j): "Tax Smoothing," Lecture Notes, University of Virginia.

——— (2024k): "Transversality in Simple Growth Model," Lecture Notes, University of Virginia.

——— (2024l): "Valuing Fiat Currency," Lecture Notes, University of Virginia, March 20.

Leeper, E. M., and C. Leith (2017): "Understanding Inflation as a Joint Monetary-Fiscal Phenomenon," in *Handbook of Macroeconomics*, ed. by J. B. Taylor, and H. Uhlig, vol. 2B, pp. 2305–2416. Elsevier Press, Amsterdam.

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