

General Economic Theory: Macroeconomics

Econ 511b, Spring 2006, first half



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Classes: Tuesday-Thursday 10:30-11:50
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TA: Rafael Melo
Section: Thursday 3-4 pm
Office Hours: Thursday 4:20-5:20

In the first half of the term, from January 9 to February 21, we will address the main theoretical and empirical issues concerning aggregate fixed business investment and unemployment.

The major credit hurdle for this half of the term is a written, closed-book examination on February 21 at class time. This test counts for 90% of the *score*. The remaining 10% of the score will originate from six weekly assignments. The resulting total score from this half of the term will be averaged with the score from the second half of the term, taught by Prof. George Hall, to obtain your final grade for 511b.

You can work on the assignments in groups, if you wish; no more than five people per group, please. In order to get credit you must hand in your own handwritten copy of the solutions and write on it *clearly* your name and the names of the people in your group (distinguish yourself from the others). Working on the assignments is key to succeed in the final exam, because only those who solve problems understand the material (ancient wisdom). The long-run gains from being able to solve problems on your own exceed by orders of magnitude the gains from free-riding on your colleagues; thus, you should try to tackle the problems yourself first and *then* compare your solution to those of your colleagues. Rafael will grade assignments and hold a weekly section to illustrate solutions and to discuss any other issue that you may raise.

Required readings are indicated by . The other references are useful to know where the material comes from. Most articles (denoted by ) can be downloaded legally and for free from www.jstor.org or the journal's website. However, remember that you are not supposed to use University printing resources for this purpose. As of textbooks, we can be happy with the two you already have, Ljungqvist&Sargent and Romer.

Assignments, with solutions, and readings will be posted on the ClassesV2 website, <https://classesv2.yale.edu/portal/>

A) Investment

Two excellent surveys of the macro and empirical micro literatures on Investment will serve as main references, in addition to Romer, for this section.

CAB. Caballero, Ricardo, “Aggregate Investment”. In: *Handbook of Macroeconomics* Vol. 1 / edited by John B. Taylor and Michael Woodford. Amsterdam ; New York : North-Holland : Elsevier, 1999. Available from <http://papers.nber.org/papers/w6264.pdf> and from the ClassesV2 website.

BVR. Bond, Stephen and John Van Reenen, “Microeconomic Models of Investment and Employment”, 2002. Mimeo Nuffield College, Oxford University. Available from the ClassesV2 website.

A1. Definitions and Stylized Facts

📖 CAB

A2. The Accelerator and the Neoclassical Theory

📖 Romer 8.1

📖 Hall, Robert and Dale Jorgenson, “Tax Policy and Investment Behavior”, 1967, *American Econ. Review*, June, 391-414.

📖 CAB, BVR

A3. Convex Adjustment Costs and q Theory

☺ q Theory Under Certainty

Tobin, James, “A General Equilibrium Approach to Monetary Theory”, *Journal of Money, Credit and Banking*, Feb. 1969 📖

📖 Romer 8.2-8.5

📖 Abel, Andrew, “Dynamic effects of permanent and temporary tax policies in a q model of investment”. 1982, *Journal of Monetary Economics*, no. 9: 353-373 📖

Hayashi, Fumio. “Tobin’s Marginal q and Average q: a Neoclassical Interpretation”, *Econometrica*, 1982, 50, pp. 213-224. 📖

☺ q Theory Under Uncertainty

📖 Romer 8.6 (first half of the section)

Abel, Andrew and Olivier Blanchard. “The present value of profits and cyclical movements in investments”. *Econometrica*, 1986, vol. 54, no. 2, pp. 249-273. 📖

📖 BVR

A4. Non Convex Adjustment Costs and Irreversibility

☺ Uncertainty and Irreversibility: the “Real Option” Approach

When covering this topic, I plan to introduce some basic notions of stochastic calculus and continuous time Dynamic Programming in the presence of state variables driven by diffusion processes.

📖 Dixit, Avinash, and Robert Pindyck. *Investment under Uncertainty*. Princeton University Press, 1994, Chapters 3-5.

☺ Fixed Adjustment Costs, (S,s) Policies and Aggregation

📖 CAB

Caballero, Ricardo and Eduardo Engel , “Nonlinear Aggregate Investment Dynamics: Theory and Evidence”, *Econometrica*, **67**(4), 741–782, June 1999. 📖

A5. Financial Frictions and Investment

☺ Agency Theories: Costly State Verification and Optimal Monitoring.

Romer 8.7

☺ Empirical Tests of Agency Theories

📖 Romer 8.8 second part

Fazzari, S., G. Hubbard and B. Petersen “Financing Constraints and Corporate Investments”. *Brookings Papers on Economic Activity* 2, 1988. 📖

BVR

B) Unemployment

B0. Employment Lotteries

📖 Ljungqvist and Sargent, 589-591.

Rogerson, Richard, 1988, “Indivisible Labor, Lotteries, and Equilibrium”, *Journal of Monetary Economics*, 21, 3-16. 📖

B1. Efficiency Wages

📖 Romer, 412-432.

B2. Insurance and Implicit Contracts

Thomas, Jonathan and Tim Worrall, 1988, “Self-Enforcing Wage Contracts,” *Review of Economic Studies*, 55, 541-554. 📖

Beaudry, Paul and John DiNardo, 1991, “The Effect of Implicit Contracts on the Movement of Wages over the Business Cycle: Evidence from Micro Data,” *Journal of Political Economy*, vol. 99, no. 4, August, pp. 665-88. 📖

B3. Equilibrium Search

B3.1. An island model

📖 Ljungqvist and Sargent, 570-574.

Lucas, Robert and Edward Prescott, 1974, “Equilibrium Search and Unemployment,” *Journal of Economic Theory*, 7(2), 188-209. 📖

B3.2. Search and Matching

This is a good place to introduce continuous time dynamic programming in the presence of state variables driven by memoryless and discontinuous (Poisson) stochastic processes.

📖 Pissarides, Christopher, *Equilibrium Unemployment Theory*, MIT Press, 2nd Edition. Chapters 1 and 2.

Ljungqvist and Sargent, 575-580.