

**European University Institute**  
**Department of Economics**  
Winter 2014  
Tues. & Thurs. 11 – 13; Jan. 7 – Feb. 6

## **Macroeconomics II**

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This is the second course (Block II) of the 1<sup>st</sup> Year PhD Macroeconomics sequence. It is an intensive course, which builds on the macro & micro courses of the first term (e.g. on Uncertainty, General Equilibrium, Learning, Dynamic Programming and, in particular, the Growth-Real-Business-Cycle Model). I plan to roughly cover a major topic every week. We will focus on (recursive) macroeconomic theory, with an eye on empirical and policy issues.

There will be weekly (individual) take-home assignments, a short (individual or co-authored; max. 3) 'applied project' (due no later than March 3) and a final exam (Feb. 17). Grade will be approximately based on 10% take-home weekly assignments, 10% course 'applied project' and 80% final exam; the approximation based on class participation and optional assignments.

As a background reading five Nobel Prize Lectures are recommended and, in fact, it would be better to read them ahead of the course. They will help your general understanding of macro (and possibly to answer one question of the final exam).

### **Syllabus**

#### **1. Labour Markets: Matching, Search and Equilibrium Unemployment.**

We start with a brief account of wages and employment in a RBC frictionless economy, and a reference to McCall's model of search. We then concentrate on the Mortensen & Pissarides' model of job creation and destruction with search & matching frictions. Time permitting, we will discuss directed search models and the Shimer's puzzle.

Krueger, 2012 (for review Ch. 3)

Ljungqvist & Sargent, 2012 (6.3 – 6.4 & 28.3 – 28.4 and, for review, 12.1 – 12.4)

Mortensen, Dale T., 2011. "Markets with Search Friction and the DMP Model," *American Economic Review*, 101, 1073-1091. (2010 Nobel Prize Lecture).

Pissarides, 2000 (Ch. 1)

Pissarides, Christopher A., 2011. "Equilibrium in the Labor Market with Search Frictions," *American Economic Review*, 101, 1092-1105. (2010 Nobel Prize Lecture)

## **2. Macro-Finance: Asset Prices, Ricardian Equivalence, Credit and Currency.**

We first revise some basic elements of the inter-temporal individual agent's problem: present value budgets, debt limits, *stochastic kernels* and the Permanent Income Hypothesis. Then, we move to Lucas' Asset Pricing model and the Ricardian equivalence proposition. Finally, we recall equilibrium with and without complete markets and/or participation, in order to discuss credit and currency in decentralized economies, such as Townsend's model. If there is time, we will discuss some Asset Price puzzles.

Ljungqvist & Sargent, 2012 (8.7, 10.1 – 10.3, 13.1 – 13.10 & 27.1 – 27.7)

Lucas, Robert E., Jr. 1978. "Asset Prices in an Exchange Economy," *Econometrica*, 46(6), 1429-1445.

Lucas, Robert E., Jr. 1996. "Nobel Lecture: Monetary Neutrality," *Journal of Political Economy*, 104(4), 661-82.

## **3. Fiscal vs. Monetary Optimal Policies: Ramsey & Some Unpleasant Lessons.**

We first focus on the design of Optimal Macroeconomic Policies with commitment. In particular, we show how to solve Ramsey problems using the 'primal approach' to fiscal and monetary policies. Then we study alternative monetary regimes and show how 'the unpleasant monetarist arithmetic' is pervasive in the design of dynamic government policies. We discuss issues such as whether inflation and partial debt default are equivalent and/or welfare improving when debt is not state contingent or whether it may be efficient to constrain debts and deficits.

Chari, V.V. and Patrick J. Kehoe. 1999. "Optimal Fiscal and Monetary Policy," in John B. Taylor and Michael Woodford eds. *Handbook of Macroeconomics* Volume 1, Part C, 1671-1745 (also NBER WP 6891).

Ljungqvist & Sargent, 2012 (16.1 – 16.8 & 26.1 – 26.3)

Lucas, Robert E. and Nancy L. Stokey, 1983. "Optimal Fiscal and Monetary Policy in an Economy without Capital," *Journal of Monetary Economics*, 12(1), 55-93.

Sargent, Thomas J., 2012. "Nobel Lecture: United States Then, Europe Now," *Journal of Political Economy*, 120(1), 1 - 40.

## **4. Incompleteness: markets, commitments and infinite lives. Planners with varying weights.**

We first use the Overlapping Generations model to: *i*) revisit some monetary regimes and obtain further equivalence results; *ii*) discuss the indeterminacy problem, and *iii*) show how it can be viewed as a model of infinite-lived agents with limited-enforcement constraints. We then show how a large number of economies (with limited-enforcement constraints, limited participation, etc.) can be casted in a general dynamic framework, where heterogeneous agents are aggregated as a 'wedged representative agent';

alternatively, where equilibrium allocations are solutions to a Planner's problem (with varying weights). The general framework allows for a better match with observed micro-macro data.

Chien, YiLi & Harold Cole & Hanno Lustig, 2012. "Is the Volatility of the Market Price of Risk Due to Intermittent Portfolio Rebalancing?," *American Economic Review*, 102(6), 2859-96.

Krueger, 2012 (Ch. 8 & 10.3)

Krueger, Dirk, Fabrizio Perri and Hanno Lustig, 2008. "Evaluating Asset Pricing Models with Limited Commitment using Household Consumption Data," *Journal of the European Economic Association*, 6(2-3), 715-726.

Ljungqvist & Sargent, 2012 (9.1 – 9.7 & 20.4)

Marcet, Albert and Ramon Marimon, 2013 (1999). "Recursive Contracts," EUI.

## **5. Reassessing Rational Expectations and Credible Policies.**

We conclude by relaxing two classical assumptions: full-commitment and rational expectations. We revisit some issues, such as asset price puzzles, the design of optimal policy, the indeterminacy of monetary equilibria, and the unpleasant monetarist arithmetic, resulting in a more sophisticated rationale for fiscal constraints.

Díaz-Giménez, Javier, Giorgia Giovannetti, Ramon Marimon and Pedro Teles, 2008. "Nominal Debt as a Burden to Monetary Policy," *Review of Economic Dynamics*, 11, 3, 493—514. 2008.

Ljungqvist & Sargent, 2012 (23.1 – 23.7)

Prescott, Edward C., 2006. "Nobel Lecture: The Transformation of Macroeconomic Policy and Research," *Journal of Political Economy*, 114(2), 203-235.

Sargent, Thomas J. 1999. *The Conquest of American Inflation*. Princeton University Press. (Chs. 1-5).

## **Main References**

Ljungqvist, Lars and Thomas J. Sargent, 2012. *Recursive Macroeconomic Theory*, Third Edition, (or, with different Chapter numbering, 2004 Second Edition), MIT Press.

Pissarides, Christopher A. 2000. *Equilibrium Unemployment Theory*, Second Edition, MIT Press.

Krueger, Dirk. 2012. *Macroeconomic Theory*.