European University Institute
Department of Economics
Spring 2020 (Block IV)
9:00 – 11:00, Wednesdays April 15 – May 13

Macro-finance and policy design [1]

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This (half-credit) course is self-contained and oriented to 1st year researchers, although it is open to everyone. It covers four broad topics in macro and finance. The first two are relatively standard topics of a first-year macro sequence and, therefore, complement the current compulsory macro sequence in the department. The last two are relatively more advanced but also part of the current core of dynamic macro-finance economic models.

The lectures will be complemented with exercise classes given by **Adrien Wicht**. The grade will be based on a final – possibly, take-home – exam (80%) and in active class participation (20%, including exercises).

Syllabus

1. **Introduction: Asset Prices, Ricardian Equivalence, Conventional Monetary Policy and Inside-Outside money.**

   We first revise some basic elements of the inter-temporal individual agent's problem and of asset pricing accounting. Then, we move to Lucas' Asset Pricing model and the Ricardian equivalence proposition.

   Ljungqvist & Sargent, 2018 (8.7, 10.1 – 10.3, 13.1 – 13.10).

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

2. **Fiscal and Monetary Optimal Policies: Ramsey & Some Unpleasant Lessons.**

   We first focus on the design of Optimal Macroeconomic Policies with commitment. We show how to solve Ramsey problems using the 'primal approach' to fiscal and monetary policies. Then we study optimal fiscal policies, debt contingent policies and non-contingent debt policies. Finally, we discuss two contrasting results: price frictions may not affect optimal policies, while 'the unpleasant monetarist arithmetic' can be pervasive in the design of dynamic government policies.

   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).

[1] The materials of the course can be found in the EUI Economics Moodle. The Notes are self-contained but they are only supporting notes and are not substitute for class attendance and active participation.

Chari, V.V., Juan Pablo Nicolini and Pedro Teles. 2020. "Optimal Capital Taxation Revisited," *Journal of Monetary Economics,* forthcoming.

Correia, Isabel, Juan Pablo Nicolini and Pedro Teles. 2008. "Optimal Fiscal and Monetary Policy: Equivalence Results," *Journal of Political Economy,* 116(1), 141-170.

Ljungqvist & Sargent, 2018 (16.1 – 16.8, 20.1 -20.2 & 27.1 – 27.3)

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.

3. Credible (Constrained Efficient) Monetary and Fiscal Policies when there is limited commitment.

We relax the assumption of full commitment; in particular, we study economies where the Ramsey policy is time-inconsistent; in particular, we discuss Markov perfect policies and equilibria, as well as Central Bank independence.

Diaz–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.

Klein, Paul, Per Krusell and José-Víctor Ríos-Rull, 2008. "Time-Consistent Public Policy," *Review of Economic Studies,* 75(3), 789 – 808.

Ljungqvist & Sargent, 2018 (20.3, 21.4 & 24.1 – 24.7)

4. Constrained Efficient Policies and Institutions when there is Limited Enforcement and, possibly, limited commitment: The case of the European Economic Monetary Union (EMU).

We relax the full enforcement assumption as, for example, is required for the design of policies and institutions in a union of sovereign countries, where exit is always an option. Unless participants they already are familiar with the theory of Recursive Contracts, we will start by looking at the general issue of solving dynamic models with *forward-looking constraints* using *saddle-point dynamic programming*. We will also look at these endogenous constraints as *wedges* and will see how to price them. We will then discuss the design of fiscal and monetary policies and institutions in Economic Unions, EMU in particular. Time permitting, we will conclude discussing how commitment and competition can interact in a non-trivial way, which can help to explain the evolution of financial institutions.

Chari, V V, Alessandro Dovis and Patrick Kehoe, 2020. "Rethinking Optimal Currency Areas", *Journal of Monetary Economics,* forthcoming & ADEMU Working Paper No. 2016/009.

Cooley, Thomas, Ramon Marimon and Vincenzo Quadrini, 2019. "Commitment in Organisations and the Competition for Talent," EUI.

Farhi, Emmanuel and Ivan Werning, 2017. "Fiscal unions," *American Economic Review*, 107(12):3788–3834.

Ferrari, Alessandro, Ramon Marimon and Chima Simpson-Bell. 2020. "Fiscal and Currency Union with Default and Exit," EUI.

Marcet, Albert and Ramon Marimon, 2019. "Recursive Contracts," *Econometrica,* 87(5), 1589 – 1631.

Book Reference

Ljungqvist, Lars and Thomas J. Sargent, 2018. *Recursive Macroeconomic Theory,* Fourth Edition (or, with different Chapter numbering, 2012 Third Edition or 2004 Second Edition), MIT Press.