Macroeconomics with Heterogeneous Agents (Fall 2020 – first half)

2nd-year PhD module

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Course Description

In this course we study macroeconomic models with heterogeneous household or firms. We focus on computational methods to solve for individual problems, stationary equilibria, transitional dynamics, and dynamics with aggregate and idiosyncratic shocks. We use these models to quantitatively account for key facts about the evolution of the cross-sectional distributions of income, wealth, and productive inputs. We also explore the efficiency properties of these models and derive insights on optimal policy interventions in the presence of inefficiencies.

Evaluation

Students will solve computational as well as pencil-and-paper assignments, and prepare a presentation on a recent paper on these topics (I will provide a list of papers).

Topics

Part 1: Household heterogeneity

1) Stationary equilibrium with incomplete markets: one-asset and two-asset models.
2) Transitional dynamics between stationary equilibria (“MIT” shocks).
3) Constrained efficiency.

Part 2: Firm heterogeneity

4) Adjustment costs and investment dynamics in stationary equilibrium.
5) Aggregate shocks: business cycles with heterogeneous firms.
6) Capital reallocation: accounting for the data, and efficiency analysis.
Readings


3) Guerrieri and Lorenzoni (2017), Credit Crises, Precautionary Savings, and the Liquidity Trap, *Quarterly Journal of Economics*

4) Davila, Hong, Krusell, Rios-Rull (2012), Constrained Efficiency in the Neoclassical Growth Model with Uninsurable Idiosyncratic Shocks, *Econometrica*


6) Khan and Thomas (2008), Idiosyncratic Shocks and the Role of Nonconvexities in Plant and Aggregate Investment Dynamics, *Econometrica*