William Addessi

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Introduction to General Equilibrium Models
for the Analysis of the Business Cycle
VŠE – Room NB255

Day 1 – Monday 12 May

09:00 – 12:00   **Theoretical framework.** Brief overview of the macroeconomic debate between Keynesians and monetarists about the Phillips curve (undergraduate level). Introduction of rational expectations. Discretion vs commitment in the conduct of optimal monetary policy.

Day 2 – Tuesday 13 May

09:00 – 12:00   **Basic Real Business Cycle (RBC) model.** The new paradigm: general equilibrium, microfoundations, rational expectations. Model structure analysis: assumptions; optimal choices of firms and households; equilibrium conditions. Steady-state equilibrium.

15:00 – 18:00   **Introduction to Matlab.** Basic algebra; How to import data; Basic plots.

   Empirical evidence and model predictions. Assessing the stylized facts of the business cycle. Solving and simulating the dynamics of the theoretical model. Introduction to Dynare. Theoretical predictions vs empirical evidence using Matlab and Dynare.

Day 3 – Wednesday 14 May

11:00 – 14:00   **Extensions to the basic model (brown bag lecture).** Starting from the differences between theoretical predictions and empirical evidence, we analyze some extensions that might improve model performance: investment shocks, preference shocks, preference structure, capital utilization.

We use Matlab and Dynare throughout the course. Students should bring their laptops with Matlab installed.

References

Eric Sims (University of Notre Dame) notes (https://sites.nd.edu/esims/courses/ph-d-macro-theory-ii)

Martin Ellison (University of Oxford) notes (provided during lectures)

Course notes and slides (provided during lectures)