Macroeconomic Modelling

1. **Introduction. Simple dynamic model.**

2. **Overlapping generations models.**

3. **Recursive deterministic models. Value function iteration.**

4. **Recursive stochastic models. Tauchen method.**

5. **Bewley models.**

6. **Perturbation methods.**

7. **Estimation of dynamic stochastic models.**
   **Readings:** Canova (2007): 5-6, 9; Barillas, Bhandari, Colacito, Kitao, Matthes, Sargent, and Shin (2010).

**Evaluation** is based on classroom activity, i.e. attending the classes and solving the problems given by the instructor during the classes. Additionally, students can prepare a mini-research project that will apply or extend the methods studied during the course.

The aim of the course is to make students familiar with the most popular methods used in contemporary macroeconomic analysis. The main emphasis will be on dynamic general equilibrium models. The classes will take place in computer labs, where students will use Matlab and its add-ins to analyze, use and develop algorithms for solving a selection of standard and more advanced macroeconomic models. Hence, very little time will be spent on presenting the theoretical background and analytical derivations of the models. These are taught at different courses, such as ‘Advanced Macroeconomics’, and the course participants are strongly encouraged to take them before or concurrently with this course.

There is no single textbook for the course. However, most of the topics covered and extensions can be found in selected chapters of Canova (2007), McCandless (2008) and Heer and Maussner (2008). A good background reading on macroeconomic theory is Benassy (2011).

While studying you may find it helpful to use various scientific paper browsers like e.g.: econpapers.repec.org, ideas.repec.org and scholar.google.com; article databases, e.g. www.jstor.org, www.sciencedirect.com and www.nber.org.

We invite all interested in economic theory to participate in Warsaw Economic Seminars (https://sites.google.com/site/warsaweconseminars/).

**References**


