TOPICS IN MACROECONOMICS: MODELING INFORMATION, LEARNING AND EXPECTATIONS

FALL SEMESTER 2010, BARCELONA GSE

Professor: Kristoffer Nimark
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Class time and place: 17.00-19.00 Tuesdays and Wednesdays, Room 40.152
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Overview

Many economic decisions depend on expectations about either inherently unobservable variables or about future realizations of a variable. Different theories of expectations formation will therefore have different implications for economic behavior. This course aims at equipping students with the tools needed to model two alternative theories to the full information rational expectations hypothesis: (i) Imperfectly informed, but model consistent, expectations and (ii) boundedly rational expectations, that is, expectations formed without complete knowledge of the structure of the economy. Both theories have delivered interesting results, ranging from positive predictions about the dynamics of aggregate time series and asset prices, to normative implications about the value of public information and the design of monetary policy. The substantive results from the literature will be discussed along with the specific techniques that were employed to derive them. Lecture notes will be provided, but reading articles will also be required.

Grades will be based on two homework assignments (2x10%) and a midterm (30%). The remaining 50% will be based on the first half of the course that is taught by Vasco Carvalho.

Course Outline

1. Overview and some basics.

a. Overview.

b. Linear projections, information sets and conditional expectations.

b. The Kalman filter.

2. Models of imperfect information.

a. Island models.

b. Private and public information.

c. Higher order expectations.

d. The information revealed by markets.

e. Endogenous information choice.

3. Bounded rationality and learning.

a. Modeling economic agents as econometricians.

b. Learning, policy making and Bayesian robustness.