Advanced Topics in Macroeconomics:
Information, Moral Hazard, and Financial Frictions (B30.3332.01)

Fall 2009
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Classes: Mondays–Wednesdays 2:30–4:00 in KMC 7–191

Course Description

The topic of the course is imperfect information, moral hazard, and financial frictions. The first half of the course is an introduction to information choice with applications to business cycles, monetary economics and finance. We will cover Bayesian learning, coordination games with heterogeneous information and rational inattention. The second half is about modeling moral hazard in dynamic economic models. If you did not believe that moral hazard matters, the events of the last couple of years should have convinced you! We’ll start by introducing standard techniques used in the literature and then we’ll consider recent applications to a variety of fields, such as firm dynamics, corporate finance, economic development,... (see below for a complete list).

Prerequisites

You are expected to have already taken the first year PhD sequences in microeconomics and macroeconomics.
Coursework and Evaluation

- **Class attendance and participation.** Required.

- **Homework.** There will be regular problem sets.

- **Exam/Project.** For the first half of the class, there is no exam. Instead, you can choose between writing a 5-page research proposal or writing a referee report for one of the papers in the bibliography of the lecture notes (or some other related paper, with approval). For the second half of the class, there will be a take-home exam.

Your grade will be based on your performance on all of these deliverables, weighted as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Homework</td>
<td>40%</td>
</tr>
<tr>
<td>Exam/Research Proposal/Referee Report</td>
<td>50%</td>
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We will average the grades from the two halves of the course to give you one course grade at the end of the semester.
Sept. 9 through Oct. 21

Information Choice and Macroeconomics

(Laura Veldkamp)

Notes, slides, and problem sets will be posted on my personal webpage (http://pages.stern.nyu.edu/~lveldkam/). The course schedule below lists articles that you should read before class – these are the articles we’ll cover in lecture. You’ll get the most out of the class if you read these articles, at least briefly, in advance. There are other articles that you may want to read for background or that you can use for your referee report. These articles are listed as recommended reading in the syllabus and in the bibliography of the lecture notes.

**Topic 1 (September 9, 14).**
*Read before class:* Sims (2003)
*Recommended Reading:* Brunnermeier (2001) Ch. 1.1, Cover and Thomas (1991), ch.s 2,10

**Topic 2 (September 16, 21).**
*Due at the start of class:* Problem set #1

**Topic 3 (September 23, 30).**
*Information choice in price-setting.* Models of inattentiveness and rational inattention that generate price inertia.
*Read before class:* Maćkowiak and Wiederholt (2009), Reis (2006).
*Recommended Reading:* Abel, Eberly, and Panageas (2007)
*Due at the start of class:* Problem set #2

**Topic 4 (October 5,7).**
*Portfolio Choice.* Extending the noisy rational expectations model to many assets. Handling correlated risks. Revisiting the choice of learning technologies and role of the timing of uncertainty resolution.
and Veldkamp (2009)
Recommended Reading: Brunnermeier, Gollier, and Parker (2007), Peng and Xiong (2005)
Due at the start of class: Problem set #3

Topic 5 (October 12, 14).
Due at the start of class: Problem set #4

Topic 6 (October 19).
Information-driven business cycles Can news about productivity explain business cycle fluctuations?
Read before class: Lorenzoni (2009), Beaudry and Portier (2004)
Recommended Reading: Lucas (1972), Jaimovich and Rebelo (2006)
Due at the start of class: Problem set #5

Topic 7 (October 21).
Applications and empirical validation. What to do with these tools? How to test models of information choice?

Due Monday November 30: Research proposal or referee report.

Oct. 26 through Dec 14
Moral Hazard and Macroeconomics
(Gian Luca Clementi)

Part I – Theory

Optimal Risk–Sharing under Asymmetric Information

Recursive Representation of Dynamic Principal–Agent Problems
The APS Algorithm

Part II – Applications

Consumption and Risk Sharing

Unemployment Insurance

Firm Dynamics

Corporate Finance

International Finance

Business Cycle

Economic Development

Money
Readings: Jovanovic and Ueda (1997), Meh, Quadrini, and Terajima (2009), Jovanovic (2009)

Taxation
Readings: Mirrlees (1971), Golosov, Kocherlakota, and Tsyvinski (2003), Kocher-
lakota (2004b), Kocherlakota (2009), Kocherlakota (2009), Albanesi and Sleet (2009)

Background Reading


References


