Advanced Topics in Modern Macroeconomics  
(ECON-UB.0234.01)  
Prof.s Laura Veldkamp and Venky Venkateswaran  
Syllabus

Classroom: KMC 5-75  
Class time: M, W 3:30-4:45  
Office hours (LV): Tu 1:30-2:30 or by appt  
Teaching Assistant: Roxana Miheț  
Roxana’s office hours: W 9:30-10:30 or by appointment (KMC 7-176)

Office hours: KMC 7-77 or KMC 7-81  
Email: lveldkam@stern.nyu.edu  
Email: vvenkate@stern.nyu.edu  
Email: rm3253@nyu.edu

Course Description

The topic of the course is the role and the origins of news and noise in macroeconomics. The class offers a tour of many of the frontier areas of research in macroeconomics: macro-game theory, monetary economics, macro-finance, forecasting and empirical macroeconomics. We’ll explore some of the latest research questions and theories designed to address those questions. We’ll use information frictions and information choice as a way to reconcile standard theory with puzzling facts. At the same time as we explore theory, we will be building up the tools of Bayesian updating and Bayesian forecasting, powerful tools to address many questions that arise in the business world as well.

Prerequisites

You are expected to have already taken some course in economics and a statistics course. You should be comfortable with algebra, matrix notation and some basic differential calculus. But most importantly, you should be willing to challenged to think mathematically and stretch your thinking about how to use mathematical tools to represent human behavior.

Course Materials

Notes, slides, and deliverables (see below) will be posted on the class webpage (https://sites.google.com/site/newsnoisemacroeconomics/). The course material consists of:
Textbooks. The required book is Information Choice in Macroeconomics and Finance. Lectures will follow the book closely and We’ll assign problems from the end of each chapter we cover. Here are some additional reference books that you might find helpful or interesting.


Articles. The course schedule lists articles we’ll cover in lecture. The book summarizes these articles. But 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 in addition or that you can use for your paper presentation. These articles are listed as recommended reading in the syllabus and in the bibliography of the textbook.

Deliverables and Grades

The grade in this class is based on three components.

1. Practice problems (30%)
2. Midterm Exam (20%)
3. Paper presentation (20%)
4. Final Exam (20%)

There will be about 8-10 problems sets of about 3 problems each to help you review the material from each section. At the end, We’ll drop the two problem sets with the lowest scores. This also gives you some flexibility if you have a family emergency, health problem or just a crazy week. You can use one of the two free passes and skip that problem set.

Class Webpage

See https://sites.google.com/site/newsnoisemacrofinance/ for more information and updates.
Honor Code

We in the NYU community believe that honesty and integrity are necessary for a rewarding educational experience. These qualities form the basis for the strong trust among members of the community (students, faculty, and administrators) that is essential for educational excellence. The Honor Code requires that each student to act with integrity in all academic activities and to hold his or her peers to the same standard. In this course, you may discuss assignments with anyone – in fact, I encourage it — but any written assignments should be your own work.
Session 1 (January 25, 27).

Session 2 (February 1, 3, 8). If we are going to study information flows, we first need to know how to measure information. Entropy and mutual information. Comparing learning technologies.
Read before class: Chapters 1-3 (Veldkamp book)
Related Articles: Sims (2003), Brunnermeier Ch. 1.1, Cover and Thomas (1991), ch.s 2,10

Session 3 (February 10, 17, 22 ).
Information choice in strategic games. What tools do macroeconomists use to describe strategic settings with many players? Why is information choice central to the outcome of this strategic interaction? Introduction to global games. The role of private and public information in coordination games. Strategic aspects of information choice.
Read before class: Chapter 4.

Session 4 (February 24, 29, March 2, 5).
Information frictions in price-setting. How do firms set prices? What are some of the big research puzzles that arise from price-setting data? How can we use models of information choice to attack these puzzles? What puzzles are left to work on?
Read before class: Chapter 6.

Session 5 (March 7).
Central Bank Transparency and Confusion. How should central banks choose what information to disclose?
Read before class: Chapter 5.

Session 6 (March 9).
Midterm Exam.
Session 7 (March 21, 23, 28, 30).

*Portfolio Choice.* What’s the most profitable way to form a portfolio of risky assets? How does the ability to learn about assets before investing turn conventional theory on its head? Information choice and under-diversification.

*Read before class:* Chapter 7.


Session 8 (April 4, 6, 11).

*Information markets.* How do we think about a market for information? Information is typically costly to produce but cheap to replicate. How does this feature affect agents’ learning incentives and through that their behavior? Implications for inequality. Herding models in finance.

*Read before class:* Chapter 8.


Session 9 (April 13, 18, 20, 25).

*Market microstructure with information frictions.* How are prices in financial markets determined? What is the role of intermediaries - brokers, market-makers? Similarly, what are the effects of information disclosure and transparency on prices?

*Read before class:* Chapter 10.6.


Session 10 (April 27, May 2).

*Student paper presentations.*

Session 11 (May 4).

*Final Exam.*

Session 12 (May 9).

*Advice and thoughts on Ph.D. programs in economics.*