Carnegie Mellon University
Graduate School of Industrial Administration

47-721 - Finance II

Mini IV - Spring 1996 -
TTh 10:30-12:20 - Room 318

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Course Objective and overview:

This course is devoted to "Models of Information Acquisition and Use in Finance." Ok, I know it is an awkward title, but we can work with it. Perhaps, "Differential Information and Asset Prices" would be better. We will study several papers in depth as opposed to a broad survey. The objective is to help build tools for understanding and researching theoretical questions related to information. The papers are not necessarily chosen because they are exemplars. Instead I hope they stimulate your research ideas.

I have not taught a phd course before, so your feedback and suggestions would be greatly appreciated. I am open to your suggestions about pedagogy as well as the course content. If there are papers you would prefer to cover, please come discuss them with me.

Required Text:
None

Sources
- This course outline is available on my home page. If there is other material I prepare, I will place a copy there also.
- I will put a binder of the papers in my office. Please drop by and get copies as needed. (Sorry I did not have the foresight to make up a package)

Prerequisite:
The prerequisite for this course is Finance I (47-720) and/or permission.

Schedule and Format of Classes
A tentative schedule is attached of the papers we will cover are listed. The format of the class will be a mixture of lecture and discussion. Initially, I will present the papers. Part of your grade will be
for your presentation of a paper. (more details below).

**Evaluation**

A few Homework / Assignments $x \in (0.1, 0.6)$  
General Citizenship $y \in (0, 0.2)$  
Paper presentations (and report) $1 - x - y$

Where $x$ and $y$ are parameters weights chosen depending on how many and how hard the assignments turn out to be and other such factors.

**Homework and Assignments**

These are problems related to the readings and class discussion. I am not sure how many or how hard the assignments will be.

**Paper Presentations**

Each person taking the course for credit (perhaps in pairs depending on numbers) will be responsible for presenting one of the papers on the reading list. We will determine the schedule this week. In addition to leading the discussion, you will be expected to write a brief (few pages) review of the paper. This should highlight the major issues, techniques and conclusions of the paper. We will distribute these to all the participants in the class (I will do the photocopying or we can put them on my web page in html or ps version)
Reading List

- Rational Expectations Equilibria
  - Chapter 9 - Huang and Litzenberger, 1988, Foundations for Financial Economics (Only up to 9.15)

- Rational Expectations Equilibria - Existence and Uniqueness
  - Jordan, J.S., 1982, On the Efficient Markets Hypothesis, Econometrica,

- Learning - Rational
  - Blume, L. and D. Easley, 1992, Rational Expectations and Rational Learning, manuscript Cornell University (Economics-wpa 9307003).

- Learning - Rational - Bandit Problems (an aside)
  - Kiefer, N., 1989, A Value Function Arising in the Economics of Information

• Learning - Least Squares Learning

• Learning - Adaptive / Evolutionary

• Endogenous Uncertainty
  • Kraus, A. and M. Smith, 1995, Beliefs About Beliefs, working paper.
  • Chichilnisky, Graciela, various papers on endogenous uncertainty including in the journal of economic perspectives?? (See Wooders?)

• Differential Timing of Information
  • Welsh, I, 1992, Sequential Sales , Learning and Crashes, Journal of Finance, 47,
695-732.

- Paper in about 1985 issue of the journal of mathematical sociology on networks and investing.
- Paper in about 1985 issue of the journal of mathematical sociology on networks and investing.

- Information Acquisition and Non-price-taking Agents

- Numerical Solution Techniques
  - Judd, K.L., and A.E. Bernardo, 1993, Asset Market Equilibrium with General Securities, Tastes, Returns, and Information Asymmetries (But not noise traders), working paper A new version of this is supposed to be sent to me soon.

- Dynamic Models
  - Berk, J.B. 1995, The Acquisition of Information in a Dynamic Market, working paper. This is a simpler paper to follow than the above
  - Brennan has a paper with one period but many trading dates (with 95 job candidate?) Jerome Detemple also?

- Noise Trading and Non-Rational Behavior
  - Berk, J.B., E. Hughson and K. Vandezaende, The Price is Right but are the bids? An Investigation of Rational Decision Theory, working paper.
• Experimental Economics
  • Sunder, S., 1992, Market for Information: Experimental Evidence, Econometrica, 60, 667-695. This is in the GS framework.
Tentative Schedule -

Meeting 1,2  Rational Expectations Equilibria  
Grossman and Stiglitz (1980)

Meeting 3   Learning - Least Squares Learning  
Bray (1982)

Meeting 4   Learning - Rational - Bandit Problems (an aside)  
Rothchild (1974)  
Kiefer (1989)

*** *** *** SPRING * BREAK *** *** ***

Meeting 5   Learning - Rational  
Bray and Kreps (1987)  
Vives (1993)

Meeting 6   Learning - Adaptive / Evolutionary  
Routledge (1996)

Meeting 7   Endogenous Uncertainty  
Kraus and Smith (1995)

Meeting 8   Differential Timing of Information  
Bikhchandani, Hirshleifer and Welch, (1992)  
Welsh (1993)

Meeting 9   Numerical Solution Techniques  
Judd and Bernardo (1993 / 1995?)

Meeting 10, 11   Dynamic Models  
Wang (1993)

Meeting 12   Noise Trading and Non-Rational Behaviour  
Blume and Easley (1992) or Berk et al. (1995) (Express your preferences)

Meeting 13   Experimental Economics  
Sunder (1992)

Meeting 14   Open
Information Form

I would appreciate the following information

Name:

Are you planning on taking this course for credit?: Yes  No  Maybe

E-mail address:

Association: (GSIA finance, GSIA economics, Math etc.)

This is your ___ Year here: 1  2  3  4  n'th

Previous Finance Phd Courses:

Current Interests (getting ready for qualifiers is an OK answer):