

Syllabus PhD Seminar in Asset Pricing Theory

Fall Semester 2009-2010

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1 Instructor

Professor Anthony Lynch

Office: KMEC 9-97

Phone: (212) 998-0350

Fax: (212) 995-4256

Email: alynch@stern.nyu.edu

Web page: <http://www.stern.nyu.edu/~alynch>

Office Hours: M 6-8pm, or by appointment.

Professor Stijn Van Nieuwerburgh

Office: KMEC 9-80

Phone: (212) 998-0673

Fax: (212) 995-4256

Email: svnieuwe@stern.nyu.edu

Web page: <http://www.stern.nyu.edu/~svnieuwe>

Office Hours: M 12-1pm and W 3-4 pm, or by appointment.

2 Class Time

The class meets once per week for 13 weeks.

The class is on Mondays from 3-5.50pm, with a 10 minute break around 4.40pm.

The first class is on Monday 09/14. This is a one-hour organizational meeting.

The last class is on Monday 12/14. There is no class on Monday 09/28.

The venue is KMEC 5-85.

3 Course Content

The class is a rigorous, quantitative, seminar course in asset pricing theory. Each class will familiarize you with the key insights in a current topic of research in asset pricing, and will show you recent work in the area. We have chosen to cover a broad range of active research so as to give you an overview of what people are working on. While you may not like all topics, the hope is that you will like some.

Prerequisites This course is for second-, third-, and fourth-year Ph.D. students interested in financial economics. Exceptions are granted on an individual basis. Prior course work in macro-economics, micro-economics, mathematics, and statistics at the first-year PhD level are assumed. Prior exposure to theoretical or empirical asset pricing (first year finance PhD course work) is a plus, but not a must. An excellent review would be the lecture notes for Financial Theory I which can be found on the Q drive in directory fin/Lynch/FinTheoryI. The original hand-written notes can be found in ft108l01.pdf,..., and ft108l10.pdf, while a new typed version can be found in fintheorynotes3.pdf.

4 Goals and Deliverables

Since this is a seminar class, students will present the papers. Each week there will be 3 papers. Typically, one of these papers will be a *classic* in the literature and the other two will be more recent papers that push these classic ideas in a new and, in our opinion, exciting direction. Each paper will be presented by one student, and a group discussion will follow, in which all are expected to participate.

The class will help you develop several critical attributes to a successful thesis, and a successful academic career more generally:

- Structured thinking: the ability to summarize the essential ingredients of a paper in a concise way, and to put them in perspective (organize them in your mental library of ideas)
- Critical thinking: the ability to ask tough questions about the papers you read, to think about the desirability choices the authors made, and to isolate key strengths and weaknesses of papers
- Creativity: the ability to take an existing idea and explore how it can be pushed further, the ability to connect seemingly divorced ideas in order to create something truly new
- Presentation skills: the ability to expose a set of ideas in a clear, concise, and well-organized way

In order to help you develop these skills, there will be three deliverables for this class.

1. Assignments Each week, there will be an assignment that needs to be handed in at the *beginning* of class. Each assignment has the same basic structure. The first part of the assignment is a summary of the three papers assigned for that week.

- This summary must be a minimum of 1 page and a maximum of 2 pages, 11 pt font, 1.5 point line spacing, 1 inch margins top, bottom and sides.
- We are looking for an intelligent summary that adds value beyond the abstracts of the papers.
- One way to add value is to draw connections in the summary between the three papers (similarities and differences).
- Another way to add value is to formulate in your own words, and in a concise way the key insights of the papers.

The second part of the assignment is a critical assessment and directions for future research.

- This assessment must be a minimum of 1 page and a maximum of 2 pages, 11 pt font, 1.5 point line spacing, 1 inch margins top, bottom and sides.
- We are looking for a critical judgement of one or more of the papers. You can use the similarities and differences from your summary to discuss strengths and weaknesses of one or more of the papers.
- Think of yourself as the referee. Just like in a good referee report, try to make a few important points (highlight key strengths or weaknesses), rather than making a large number of small comments.
- In addition, we are looking for your evaluation of how this literature should proceed: If you were to write the next paper in this area, based on the three papers you read (and everything else you have learned in this class and prior to it), what would it be.
- In the part on future directions, try to be bold without being too vague. If you were to pursue this topic as a dissertation topic, what kind of question would be really worth thinking about?

Thus, the total length of the assignment is between 2 and 4 pages. There are a total of 12 assignments. You have two and only two free-bees that you may use for two emergencies (illness, urgent travel, ...). You will be evaluated on the basis of your best 10 assignments. No late assignments will be accepted. If your assignment is late, it will automatically count against your two free-bees. Obviously, this work is strictly individual (See honor code section below). It completely defeats the purpose to copy ideas from others, or to simply copy from the papers. You will be evaluated only on the value that you add.

2. Presentation Every class, there are three paper presentations, which will be assigned to students in the first week of class. The presentation should include both the setup and results of the paper, but also a discussion of these results.

- The presentation is 30 minutes.
- We recommend that you use beamer, a latex-based slides package.
- Make the introduction short.
- Spend a good amount of time on the model setup and main results.
- Finish with an evaluation of the paper which should take the last 10 minutes.
- Practise your talk aloud at home, and time it. Cut slides if you notice that you cannot get it done in 30 minutes!

Think of this as the NBER Asset Pricing conference. Time is kept strictly. You only have one chance to get it right. The more you practise the more you can say in the time allotted. You will be penalized in your presentation grade if you do not manage to get through the presentation in 30 minutes or do not manage to spend 10 minutes on the critical evaluation part of your talk.

3. Participation Following the 30 minute presentation, there will be a 20 minute discussion of the paper. Since you have read the paper beforehand, and have prepared this discussion beforehand, you are expected to voice your opinion.

5 Assessment

Grades Grades will be based on assignments (60%), in-class presentations (20%), and in-class participation (20%). There is no final exam.

Honor Code You are responsible for maintaining Stern's Honor Code which mandates zero tolerance for cheating and plagiarism. Violations of the honor code will be prosecuted with a minimum penalty of failure for the course, as required by code of conduct rules. If you become aware of any violations of the honor code you must take whatever steps are necessary to stop the violators. Per request of the dean, you must include a signed statement at the top of each problem set and exam, indicating that you adhere to the honor code. The statement is: *'I pledge my honor that I have not violated the Stern Honor Code in the completion of this exam/problem set.'*

6 Auditing

Permission is needed from us to audit or sit in on the class. Anybody who we allow to audit or sit in on the class is required to do the same number of presentations as a registered student, but is not required to submit the weekly assignments.

7 Detailed Class Schedule

Below is a detailed schedule for each class. Required readings are indicated as RR, suggested readings as SR. Suggested reading may come in handy in preparation of your assignment, or later during dissertation work. It is important to read the required reading *before* coming to class.

- Sept 14. **Organizational meeting**

This will be a one-hour meeting where we give an overview of the course, explain the course requirements, and assign papers to each student for presentation.

- Sept 21. **The Temporal Pricing of Risk**

RR (in order of presentation):

1. Alvarez and Jermann (2005)
2. Kojien, Lustig, and Van Nieuwerburgh (2009)
3. Hansen, Heaton, and Li (2008)

SR: Cochrane and Hansen (1992), Alvarez and Jermann (2004), Backus, Chernov, and Martin (2009), Hansen and Scheinkman (2009), Martin (2008), Backus, Routledge, and Zin (2008), Lustig and Van Nieuwerburgh (2008), Lynch (1996), and Lustig, Van Nieuwerburgh, and Verdelhan (2008)

- Sept 28. **No class due to NYU holiday**

- Oct 5. **Return predictability and the present-value model**

RR (in order of presentation):

1. Binsbergen and Kojien (2009)
2. Pastor and Stambaugh (2009)
3. Kirby (1998)

SR: Campbell and Shiller (1988a), Campbell and Shiller (1988b), Fama and French (1988), Stambaugh (1999), Whitelaw (2000), Lettau and Ludvigson (2001), Boudoukh, Michaely, Richardson, and Roberts (2004), Boudoukh, Richardson, and Whitelaw (2005), Amihud, Hurvich, and Wang (2009), Lettau and Ludvigson (2005), Cochrane (2006), Lettau and Van Nieuwerburgh (2008), Kojien and Van Nieuwerburgh (2007)

- Oct 12. **The long-run risk model**

RR (in order of presentation):

1. Bansal and Yaron (2004)
2. Bansal, Kiku, and Yaron (2007)
3. Beeler and Campbell (2009)

SR: Kreps and Porteus (1978), Epstein and Zin (1989), Epstein and Zin (1991), Duffie and Epstein (1992), Parker and Julliard (2005), Hansen, Heaton, and Li (2008), Bansal, Dittmar, and Lundblad (2005), Benzoni, Collin-Dufresne, and Goldstein (2005), Piazzesi and Schneider (2006), Colacito and Croce (2005), Bansal, Gallant, and Tauchen (2007), Bansal, Dittmar, and Kiku (2007), Bansal and Shaliastovich (2007), Yu (2007), Benzoni, Collin-Dufresne, and Goldstein (2008), Chen, Favilukis, and Ludvigson (2008), Croce, Lettau, and Ludvigson (2008), Malloy, Moskowitz, and Vissing-Jorgensen (2009), Lustig, Van Nieuwerburgh, and Verdelhan (2008)

- Oct 19. **The habit model**

Students are expected to be very familiar with Campbell and Cochrane (1999).

RR (in order of presentation):

1. Menzly, Santos, and Veronesi (2004)
2. Lynch and Randall (2009)
3. Bansal, Kiku, and Yaron (2009)

SR: Abel (1990), Constantinides (1990), Ferson and Constantinides (1991), Abel (1999), Chapman (1998), Chan and Kogan (2002), Wachter (2005), Polkovnichenko (2006), Wachter (2006), Chen, Collin-Dufresne, and Goldstein (2008), Chen and Ludvigson (2007), Verdelhan (2009), Lustig, Van Nieuwerburgh, and Verdelhan (2008), Garleanu and Panageas (2008)

- Oct 26. **Production-Based Asset Pricing**

RR (in order of presentation):

1. Zhang (2005)
2. Kogan and Papanikolaou (2009)
3. Bazdresch, Belo, and Lin (2009)

SR: Gomes and Schmid (2008), Hennessy and Whited (2007a), Hennessy and Whited (2007b), Panageas and Yu (2006), Garleanu, Panageas, and Kogan (2009), Berk, Green, and Naik (1999), Gomes, Yaron, and Zhang (2006)

- **Nov 2. Asset pricing in General Equilibrium Models**

RR (in order of presentation):

1. Gomes, Kogan, and Zhang (2003)
2. Kaltenbrunner and Lochstoer (2008)
3. Favilukis, Ludvigson, and Van Nieuwerburgh (2009)

SR: Boldrin, Christiano, and Fisher (2001), Campbell (1999), Lettau and Uhlig (2000), Fisher (2006), Croce (2007), Krusell and Smith (1997), Gomes and Michaelides (2008), Favilukis (2007), Campanale, Castro, and Clementi (2009), Jermann (1998), Gomes, Kogan, and Yogo (2009), Kogan (2001), Kogan (2004), Papanikolaou (2007)

- **Nov 9. Disaster Risk**

RR (in order of presentation):

1. Gabaix (2009)
2. Gourio (2009)
3. Gosh and Julliard (2008)

SR: Barro (2006), Wachter (2009), Farhi and Gabaix (2009), Farhi, Gabaix, Ranciere, and Verdelhan (2009), Backus, Chernov, and Martin (2009)

- **Nov 16. Incomplete Markets and Undiversifiable Labor Income Risk**

Students are expected to be very familiar with Mankiw (1986).

RR (in order of presentation):

1. Constantinides and Duffie (1996)
2. Krueger and Lustig (2009)
3. Storesletten, Telmer, and Yaron (2004b)

SR: Brav, Constantinides, and Geczy (2002), Heaton and Lucas (1996), Grossman and Shiller (1982), Cogley (2002), Storesletten, Telmer, and Yaron (2004a), Jacobs and Wang (2004)

- **Nov 23. Limited Participation and Limited Commitment**

1. Guvenen (2009)
2. Chien, Cole, and Lustig (2009)
3. Lustig and Van Nieuwerburgh (2005)

SR Limited Participation: Basak and Cuoco (1998), Vissing-Jorgensen (2002), Allen and Gale (1994), Cuoco and Kaniel (2006), Shapiro (2002)

SR Limited Commitment: Kehoe and Levine (1993), Alvarez and Jermann (2000), Lustig and Van Nieuwerburgh (2007), Krueger (1999), Kocherlakota (1996), Alvarez and Jermann (2001), Kehoe and Perri (2002), Lustig and Chien (2009), Lustig and Van Nieuwerburgh (2009)

- **Nov 30. Dynamic portfolio choice**

RR (in order of presentation):

1. Campbell and Viceira (1999)
2. Lynch and Tan (2009b)
3. Xia (2001)

SR: Kandel and Stambaugh (1996), Kim and Omberg (1996), Balduzzi and Lynch (1999), Brandt (1999), Lynch (2001), Campbell and Viceira (2001), Brandt and Santa-Clara (2006), Cocco, Gomes, and Maenhout (2005), Barberis (2000), Koijen, Nijman, and Werker (2007), Garleanu and Pedersen (2009a)

- **Dec 7. Transaction costs and liquidity risk**

1. Vayanos (1998)
2. Brunnermeier and Pedersen (2009)
3. Lynch and Tan (2009a)

SR: Amihud (2002), Amihud and Medelson (1986), Chordia, Roll, and Subrahmanyam (2000), Constantinides (1986), Hasbrouck and Seppi (2001), He and Modest (1995), Pastor and Stambaugh (2003), Acharya and Pedersen (2005)

- Dec 14. **Limits to arbitrage**

1. Shleifer and Vishny (1997)
2. He and Krishnamurthy (2008)
3. Garleanu and Pedersen (2009b)

SR: Long, Shleifer, Summers, and Waldman (1990), Long, Shleifer, Summers, and Waldman (1991), Gromb and Vayanos (2002), Kogan, Ross, Wang, and Westerfield (2006), Mitchell, Pulvino, and Stafford (2002), Coen-Pirani (2005), Coval and Stafford (2005), Gabaix, Krishnamurthy, and Vigneron (2006), Coval, Jurek, and Stafford (2009), Vayanos and Vila (2007), and Garleanu and Pedersen (2007)

8 Textbooks

There are no textbooks for this class, but the following are good general background textbooks for this class and for any asset pricing library:

- “Recursive Macroeconomic Theory” by L. Ljungqvist and T. Sargent, 2nd edition.
- “Asset Pricing” by J. Cochrane, 2nd edition.
- “Dynamic Asset Pricing Theory” by D. Duffie, 3rd edition.
- “Empirical Dynamic Asset Pricing” by K. Singleton, 1st edition.
- “The Econometrics of Financial Markets” by J. Campbell, A. Lo, and C. MacKinlay.
- “Numerical Methods in Economics” by K. Judd.

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