UNC CHARLOTTE

BELK COLLEGE *of* BUSINESS

BPHD 8210
Investments & Portfolio Theory
Spring 2017

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Office Hours: Friday 340B, by appointment
Class Time: Wednesdays 12:30 pm—3:15 pm
Class Location: Friday 212

Course Description

The goal of this doctoral seminar course is to develop key concepts in investments and prepare students to conduct research in portfolio analysis. Students will learn how to, in a systematic manner, measure risk and return, establish appropriate investment objectives, develop optimal portfolio strategies, assess risk-return tradeoffs, formulate and test asset pricing models, and evaluate investment performance. Class discussions focus on theories, methodologies, and literature in portfolio analysis, and empirical projects will familiarize students with the applications.

Prerequisites

1. Previous coursework: As this course is for doctoral students interested in financial economics, prior exposure to graduate level investments, economics, mathematics, and econometrics is assumed.
2. Proficiency in programming languages or statistical packages is required.

Materials

1. Handouts: Handouts will be available from Moodle.
2. Research articles: Each handout has a number of related articles and they will be available from Moodle.
3. Recommended textbooks: The textbooks are primarily for your own references, although some chapters may be assigned as required background readings.

   (1) Cochrane, J.H., 2005, *Asset Pricing*, Princeton University Press.

(2) Campbell, J.Y., Lo, A.W., and A.C. MacKinlay, 1996, *The Econometrics of Financial Markets*, Princeton University Press.

(3) Huang, C.-F., and R.H. Litzenberger, 1988, *Foundations for Financial Economics*, Elsevier.

(4) Back, K.E., 2010, *Asset Pricing and Portfolio Choice Theory*, Oxford University Press.

(5) Pennacchi, G., 2008, Theory of Asset Pricing, Pearson.

4. Econometrics references:

(1) Enders, W., 2015, *Applied Econometric Time Series*, 4th ed., Wiley.

(2) Hamilton, J.D., 1994, *Time Series Analysis*, Princeton University Press.

(3) Tsay, R.S., 2010, *Analysis of Financial Time Series*, 3rd ed., Wiley.

(4) Zivot, E., and J. Wang, 2006, *Modeling Financial Time Series with S-PLUS*, 2nd ed., Springer.

Assessment

Graded Components

1. Empirical projects: For each project, each student should prepare a write-up with

(1) A description of the empirical model

(2) A description of the data used in the analysis

(3) The tabulated results with discussion

(4) The code (as the appendix)

Students are encouraged to participate in study groups to discuss the projects, but coding, writing, and analysis should be performed by each student individually.

2. Presentations: From Session 3 on, each student will take turns presenting research articles. One to two assigned journal articles will be presented and discussed in each class session.

3. Critiques/Participation: From Session 3 on, each non-presenting student should perform critique on (one of) the paper(s) presented. The critiques are due before the class. The non-presenting students are also expected to participate discussions.

4. Final project: a research proposal, due on the final exam date (May 10).

Grading Policies

- The above graded components are equally weighted.

- A penalty will be applied to late assignments. Extension might be given to students with a legitimate reason.
- Grading scale: your overall numerical grade will be rounded to the nearest integer and then converted to a letter grade based on the following scale: A (90+), B (80-89), C (70-79), and U (0-69).

Presentation/Critique Guidelines

General Guidelines

Here are some questions that you should think about when you read, discuss, and referee a paper:

- What is the nature of the paper? Is it theory, methodology, or empirical? Is it normative or positive?
- What is the research question? Is it an interesting question? Does the paper motivate the question well?
- What are the major contributions of the paper?
- How does the paper answer the research question? If it is a theory paper, do the readers learn something new from the theory? If it is an empirical paper, what is its empirical strategy (data and methodology)?
- What are the main results? Are they convincing and clearly presented? Do they cause confusion or raise further questions?
- Are there biases in the estimates or inferences? Carefully examine the existence of: irrelevance of hypothesis, sample selection bias, misspecification, omitted variables, reverse causality, etc.
- What other tests might you want to see done?

Specific Presentation Guidelines

- View the presentations as formal academic finance seminar presentations.
- Each presentation is allotted roughly 60 minutes, including questions. Please plan accordingly. Typically you need at least 2-3 minutes for each slide.
- Tables are more effective than text; and diagrams are more effective than tables.
- Arrive the main results as soon as possible.
- Structure your slides around the items in the "*General Guidelines*" section. Your slides should contain the following components:

  (1) Research question

  (2) Motivation

  (3) Related literature

  (4) Summary of main results and contributions

  (5) Methodology

  (6) Data and results

(7) Comments, suggestions, extensions, and recent developments

Specific Critique Guidelines

- View the critiques as short version referee reports, although you do *not* have to prepare a cover letter suggesting editorial decision to the editor.
- Each critique should be at least three pages in length.
- Structure your critiques around the items in the "*General Guidelines*" section. Your critiques should contain the following components:

  (1) Summary of the paper

  (2) Evaluation of the contribution

  (3) Strength and weakness

  (4) Ways to improve the paper

Tentative Schedule

Date	Lecture	Student Presentation / Empirical Project
1/11	Modern Asset Pricing Paradigms	N/A
1/18	Modern Asset Pricing Paradigms	N/A
1/25	Present Value Models	Campbell and Shiller (RFS, 1989)
2/1	Present Value Models	Empirical Project #1 Due Campbell and Thompson (RFS, 2008)
2/8	Portfolio Theory: The Classics	Welch and Goyal (RFS, 2008)
2/15	Portfolio Theory: The Classics	Rapach, Strauss, and Zhou (RFS, 2010)
2/22	Portfolio Theory: Conditioning Information	DeMiguel, Garlappi, and Uppal (RFS, 2009)
3/1	Portfolio Theory: Conditioning Information	Empirical Project #2 Due Chan, Karceski, and Lakonishok (RFS, 1999)
3/15	Beta Pricing Models	Fleming, Kirby, and Ostdiek (JF, 2001)
3/22	Beta Pricing Models	Brandt and Santa-Clara (JF, 2006) Brandt, Santa-Clara, and Valkanov (RFS, 2009)
3/29	Beta Pricing Tests	Fama and French (JF, 1992)
4/5	Beta Pricing Tests	Empirical Project #3 Due Fama and French (JFE, 1993)
4/12	Performance Evaluation	Gibbons, Ross, and Shanken (E, 1989)
4/19	Performance Evaluation	Fama and MacBeth (JPE, 1973)
4/26	Review	Chen, Roll, and Ross (JB, 1986) Ferson and Schadt (JF, 1996)
5/3	Reading Day (No Class)	Empirical Project #4 Due

Additional Information

- Email: Much out-of-class communication is done by email. Please make sure you are able to be reached via your UNC Charlotte email account.
- Disability services: UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704-687-0040 or visit their office at Fretwell 230.
- Student conduct: All students are required to read and abide by the UNC Charlotte Code of Student Academic Integrity and the UNC Charlotte Code of Student Responsibility. Violations of the Codes will result in disciplinary action as provided in the Codes.
- Statement on diversity: The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.
- Acknowledgement: I thank Pierluigi Balduzzi and Wayne Ferson for their contribution to course materials.