FIN9014 Asset Pricing Theory (and Empirical Methods in Finance)

Carl H. Lindner College of Business, University of Cincinnati

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COURSE DESCRIPTION:
This course introduces doctoral students in finance and related fields to the frontier theoretical and empirical asset pricing research. We will cover selected topics that are essential for understanding the pricing and dynamics of financial markets. These topics include time-series stock return predictability, cross-sectional stock return predictability, the dynamics of stock market volatility, and the stock market risk-return relation across time. We will discuss each topic in three respects: (1) commonly used empirical methodologies; (2) main empirical findings; and (3) the relation between empirics and theories. Good asset pricing empirical work always requires a thorough understanding of asset pricing theories. In this course, we will overview the tension between empirical findings and economic theories, and discuss recent theoretical developments that attempt to provide a better explanation of data.

To register for this course, you should have completed graduate-level courses in basic finance theory and econometrics. You should also be able to use a statistical package or you are willing to learn it quickly. Many empiricists use SAS, STATA, SPLUS, R, TSP, MATLAB, or GAUSS but you are welcome to use any statistical packages that you are most comfortable with.

By the end of the course, I expect you to be familiar with relevant economic issues and have skills required for doing empirical research. The ultimate objective is that you should be able to conduct the original research in asset pricing.

COURSE MATERIALS:

Required Textbook

Useful References

Strongly recommended


GRADING:

- 10 quizzes from previous lectures (10%)
- 3 referee report (15%)
- 3 Class Presentations (21%)
- 3 replication assignments (24%)
- 1 group project (30%)

TENTATIVE COURSE OUTLINE AND READING:
(* denotes required reading and # denotes surveys)

Big Picture: *Discount-rate variation is the central organizing question of current asset-pricing research* (Cochrane, 2011). In this course, I begin with the discussion of time-series stock market return predictability, and then introduce the classic models that explain the cross-section of stock returns, including CAPM, conditional CAPM, APT, and ICAPM. I emphasize that ICAPM imposes a theoretical link between time-series and cross-sectional expected stock returns. Then we discuss how extant consumption-based asset pricing models explain the stock market return predictability and other important stylized facts such as the stock market risk-return tradeoff.

8/24, 8/31, 9/7
Overview, Efficient Market Hypothesis, and Random Walk Hypothesis

- Literature Overview


- Efficient Market Hypothesis and Random Walk Hypothesis

* CLM Chapters 1 and 2
Pedersen, L., 2015, Efficiently Inefficient: How Smart Money Invests and Market Prices Are Determined, Princeton University Press (highly recommended)


9/7, 9/14 Market Microstructure Effects

* CLM Chapter 3 (Sections 3.1, 3.2, and 3.4)


* Dimson, E., 1979, Risk Measurement When Shares are Subject to Infrequent Trading, Journal of Financial Economics, 7, 197-226


* Han, Y. and D. Lesmond, 2011, Liquidity biases and the pricing of cross-sectional idiosyncratic volatility, Review of Financial Studies 24 (5), 1590-1629 (bias in idiosyncratic volatility)


9/21, 9/28, 10/5 Time-Series Stock Market Return Predictability

* CLM, Chapter 7
  - *Empirical Evidence*


  - *Present-Value Relations and Return Variance Decomposition*


  • Finite-Sample Issues


  • The Predictability Debate


• **Recent Development** (ask students to update the list)


Kelly, B. and H Jiang, 2014, Tail Risk and Asset Prices, Review of Financial Studies


Jones, Chris, and Selale Tuzel, 2013, New Orders and Asset Prices, Review of Financial Studies


Chava, S., M. Gallmeyer, and H. Park, 2015, Credit conditions and stock return predictability, Journal of Monetary Economics


10/12, CAPM

* CLM Chapter 5


* Andrea Frazzini and Lasse Heje Pedersen, Betting against Beta, JFE 2014


10/19, 10/26 APT and Conditional CAPM

* APT

* CLM Chapter 6


  * Conditional CAPM


* Bai, Hou, Kung, and Zhang, 2015, The CAPM strikes back? An investment model with disasters, unpublished working paper, Ohio State University


O'Doherty, Michael S., 2012, On the conditional risk and performance of financially distressed stocks, Management Science 58(8), 1502-1520


* Stochastic Discount-Factor Models

* Cochrane, Chapters 4, 10, 11, 13


11/2 Intertemporal CAPM

* CLM Chapter 8
• **Theoretical Framework**


* Bansal, R., D. Kiku, I. Shaliastovich, and A. Yaron, 2014, Volatility, the Macroeconomy and Asset Prices, *Journal of Finance*


• **Empirical Evidence**


**11/9, 11/16, and 11/23 Consumption-based Asset Pricing Models**

• **Overview**

* CLM Chapter 7
  # Campbell, J., 2003, Consumption-Based Asset Pricing, *Handbook of the Economics of Finance*, Edited by George Constantinides, Milton Harris, and Rene Stulz, North-Holland


- **Excess Volatility Puzzle**
  

- **Equity Premium Puzzle**
  

- **Recent Theoretical Developments**
  
  * CLM Chapter 8
  
  
  
  * Campbell, J., and J. Cochrane, 2015, the Fragile Benefits of Endowment Destruction, Journal of Political Economy
  
  
  
  
  
  
  
  


* Ju, N. and J. Miao, 2012, Ambiguity, Learning, and Asset Returns, Econometrica

* General Equilibrium Asset Pricing Models


11/30 and 12/7 Conditional Volatility and Stock Market Risk-Return Relation across Time

* Realized Volatility, ARCH, Midas, Implied Volatility

* CML, Chapter 12.2


• Empirical Studies


- **Multiple state variables**

  
  
  
  * Gill Segal, 2016, A Tale of Two Volatilities: Sectoral Uncertainty, Growth, and Asset-Prices, Unpublished Working Paper
  
  
  

**Sentiment and Asset Prices**


**Investment-based Asset Pricing Model**


Cross-Sectional Stock Return Predictability and Other Topics


Harvey, C., Y. Liu, and H. Zhu, 2015, ... and the Cross-Section of Expected Returns, Review of Financial Studies


- Value and Growth, Size


- Momentum


- **Accruals**
  


- **Investments**
  


- **Net Share Issuance**
  


- **Idiosyncratic Volatility**
  


- **Skewness**


- **Hedge Fund Returns**
