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Course Overview and Objectives

This course provides an introduction to selected topics and methods in empirical finance that focus on asset pricing and return predictability. We begin with an introduction to basic ideas about asset pricing leading to the stochastic discount factor and expected return-beta representations. Next, we provide an overview of selected econometric techniques used for empirical tests of asset pricing models. If time permits, we will also cover some prominent multifactor models and consumption-based models proposed in the literature. We then provide a brief overview about efficient markets and the “stylized facts” about asset returns that theory seeks to explain. Next, we introduce the event study methodology that has wide applications in finance and economics. Finally, we cover some selected aspects from the literature on stock return predictability. The course concludes with presentations by students of recent research on topics covered in the course. An overview of the framework that ties together the topics in this course is Campbell (2015).

1. Introduction to Asset Pricing: The Consumption CAPM, Stochastic Discount Factors, Factor Models and the Equity Premium Puzzle.

The Basic Pricing Equation & Classic Issues in Finance
Risk Corrections & Expected Return-Beta Representation
The Equity Premium Puzzle
Consumption-based and Multifactor Models in Finance
Unconditional and Conditional Models (if time permits)

Cochrane, J, 2005, Asset Pricing, Princeton University Press (Revised Edition)
Ch. 1 & 2 excluding Asset Pricing in Continuous-Time i.e. 1.8, 1.8.1, 1.8.2.
Ch. 4: 4.1, 4.2, 4.3, 4.4. Ch. 5: 5.1, 5.2, 5.2.1, 5.2.2, Ch. 6, 8, 9.

2. Econometric Tests of Asset Pricing Models: Time Series & Cross-Sectional Regressions

Cochrane, J, 2005, Asset Pricing, Princeton University Press (Revised Edition)
Ch. 10, 11, 12, 13.

Campbell, J, A. Lo, and A. Craig Mackinlay (1997), Econometrics of Financial Markets, Princeton University Press, Chapters 5 and 6 (Nice treatment of Tests using Maximum Likelihood Estimation).

3. Introduction: Efficient Markets Hypothesis and Event Studies.

We will look at stylized facts of equity markets and recent research on “anomalies” like the value-growth and momentum puzzles. We then turn to basic ideas about the Efficient Markets Hypothesis and the event study methodology.

Main References:

Campbell, John Y, 2014, Empirical Asset Pricing: Eugene Fama, Lars Peter Hansen, and Robert Shiller, Scandinavian Journal of Economics. 2014. (PDF copy available on Prof. John Campbell’s web site).

Event Studies:

MacKinlay, A. Craig, Event Studies in Economics and Finance, Journal of Economic Literature, March 1997, 35 (1), 13-39.

Lucca, D. and E. Moench (2015), The Pre-FOMC Announcement Drift, Federal Reserve Bank of New York Staff Reports No. 512, July 2013, Journal of Finance, Vol. 70(1), pp. 329-371.

Textbook Chapter: Overview of this huge area and its relation with the practical world:
Bodie, Zvi, Alex Kane and Alan Markus, Investments, 9th Edition on “The Efficient Market Hypothesis”
or similar chapter in earlier Editions.

4. Present Value Models and Return Predictability.

Present Value Models in Finance

Review of selected recent work on stock return predictability.

Chapter 7, Campbell, J, A. Lo, and A. Craig Mackinlay (1997), *Econometrics of Financial Markets*, Princeton University Press.

Campbell, J. Y., and T. Vuolteenaho, 2004, Bad beta, good beta, *American Economic Review* 94, 1249–1275.

Assessment

This will be based on an Individual Take Home assignment - full details will be provided at the start of the course.

General References

Course materials will include lecture notes/slides, review papers and selected recent papers in empirical asset pricing.

Textbooks

The course will rely mainly on Cochrane (2005). However, CLM has some nice material on empirical tests of asset pricing models and on Campbell-Shiller decomposition etc. Pennachi is a nice modern survey of the theoretical foundations of asset pricing. There are excellent Notes available on Prof. John Cochrane’s website. For those with an interest in asset pricing – there is no better place than the Coursera course – free on the web- by Prof John Cochrane.

Cochrane, J., 2005, *Asset Pricing*, Princeton University Press,
Pennachi, G, 2007, *Theory of Asset Pricing*, Pearson Publishing.

Survey Papers

These are several excellent surveys of the work on empirical asset pricing and predictability. Copies for individual use are available in some cases on the author’s websites.

Breeden D. T., R. H. Litzenberger and T. Jia, 2015, Consumption-Based Asset Pricing, Part 1: Classic Theory and Tests, Measurement Issues, and Limited Participation, *Annual Review of Financial Economics*, 7, 35–83.

Breeden D. T., R. H. Litzenberger and T. Jia, 2015, Consumption-Based Asset Pricing, Part 2: Habit Formation, Conditional Risks, Long-Run Risks, and Rare Disasters, *Annual Review of Financial Economics*, 7, 85–131.

Campbell, John Y, 2014, Empirical Asset Pricing: Eugene Fama, Lars Peter Hansen, and Robert Shiller *Scandinavian Journal of Economics*, 116(3), 593–634.

Cochrane, J, 2005, Financial Markets and the Real Economy, draft Chapter 7, *Handbook of the Equity Risk Premium*. (FMRE)

Ludvigson, S, 2013, Advances in Consumption-Based Asset Pricing: Empirical Tests, (forthcoming in Volume 2 of the Handbook of the Economics of Finance). (CBAPET).

Rapach, D. and G. Zhou, 2013, Forecasting Stock Returns, Handbook of Economic Forecasting, Volume 2A, Graham Elliott and Allan Timmermann (Eds.), Amsterdam: Elsevier (September 2013), pp. 328–383. (Matlab Code and Data available at author's websites)

and

Morgan, J.P., Guide to Markets, 2016.
Bank of America-Meryll Lynch, The Longest Equity Pictures

Note: This is not an econometrics course and so some familiarity with the basic ideas of OLS/GLS regressions, ML, Large Sample/Finite Sample Inference, Wald/LM and LR tests and GMM estimation etc at the level of Greene, Hamilton or Hayashi will be assumed. An intuitive and clear exposition of basic ideas is: Wooldridge, J, Introductory Econometrics, (any Recent Edition), Cengage Learning Custom Publishing.