

14M019

Empirical Finance

3 ECTS

Overview and Objectives

This course provides an introduction to selected topics and methods in empirical finance focusing on empirical issues in asset pricing and return predictability. We begin with a review basic ideas about the asset pricing leading to the stochastic discount factor and expected return-beta representations. We then turn to an overview of selected econometric techniques used in empirical tests of asset pricing models and if time permits an overview of some prominent multifactor models and consumption-based models proposed in the literature. We next review the role of the efficient markets in empirical finance. Next, we introduce the event study methodology that has wide applications in finance. 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).

Course Outline

The tentative outline of the course is as follows:

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, are Consumption-based and Multifactor Models in Finance.

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, youCh. 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: Some Stylized Facts of Financial Market Data and the Efficient Markets Hypothesis.

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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.

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)T

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.

The chapter, in this text book on efficient markets, has an overview of this huge area of research in finance 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.

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

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

Review of selected developments using recent work on return predictability.

Assessment

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

General References

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Main 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 Cochranes 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:

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 authors websites)

Note: This is not an econometrics course and so some familiarity with the basic ideas of OLS/GLS regressions, Maximum Likelihood, 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.

Hamilton, J D, 1994, Time Series Analysis, Princeton University Press.

Hayashi, F, 2000, Econometrics, Princeton University Press.

An intuitive and clear exposition of basic ideas is available in: hey

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Wooldridge, J, Introductory Econometrics, (Any Recent Edition), Cengage Learning Custom Publishing.

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Required Activities and Evaluation

Students are expected to successfully complete a final take home examination. In addition there will be a presentation of an assigned paper in class.