B9311-016 Asset Pricing II
Spring 2006
Course Outline and Syllabus

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Description

This is a course in empirical work on the asset pricing side of financial economics. This involves a combination of financial and econometric theory, and getting dirty working with data.

The field itself is vast, but we will focus on two core ideas:

1. time-series properties of asset returns (predictability, volatility, correlations with other variables etc.)
2. cross-sectional properties of asset returns implied by equilibrium asset pricing models (including CAPM, consumption-based asset pricing, factor models etc.)

We'll also briefly look at some simple term structure models. The course does not do any empirical tests of derivative pricing models, and concentrates on discrete-time methods. We leave derivatives and continuous-time methods to other courses.

To examine these ideas, we will use a variety of econometric techniques, including maximum likelihood, GMM, Bayesian methods, and various time-series models. We view these econometric techniques as a way to answering economic questions, rather than being interested in econometric methodology per se.

The class is designed to complement Asset Pricing I. Whereas Asset Pricing I took a theoretical approach, this class will cover many of the same topics from an empirical perspective.

Prerequisites

The course is designed for second year doctoral students in finance. The pre-requisites are Econometrics, Financial Econometrics and Finance Theory I.

Materials

There are two required textbooks:

Campbell, Lo and MacKinlay, “The Econometrics of Financial Markets”

Cochrane, “Asset Pricing”

In addition, you will find Hamilton’s “Time Series Analysis” very useful.

You will need access to Matlab, Gauss or some other matrix programming language, and already know (or quickly get to know) how to program in that language.

Along the way, I will hand out a number of papers, as well as some class notes. I will always assign a full reading list for each topic a couple of days in advance of class.

Requirements

There will be regular problem sets, some theoretical and some empirical (where you will get dirty with data). Data can be downloaded from the class website. You are welcome, and encouraged, to collaborate on the empirical work in the problem sets in pairs. (No groups larger than a pair.) However, the theoretical questions must be answered individually.

The breakdown of the course is:

Problem Sets	40%
Referee Report	10%
Final	50%

For the referee report, which is to be done individually, you have a choice of several papers which I will make available. The final exam is 5 hours, in-class.

If you audit the class, I expect you to complete all problem sets and do the referee report.

Empirical Asset Pricing Reading List

All papers are distributed on BOLD

Topic	Papers to be covered in depth
Consumption-Based Asset Pricing	Hansen and Singleton (1982 and 1983)
Bounds on Stochastic Discount Factors	Hansen and Jagannathan (1991 and 1997)
Biases in the Measurement of Returns	Blume and Stambaugh (1983) Lo and MacKinlay (1990)
Time-Series Predictability of (Aggregate) Stock Returns	Fama and French (1988a and b) Campbell and Shiller (1988) Glosten, Jagannathan and Runkle (1993) Hodrick (1992) Lo and MacKinlay (1988)
Co-Integration	Bansal and Yaron (2004) Campbell and Shiller (1987) Hansen, Heaton and Li (2005) Lettau and Ludvigson (2002)
Affine Models	Ang and Piazzesi (2003) Bekaert and Grenadier (1999) Campbell and Shiller (1991)
Cross-Section of Expected Returns	Bansal, Dittmar and Lundblad (2005) Black, Jensen and Scholes (1972) Campbell (1996) Campbell and Vuolteenaho (2004) Daniel and Titman (1997) Fama and French (1992, 1993 and 1996) Fama and MacBeth (1973) Ferson and Harvey (1999) Geweke and Zhou (1996) Gibbons, Ross and Shanken (1989) Jagannathan and Wang (1996) Jegadeesh and Titman (1993) Shanken (1992)

Other (Methodological) Papers

ARCH/GARCH:
Bollerslev (1986), Engle (1982)
Bayesian Inference:
Casella and George (1992), Chib and Greenberg (1995), Johannes and Polson (2003)
GMM: Hansen (1982)
Forecasting:
McCracken (2004), West (2005)

Bibliography

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Bansal, Ravi, Robert F. Dittmar and Christopher T. Lundblad, "Consumption, Dividends and the Cross Section of Equity Returns," Journal of Finance, 2005, v60(4), 1639-1672.

Bansal, Ravi and Amir Yaron, "Risks for the Long Run: A Potential Resolution of Asset Pricing Puzzles," Journal of Finance, 2004, v54(4), 1481-1509.

Bekaert, Geert and Steven R Grenadier. "Stock and Bond Pricing in an Affine Economy," NBER Working Paper 7346, 1999.

Black, Fisher, Michael C. Jensen, and Myron Scholes. "The CAPM: Some Empirical Tests," in M. C. Jensen, ed. Studies in the Theory of Capital Markets, 1972, Praeger, New York.

Blume, Marshall E. and Robert F. Stambaugh. "Biases in Computed Returns: An Application to the Size Effect," Journal of Financial Economics, 1983, v12(3), 387-404.

Bollerslev, Tim. "Generalized Autoregressive Conditional Heteroskedasticity," Journal of Econometrics, 1986, v31, 307-327.

Campbell, John Y. "Understanding Risk and Return," Journal of Political Economy, 1996, v104(2), 298-345.

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Campbell, John Y. and Robert J. Shiller. "The Dividend-Price Ratio and Expectations of Future Dividends and Discount Factors," Review of Financial Studies, 1988, v1(3), 195-228.

Campbell, John Y. and Robert J. Shiller. "Yield Spreads and Interest Rate Movements: A Bird's Eye View," Review of Economic Studies, 1991, v58(195), 495-514.

Campbell, John Y. and Tuomo Vuolteenaho. "Bad Beta, Good Beta," American Economic Review, 2004, v94(5), 1249-1275.

Casella, George and Edward I. George. "Explaining the Gibbs Sampler," American Statistician, 1992, v46(3), 167-174.

Chib, Siddhartha and Edward Greenberg. "Understanding the Metropolis-Hastings Algorithm," The American Statistician, 1995, v49(4), 327-335.

Engle, Robert. F. "Autoregressive Conditional Heteroskedasticity with Estimates of the Variance of United Kingdom Inflation," Econometrica, 1982, 50(4), 987-1008.

Fama, Eugene F. and Kenneth R. French. "Dividend Yields and Expected Stock Returns," Journal of Financial Economics, 1988a, v22(1), 3-26.

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Hansen, Lars Peter, John C. Heaton, and Nan Li. "Consumption Strikes Back?" NBER working paper 11476, 2005.

Hansen, Lars Peter and Ravi Jagannathan. "Implications of Security Market Data for Models of Dynamic Economies," Journal of Political Economy, 1991, v99(2), 225-262.

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Jegadeesh, Narasimhan and Sheridan Titman. "Returns To Buying Winners and Selling Losers: Implications for Stock Market Efficiency," Journal of Finance, 1993, v48(1), 65-92.

Johannes, Michael and Nicholas Polson. "MCMC Methods for Continuous-Time Financial Econometrics," working paper, 2003, Columbia Business School.

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