PhD course on "Topics in Empirical Asset Pricing"

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The course is intended for Ph.D. students and it attempts to cover special topics in asset pricing from both theoretical and empirical perspectives. I will comprehensively cover methodologies in Bayesian Econometrics including the basics and topical applications in financial economics.

Bayesian econometrics is, theoretically, the most appealing paradigm for decision making. In finance, the most notable decision making is the selection of optimal portfolios. I will analyze several Bayesian methods for making portfolio decisions in the presence of estimation risk, model uncertainty, and informative prior beliefs based on economic theory. I will also discuss asset allocation in the presence of stock return predictability based on macro variables. In the presence of such predictability, investment opportunities are time varying and the horizon effect comes into play. Then, Bayesian econometrics neatly addresses the important question of whether equities are riskier or safer for long horizon investors. There is a tradeoff here. On one hand, mean reversion in expected stock return makes equities appear less risky with longer investment horizons. On the other hand, estimation risk, model risk, and uncertainty about current and future expected stock return make equities appear more risky. Some MCMC (Markov Chain Monte Carlo) Bayesian methods (especially Gibbs Sampling) will also be covered.

In a previous course in asset pricing you had gained some exposure to market anomalies – which are cross sectional and time series patterns in equity prices, unexplained by canonical asset pricing models, such as the CAMP and the consumption CAPM. Here, I will cover the role of market sentiment and firm level credit rating in understanding the price momentum, earnings momentum, accruals, capital investment, credit risk, idiosyncratic volatility, total volatility, dispersion, net stock issues, and asset growth effects in stock prices. In the context of anomalies I will briefly introduce the long run risk (LRR) literature of Bansal and Yaron and its extensions. While the CAPM and the CCAPM are unable to explain market anomalies in both the time series as well as the cross section, LRR models seem to display some appealing improvements across the board. LRR models and the prospect theory model (rational versus perceived behavioral) will also be used as reference points to establish prior beliefs about the return dynamics in predictive regression.

Time series predictive regressions have indeed been extensively used in finance and economics for (i) assessing return predictability, (ii) assessing long horizon riskiness of equities, and (iii) making asset allocation decisions. Here, I will discuss several prominent biases and other concerns a researcher encounters in the analysis of return predictability including small sample bias, model uncertainty, data mining, and the great disparity between in sample and out of sample predictability.

I will also introduce methods for testing conditional asset pricing models using individual stocks as test assets. The traditional approach of using equity portfolios is subject to several severe biases.

The analysis of mutual funds and hedge funds is also critical for understanding financial markets. Equity funds account for more than ten trillion dollar in assets only in the US and the hedge fund industry is fast growing. I will display different methods of evaluating performance as well as investing in mutual funds and hedge funds. I will finally deal with down side risk, which has been gaining considerable prominence among investors, policy markets, as well as academic scholars.

I list below several papers that you are suggested to read.

List of papers:

Bayesian Asset Allocation

1) On the Predictability of Stock Returns: As Asset-Allocation Perspective.

   http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6261.1996.tb02689.x/pdf

2) Investing for the Long Run when Returns are Predictable.

   http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.113.4003&rep=rep1&type=pdf

3) Bayesian Portfolio Analysis.

   http://pluto.huji.ac.il/~davramov/paper10.pdf

Stock Return Predictability and the Risk of Stocks for the Long Run

4) Predictive Regressions. http://schwert.ssb.rochester.edu/f532/jfe99_rs.pdf

5) Are Stocks Really less Volatile for the Long Run
   http://www.haas.berkeley.edu/groups/finance/varlong2.pdf

6) Are Stocks Riskier for the Long Run: Taking Cues from Economic Theory

   http://ssrn.com/abstract=2615919

Market Anomalies, Market Sentiment, and Credit Ratings

7) Anomalies and Financial Distress.

   http://pluto.huji.ac.il/~davramov/ACJP_credit_ratings.pdf

8) The Short of It: Investor Sentiment and Anomalies.

   http://users.cla.umn.edu/~jianfeng/Anomalies_JFE_12.pdf

9) The Shorting Premium and Asset pricing Anomalies

   http://pages.stern.nyu.edu/~idrechsl/DD_ShortingPremium.pdf

Asset Pricing Models: International and Individual Asset Perspective

10) The World Price of Credit Risk

    http://pluto.huji.ac.il/~davramov/sovereign.pdf

11) Asset Pricing Models and Financial Market Anomalies.

    http://pluto.huji.ac.il/~davramov/paper1.pdf

Long Run Risk

12) The Long Run Risks Model and Aggregate Asset Prices: An Empirical Assessment, 2012, Critical Finance Review, 1, 141-182.

    http://cfr.ivo-welch.info/2012/beeler-campbell-2012.pdf

13) The Long-run Risks Model: What Differences Can an Extra Volatility Factor Make? (see paper2.pdf attached)

Mutual Funds, Hedge Funds, and Performance Evaluation

14) Performance Measurement of Mutual Funds, Hedge Funds, and Institutional Accounts.

    http://www.rhsmith.umd.edu/faculty/rwermers/annurev-financial-102710-144856.pdf

15) Mutual funds and Mispriced Stocks

    http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2607002

16) Measuring Mutual Fund Performance with Characteristics based Benchmarks.

    http://www.rhsmith.umd.edu/faculty/rwermers/dgtw.pdf

17) Investing in Mutual Funds when Returns are Predictable.

    http://pluto.huji.ac.il/~davramov/Article.pdf

18) Investment Performance Evaluation.

    http://www.annualreviews.org/doi/pdf/10.1146/annurev-financial-120209-134007