SLOAN SCHOOL OF MANAGEMENT
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Advanced Financial Economics III  
15.442J  
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SYLLABUS

This course studies the empirical asset-pricing literature and the econometric methods used in empirical research. We will discuss many topics in asset pricing, including market efficiency, the predictability of stock and bond returns, excess volatility and present value relations, the static and consumption CAPMs, multifactor asset-pricing models, event studies, and Bayesian methods. Students are expected to participate actively in class discussions.

READING

The readings consist almost entirely of journal articles, which I will distribute in class. A few readings come from the following books. Fama’s book is no longer in print, but I recommend the other books to supplement the journal articles.


WEB PAGE

Course material will be posted under ‘Teaching’ on my web page [http://web.mit.edu/lewellen/www/](http://web.mit.edu/lewellen/www/). I also have links to various data sites, including the St. Louis Fed (a good source for macroeconomic data), Dow Jones and Morgan Stanley (stock indices), and the web pages of Ken French (portfolio and factor returns), Jay Ritter (IPO data), and Robert Shiller (S&P returns, dividends, and earnings stretching back to 1870).

COURSE REQUIREMENTS AND GRADING

Readings are the most important component of the course. Students are expected to study the articles before class and come prepared to discuss the methodology and main findings of each paper. Class participation will be weighted heavily in the final grades.

There will also be periodic assignments. These will consist of both problem sets and data analysis, in which I will ask you to replicate or extend results in the literature. I expect the assignments to take less than one day per week.

The course will also have a final during the normal MIT finals week. This exam should be straightforward if you attend class and study the assigned articles each week.
OUTLINE

1. MARKET EFFICIENCY

2. THE TIME-SERIES PROPERTIES OF RETURNS
   a. First tests of predictability
   b. Statistical issues
   c. Recent evidence on predictability
   d. Predictability, excess volatility, and present value relations
   e. Interest rates and inflation
   f. Time-varying volatility and expected returns
   g. Consumption and the equity premium
   h. Short-horizon lead-lag relations in returns

3. THE CROSS SECTION OF EXPECTED RETURNS
   a. The CAPM
   b. Tests of portfolio efficiency
   c. Empirical evidence – size, B/M, momentum, and reversals
   d. Multifactor models and mean-variance efficiency
   e. Multifactor models – empirical tests
   f. The consumption CAPM
   g. Performance evaluation and mutual funds
   h. Conditional asset pricing tests

4. MISCELLANEOUS TOPICS
   a. Event studies
   b. Mutual funds
   c. Bayesian investors and Bayesian methods
   d. Investor sentiment and closed-end funds
   e. Home bias in portfolio choice
   f. Index addition
   g. Pricing and the location of trade
   h. Rational bubbles
READING LIST

Carefully read articles marked *; skim articles marked **.

1. MARKET EFFICIENCY

* Fama, Chapter 5.


2. THE TIME-SERIES PROPERTIES OF RETURNS

2.1. First tests of predictability


CLM, Chapter 2.


2.2. Statistical issues


2.3. Financial ratios: More recent evidence


Goyal, Amit and Ivo Welch, 1999, Predicting the equity premium, Working paper (Yale School of Management, New Haven, CT).


2.4. Mean reversion: More recent evidence


and Economic Statistics 11, 199-207.


2.5. Predictability, excess volatility, and present value relations


**2.6. Consumption and the equity premium**

* Cochrane, Chapters 1, 2, and 21.


CLM, Chapter 8.


**2.7. Interest rates**


CLM, Chapter 10 and 11.


Bekaert, Geert, Robert Hodrick, and David Marshall, 1997, On biases in tests of the expectations


### 2.8. Time-varying volatility


### 2.9. Short-horizon lead-lag relations in stock returns


Lo, Andrew and A. Craig MacKinlay, 1988, Stock market prices do not follow random walks: Evidence

### 2.10. Miscellaneous


### 3. THE CROSS SECTION OF EXPECTED RETURNS

#### 3.1. The CAPM

* Fama, Chapters 7 and 8.

  Cochrane, Chapters 5, 6, and 7


#### 3.2. Tests of portfolio efficiency

* Fama, Chapter 9.


  CLM, Chapter 5 and Cochrane, Chapter 12.


  *Early tests:*


*Perspective:*


*More multivariate tests:*


*Statistics of two-pass regressions:*


*Bayesian tests:*


**GMM and nonnormalities:**


**3.3. Empirical tests: Size and B/M part I**


** Cohen, Randolph, Christopher Polk, and Tuomo Vuolteenaho, 2002. Does risk or mispricing explain the cross-section of stock prices?, Working paper (Harvard University, Cambridge, MA).


**3.4. Empirical tests: Momentum and contrarian profits**


More contrarian:


More momentum:


3.5. Empirical tests: Miscellaneous


**3.6. Multifactor asset pricing models**


*Is the APT testable?:*


Dybvig, Philip and Stephen Ross, 1985, Yes, the APT is testable, *Journal of Finance* 40, 1173-1188.


**3.7. Multifactor models and mean-variance efficiency**


CLM, Chapter 6.


**3.8. Empirical tests of multifactor models (Size and B/M part II)**


### 3.9. Consumption CAPM and pricing kernels


CLM, Chapter 8 and Cochrane, Chapters 10, 11, 13, 15, 16


3.10. Conditional asset pricing tests


Cochrane, Chapter 8.


3.12. Miscellaneous


4. MISCELLANEOUS

4.1. Event studies


CLM, Chapter 4.


4.2. Performance evaluation and mutual funds


4.3. Bayesian investors and Bayesian methods


**4.4. Closed-end funds**


**4.5. Home bias**


**4.6. Index addition**


Harford, Jarrad and Aditya Kaul, 2000, Do concentrated trading equilibria exist? The migration of informed trading following index addition, Working paper (University of Oregon, Eugene, Oregon).

**4.7. Location of trade anomalies**


**4.8. Bubbles**


5. SUMMARY AND PERSPECTIVE


6. APPENDIX: ECONOMETRICS


