University of Pennsylvania
The Wharton School

FNCE 925:
Advanced Topics in Asset Pricing
Syllabus is tentative and subject to change

Prof. Jules H. van Binsbergen   Fall 2019
Office: SH-DH 2460   Classes: Wednesday 3:00pm–6:00pm
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Course Description

This course exposes students to recent developments in the asset pricing literature.
The starting point for the course is the standard neo-classical rational expectations
framework. We will then critically investigate where this framework has succeeded
and where it has not. Recently documented deviations from the framework in the
literature are discussed and placed in context. The course will also focus on hypothesis
development, recent research methods, and research writing. The ultimate objective is
for students to develop their own hypotheses and research ideas. The final deliverable
for the course is a research proposal or (even better) a paper. In addition to lecturing
by the instructor, the second half of the course (quarter 2) will feature presentations
of research proposals as well as discussions of recent papers by the students.

Prerequisites

The prerequisites for this course are graduate level econometrics, microeconomics
(Economics 681 or Economics 701) and calculus. Finance 911 (Foundations for Fi-
nancial Economics) is recommended.

Course Material

- The website for this course can be accessed through Canvas:

  https://canvas.upenn.edu.

  On this website you can find lecture notes, papers, and announcements.

- Following each topic, there is a list of recommended articles which can also be
  found on the website.

Reading

Recommended Texts for Reading:

- J. Campbell, *Financial Decisions and Markets: A Course in Asset Pricing*, Princeton University Press.

- J. Campbell, A. Lo, A. MacKinlay, 1996, *The Econometrics of Financial Markets*, Princeton University Press. (See especially chapters 5-11)

- J. Cochrane, 2005, *Asset Pricing* Revised Edition, Princeton University Press. (See especially chapters 1-9, 17-21)

- D. Duffie, 2001, *Dynamic Asset Pricing Theory* 3rd edition, Princeton University Press. (See especially chapters 1-4)

- J. Ingersoll, 1987, *Theory of Financial Decision Making*, Rowman and Littlefield.

Course Outline and Additional Readings

Note: Dates are approximate and further readings will be added as we go along.

I **Rational Expectations in Asset Pricing**
August 28

- Outline
    - The development of the rational expectations framework
    - Testing the rational expectations framework
    - Why is the rational expectations framework a good benchmark?
    - Writing theory papers
    - Writing empirical papers
    - How to develop a null hypothesis
    - The "as if" paradigm
- Additional Readings:
    (a) Rational Expectations and the Theory of Price Movements, by J. Muth
    (b) Speculative Asset Prices, by R. Shiller
    (c) A Survey of Behavioral Finance, by N. Barberis and R. Thaler

(d) The Methodology of Positive Economics, by M. Friedman, Essays in Positive Economics, Chicago: University of Chicago Press, pp. 3-43.

II Rational Expectations Models in Asset Pricing
September 4

- Outline
    - Empirical moments of interest (puzzles)
    - Popular rational expectation models and their underlying mechanism
    - Evaluating assumptions and model performance
    - What do we expect from a model?
    - Are strongly rejected models useful? What for?

- Additional Readings:
    (a) Original papers of the models (rare disasters, habits, lrr) have been assigned repeatedly in earlier classes. Please reread if you are fuzzy on them.
    (b) Global Stock Markets in the Twentieth Century, by P. Jorion and W. Goetzmann
    (c) Why is Long-Horizon Equity Less Risky? A Duration-Based Explanation of the Value Premium, by M. Lettau and J. Wachter
    (d) The Long-Run Risks Model and Aggregate Asset Prices: An Empirical Assessment, by J. Beeler and J. Campbell

III Recent Tests of Rational Expectations Models for Financial Assets
September 11

- Outline
    - Testing models using multiple asset classes
    - Testing models using multiple regions
    - Is there one stochastic discount factor?
    - What do we learn from the cross-section vs the time series?

- Additional Readings:
    (a) The Term Structure of Returns by J. van Binsbergen and R. Koijen
    (b) Value and Momentum Everywhere by C. Asness, T. Moskowitz, L. Pedersen
    (c) Very Long Run Discount Rates by S. Giglio, M. Maggiori and J. Stroebel

IV Rational Expectations Models for Intermediated Assets: Theory
September 18

- Outline
  - Money management in equilibrium
  - Asset management as a resource allocation problem
  - Frictions in money management
  - Competition and financial markets

- Additional Readings:
  (a) Mutual Fund Flows and Performance in Rational Markets by J. Berk and R. Green
  (b) Mutual Funds in Equilibrium by J. Berk and J. van Binsbergen

V Rational Expectations Models for Intermediated Assets: Empirics
September 25

- Outline
  - Value and alpha measures
  - Implied risk preferences of investors
  - Optimal size of intermediated asset management

- Additional Readings:
  (a) On Persistence in Mutual Fund Performance by M. Carhart
  (b) Measuring Skill in the Mutual Fund Industry by J. Berk and J. van Binsbergen

VI Real Implications of Asset Market Inefficiencies
October 2

- Outline
  - Are financial markets a sideshow?
  - Are financial markets a zero-sum game?
  - What is the optimal size of the financial sector?
  - Do financial markets interact with real investment?

- Additional Readings:
  (a) The Stock Market and Investment: Are Financial Markets a Sideshow, by R. Morck, A. Shleifer and Robert W Vishny

(b) Real Anomalies by J. van Binsbergen and C. Opp

VII Intermediary Asset Pricing
October 9

- Outline
    - Whose stochastic discount factor?
    - Slow-moving capital
    - Capital constraints
- Additional Readings:

    (a) Intermediary Asset Pricing, by Z. He and A. Krishnamurthy
    (b) Financial intermediaries and the cross-section of asset returns, by T. Adrian, E. Etula and T. Muir