



## Advanced Financial Economics: Asset Pricing

Fridays 12:00 – 14:00

Location: SPA1: Room 23

Instructor: Prof. Dr. Alex Stomper ([alex.stomper@hu-berlin.de](mailto:alex.stomper@hu-berlin.de))

Guest-instructor: PD Dr. Maria Kasch ([maria.kasch@hu-berlin.de](mailto:maria.kasch@hu-berlin.de))

### Course description

This course introduces the students to recent developments in empirical asset pricing. The central question addressed in the course is: What causes the fluctuations in prices of risky assets? This question has been a source of intense debate among financial economists over the last decades, with no resulting consensus. It has divided our profession into two broad groups, “rational” and “behavioral”.

The course starts with a brief review of the basic concepts of the asset pricing theory. The main part of the course is divided into three sections:

1. Time-series facts and excess volatility
2. Cross-sectional facts and anomalies
3. Empirical methods

Each section will include (i) lectures, (ii) empirical work and (iii) student presentations and discussions of the papers from the reading list.

### Course prerequisites

Basic background in Finance and Statistics

## Course materials

### *Main textbook:*

John H. Cochrane, 2005, *Asset Pricing*, Princeton University Press, Revised Edition.

We will also often refer to:

John H. Cochrane, 2011, Presidential address: Discount rates, *Journal of Finance* 66, 1047-1108. This article provides some updates on the issues discussed in the book.

Additionally recommended (easy) reading:

Robert Shiller, 2015, *Irrational Exuberance*, Princeton University Press, Third Edition (includes the Nobel Prize Lecture: Speculative Asset Prices). This book provides an important historical perspective and behavioral intuition.

Further readings will be provided for each section of the course separately.

### *Data:*

Please get a RDC account from

<http://sfb649.wiwi.hu-berlin.de/fedc/guests/guestsub.php>

### *Software:*

We will use *Eviews*. The student version of *Eviews* is available from

<http://www.eviews.com/EViews9/EViews9SV/evstud9.html>

If you are good at another programming language, you are not required to use *Eviews*. The programming advice will be provided in *Eviews*.

## Final exam

60 minutes written exam (Friday, July 22)

## Tentative Lecture Outline

1. Basic concepts of the asset pricing theory
  - a. Fundamental asset pricing equation and stochastic discount factor
  - b. Risk corrections; systematic versus idiosyncratic risk
  - c. Expected return-beta representation
  - d. Mean-variance frontier
  - e. Sharpe ratio and equity premium puzzle
2. Time-series facts and excess volatility
  - a. Time-series predictability:
    - i. Short- versus long-horizon effects
    - ii. Price-scaled variables and predictability
    - iii. Return decomposition: discount-rate and cash-flow news components
  - b. Volatility and predictability
  - c. Excess volatility puzzle; bubbles
  - d. Interpretation of predictability
    - i. Rational variation in risk premium
    - ii. Market inefficiency (e.g., overreaction and mean reversion)
3. Cross-sectional facts and anomalies
  - a. CAPM
  - b. Fama and French multi-factor anomalies (three- and five-factor models)
  - c. Momentum
  - d. Betting against beta
  - e. Other patterns of cross-sectional predictability
  - f. Interpretation of predictability
4. Empirical methods
  - a. Regression-based tests of factor models
  - b. Relative efficiency of using individual stocks or portfolios in tests of cross-sectional factor models