This course is an introduction to asset pricing. It begins with a review of the theory of choice under uncertainty, then develops classical asset pricing theory in discrete time. It also discusses empirical puzzles and recent theories that have been developed to try to solve them.

Ec2723 is a natural introduction to other graduate courses in finance, including the fall course Ec2725, Corporate Finance and Banking, taught by David Scharfstein and Jeremy Stein; and the spring courses Ec2726, Theoretical and Empirical Perspectives on Entrepreneurship: Economics and Finance, taught by William Kerr and Josh Lerner; Ec2727, Empirical Methods in Corporate Finance, taught by Paul Gompers, Sam Hanson, Victoria Ivashina, and Adi Sunderam; and Ec2728, Behavioral Finance, taught by Andrei Shleifer.

Requirements for credit in Ec2723 include three assignments and a final exam. Two of the assignments will contain computational exercises. At least one assignment will include a “referee report” to be written on an unpublished asset pricing paper.

Ec2723 is intended for PhD students in economics, and I will assume knowledge of first-year PhD microeconomics, macroeconomics, and econometrics. Undergraduates interested in this field should take my undergraduate course Ec1723, Capital Markets.

The book will be taught using an unpublished manuscript, Financial Decisions and Markets: A Course in Asset Pricing. I will hand out a free hardcopy of the manuscript to all students registered in the course. Two published books will also be used: John H. Cochrane, Asset Pricing, Princeton University Press, revised ed., 2005, and John Y. Campbell and Luis M. Viceira, Strategic Asset Allocation: Portfolio Choice for Long-Term Investors, Oxford University Press, 2002. Both these books are available at the Harvard Coop.

Two other books may also be useful: John Y. Campbell, Andrew Lo, and A. Craig MacKinlay, The Econometrics of Financial Markets, Princeton University Press, 1997, and Christian Gollier, The Economics of Risk and Time, MIT Press, 2001. No required readings are assigned from these books, but some chapters of Gollier are recommended as background reading.

Other readings are available on the course website.

* denotes required reading and [ ] denotes classic reading, the original source but not necessarily the easiest reference today.

The teaching fellow for the course is Argyris Tsiaras, atsiaras@fas.harvard.edu.
What is finance?
Cochrane, Chapters 1-2.


1. Choice under uncertainty
Campbell, Chapter 1 and/or Gollier, Chapters 1-3.


[Kimball, Miles, 1990, “Precautionary Saving in the Small and in the Large”, Econometrica 58, 53-73.]  


2. Static portfolio choice, the CAPM, and the APT

A. Mean-variance analysis and factor models
Campbell, Chapters 2 and 3 and/or Campbell-Viceira, Chapter 2, Cochrane, Chapters 5 and 9, or Gollier, Chapter 4.


**B. Test methodology**

Cochrane, Chapters 10-12.


**C. Factor models and the cross-section of stock returns**

Campbell, Chapter 3, section 3.3 and/or Cochrane, Chapter 20, section 20.2.


3. Absence of arbitrage and the stochastic discount factor

A. Theory

Campbell, Chapter 4 and/or Cochrane, Chapters 3-4 and 6-8.


B. Heterogeneous beliefs, short-sales constraints, and limits to arbitrage


4. Present value relations and stock return predictability

A. Models of stock prices

Campbell, Chapter 5, sections 5.1-5.3.


B. Predictability of aggregate stock returns

Campbell, Chapter 5, sections 5.3-5.4 and/or Cochrane, Chapter 20, section 20.1.


C. Present value logic and the cross-section of stock prices

Campbell, Chapter 5, section 5.5.


5. Consumption-based asset pricing

A. Representative agent models, the equity premium puzzle, and the equity volatility puzzle

(i) General

Campbell, Chapter 6 and/or Cochrane, Chapter 21.


(ii) Long-run risks and changing volatility


(iii) Ambiguity aversion


(iv) Habit formation


(v) Rare disasters


B. Heterogeneous agents

Campbell, Chapter 10, section 10.1.


C. Consumption risk and the cross-section of stock returns


6. Production-based asset pricing

A. Q theory

Campbell, Chapter 7.


B. General equilibrium with production


7. Bonds

A. Fixed-income securities and the expectations hypothesis of the term structure

*Campbell, Chapter 8, sections 8.1 and 8.2, and/or Cochrane, Chapter 19 and Chapter 20, pp. 426-435.


B. Models of bond risk premia

Campbell, Chapter 8, sections 8.3 and 8.4.


8. Intertemporal asset pricing

A. Portfolio choice for long-term investors

*Campbell, Chapter 9 and/or Campbell-Viceira, Chapters 3-4 and 6-7.


B. Intertemporal risk and the cross-section of stock returns


9. Market incompleteness and risksharing

Campbell, Chapter 10.


10. Household finance

Campbell, Chapter 11.


11. Asymmetric information, rational expectations, and market microstructure

A. Asymmetric information

Campbell, Chapter 12, sections 12.1-12.2.


B. Determinants of trading costs

Campbell, Chapter 12, section 12.3.


C. Liquidity and asset prices

Campbell, Chapter 12, section 12.4.


Alternative textbooks and lecture series


Hull, John C., 2005, Options, Futures, and Other Derivatives, sixth ed., Prentice-Hall.


**A selection of trade books**


