CEMFI
Master in Economics and Finance
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FINANCIAL ECONOMICS

Course description

This course analyzes the main models for the valuation of risky assets and their application to different financial instruments, including options and other derivatives, and fixed income assets. It also presents a brief introduction to models of the microstructure of financial markets. The approach is mainly theoretical, but some references to the existing empirical evidence will be discussed. The course covers both static and dynamic models in discrete time, so it does not require any knowledge of stochastic calculus.

The main references for this course are several books, the closest one being John Campbell (2018), *Financial Decisions and Markets – A Course in Asset Pricing*, Princeton University Press. Another useful book is John Cochrane (2005), *Asset Pricing*, Princeton University Press. Campbell's book does not cover derivatives, and its coverage in Cochrane's book is thin, so for this topic I refer to the classic textbook by John Hull (2017), *Options, Futures, and Other Derivatives*, Pearson. Finally, on market microstructure I will refer to the book by Thierry Foucault, Marco Pagano, and Ailsa Röell (2013), *Market Liquidity*, Oxford University Press. They are all available in the CEMFI library. In addition, I will upload in the course website in Moodle detailed lecture notes for each topic as well as the slides used in the lectures.

Course outline

The course will cover the following seven topics.

1. The Fundamental Theorem of Asset Pricing
2. Mean-Variance Portfolio Analysis
3. Static Asset Pricing
4. Dynamic Asset Pricing
5. Derivative Assets
6. Fixed-Income Assets
7. Microstructure of Financial Markets