

Faculty of Economic, Social and Political Sciences



ECON3530 Capital Markets Theory

[30h] 3.5 credits

Teacher(s): Olivier Scaillet
Language: English
Level: Third cycle

Aims

The course is an introduction to modern financial theory. Emphasis is placed on the equilibrium determination of prices of securities and derivative instruments under conditions of perfect, public information. The first half of the course is devoted to dynamic analysis in continuous time. The theoretical analysis is applied to models widely used in empirical work and financial decision making.

Main themes

Outline of subjects treated
 1. Principles of arbitrage in general and in illustrations with a variety of financial instruments.
 2. Choice under uncertainty, expected utility stochastic dominance.
 3. General equilibrium with complete markets, efficient markets with uncertainty, spanning.
 4. Capital asset pricing model, consumption CAPM.
 5. Arbitrage pricing theory.
 6. Introduction to derivative instruments.
 7. Multiperiod finance : stochastic processes, stationarity, Ito's lemma.
 8. Valuation of stock options, Black Scholes formula, binomial pricing model, numerical solution methods.
 9. Hedging and dynamic portfolio theory.
 10. Continuous time analysis of interest rate and foreign exchange derivative instruments.

Other credits in programs

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| ECGE3DA/EC | Diplôme d'études approfondies en économie et gestion - Master (3.5 credits) of Arts in Economics (sciences économiques) | |
| ECGE3DS/EF | Diplôme d'études spécialisées en économie et gestion (Master (5 credits) in business administration) (économie financière) | Mandatory |