- Faculté des sciences économiques
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Asset pricing (5AF2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en finance	**Cours: 4 ph**	**Voir ci-dessous**	6
Master en statistique	**Cours: 4 ph**	**Voir ci-dessous**	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Automne

Equipe enseignante

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Contenu

We derive asset pricing models that are designed to explain the cross-section and the dynamic behaviour of asset returns. We empirically assess the models and discuss their usefulness for practical applications.

In the first part of the course, we discuss the optimal consumption and investment decision in a one period model under uncertainty and risk aversion. This leads us to the construction of a static equilibrium model of financial asset valuation, the Capital Asset Pricing Model (CAPM). We discuss alternatives based on arbitrage based valuation and multifactor models. In the second part of the course, we derive a dynamic multi-period model, the Consumption-Based Asset Pricing Model (C-CAPM). We emphasize the link between the different approaches and show that there are, in fact, different specifications of the same equation, namely a characterization of the stochastic discount factor. We study present-value relations and discuss the difference between cash flow news and discount rate news, as well as their relative importance in financial markets. Finally, we conclude with an assessment of ESG investing; the rationale behind it and what kind of effects might be expected for market equilibrium.

Tentative course outline:
- Introduction and Review
- Choice under Uncertainty
- Portfolio Choice
- Mean-Variance Analysis
- The CAPM and APT
- Empirical Assessment of the CAPM: Methods and Anomalies
- Stochastic Discount Factors: Derivation and Properties
- Present-Value Relations, Market Efficiency, Cash Flow vs Discount Rate News
- Economics of ESG Investing

Forme de l'évaluation

Mid-term: one-hour written exam (30%)
Final: two-hour written exam (70%) during the exam session
Re-take: two-hour written exam (100%) during the exam session.

Allowed tools (written exam): Simple calculator, cheat sheet (one page DIN-A4, back and front, handwritten).

In case of violation of these rules, the students are in situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

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Documentation

John Y. Campbell, Financial Decisions and Markets: A Course in Asset Pricing, Princeton University Press (2018)
Research articles provided on moodle.

Pré-requis

One courses in finance (Bachelor); e.g. principles of finance.

Forme de l'enseignement

Lectures: four hours per week.

Objectifs d'apprentissage

Au terme de la formation l'étudiant-e doit être capable de :

- Illustrate advantages and limitations of specific asset pricing models in real-life situations
- Conclude whether portfolios of financial assets are efficient
- Outline the construction of a static and dynamic equilibrium models of financial asset valuation
- Explain practical implications of the limitations of theoretical models
- Apply asset pricing models to evaluate the pricing of financial assets in the cross-section of assets and over time
- Assemble conceptual knowledge
- Explain the concept of risk aversion and describe optimal investment decisions under uncertainty
- Describe the assumptions behind asset pricing models and why these might be violated in practice
- Solve portfolio choice problems under uncertainty
- Describe important topics of asset pricing orally or in writing

Compétences transférables

- Communicate results in writing
- Generate new ideas (creativity)
- Communicate results orally
- Apply knowledge to new situations
- Carry out a critical analysis