Investment and financial markets

ECTS : 6

Description du contenu de l'enseignement :

The objective of this course is to acquaint students with the concepts that are key to understand the functioning of capital (mostly equity) markets.
The course is divided in five parts.

Part 1 is about the organization of trading. The structure of European Stock Exchanges has been considerably evolving over the last 20 years. These evolutions have been fostered by the progress made in information technologies and the changes in the European regulatory environment. Open-outcry markets have been progressively replaced by computer-assisted trading markets. Stocks can now be traded continuously, new trading protocols such as MTF (Multilateral Trading Facilities) and Dark Pools have emerged, real-time remote access to markets has been made possible, high frequency trading has become more prevalent (latency times are now lower than 1 millisecond) while trading costs have experienced a dramatic decline. The financial intermediation profession has been evolving too. ISD (Investment Services Directive) constitutes a major change for the European regulatory environment. The concentration of orders on a single stock exchange is no longer mandatory and former national monopolistic stock exchanges must now compete with new entrants. Euronext market share has dropped from 100% to less than 50% as stocks of major European companies can now be traded on several trading venues. To gain understanding in the recent trends that characterize the stock exchange industry it is important to understand where transaction costs (both explicit and implicit) and liquidity arise from. This will be the subject of the first part of the course with a particular focus on the evolution of the Paris stock exchange.

Part 2 covers the core concepts of return, risk and the optimization of the risk-return tradeoff through efficient portfolios. After introducing the definition of returns (discrete and continuous) and various risk measures (volatility and Value at Risk – VaR) for single assets, the course moves to the analysis of the joint behavior of assets when these are combined into portfolios. This will allow student to understand the benefits of diversification, which is a first step towards the computation of efficient portfolios through the Markowitz's program and the determination of asset efficient frontier.

Part 3 is about how investors account for risk in their investment decisions. This part shows how to characterize risk aversion and how risk aversion is accounted for in equilibrium. This part allows to establish the expression of the CAPM (Capital Asset Pricing Model) and, after highlighting some limitations of this model, to introduce multi-factor pricing models (essentially Fama and French 3-factor model).

Part 4 analyzes how information is incorporated into prices. The erratic behavior of stock prices may cast doubt about their actual meaning. Do stock prices convey valuable information? Is there an incentive for firms to be publicly-traded? On an informationally-efficient market, the expected gain from price forecasts is equal to 0. Is it the case? Although there exist so-called market anomalies (abnormal returns), further examination of abnormal returns shows that these arise mostly as a form of compensation for hidden costs (transaction costs, information costs) and risks.

Part 5 is more practical as it illustrates how the concepts developed in parts 1 to 4 can be used by decision makers. We will focus on investment decision, financing decision and portfolio managers performance measurement.

Course outline
Introduction : The Role of Financial markets
PART I: Stock exchanges and their organization

- Markets and their structure
- Organization of trades
- Liquidity and transaction costs
- The role of regulation and technology

PART 2: Risk and return

- Stock market indices
- Calculating returns

Compétence à acquérir :

Course objectives:

- To understand the functioning of markets, trading costs, and liquidity
- To understand the concepts of risk, diversification, and portfolio theory
- To understand asset pricing models
- To understand the incorporation of information into prices and how prices behave in efficient markets
- To understand how to use asset pricing models for fund performance evaluation, firm valuation, and investment decisions

Mode de contrôle des connaissances :

12 3-hour classes. Practical examples and solutions to exercises in class.
Grading: mid-term exam (40%) and final exam (60%).

Bibliographie, lectures recommandées :

Class handouts are downloadable from course webpage on MyCourse
Berck K. and P. De Marzo, “Corporate Finance”, 4th edition, Pearson