Learning Outcomes

The phenomenal growth in the global markets for exchange traded Options and Futures contracts on financial assets and on commodities has been accompanied by the growth in OTC markets for swaps, related options and other structured products. The exchange-traded products are traded by individuals and institutional investors but the structured products are tailored to institutions. These derivative securities are used to meet a variety of objectives. The markets in options on stock indices and in future contracts on treasury securities for example allow managers to control the risk of their portfolios. And options and futures contracts on interest rates, currencies and commodities permit corporate treasurers to manage risk. These markets also permit individuals as well as hedge funds to speculate on price movements and relative price relationships among assets and commodities.

Most features of the newer financial contracts are almost always equivalent to bundled portfolios of options, futures and their underlying securities. A solid grasp of options and futures helps us to understand these more complex objects with relative ease.

While the techniques for the valuation of options and futures might at first glance appear advanced and difficult, they are easily and conceptually digestible. And in the process of learning these valuation techniques, we uncover many practical aspects of the use of options and futures.

The purpose of this course is to provide the student with the necessary skills to value and to employ options, futures and related financial contracts. In order to provide a useful treatment of these topics in an environment that is changing rapidly, it is necessary to stress the fundamentals and to study important applications. The topics covered are:

- Futures Markets & their applications, including the pricing and use of futures contracts on stock indices, on commodities and Treasury instruments;
- Option Markets & their applications, covering the valuation and use of options, including a discussion of the empirical evidences and dynamic asset allocation strategies;
- Swaps, Complex Derivatives, Structured Securities including several cases, and the use (and misuse) of derivatives in the context corporate applications.

A third of the course will be devoted to options, slightly less than a third to futures and the remainder to more complex derivatives, though many applications are included in the coverage of options and futures markets, the final part of the course employs several cases.

Audience

This course is intended to professionals with a strong desire to make themselves familiar with financial analysis, company valuation, risk management, financial markets. But it does not limit itself to the pure corporate finance professional, such as the investment banker or the financial analyst. Credit analysts, controllers, treasurers, accountants, often get confronted with the use of derivative instruments. The canvas, the process, and the different techniques to cope with the rapidly changing environment of these instruments has become a must.

Lecturer: Prof. Luc Keuleneer

Luc Keuleneer is a commercial engineer (K.U. Leuven 1981) and Master of Business Administration (Finance) (University of Chicago, 1983). He followed additional trainings in strategic finance and risk management at IMD in Lausanne and the Swiss Finance Institute. Luc started his career as a scientific assistant to the K.U. Leuven. He has worked as an advisor to the Cabinet of the Minister of Economic Affairs and Finance, as an executive attaché at Paribas Bank and a director at the Institute of Company Auditors. He was been Vice-Chairman of the Board of CGER Holding and director and member of the audit committee of Gimvindus, Sidinvest and LB capital. He was a member of the privatization committees of both the Federal and Flemish government. Luc currently works as a director at KPMG in Brussels. He is a consultant to the Office of the Secretary of State in charge of coordinating the fight against fraud.

He teaches as Professor of Financial Management at the Vrije Universiteit Amsterdam and the University of the Netherlands Antilles and as a visiting professor at the Ghent University, Vlerick Leuven Gent Management School, Catholic University of Leuven, Maastricht University and the Royal Dutch Institute of Chartered Accountants (NIVRA -VERA). He is affiliated as a research associate at IMD (Institute of Management Development) in Lausanne. He is also Secretary General of the Belgian Association of Financial Analysts.
Reference

- Hull, J.C. (2003), Options, Futures and Other Derivatives, 5th edit., Prentice-Hall, Upper Saddle River NJ
- Other very pedagogical references:
Day 1: Markets & Instruments

- The various types of derivatives, their characteristics and mechanics of trading
- Market use of derivative instruments

Products analysis

- Futures: factor determining contract price, theoretical price and the basis concept, arbitrage problems, basic hedging strategies
- Options: determinants of options pricing, models (Black & Scholes, binomial, sensitivity analysis, option strategies
- Swaps: interest rate and currency swaps, strategies

Case(s):
- FX derivatives instruments
- Hedging with Futures
- Swap Pricing

Reading(s)

Day 2: Options

- Volatility and related topics, implied volatility.
- Volatility smile, exotic options
- Trading strategies involving options and structured products

Asset Backed Securities

- Types of underlying assets, cash flow characteristics
- Credit enhancement
- Valuation methodologies

Case(s):
- Complex options
- MBS

Reading(s)
- Hull, J.C. (2003), Options, Futures and Other Derivatives, 5th edit., Prentice-Hall, Upper Saddle River NJ