

# Commodities

# **ECTS** : 3

## Description du contenu de l'enseignement :

Commodity markets have experienced exceptional turmoil over the last 20 years. The arrival of new players in futures markets has drastically changed the behavior of commodities prices, connecting them to equity and currency markets. The objective of this course is to provide an economic understanding of the latest developments in commodity markets, grasp the financial, social and regulatory challenges behind commodity investing as well as the necessary concepts and tools to i) evaluate and hedge business exposure to commodities price fluctuations, ii) construct physical or paper trading strategies on commodities markets, iii) price and hedge complex commodity derivatives (on paper contracts or spot price) iv) present risk measurement and stress testing principles for commodity portfolios.

## Course outline:

- Introduction
- Spot prices models
- Forward curves
- · Options pricing models (Futures options, real and commodity-specific options)
- · Commodities investing (properties, indices, relations to other asset classes and hedge funds strategies)
- Commodities dependencies modelling
- · Commodities hedging business case: airlines jet fuel supply strategies

### Compétence à acquérir :

Deep understanding of the latest developments in commodity markets, grasp the financial, social and regulatory challenges behind commodity investing as well as the necessary concepts and tools

## Mode de contrôle des connaissances :

Final exam

### Bibliographie, lectures recommandées :

Eydeland A., Wolyniec K., Energy and Power Risk Management : New Developments in Modeling, Pricing, and Hedging, WileyEurope (2003).

Geman H., Commodities and Commodity Derivatives : Modelling and Pricing for Agriculturals, Metals and Energy, Wiley Finance (2005).

Intelligent Commodity Investing, edited by H.Till and J. Eagleeye, Riskbooks (2007).

Risk Management in Commodity Markets, edited by H.Geman, Wiley ed (2008).

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