Commodity Financial Markets

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Overview

Energy markets and energy derivatives are unique and require special attention and tools.

- Energy Products are unique and cant be found in any other markets.
- Price Evolution Processes are Unique
- The Derivatives Payoff are Unique
- Energy derivatives require special Risk Management Tools

These attributes make portfolio management in Energy Markets challenging.

The purpose of this course is to introduce you to Energy Markets and Energy Derivatives

Outline of topics

- Basic Products and Structures

- Empirical Properties of the Market Prices, statistical tests
- Volatility modeling
- Correlations
- Typical Energy Derivatives , as spread options, baskets, swaptions
- Examples of Mathematical Tools used for Commodities Modeling

Grading

- Several projects will be assigned during the course, which would involve both theoretical research , as well as data analysis and numerical modeling
- There will be a final exam on the last lecture May 15 2018
- The total grade = the average of the projects grade and the final test

References

- Eydeland A., Wolyniec K. Energy and Power Risk Managementm Wiley Finance 2003
- Swindle G. Valuation and Risk Management in Energy Markets, Cambridge 2014
- Daniel Mahoney, Modeling and Valuation of Energy Structures, Palgrave Macmillan, 2016