



Course and Examination Fact Sheet: Autumn Semester 2019

9,184: Energy Finance

ECTS credits: 4

Overview examination/s

(binding regulations see below)

Decentral - Oral examination (individual) (100%, 20 mins.)

Attached courses

Timetable -- Language -- Lecturer

[9,184,1.00 Energy Finance](#) -- Englisch -- [Frauendorfer Karl](#)

Course information

Course prerequisites

There are no particular prerequisites except interest in the topic of the course.

Course content

The focus lies on the valuation and hedging of energy derivatives. We start with introducing trading products and their dynamics in the energy spot and forward markets. We work out the differences between futures and forwards and their reporting in the annual reports of energy companies. We reflect on the intrinsic rolling strategy, which is commonly applied to hedging of storage capacities. Further, we link the flexibility of production capacities to option pricing and how to monetize volatility through the replication approach. In addition, trading cases will help in getting a deeper understanding of the importance of spreads and volatility in the energy market.

Course structure

The course will take place in the Trading Room with access to the computers for the case studies. The course is structured in the following parts:

EF00: Introduction: Products and Dynamics of Energy Markets (Spot & Forward)

EF01: Hedging with Futures & Forwards (including Hedge Accounting)

EF02: Hedging Strategy #1: Intrinsic Value and Rolling Intrinsic

EF03: Relevance of Option Pricing in Energy Trading

EF04: Hedging Strategy #2: Replication

EF05: Asset-backed vs. Proprietary Trading

EF06: Case Study: Trading & Hedging in the Swiss Power Market

Course literature

Markus Burger, Bernhard Gräber, Gero Schindlmayr (2014): *Managing Energy Risk: A Practical Guide for Risk Management in Power, Gas and Other Energy Markets*, Wiley.

Betty Simkins and Russel Simkins (2013): *Energy Finance and Economics*, Wiley.

Hélyette Geman (2005): *Commodities and Commodity Derivatives*, Wiley.

Alexander Eydeland (2003): *Energy and Power Risk Management: New Developments in Modeling, Pricing, and Hedging*, editors



Alexander Eydeland and Krzysztof Wolyniec, Wiley.

Dragana Pilipovic (2007): Energy Risk: Valuing and Managing Energy Derivatives, 2nd edition, McGraw-Hill.

Additional course information

Please note:

Due to space restrictions of the Trading Room, the course will be limited to 42 students.

Examination information

Examination sub part/s

1. Examination sub part (1/1)

Examination time and form

Decentral - Oral examination (individual) (100%, 20 mins.)

Remark

Date to be communicated in class

Examination-aid rule

Extended Closed Book

The use of aids is limited; any additional aids permitted are exhaustively listed under "Supplementary aids". Basically, the following is applicable:

- At such examinations, all the pocket calculators of the Texas Instruments TI-30 series and mono- or bilingual dictionaries (no subject-specific dictionaries) without hand-written notes are admissible. Any other pocket calculator models and any electronic dictionaries are inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of communication such as notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

Supplementary aids

No supplementary aids

Examination languages

Question language: English

Answer language: English

Examination content

All material covered in class

Examination relevant literature

Decisive: lecture notes (on Canvas, possibly revised versions after class)



Please note

Please note that this fact sheet alone is binding and has priority over any other information such as StudyNet (Canvas), personal databases or faculty members' websites and information provided in their lectures, etc.

Any possible references and links within the fact sheet to information provided by third parties are merely supplementary and informative in nature and are outside the University of St.Gallen's scope of responsibility and guarantee.

Documents and materials that have been submitted no later than the end of term time (CW51) are relevant to central examinations.

Binding nature of the fact sheet:

- Information about courses and examination time (central/decentral) and examination type starting from the beginning of the bidding on 22 August 2019
- Information about examinations (examination aid regulations, examination content, examination-relevant literature) for decentral examinations after the 4th semester week on 14 October 2019
- Information about examinations (examination aid regulations, examination content, examination-relevant literature) for central examinations as from the starting date for examination registration on 4 November 2019

Please consult the fact sheet again after these deadlines have expired.