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Datum	15. September 2020

WS 2020/21

Futures und Options Management

Course Outline

The course is an introduction to basic financial derivative instruments which are traded in modern derivatives markets. Part of the course deals with understanding standard financial derivative instruments, including their payoff schemes, risk characteristics, trading rules as well as trading mechanics. Emphasis is then put on pricing basic derivatives such as forwards and options.

Rules for Course Participation

This course is open to all students of the program Bachelor of Business Administration with major Accounting, Finance and Taxation. Participants are encouraged to actively participate. This includes study of the given base literature in advance of each of the classes. Also, discussion of the course contents is encouraged. Course contents will be applied within small case studies and exercises. Participants should have sound knowledge in corporate finance as well as statistics. Slides used in class can be downloaded from Stud.IP. Several parts of the course material and references are in English. However, the lecture language is German. Hence, for course participation, basic knowledge of the German language is required. The course will be graded via a final exam at the end of each winter semester (however, there will be no examination in the summer semester).

Lectures take place on Wednesday 12:00 – 14:00 in HS 6 (WIWI). Tutorials take place on Wednesday 14:00 – 15:00 also in HS 6 (WIWI). If you have any questions, please refer to Dr. Patrizia Perras via email (patrizia.perras@uni-passau.de). Office hours: Thursday 14:00 – 15:00. Please make an appointment via email in advance.

Class Schedule

Session	Time	Topic	FFOM Chapters
1	12:00-14:00	Introduction	Chap.: 1
2	12:00-14:00	Linear Derivatives Futures and Forward Markets, Pricing	Chap.: 2/3
3	12:00-14:00	Linear Derivatives Futures and Forward Markets, Pricing	Chap.: 2/3
4	12:00-14:00	Pricing Forwards and Hedging	Chap.: 4
5	12:00-14:00	Interest Rate Markets, Forwards and Swaps	Chap.: 5/6
6	12:00-14:00	Interest Rate Markets, Forwards and Swaps	Chap.: 5/6
7	12:00-14:00	Nonlinear Derivatives Options Markets, Basics in Option Pricing	Chap.: 7/8
8	12:00-14:00	Trading Strategies with Options	Chap.: 9
9	12:00-14:00	Option Pricing: Binomial Trees	Chap.: 10
10	12:00-14:00	Option Pricing: Binomial Trees	Chap.: 10
11	12:00-14:00	Option Pricing: Black/Scholes	Chap.: 11
12	12:00-14:00	Option Pricing: Black/Scholes	Chap.: 11/12
13	12:00-14:00	Additional Topics	Chap.: 13/14
14	12:00-14:00	Additional Topics	Chap.: 15/16
	T.B.A.	Final Examination (5 ECTS)	

Textbook Reference

Hull, J. C. (2017): Fundamentals of Futures and Options Markets, 9th ed., Prentice Hall, London et al. **[FFOM]**

Note: *Earlier editions, e.g. the 6th, are also suitable and available in the WIWI-library.*

Additional and Advanced Readings

Clelow, L., Strickland, C. (1998): Implementing Derivatives Models, Wiley, New York

Dixit, A. K., Pindyck, R. S. (1994): Investment under Uncertainty, Princeton University Press

Duffie, D. (2001): Dynamic Asset Pricing Theory, 3rd ed., Princeton University Press

- Hull, J. C. (2016):** Options, Futures, and other Derivatives, 8th ed., Prentice Hall, Upper Saddle River
- Hull, J. C. (2012):** Optionen, Futures und andere Derivate, 8th ed., Pearson, München
- Jarrow, R. A., Turnbull, S. M. (2000):** Derivative Securities, 2nd ed., South-Western, Cincinnati
- Karatzas, I. Shreve, S. E. (1998):** Methods of Mathematical Finance, Springer, New York
- Korn, R., Korn, E. (2001):** Optionsbewertung und Portfolio-Optimierung, 2nd ed., Gabler, Wiesbaden
- Merton, R. C. (1990):** Continuous-Time Finance, Blackwell, Cambridge
- Mikosch, T. (1998):** Elementary Stochastic Calculus, World Scientific
- Neftci, S. N. (2000):** An Introduction to the Mathematics of Financial Derivatives, 2nd ed., Academic Press, San Diego
- Panjer, H. H. (ed.) (1998):** Financial Economics with Applications to Investments, Insurance and Pensions, Actuarial Foundation, Schaumburg
- Rebonato, R. (1998):** Interest-Rate Option Models, Wiley, Chichester, 2nd ed., New York
- Rudolph, B., Schäfer, K. (2005):** Derivative Finanzmarktinstrumente, Springer, Berlin
- Sandmann, K. (2001):** Einführung in die Stochastik der Finanzmärkte, 2nded., Springer, Berlin
- Tuckman, B. (2002):** Fixed Income Securities, 2nd ed., Wiley, New York