Professor Dr. Niklas Wagner
Lehrstuhl für Betriebswirtschaftslehre
mit Schwerpunkt Finanzcontrolling

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Datum	30. September 2024

WS 2024/25

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).

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

Clewlow, 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