Finanzökonometrisches Seminar

Seminar für Finanzökonometrie

12. April 2018

Learning targets (1/3)

Concerning Statistics

- To become aquainted with a specific research topic

- The handling of literature

- To recreate complex methods (e.g. programming, data analysis in Matlab/R)

- ...

Learning targets (2/3)

Concerning working techniques

- Seminar Paper
  - ▸ To structure a report of a complex topic
  - ▸ The correct reproduction of a topic in own words
  - ▸ To write a scientific text
  - ▸ ...
- Slides
  - ▸ To extract the main results of a seminar paper
  - ▸ To structure and visualize a complex topic
  - ▸ ...
- The Presentation
  - ▸ To speak in front of a group of people
  - ▸ To practice oral presentation skills
  - ▸ ...
- Other skills
  - ▸ To work independently
  - ▸ Time management

Learning Targets (3/3)

The Präpadeutikum

- Slides on the homepage:
  `http://www.foundstat.statistik.uni-muenchen.de/studium_lehre/2017_sose/propaedeutikum/index.html`

Tasks

What you have to do:

- Writing a seminar paper
- Preparing slides
- Giving a presentation
- Attendance

The Requirements (1/2)

The Seminar Paper

- About 40.000/50.000 characters for BA-/MA-students
- It should include: Title page, table of contents, main part, summary, appendix, list of used literature
- Labeling of all plots and tables
- If you use software, explain which packages and functions you used
- ...

The Requirements (2/2)

The Slides

- Consistent with the seminar paper concerning structure, content, examples, etc.
- Do not overfill
- Summarize main results in key points
- ...

The Presentation

- Duration: about 30 minutes + 10 minutes discussion
- Plan to need about 2-3 minutes per slide
- Give an overview in the beginning
- Summarize main results in the end
- ...

Modus Operandi

- **Kick-off meeting:** The topics and additional organizational matters will be addressed in the preparatory meeting at **4 pm c.t. on April 12th** at Seminarraum (Ludwigstr. 33/I).
- Every student must pick three topics, list them in a preferential ordering (highest to lowest), and send this list no later than **noon of April 19** to **Christoph.Berninger@stat.uni-muenchen.de**
- The organizers will assign topics according to (highest) preferences (if possible) or by lottery. Students will be informed about the outcome of this assignment process on **April 20**.
- Every student is required to meet with the responsible advisor within the first two weeks after the assignment process is completed.
- Seminar paper submission no later than **noon June 17**. No exceptions granted!
- **Presentation:** June 28 and June 29

Compulsory attendance times

- preparatory meeting
- two additional meetings, tba
- final meeting with presentations (June 21 and June 20 from 10:00 - 16:00)

Bachelor Topics

Nr.	Topic	Literatur	Supervisor
B1	State Space Time Series Analysis	Commandeur (Ch. 1-3)	Heller
B2	The ARCH-model	Tsay (Ch. 4)	Heller
B3	Univariate return distributions	Ruppert (Ch. 5)	Port
B4	Resampling	Ruppert(Ch. 6)	Port
B5	Linear univariate time series models	Ruppert(Ch. 9)	Berninger
B6	The CAPM	Ruppert (Ch. 16)	Berninger
B7	GARCH-models	Ruppert (Ch. 18)	Heller

Master Topics

Nr.	Topic	Literatur	Supervisor
M1	Multivariate return distributions	Ruppert (Ch. 7)	Berninger
M2	Copulas	Ruppert (Ch. 8)	Berninger
M3	Linear time series models: Further topics	Ruppert (Ch. 5)	Berninger
M4	Portfolio Management	Ruppert (Ch. 11)	Berninger
M5	Factor Models and PCA	Ruppert (Ch. 17)	Berninger
M6	GARCH-models: Further topics	Ruppert (Ch. 18)	Berninger

Literature

Literature

- Ruppert, D. (2015). Statistics and Data Analysis for Financial Engineering (Springer Texts in Statistics). New York: Springer
- Tsay, R. S. (2013). An Introduction to Analysis of Financial Data with R. Hoboken, New Jersey: Wiley
- Commandeur, J.J.F. and Koopman, S.J. (2007). An Introduction to State Space Time Series Analysis. Oxford University Press

Link

- https://link-springer-com.emedien.ub.uni-muenchen.de/book/10.1007%2F978-1-4939-2614-5