HUMBOLDT-UNIVERSITÄT ZU BERLIN

Guidelines for Writing a Bachelor or Master Thesis

School of Business and Economics
Ladislaus von Bortkiewicz Chair of Statistics

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Qualifying requirements:

Bachelor:
1.) Exam pass in "Statistik I und Statistik II" (12 Leistungspunkte) or equivalent lectures
2.) Exam pass in "Statistical Programming Languages" (6 Leistungspunkte) or equivalent lectures
3.) Exam pass in "Datenanalyse I und Datenanalyse II" (12 Leistungspunkte) or equivalent lectures

Masters:
1. Exam pass in "Multivariate Statistical Analysis I" (6 Leistungspunkte)
2. Exam pass in "Statistical Programming Languages" (3 Leistungspunkte)
3. One satisfactory presentation and regular attendance in "Privatissimum Statistics"
4. A ten-page pilot paper on a given topic with corresponding Quantlets

Confirmation by the appropriate examination office is required for 1) and 2).

Aim of the thesis:
The purpose of the final thesis is to show that you have the ability to apply statistical methods to a problem in an appropriate manner. For a bachelor thesis this means tackling a problem using mathematical statistical **and / or** data-analytical methods. In a master's thesis the problem must be tackled in an appropriate manner using both mathematical statistical **and** data analytical methods.

The evaluation of the thesis is orientated towards the following aspects:
1.) Form – Have the formatting instructions been observed? Is the work legible from a formatting perspective? For example; are all of the graphic elements in the correct place, or are any of the tables outside of the page borders? Are there any typing mistakes, grammatical errors or incomplete sentences?
2.) Statistics – Have the mathematical statistical aspects been correctly processed? Are the statistical methods used for the problem appropriate?
3.) *Interpretation* - Is the work clear in relation to the formulation of the problem? Have the problems presented been adequately answered? Is the sequence of the methods applied clearly described, self-evident and understandable? Is the interpretation of the results correct, complete and understandable?

Requirements of content and form of the pilot paper and thesis:

1.) The work should present the author's competence in the subject and their ability to independently handle and process statistical data with the help of statistical software (for example SPSS, Matlab, R, etc.)
2.) The thesis should be written in LaTeX. Any variation of these regulations will only be permitted with prior approval.
3.) MD*Stat style should be used for the mathematical symbols in presentations and in the thesis.

Here is an example:

– use \stackrel{\mathrm{as.}}{\sim} to write the symbol for asymptotic distribution, it produces

LaTEX Source

$$X \overset{as.}{\sim} \chi^2$$

Result

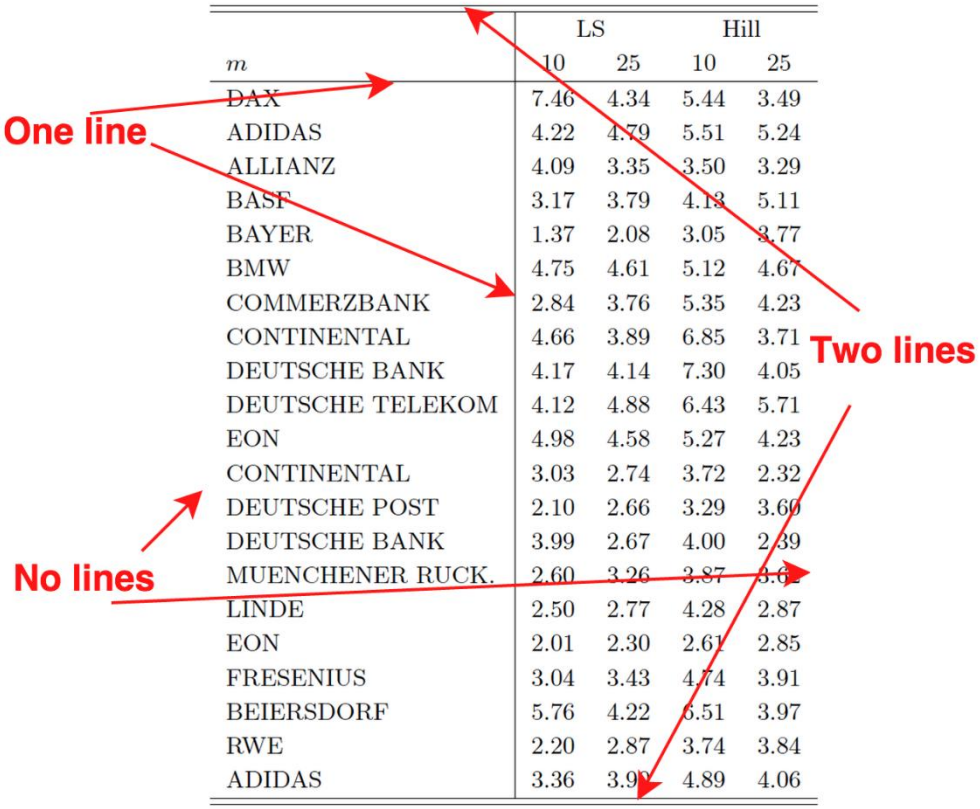
The corresponding LaTeX-source (Slides: Beamer Style LaTeX) can be found at:

https://www.wiwi.hu-berlin.de/de/professuren/quantitativ/statistik/miscellaneous

4.) The cover page should contain the Humboldt Universität zu Berlin logo, (see: http://www.hu-berlin.de/hu/design/logo) and the name of the chair, (see: https://www.wiwi.hu-berlin.de/de/professuren/quantitativ/statistik)

5.) Tables should be integrated into the text (not in the Appendix). Each table should not exceed one page.

Here is an example:



	LS		Hill	
m	10	25	10	25
DAX	7.46	4.34	5.44	3.49
ADIDAS	4.22	4.79	5.51	5.24
ALLIANZ	4.09	3.35	3.50	3.29
BASF	3.17	3.79	4.13	5.11
BAYER	1.37	2.08	3.05	3.77
BMW	4.75	4.61	5.12	4.67
COMMERZBANK	2.84	3.76	5.35	4.23
CONTINENTAL	4.66	3.89	6.85	3.71
DEUTSCHE BANK	4.17	4.14	7.30	4.05
DEUTSCHE TELEKOM	4.12	4.88	6.43	5.71
EON	4.98	4.58	5.27	4.23
CONTINENTAL	3.03	2.74	3.72	2.32
DEUTSCHE POST	2.10	2.66	3.29	3.60
DEUTSCHE BANK	3.99	2.67	4.00	2.39
MUENCHENER RUCK.	2.60	3.26	3.87	3.62
LINDE	2.50	2.77	4.28	2.87
EON	2.01	2.30	2.61	2.85
FRESENIUS	3.04	3.43	4.74	3.91
BEIERSDORF	5.76	4.22	6.51	3.97
RWE	2.20	2.87	3.74	3.84
ADIDAS	3.36	3.90	4.89	4.06

Table 12.1: Least Square (LS) and Hill estimators of the tail index a for returns of the DAX index and selected 20 German stocks with m observations used for the estimation from 2004 to 2014. SFElshill

6.) Graphics should be provided with legends, as in the following example:

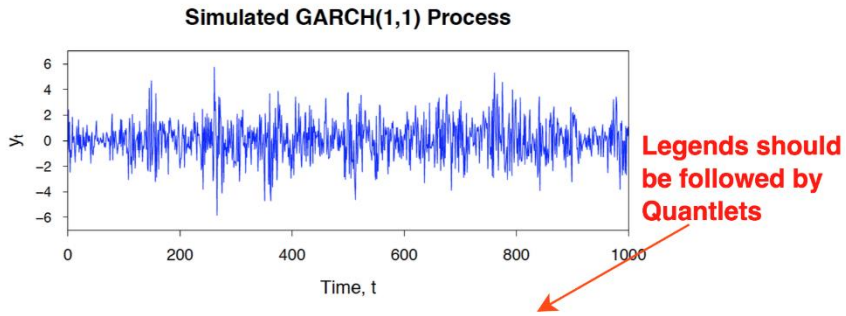
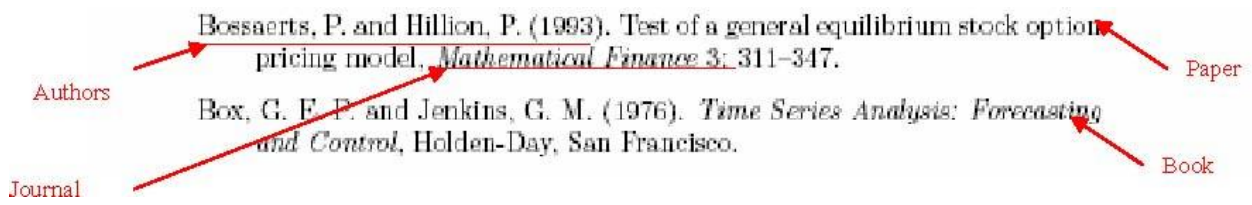


Figure 13.2: A GARCH(1,1) process ($\alpha = 0.15$, $\beta = 0.80$) SFEtimegarch

7.) All codes (together with their respective tables and plots) used in the thesis should appear on the quantlet website, www.quantlet.de. This is achieved by uploading them via Github.com to the QuantLet group, https://github.com/QuantLet/Styleguide-and-FAQ. Please follow the style guide **exactly** and also ensure that **every code** in the thesis **displays** the Quantlet logo .

8.) All references should be prepared in AMS-style and should be quoted as in the following example: "… was used from **Bossaerts and Hillion (1993)** ..." The list of references should be compiled in the following way:



9.) All sources, quotes, graphics, tables and so on should be clearly identified. The thesis will be checked for plagiarism, and if found the work will graded as "failed".

10.) Cases falling outside of the above rules are to be referred to the Examination Office (Prüfungsamt).

Guidelines for thesis submission:

- The duration of the thesis preparation (writing) period is defined by the current study regulations; the submission deadline must not be exceeded.

- Two printed (hardcopy) versions of the work must be submitted to the examination office (Prüfungsamt) before the deadline, with the title of the work and the author's name clearly visible on the cover (front) page.

- The work is also to be submitted to the LvB Chair of Statistics (LvB Lehrstuhl für Statistik) in a PDF-Form format by the author, thereby enabling the grading process to start as soon as possible.

- The following steps are also to be strictly observed for the online publication of the thesis on the HU's edoc-server, for which the student would have already given his/her written consent when applying to the LvB Chair of Statistics to write the thesis:

    - The author is responsible for checking that the entire text of his/her work – which when complete will be graded – fulfills all the formal criteria stipulated under https://edoc.hu-berlin.de/e_autoren/was-diplom.php.
    - Access to Adobe Acrobat Professional can be obtained through the media-PCs at the HU Grimm-Zentrum to help you check the PDF version of your thesis. Please see: https://www.cms.hu-berlin.de/de/dl/oecap/pcsaal/copy_of_softwarelisten/medien-pcs-im-grimm-zentrum-raum-2.307) or by opening an account at our Research Data Center: https://sfb649.wiwi.hu-berlin.de/guests/guests/guestsub.php).
    - The author is to send a signed Publication Contract (Veröffentlichungsvertrag), which can be downloaded from: https://edoc.hu-berlin.de/e_autoren/download/Vertrag_Erstv.pdf, in duplicate per standard post or fax to the Workgroup for Electronic Publications (Arbeitsgruppe Elektronisches Publizieren, AGEP). Full information about "Creative Commons Licences" can be found at: https://edoc.hu-berlin.de/e_autoren/download/info_cc_license.pdf.
    - Once the contract has been submitted, the author is to transfer the thesis to the AGEP using the upload-form at http://edoc.hu-berlin.de/e_autoren/doku_upload.php.
    - Once the work has been uploaded the AGEP will receive an automatic electronic notification that the work has been submitted. The AGEP will then verify that all formal criteria have been complied with and any necessary queries will then be followed up via the contact details provided by the author in the upload-form.
    - The work will be published on the edoc-server once all criteria have been fulfilled and the AGEP has obtained approval for the publication of the thesis from the LvB Chair of Statistics; the author will receive a message informing him/her when the process has been completed.
    - Once a thesis has been published on the edoc-server it cannot be removed.

- The examination office will only be notified of the final grade of the thesis by the LvB Chair of Statistics when all of the required steps for the publication of the work on the edoc-server have been fully carried out.

Application Form for Masters or Bachelor Thesis

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This form is to be kept in the secretariat of the LvB Chair of Statistics. All signatures for submission dates can be obtained either in the secretariat or through the supervisor.

Submission of thesis by author:

Family Name: _____ Forename: _____

Field of Study: _____ Student ID Nr: _____

Tel: _____ E-Mail: _____

Address: _____ Future Employer: _____

Submission of thesis: ☐ Bachelor thesis ☐ Master thesis

Title:	
Start Date:	
Supervisor:	

I confirm that:

O	I have obtained and read the guidelines for writing a bachelor and master thesis in full.
O	I consent to my thesis being publicly available on the Internet.
O	I consent to subscribing to the ALUMNI email group.
O	I consent to providing the secretariat with the address of my new employer or new position after completion of my studies, as soon as it is known.

_____ _____

Date **Signature**

Confirmation of qualifying requirements and submission of thesis:

		Comment/Grade	Date	Signature
O	Exam pass in "Statistical Programming Languages" (Bachelor / Master)			
O	Exam pass in "Statistik I und Statistik II" (Bachelor)			
O	Exam pass in "Datenanalyse I und Datenanalyse II" (Bachelor)			
O	Exam pass in "Multivariate Statistics" (Master)			
O	Presentation in "Privatissimum Statistics" (Master)			
O	Ten-page (pilot) paper submitted (Master)			
O	RDC Account set up			
O	Online version submitted (Bachelor / Master)			