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Allianz Endowed Chair of Finance

Allianz Endowed Chair of Finance
Bachelor's and Master's Theses Guide

We thank you for your interest in completing your thesis under the supervision of the Allianz Endowed Chair of Finance. We hope you find this guide useful in preparing your thesis. If you have any questions, please do not hesitate and contact us.

1. Overview

The respective Bachelor's and Master's study and examination guidelines and regulations provided by the WHU – Otto Beisheim School of Management Examination Office apply. The thesis can be issued and supervised by any full-time academic staff member, department representative, habilitated staff member or honorary professor of WHU – Otto Beisheim School of Management. The topic of the thesis is set in agreement with the Chair and there is a supervisor (first examiner) and second examiner.

The Bachelor's thesis can be written in English or German. The Master's thesis is required to be written in English unless the students receive special approval from the Chairperson of the Examination Board. In line with the respective study plan requirements, the length of the Bachelor's thesis is 30-40 pages and the length of the Master's thesis is 80 pages (+/- 20 pages).

The thesis can be written in cooperation with a company. The thesis can be prepared as a group work provided that the contributions of the students involved are clearly distinguishable and an individual evaluation is feasible. If the thesis is prepared as a group work, students must contribute the same number of pages as they would were they completing the thesis on an individual basis.

Four weeks after the start of the writing period of the thesis, the students need to submit a synopsis to the examiners. The synopsis should not exceed five pages and should cover the research question as well as structure of the thesis and should highlight methodological and theoretical approaches and key references. The synopsis is not graded and is meant to ensure alignment between students and examiners. Subsequent changes are possible and should be discussed with the examiners.

When the students submit the thesis to the Examination Office, the thesis should be sent to the examiners in electronic form together with a document containing the content of each referenced internet source, an abstract of the thesis (maximum of 100 words and

in English), any data used in the empirical part of the thesis including Microsoft Excel and Stata files, and a portrait photo to be used for publication in the annual report of the Chair.

3. Text

The writing should be in a concise and structured manner. The spelling and grammar should be consistent throughout the thesis. Colloquial language is to be avoided. The text needs to be in literary present tense (e.g. "We estimate the dependent variable" rather than "We estimated the dependent variable"). The past tense should be used when describing historical events (e.g. "The stock index fell in the sample" rather than "The stock index falls in the sample").

Students should not start sentences with notation (i.e. scientific and mathematical symbols). Grammar, spelling, and punctuation corrections need to be made. Date ranges should be written as "2000 to 2015" rather than "2000-15" in the text. Bullet points or small roman numerals (e.g. (i), (ii), etc.) can be used to list items. Adverbial phrases do not need to be hyphenated (e.g. passively managed rather than "passively managed").

Students should not use all capital letters for any text. Footnotes should be full sentences starting with a capital letter and ending with a full stop. They should offer further information on a topic that is not directly covered in the text. As footnotes should be concise, students should avoid writing lengthy paragraphs or including extraneous information.

Equations except short mathematical expressions should be displayed on a separate line and centered. They should be numbered consecutively with Arabic numerals in parentheses. Lengthy mathematical proofs and extensive tables should be placed in the appendix. The percent symbol (%) should be used for percentages instead of the word "percent". References to the variables defined in the thesis should be in italics (e.g. "...the volatility of variable X, denoted by σ_X, ...").

4. Structure

The thesis consists of the items listed below in respective order. The table of contents, the list of figures, the list of tables, the list of abbreviations and the list of symbols should be numbered using Roman numerals. The cover sheet is thus page I. The main body, references and appendix or appendices should be numbered using Arabic numerals. The first page of the main body is hence page 1.

- **Cover sheet**

  The cover sheet needs to contain the topic of the thesis, the name of the Chair, the names of the first and second examiners, the date of submission of the thesis and the name, student ID, address, date and place of birth of the students.

- **Abstract**

  The abstract should give a short summary of the thesis and include the motivation, approach, main finding as well as conclusion.

- **Table of contents**

  The table of contents has to reveal the structure of the thesis. The section and subsection headings of the main body should be numbered using Arabic numerals (e.g., 2, 2.1, 2.2, 2.2.1, …). The section headings list of figures, list of tables, list of abbreviations, list of symbols, and appendix or appendices should not be numbered.

- **List of figures**

  Figures (e.g., charts and pictures) must be labeled and numbered consecutively in the text of the thesis using Arabic numerals. The list of figures must provide an overview of these figures and where they are to be found in the thesis. Each figure has to have a title and a descriptive legend defining all variables and briefly explaining what the figure shows. Figures must be self contained and self explanatory.

- **List of tables**

  Tables are required to be labeled and numbered consecutively in the text of the thesis using Arabic numerals. The list of tables should provide an overview of these tables and where they are to be found in the thesis. Each table needs to have a title and a descriptive legend defining all variables and briefly explaining what the table shows. Tables must be self contained and self explanatory.

- **List of abbreviations**

  Abbreviations defined and used in the thesis must be listed in this list in alphabetical order and must be explained briefly (e.g., DAX - Deutscher Aktienindex, M&A - Mergers and Acquisitions, etc.).

- **Liste of symbols**

  Symbols defined and used in the thesis must be listed in this list in alphabetical order with Greek symbols after alphanumeric symbols (e.g., α comes after Z-score) and must be explained briefly (e.g., $P(t,T)$ - Price of a bond at time t with maturity T, σ_X - Standard deviation of variable X).

- **Main body**

  Students need to structure the way they approach the topic of the thesis. The main body typically describes the primary focus of the research project, the reasons for undertaking the study, the connection to existing literature, the methodological and theoretical approach(es) used when researching and developing the thesis, the discussion of the key findings and suggestions for further research. The main body typically consists of the following sections: introduction, literature, methodology, results, discussion, recommendations, and conclusion. The final paragraph of the introduction should outline the remainder of the thesis.

- **References**

  Students must cite and reference all sources of information. The reference list demonstrates the depth of students' research and acknowledges the sources of information, protecting students against the serious charge of plagiarism. The sources of information referenced in the text of the thesis are required to be recorded in the reference list and vice versa. When students submit their thesis to the Examination Office, a document containing the content of each referenced internet source must be sent to the examiners in electronic form. The sources recorded in the reference list should be unnumbered and ordered as follows:

  - Single author sources are to be ordered alphabetically by the author's surname, then chronologically for each given author, then with sequential letters after the year for each citation.

  - Multiple author sources are to be inserted after sole publications by the first author, then chronologically, then with sequential letters after the year for each citation.

  - Citations from agencies, institutions, associations etc. should be ordered alphabetically using the full name of the institution rather than with acronyms or abbreviations.

- **Appendices**

  Appendices provide supplementary information to the main body of the thesis (e.g. lengthy mathematical proofs and extensive tables). Appendices are information that is not essential to explain the findings in the thesis but supports the analysis and validates the conclusions. Appendices are required to be lettered A, B, C, etc. and if there is one appendix, there is no need to letter it A. Tables within appendices should be lettered A.I, A.II, etc. and equations within appendices should be numbered A.1, A.2, etc..

- **Affirmation in lieu of oath**

  On the final page of the thesis, the students are required to reproduce the affirmation in lieu of oath as stated in the study guidelines. The affirmation in lieu of oath must include the date and the author's name and signature.

5. Document formats

The students should adhere to the following requirements with regards to the page dimensions, font and formats if Microsoft Word is used. Equivalent requirements apply if the thesis is written using other word processors such as L^ATEX.

- The text has to be justified and must be aligned to both the left and right margins.

- The font has to be Times New Roman (12 pt) with normal character spacing.

- The top margins have to be 25 mm. The bottom margins have to be 20 mm.

- The left and right margins must be 33 mm.

- The line spacing must be 1.5 lines.

6. Referencing formats

The referencing formats required by the Chair are aligned to those required by the Journal of Finance. In text references should include the author(s) surname(s) and the year of publication. The abbreviation "et al." should be used after the first author's name when the source of information has three or more than three authors. If there is more than one article of an author in one year, suffixes should be used after the year of publication to differentiate each source. Referenced websites must show the retrieval date.

Examples of in text references are as follows: "Deaton (1992) proposes ..." or "... (Deaton, 1992) but ..." are in text references referring to a single author. "Fama and Merton (1972) suggest ..." or "...financed (Fama and Merton, 1992) but ..." are in text references referring to two authors. "Hirshleifer et al. (2009) confirm ..." or "...are driven (Hirshleifer et al., 2009) and ..." are in text references referring to three or more authors.

Reference list examples are as follows:

- **Books**

  - Deaton, A. (1992). *Understanding Consumption*. Oxford University Press, Oxford.

  - Fama, E. F. and Merton, H. M. (1972). *The Theory of Finance*. The Dryden Press, Hinsdale, IL.

- Rosch, E. (1978). Principles of Categorization. In *Cognition and Categorization*. Rosch, E. and Lloyd, B. B. (Eds.). Lawrence Erlbaum Associates, Hillsdale, NJ.

- Grossman, S. J. and Hart, O. D. (1982). Corporate Financial Structure and Managerial Incentives. In *The Economics of Information and Uncertainty*. McCall, J. (Ed.). University of Chicago Press.

- **Journal articles**

  - Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25(2):383-417.

  - Hirshleifer, D., Lim, S. S., and Teoh, S. H. (2009). Driven to Distraction: Extraneous Events and Underreaction to Earnings News. *The Journal of Finance*, 64(5):2289-2325.

  - Carr, P. and Wu, L. (2003a). The Finite Moment Log Stable Process and Option Pricing. *The Journal of Finance*, 58(2):753-777.

  - Carr, P. and Wu, L. (2003b). What Type of Process Underlies Options? A Simple Robust Test. *The Journal of Finance*, 58(6):2581-2610.

- **Working papers**

  Peress, J. (2008). Media Coverage and Investors' Attention to Earnings Announcements. *Working Paper*.

- **Newspaper articles**

  Harford, T. (2014). Big Data: Are We Making a Big Mistake? *The Financial Times*. March 28.

- **Reports**

  De Giorgi, G. and Gambetti, L. (2015). Business Cycle Fluctuations and the Distribution of Consumption. Staff report 716. Federal Reserve Bank of New York.

- **Websites**

  European Central Bank (2015). Aggregated Balance Sheet of Euro Area Monetary Financial Institutions (Excluding the Eurosystem). Retrieved from: *https://www. ecb.europa.eu/stats/money/aggregates/bsheets/html/index.en.html*. November 26.

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