

Seminar Quantitative Methods

Group 1: Banking & Finance
(173350)

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October 14th, 2015

Organization

General schedule description

- Starting this week (calendar week 42), each supervising institute of the seminar presents on its website the institute specific seminar requirements, procedures and seminar topics.
- In this presentation you find all specifications of the seminar as well as seminar topics at the Institute of Banking & Finance (IBF).
- You can submit your topic preferences online:
<https://survey.uni-hannover.de/index.php/977991/lang-en>
Note: This link is available from October 16th to October 25th.
- **Prof. Dr. Steffen Meyer** will inform you via email about the seminar topic assigned to you on October 26th.
- After this you may apply for the seminar using this [application sheet](#).

Organization

Specific schedule description for the seminar at the IBF

- Your supervisors will be [Prof. Dr. Maik Dierkes \(MD\)](#), [Prof. Dr. Sebastian Krimm \(SK\)](#) and [Dr. Arndt Claussen \(ACL\)](#).
- Seminar topic-related kick-off, registration requested by email,
 - ▶ MD: November 2nd, between 11:am and 12:30am
 - ▶ SK: October 30th, between 10:00am and 11:30am
 - ▶ ACL: October 30th, between 10:00am and 11:30am

In this personal meeting your supervisor will guide you through your seminar topic and defines together with you the goals of your thesis.

- Writing of seminar thesis: October 28th → December 9th (in six weeks).
- Block seminar: tbd, in first or second week of January 2016.
You will present your main results and answer questions from your supervisor and fellow students.

Seminar Topics at the IBF

Preliminary remarks

- All seminar topics require the discussion of current quantitative and / or empirical scientific issues.
- Therefore the application of appropriate analytical tools such as R, Matlab, SaS, Stata etc. is necessary.
- All seminar topics are based on peer-reviewed articles from high rated journals. (At least B rated in VHB-Jourqual 2015).
- Depending on the number of seminar participants, the different subjects may be analyzed in teamwork.
- Number of pages of the seminar thesis: 20 pages ($\pm 10\%$) or 26 pages ($\pm 10\%$) if two-person teams.

Seminar Topics

Overview of seminar topics (Supervisor)

- 1) Back-testing expected shortfall (ACL)
- 2) Estimating probabilities of default for low default portfolios (ACL)
- 3) IPO price adjustments (MD)
- 4) Measuring skill in the mutual fund industry (SK)

Note: Depending on number of seminar participants the thesis can be written in a two-person team.

Seminar Topics

1) Back-testing expected shortfall (ACL)

- Possible objectives of this topic:
 - Comparison of Value-at-Risk and Expected Shortfall
 - Analysis and comparison of the back-tests of Acerbi and Szekely (2014)
 - Application of one (or more) test on simulated and / or real-world data.
 - Elaboration of economic importance with respect to current developments of regulatory requirements (e.g. Basel).

- Basic literature:
 - Acerbi, C., and Szekely, B., 'Back-testing expected shortfall.', Risk 27.11, (2014).
 - Acerbi, C., 'Coherent measures of risk in everyday market practice', Quantitative Finance 7(4), (2007)
 - Basel Committee on Banking Supervision, 'Fundamental review of the trading book', (2013)

Seminar Topics

2) Estimating probabilities of default for low default portfolios (ACL)

- Possible objectives of this topic:
 - Analysis of the estimation procedure described in Pluto and Tasche (2011)
 - Estimation of probabilities of default of real-world low default portfolios (e.g. provided by Moody's).
 - Elaboration of economic importance with respect to current developments of regulatory requirements (e.g. Basel).

- Basic literature:
 - Pluto, K., and Tasche, D. 'Estimating probabilities of default for low default portfolios.' The Basel II Risk Parameters. Springer Berlin Heidelberg, 75-101 (2011).
 - Kiefer, N. 'Default estimation for low-default portfolios.' Journal of Empirical Finance 16.1 (2009)

Seminar Topics

3) IPO price adjustments (MD)

- Possible objectives of this topic:
 - Description of IPO process and exposition of typical IPO price patterns (e.g., offer price adjustment, underpricing)
 - Review and discussion of economic theory and recent models
 - Empirical investigation of IPO price patterns and (selected) potential drivers
- Basic literature:
 - Jay R. Ritter and Ivo Welch, 'A Review of IPO Activity, Pricing, and Allocations', *Journal of Finance*, Vol. 57, No. 4 (2002), pp. 1795-1828.
 - Tim Loughran and Jay R. Ritter, 'Why Don't Issuers Get Upset About Leaving Money on the Table in IPOs?', *Review of Financial Studies*, Vol.15, No. 2, (2002), pp. 413-443.
 - Tim Loughran and Bill McDonald, 'IPO First-Day Returns, Offer Price Revisions, Volatility, and Form S-1 Language', *Journal of Financial Economics*, 109:2, 2013, 307-326.

Seminar Topics

4) Measuring skill in the mutual fund industry (SK)

- Possible objectives of this topic:
 - Connect the major conclusion of the model in Berk and Green (2004) with the empirical results in Berk and van Binsbergen (2015).
 - Apply the approach suggested in Berk and van Binsbergen (2015) to a similar dataset.
 - Compare investment decisions using the measure of Berk and van Binsbergen (2015) with those using alternative measures.
- Basic literature:
 - Berk, Jonathan B., and Richard C. Green. 'Mutual Fund Flows and Performance in Rational Markets', *Journal of Political Economy* 112 (6), 2004, pp. 1269-1295.
 - Berk, Jonathan B., and Jules H. van Binsbergen. 'Measuring Skill in the Mutual Fund Industry', *Journal of Financial Economics*, May 2015.