Seminar in Financial Markets
HWS 2026

UNIVERSITY OF MANNHEIM
Business School

Chair of Finance – Prof. Dr. Erik Theissen

AACSB ACCREDITED · EFMD EQUIS ACCREDITED · ASSOCIATION OF MBAS ACCREDITED

Chair of Finance

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- **Address:**
  - L 9, 1-2
  - Secretary: third floor (“3. OG“)
  - Assistants: second, fourth, and fifth floor
- **Office hours:**
  - By appointment
  - General questions: Please visit our homepage first
- **Research:**
  - Market Microstructure
  - Empirical Asset Pricing
  - Blockchain & Cryptocurrency

Assignment of Seminar Topics

- **Prerequisites:**
  - We recommend CC 502 Applied Econometrics as a prerequisite.
  - One core course (FIN 5XX) from the Area “Banking, Finance, and Insurance”.
  - Please note that a FIN 6XX course is not (!) enough.

- The assignment of topics is carried out jointly by the chairs of the Area “Banking, Finance, and Insurance”.

- Assignment of topics will be based on your grades in the Area “Banking, Finance, and Insurance” and your priority list.

Time Schedule

- **Application period:**
  - Monday, 08.06.2026 – Thursday, 18.06.2026
- **Topics Allocation Announcement and Starting Date:**
  - Thursday, 25.06.2026
- **Submission deadline:**
  - Thursday, 20.08.2026 (8 weeks)
- **Seminar presentations**
  - Thursday, 03.09.2026 + Friday, 04.09.2026 (**mandatory, in person**)

Stata and Database Tutorials

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FIN 604 – Stata in Finance

- Short crash course on how to write an empirical paper using Stata and the databases offered at the University of Mannheim

- **Next date:**
  - Thursday, 25.06.2026 – Tuesday, 30.06.2026

- **Registration:**
  - For participation in class, please join the Ilias group. To participate in the exam, in addition registration for the exam in Portal2 is necessary.

- **Further information is available under the following link:**

https://www.bwl.uni-mannheim.de/theissen/lehre/masterlehre/fin-604-stata-in-finance/

Guide to Scientific Writing

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- **An information sheet on writing a seminar paper or a master thesis is provided on our website:**

https://www.bwl.uni-mannheim.de/media/Lehrstuehle/bwl/Theissen/Lehre/Guidelines_Masterthesis_2022.pdf/flipbook

Important Remarks

- **Plagiarism policy:**
  - Your seminar thesis will be analyzed by plagiarism detection software (Turnitin).
  - Our chair has a **zero-tolerance policy** regarding plagiarism.
  - Students who submit plagiarized work will be graded with 5.0.

- **Language quality:**
  - Grading of your seminar thesis takes also into account the language quality.
  - Linguistic shortcomings negatively impacts your final grade.
  - The seminar thesis can be either written in English or German.

- **Literature in foreign languages:**
  - Please only include literature that is written either in English or German.

Data Storage

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- **Disclaimer:**
  - You are responsible for your data. It can always happen that your computer breaks down, is stolen, or damaged in any other way. However, you are responsible for having a backup of your thesis and your progress. Please make sure that you have enough backups. There will be no extensions of the deadline. (Even if we were willing to grant you an extension of the deadline, we are not allowed to.)

- **Backups:**
  - Mail
  - Dropbox
  - USB drive/external hard drive
  - Cloud
  - …

T1. Dissecting the Green Factor

Prof. Dr. Erik Theissen

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Topic Description

Given the increased interest in ESG investments, it is of interest to analyze whether a "green factor" helps to explain stock prices. The first step is, of course, the construction of a green factor. At the chair, we have developed such a factor. The objective of this paper is to provide a detailed analysis of this factor, specifically

- How does it relate to established factors such as those of the Fama and French 5-factor model or a momentum-augmented version thereof?
- Is the green factor redundant?

The second question can be analyzed using spanning regressions .

Requirements

The empirical work requires the use of extensive datasets (mainly factor data). Data on the Fama and French factors is available on Kenneth French's homepage and the green factor data will be made available by the chair. The candidate should feel comfortable in the use of appropriate software (such as STATA, R or Python) and econometric methods.

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Starting Reference

- Pastor, L., R. Stambaugh and L. Taylor (2022): Dissecting Green Returns. Journal of Financial Economics 146, 403-424.
- Weiß, Daniel (2025): An Alternative Green Factor. Working Paper, August.

T2. Asset Pricing with a Green Factor

Prof. Dr. Erik Theissen

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Topic Description

Recently, several papers have analyzed if and how the "greenness" of a firm affects its returns. The objective of this paper is to reconsider that question. The chair will provide data on a green factor for the US equity market. The task is to use this factor, plus standard factors, to perform

- cross-sectional (Fama and Macbeth 1973) regressions to test whether there is a premium on the green factor and
- time-series regressions to test whether the inclusion of the green factor results in a better explanation of the cross-section of returns .

Requirements

The empirical work requires the use of large databases (i.e. CRSP and factor data). CRSP is readily accessible for affiliates of the University of Mannheim, data on the Fama and French factors is available on Kenneth French's homepage and the green factor data will be made available by the chair. The candidate should feel comfortable in the use of appropriate software (such as STATA, R or Python) and econometric methods.

Starting References

- Pastor, L., R. Stambaugh and L. Taylor (2022): Dissecting Green Returns. Journal of Financial Economics 146, 403-424.
- Weiß, Daniel (2025): An Alternative Green Factor. Working Paper, August.

T3. Stablecoin Liquidity

Dr. Stefan Scharnowski

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Topic Description

- The rapid rise of stablecoins – digital assets pegged to traditional assets like the US dollar – has significantly reshaped the digital asset landscape. Stablecoins play a crucial role in providing liquidity, acting as a bridge between traditional finance and the crypto ecosystem, and are central to trading activities on both centralized and decentralized exchanges.
- The aim of this thesis is to empirically analyze the liquidity of stablecoins, i.e., how easily and efficiently they can be traded without causing large price changes. The analysis will focus on key liquidity metrics such as trading volume, bid-ask spreads, and order book depth, exploring how these features differ across leading stablecoins. The thesis will also consider how periods of market stress impact stablecoin liquidity.
- The empirical analysis will be based on granular data sets containing stablecoin trading and quoting information. Some key data will be provided.
- The thesis is a good opportunity to learn about digital finance and how trading is organized in financial markets.

T3. Stablecoin Liquidity

Dr. Stefan Scharnowski

UNIVERSITY OF MANNHEIM
Business School

Starting References

- Leirvik, T. (2022). Cryptocurrency returns and the volatility of liquidity. *Finance Research Letters*, *44*, 102031.
- Brauneis, A., Mestel, R., Riordan, R., & Theissen, E. (2021). How to measure the liquidity of cryptocurrency markets?. *Journal of Banking & Finance*, *124*, 106041.
- Brauneis, A., Mestel, R., & Theissen, E. (2021). What drives the liquidity of cryptocurrencies? A long-term analysis. *Finance Research Letters*, *39*, 101537.
- Scharnowski, S. (2021). Understanding bitcoin liquidity. *Finance Research Letters*, *38*, 101477.
- Lyons, R. K., & Viswanath-Natraj, G. (2023). What keeps stablecoins stable?. *Journal of International Money and Finance*, *131*, 102777.
- Hoang, L. T., & Baur, D. G. (2024). How stable are stablecoins?. *The European Journal of Finance*, *30*(16), 1984-2000.
- Grobys, K., Junttila, J., Kolari, J. W., & Sapkota, N. (2021). On the stability of stablecoins. *Journal of Empirical Finance*, *64*, 207-223.
- Griffin, J. M., & Shams, A. (2020). Is Bitcoin really untethered?. *The Journal of Finance*, *75*(4), 1913-1964.

T4. Trading at the Close in Cryptocurrency Markets

Dr. Stefan Scharnowski

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Topic Description

- Trading at the close has become important in modern equity markets, where closing auctions now concentrate a significant share of daily volume, driven substantially by passive funds and ETFs that benchmark to the closing price.
- Cryptocurrency markets typically lack a literal close since spot markets trade continuously around the clock. However, but the launch of spot Bitcoin ETFs introduces some equity-style end-of-day mechanics: funds priced at a daily net asset value (NAV), creation/redemption flows, and arbitrage against an underlying that itself has no closing price. The natural analogue to the equity close is the CME CF Bitcoin Reference Rate, a daily benchmark computed over a fixed 3–4 p.m. London window that settles regulated derivatives and underpins fund NAVs.
- This thesis would empirically examine whether the introduction of spot ETFs has produced a measurable concentration of Bitcoin trading volume, liquidity, and price discovery around this benchmark window and U.S. market hours. Key questions include whether end-of-day price pressure and overnight reversals emerge, how the reference-rate window behaves around large fund-flow days, and whether the findings from the equity literature carry over.
- The thesis is a good opportunity to learn about digital finance and how trading is organized in financial markets.

T4. Trading at the Close in Cryptocurrency Markets

Dr. Stefan Scharnowski

UNIVERSITY OF MANNHEIM Business School

Starting References

- Bogousslavsky, V., & Muravyev, D. (2023). Who trades at the close? Implications for price discovery and liquidity. *Journal of Financial Markets, 66*, 100852. https://doi.org/10.1016/j.finmar.2023.100852
- Jegadeesh, N., & Wu, Y. (2022). Closing auctions: Nasdaq versus NYSE. *Journal of Financial Economics, 143*(3), 1120–1139. https://doi.org/10.1016/j.jfineco.2021.12.003
- Comerton-Forde, C., & Rindi, B. (2022). Trading@ the close. *Working Paper.* https://dx.doi.org/10.2139/ssrn.3903757
- Pagano, M. S., & Schwartz, R. A. (2003). A closing call's impact on market quality at Euronext Paris. *Journal of Financial Economics, 68*(3), 439–484. https://doi.org/10.1016/S0304-405X(03)00073-4
- Goyal, A., Jegadeesh, N., & Wu, Y. (2026). Price impact in closing auctions, opening auctions, and continuous markets: A benchmark for cost of trading on anomalies. *Journal of Financial and Quantitative Analysis.* https://doi.org/10.2139/ssrn.4300417
- Cushing, D., & Madhavan, A. (2000). Stock returns and trading at the close. *Journal of Financial Markets, 3*(1), 45–67. https://doi.org/10.1016/S1386-4181(99)00012-9
- Kia, K., Liu, B., Li, Q., Song, V., & Xu, K. (2026). Price discovery in Bitcoin ETF market. *The Financial Review.* https://doi.org/10.1111/fire.70026
- Oefele, N (2025). One year of Bitcoin spot ETPs: A brief market and fund flow analysis. *Economics Letters.* https://doi.org/10.1016/j.econlet.2025.112304

T5. Order Imbalances and Stock Returns

Ziheng Sun

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Topic Description

- Order imbalance, defined as the difference between buyer-initiated and seller-initiated trading volume, captures the net directional pressure exerted on a security's price.
- Chordia, Tarun, and Avanidhar Subrahmanyam (2004) develop a theoretical framework in which market makers absorb order imbalances and require compensation through subsequent price reversals, and document strong evidence that lagged individual stock order imbalances negatively predict future returns.
- Easley, David, Marcos López de Prado, and Maureen O'Hara (2012) propose the Bulk Volume Classification (BVC) algorithm, which probabilistically assigns volume to buy or sell sides using bar-level price changes and the cumulative distribution function of the standard normal, offering an alternative to tick-level algorithms such as Lee-Ready that is applicable when granular trade data are unavailable.
- In this seminar thesis, the student aims to (i) encapsulate BVC algorithm and (ii) investigate return predictability from lagged and contemporaneous order imbalances.

Requirements

- The empirical work requires the use of large databases or financial software (e.g., WRDS and LSEG). These databases are readily accessible to the University of Mannheim affiliates. Proficiency in basic programming skills (R, Stata, or Python) is required.

T5. Order Imbalances and Stock Returns

Ziheng Sun

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Business School

Starting References

- Chordia, Tarun, and Avanidhar Subrahmanyam. "Order imbalance and individual stock returns: Theory and evidence." Journal of Financial Economics 72.3 (2004): 485-518.
- Andrade, Sandro C., Charles Chang, and Mark S. Seasholes. "Trading imbalances, predictable reversals, and cross-stock price pressure." Journal of Financial Economics 88.2 (2008): 406-423.

Supplementary Materials

- Easley, David, Marcos M. López de Prado, and Maureen O'hara. "Flow toxicity and liquidity in a high-frequency world." The Review of Financial Studies 25.5 (2012): 1457-1493.
- Easley, David, Marcos Lopez de Prado, and Maureen O'Hara. "Bulk classification of trading activity." Johnson School Research Paper Series 8.6 (2012): 14.

T6. Is Aggregate Volatility Risk Priced?

Ziheng Sun

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Topic Description

- Volatility is fundamental to asset pricing. The ICAPM (Merton, 1973) predicts that innovations in aggregate market volatility constitute a systematic risk factor, as they signal shifts in future investment opportunities. Rational investors who value the ability to hedge against such shifts should accept lower returns on assets that perform well when aggregate volatility rises.
- Ang, Hodrick, Xing, and Zhang (2006) ("AHXZ") test this prediction empirically and find that stocks with high sensitivity (loadings) to aggregate volatility innovations earn significantly lower average returns than stocks with low sensitivity.
- In this seminar thesis, the student aims to (i) construct portfolio sorts on aggregate volatility loadings to reproduce the cross-sectional return patterns documented in AHXZ (2006), and (ii) conduct Fama-MacBeth (1973) cross-sectional regressions to examine whether the pricing of volatility measures is robust to the inclusion of standard risk factors and firm characteristics

Requirements

- The empirical work requires the use of large databases or financial software (e.g., WRDS and LSEG). These databases are readily accessible to the University of Mannheim affiliates. Proficiency in basic programming skills (R, Stata, or Python) is required.

T6. Is Aggregate Volatility Risk Priced?

Ziheng Sun

UNIVERSITY OF MANNHEIM
Business School

Starting References

- Ang, Andrew, et al. "The cross-section of volatility and expected returns." The journal of finance 61.1 (2006): 259-299.
- Merton, Robert C. "An intertemporal capital asset pricing model." Econometrica: Journal of the Econometric Society (1973): 867-887.

Supplementary Materials

- Fama, Eugene F., and James D. MacBeth. "Risk, return, and equilibrium: Empirical tests." Journal of political economy 81.3 (1973): 607-636.
- Campbell, John Y. "Intertemporal asset pricing without consumption data." (1992).

Publicly Accessible Database:

- Kenneth R. French - Data Library: https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

T7. Disagreement of Disagreement

Daniel Weiß

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Topic Description

- Standard asset pricing theory assumes investors that have homogeneous expectations and beliefs. However, heterogeneous beliefs among investors who agree to disagree are ubiquitous in financial markets. Empirically testing asset pricing implications of disagreement is difficult as investor disagreement is hard to observe and quantify.
- The literature has proposed numerous proxies for disagreement. However, these proxies often cannot perfectly capture disagreement and are contaminated by other phenomena. Due to the low correlation among existing proxies, Goulding et al. (2026) offer a new model-based approach to measure disagreement.
- The task of the student is twofold: First, the student should present and compare different measures of disagreement. Second, the student should test the asset pricing implications of disagreement using the disagreement score by Goulding et al. (2026), e.g. using portfolio tests or Fama & MacBeth (1973) regressions.

Requirements

The empirical work requires the use of large databases (i.e., CRSP, Compustat, I/B/E/S). The databases are readily accessible for affiliates of the University of Mannheim. The candidate should feel comfortable in the use of a statistical software program (i.e., STATA, R) and econometric methods.

Starting References

- Diether, K. B., Malloy, C. J., & Scherbina, A. (2002). Differences of opinion and the cross section of stock returns. *The Journal of Finance*, *57*(5), 2113-2141.
- Goulding, C. L., Harvey, C. R., & Kurtović, H. (2026). Disagreement of disagreement. *NBER Working Paper No. w35049*. Available at: https://www.nber.org/papers/w35049.
- Miller, E. M. (1977). Risk, uncertainty, and divergence of opinion. *The Journal of Finance*, *32*(4), 1151-1168.

T8. Investor Disagreement and the IVOL-Puzzle

Daniel Weiß

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Topic Description

- Ang et al. (2006) document the idiosyncratic volatility (IVOL) puzzle: Stocks with higher IVOL, on average, have lower subsequent returns – a phenomenon that cannot be fully rationalized by existing models. The literature has made numerous attempts to find explanations for the IVOL puzzle but could not reconcile to a definite answer.
- More recent papers argue that investor disagreement is related to the IVOL puzzle: The negative effect of IVOL on returns is concentrated in high-disagreement stocks/periods and absorbed by disagreement.
- The task of the students is twofold. First, the student should describe the disagreement-channel of IVOL. Second, the student should establish the IVOL puzzle in the sample and analyze the relationship between investor disagreement and IVOL to test whether investor disagreement can explain the IVOL puzzle.

Requirements

The empirical work requires the use of large databases (i.e., CRSP, Compustat, I/B/E/S). The databases are readily accessible for affiliates of the University of Mannheim. The candidate should feel comfortable in the use of a statistical software program (i.e., STATA, R) and econometric methods.

Starting References

- Ang, A., Hodrick, R. J., Xing, Y., & Zhang, X. (2006). The cross-section of volatility and expected returns. *The Journal of Finance*, *61*(1), 259-299.
- Goulding, C. L., Harvey, C. R., & Kurtović, H. (2026). Disagreement of disagreement. *NBER Working Paper No. w35049*. Available at: https://www.nber.org/papers/w35049.
- Hou, K., & Loh, R. K. (2016). Have we solved the idiosyncratic volatility puzzle? *Journal of Financial Economics*, *121*(1), 167-194.
- Wang, J., Wu, K., Pan, J., & Jiang, Y. (2023). Disagreement, speculation, and the idiosyncratic volatility. *Journal of Empirical Finance*, *72*, 232-250.