

Master Thesis Topics HWS 2023

Chair of Finance – Prof. Dr. Erik Theissen



Chair of Finance

- **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
 - Questions with regard to master theses: please contact Mr. Can Yilanci
- **Research at the Chair of Finance**
 - a) Market Microstructure
 - b) Empirical Asset Pricing
 - c) Blockchain & Cryptocurrency

Topic Allocation

- **Prerequisite:** You must have successfully completed one seminar of the area "Banking, Finance, and Insurance" (Prof. Albrecht, Prof. Maug, Prof. Niessen-Ruenzi, Prof. Ruenzi, Prof. Spalt, Prof. Theissen).
- The assignment of topics is carried out jointly by the finance area.
- Assignment to the topics will be based on your priority list and the grade in the respective seminar.

Time Schedule

- **Application period:** Thursday, 07.09.2023 – Friday, 15.09.2023
- **Topic Allocation:** Tuesday, 19.09.2023
- **Registration Period:** Tuesday, 19.09.2023 – Monday, 25.09.2023
- **Starting Date:** Monday, 25.09.2023
- **Colloquium:** Friday, 24.11.2023 (in-person)
- **Submission Deadline:** Thursday, 25.01.2024

Guide to Scientific Writing

- **An information sheet on writing a seminar paper or a master thesis is provided on our website.**
- **Most important rules:**
 - Your thesis should be 45 pages (+/- 10%).
 - 50 pages is the absolute maximum.
 - Tables and figures have to be included in the text (and count towards the page restriction).
 - Only supplementary material that is not needed to read and understand the thesis may be collected in an appendix.
 - Please only include literature that is either in English or German.

Important Remarks

- **Plagiarism policy:**
 - Your master 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 master thesis takes also into account the language quality.
 - Linguistic shortcomings negatively impact your final grade.
 - The master thesis can be either written in English or German.

- **Some topics look more difficult than others. Why should I choose a rather difficult topic?**

We take the difficulty of the topic into account when grading your thesis.

- **Can I do an internship during the writing process?**

We generally advise against doing an internship during the writing process.

- **My computer crashed and I lost all my progress on the thesis. Can I get an extension of the deadline?**

No, you are responsible to make enough backups of your work.

- **Can I submit earlier?**

Yes.

T1. The Value of the Voting Right

Erik Theissen

Topic Description

- The typical corporation has a "one share one vote" structure.
- However, there are frequent exceptions: In addition to "one vote shares", firms issue non-voting shares and/or shares with multiple voting rights.
- When several share classes are listed, the voting shares often trade at higher prices even though they do not offer superior cash flow rights. One explanation brought forward for the higher valuation is that, in a takeover, an acquirer may pay a premium on voting shares.
- The first objective of the thesis is to provide an overview on the theoretical and empirical literature on the value of the voting right.
- The second objective is to provide an in-depth description (including empirical analyses such as event studies) of a case (either Teck Resources Ltd. or RWE).
- Teck in 2023 announced a plan to retire its multiple voting rights.
- RWE converted its non-voting shares to voting shares in 2019. Much earlier, in the 1990s, RWE converted multiple voting-shares into a one-vote shares plus (separately traded!) rights to convert non-voting into voting shares.

Requirements:

The candidate should feel comfortable in the use of a statistical software program (such as STATA) and econometric methods.

T1. The Value of the Voting Right

Erik Theissen

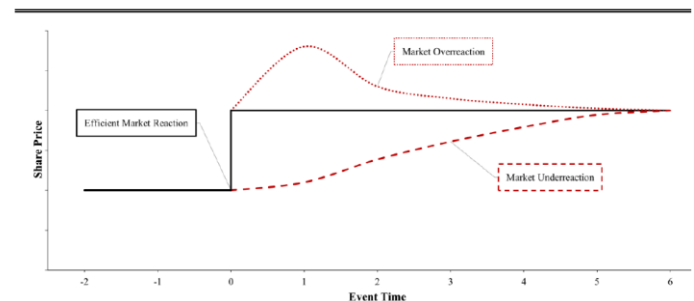
Starting References

- Zingales, L. (1994): The Value of the Voting Right: A Study of the Milan Stock Exchange Experience. *Review of Financial Studies* 7, 125-148.
- Rydqvist, K. (1996): Takeover Bids and the Relative Prices of Shares that Differ in their Voting Rights. *Journal of Banking and Finance* 20, 1407-1425.

T2. Market Underreaction and Earnings Announcements: What Explains the Post-earnings-announcement Drift? (Can Yilanci)

Topic Description

- The concept of semi-strong form market efficiency states that all publicly available information is reflected in the current price (Fama, 1970). Hence, fundamental analysis should not allow investors to earn abnormal returns. In sharp contrast to this concept, strategies that buy stocks with positive earnings surprises and sell stocks with negative earnings surprises generate significant positive returns (Bernard and Thomas, 1989, 1990). This effect is commonly known as post-earnings-announcement drift (PEAD). As the PEAD poses such a strong challenge to the concept of semi-strong form market efficiency, it remains relevant even today. Fama (1998) goes even as far as calling the PEAD “the granddaddy of underreaction events”. The PEAD is often attributed to a market underreaction. The potential underreaction is highlighted in the figure below.
- However, it is not entirely clear whether the PEAD still exists. While Griffin et al. (2010) can document the PEAD for a large sample of developed and emerging markets, Chordia et al. (2014) show that the magnitude of the PEAD has attenuated. Hence, the first task of the student is to replicate the PEAD for a sample of US stocks and document whether it is still significant nowadays. To measure earnings surprises, the student can use analyst earnings forecasts from the I/B/E/S database (see e.g. Doyle et al., 2006).
- The second aim of the thesis is to investigate which firms show earnings surprises and the PEAD. For instance, Doyle et al. (2006) point out small firms with high book-to-market ratios show larger earnings surprises. One possible extension might be to look whether earnings surprises and PEAD are larger for firms with high information discreteness (frog-in-the-pan hypothesis, Da et al. 2014).



Requirements

The empirical work requires the use of large databases (i.e. CRSP, COMPUSTAT, and 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 (such as STATA) and econometric methods.

T2. Market Underreaction and Earnings Announcements: What Explains the Post-earnings-announcement Drift? (Can Yilanci)

Starting References

- Bernard, V. L., & Thomas, J. K. (1989). Post-Earnings-Announcement Drift: Delayed Price Response or Risk Premium? In *Journal of Accounting Research* (Vol. 27, p. 1).
- Bernard, V. L., & Thomas, J. K. (1990). Evidence that stock prices do not fully reflect the implications of current earnings for future earnings. In *Journal of Accounting and Economics* (Vol. 13, Issue 4, pp. 305–340).
- Chordia, T., Subrahmanyam, A., & Tong, Q. (2014). Have capital market anomalies attenuated in the recent era of high liquidity and trading activity? In *Journal of Accounting and Economics* (Vol. 58, Issue 1, pp. 41–58).
- Da, Z., Gurnun, U. G., & Warachka, M. (2014). Frog in the Pan: Continuous Information and Momentum. In *Review of Financial Studies* (Vol. 27, Issue 7, pp. 2171–2218).
- Doyle, J. T., Lundholm, R. J., & Soliman, M. T. (2006). The Extreme Future Stock Returns Following I/B/E/S Earnings Surprises. In *Journal of Accounting Research* (Vol. 44, Issue 5, pp. 849–887).
- Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. In *The Journal of Finance* (Vol. 25, Issue 2, p. 383).
- Fama, E. F. (1998). Market efficiency, long-term returns, and behavioral. In *Journal of Financial Economics* (Vol. 49, Issue 3, pp. 283–306).
- Fink, J. (2021). A review of the Post-Earnings-Announcement Drift. In *Journal of Behavioral and Experimental Finance* (Vol. 29, p. 100446).
- Griffin, J. M., Kelly, P. J., & Nardari, F. (2010). Do Market Efficiency Measures Yield Correct Inferences? A Comparison of Developed and Emerging Markets. In *Review of Financial Studies* (Vol. 23, Issue 8, pp. 3225–3277).

T3. Algorithmic Trading Around Earnings Announcements

Chen Lin

Topic Description

- The effect on algorithmic trading on market efficiency is highly debated. On one hand, algorithms are faster at processing information than humans and therefore may improve market efficiency. On the other hand, algorithmic trading can crowd out (slower-moving) fundamental investors and hence worsen market efficiency. Researchers have provided evidences on both sides (Weller 2018, Boehmer 2021)
- Around earnings announcements, firms release financial data and host earnings calls that are very likely to contain a heavy amount of information, which offers an ideal environment to study the effect of algorithmic trading on market efficiency.
- The student is expected to (1) characterize the cumulative (abnormal) return and algorithmic trading around earnings announcements, and (2) evaluate the relationship between algorithmic trading and efficiency measures around earnings announcements, for example, announcement effects (standardized unexpected earnings (Chen et al 2020), or the jump ratio (Weller 2018)), or post-earning-announcement-drift (PEAD).

Requirements

The empirical work requires the use of large databases (i.e. <CRSP, COMPUSTAT, [MIDAS](#)>). 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 (such as STATA) and econometric methods.

T3. Algorithmic Trading Around Earnings Announcements

Chen Lin

Starting References

- Brian M. Weller, Does Algorithmic Trading Reduce Information Acquisition?, The Review of Financial Studies, Volume 31, Issue 6, June 2018, Pages 2184–2226, <https://doi.org/10.1093/rfs/hhx137>
- Sean Cao and others, How to Talk When a Machine Is Listening: Corporate Disclosure in the Age of AI, The Review of Financial Studies, Volume 36, Issue 9, September 2023, Pages 3603–3642, <https://doi.org/10.1093/rfs/hhad021>
- Boehmer, E., Fong, K., & Wu, J. (2021). Algorithmic Trading and Market Quality: International Evidence. Journal of Financial and Quantitative Analysis, 56(8), 2659-2688. [doi:10.1017/S0022109020000782](https://doi.org/10.1017/S0022109020000782)
- Shiyang Huang and others, Innovation and Informed Trading: Evidence from Industry ETFs, The Review of Financial Studies, Volume 34, Issue 3, March 2021, Pages 1280–1316, <https://doi.org/10.1093/rfs/hhaa077>
- Chen, Yong and Kelly, Bryan T. and Wu, Wei, Sophisticated Investors and Market Efficiency: Evidence from a Natural Experiment (November 22, 2019). Journal of Financial Economics (JFE), Vol. 138, 2020, pp. 316–341, Available at SSRN: <https://ssrn.com/abstract=3117188>

T4. Political Risk and Stock Return

Yanghua Shi

Topic Description

- In our context, political risk is the risk that incur to firms and their stakeholders as the result of political decisions and conditions.
- In the US, firms may influence this political discussion through lobbying. Lobbying is seemingly the main political activity corporations partake in, according to the expenditure.
- The heaviness of reliance on political decisions through lobbying may increase a firm's political risk, which may be correspondingly priced in stock market.
- The lobby data will be provided.

Requirements

The empirical work requires the use of large databases. 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 (such as STATA) and econometric methods.

T4. Political Risk and Stock Return

Yanghua Shi

Starting References

- Adelino, M., Dinc, I. S., 2014. Corporate Distress and Lobbying: Evidence from the Stimulus Act. *Journal of Financial Economics* 114, 256–272.
- Brown, J. R., Huang, J., 2020. All the President's Friends: Political Access and Firm Value. *Journal of Financial Economics* 138, 415–431.
- Bertrand, M., Bombardini, M., & Trebbi, F. (2014). Is it whom you know or what you know? An empirical assessment of the lobbying process. *American Economic Review*, 104(12), 3885-3920.
- Che, Y. K., & Gale, I. L. (1998). Caps on political lobbying. *The American Economic Review*, 88(3), 643-651.
- Claessens, S., Feijen, E., Laeven, L., 2008. Political Connections and Preferential Access to Finance: The Role of Campaign Contributions. *Journal of Financial Economics* 88, 554–580.
- Duchin, R., & Sosyura, D. (2012). The politics of government investment. *Journal of Financial Economics*, 106(1), 24-48.
- Marceau, N., & Smart, M. (2003). Corporate lobbying and commitment failure in capital taxation. *American Economic Review*, 93(1), 241-251.
- https://www.opensecrets.org/downloads/crp/CRP_Categories.txt

T5. Disagreement of Inside Investors and Stock Market Reaction

Hongting Jiang

Topic Description

- Insider trading refers to insiders buying or selling the stocks basing on the nonpublic information. As these insiders possess a significant informational advantage, their trading actions can notably influence stock prices. However, within a listed firm, multiple types of insiders may exist, and their opinions are not always aligned.
- Generally, the level of disagreement has implications on both the stock trading volume and returns. The high disagreement reveals the stock uncertainty and thus leading to a positive risk premium (Carlin et al., 2014; Sadka and Scherbina, 2007). While in the context of insider trading, high level of disagreement might reflect weak information asymmetry and low risk.
- In the United States, the SEC strictly prohibits insiders from making profits out of material nonpublic information. Public firm insiders are required to adhere to trading schedules and regularly disclose information. Consequently, this provides a direct opportunity to observe the divergence in opinions among corporate insiders.
- In this master thesis, the student will conduct a comprehensive analysis linking the disagreement of insiders opinion and stock market reaction using the scraped data from EDGAR Form 4 and Form 5 (Attila Balogh, 2023). There will be no specific paper to replicate and the research design will be discussed collaborately between the student and the supervisor.
- **Requirements:**
- The empirical work requires the use of large databases(i.e.CRSP).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(such as STATA)and econometric methods.

T5. Disagreement of Inside Investors and Stock Market Reaction

Hongting Jiang

Starting References

- Balogh, A. Insider trading. Sci Data 10, 237 (2023). <https://doi.org/10.1038/s41597-023-02147-6>
- Seyhun, H. Nejat. "Insiders' profits, costs of trading, and market efficiency." Journal of financial Economics 16, no. 2 (1986): 189-212.
- Seyhun, H. Nejat. "Why does aggregate insider trading predict future stock returns?." The Quarterly Journal of Economics 107, no. 4 (1992): 1303-1331.
- Carlin, Bruce I., Francis A. Longstaff, and Kyle Matoba. "Disagreement and asset prices." Journal of Financial Economics 114, no. 2 (2014): 226-238.
- Chiang, Raymond, and P. C. Venkatesh. "Insider holdings and perceptions of information asymmetry: A note." The journal of finance 43, no. 4 (1988): 1041-1048.
- Yu, Jialin. "Disagreement and return predictability of stock portfolios." Journal of Financial Economics 99, no. 1 (2011): 162-183.
- Sadka, Ronnie, and Anna Scherbina. "Analyst disagreement, mispricing, and liquidity." The Journal of Finance 62, no. 5 (2007): 2367-2403.

T6. Salience Effect Across the Business Cycle

Büşra Eroğlu

Topic Description

- Limited attention is a necessary consequence of the enormous amount of information we are exposed. As a result, we allocate our attention among the available information set and select some pieces that draw our attention. >> Attention-driven trading: Investors tend to buy attention-grabbing stocks (news, abnormal trade activity, and extreme returns). (Barber and Odean, 2008)
- Salience Theory posits that the most distinct option within a set of alternatives captures attention, leading to an overweight on this salient outcome compared to its objective probability (Bordalo, Gennaioli, and Shleifer, 2012). >> In the context of the financial market, asset returns that deviate significantly from the average market return are referred to as salient.
- The theory argues that investors are drawn to stocks with salient upsides that are overvalued during the good times of the economy, while they tend to focus more on downside salient stocks that are undervalued during economic downturns. Since most assets are not sufficiently right-skewed, this leads to a general market undervaluation.
- The aim of this thesis is to investigate how the salience effect varies across the business cycle and to empirically test the theory.

Requirements

The empirical work requires the use of large databases (i.e. CRSP, Datastream). 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.

T6. Salience Effect Across the Business Cycle

Büşra Eroğlu

Starting References

Theoretical

- Bordalo, P., N. Gennaioli, & A. Shleifer, 2012, Salience theory of choice under risk, Quarterly Journal of Economics 127, 1243-1285.
- Bordalo, P., N. Gennaioli, & A. Shleifer, 2013, Salience and asset prices, American Economic Review: Papers & Proceedings 103, 623-628.

Empirical

- Cakici, N. & A. Zaremba, 2021, Salience theory and the cross-section of stock returns: International and further evidence, Journal of Financial Economics, 146, 689-725.
- Chen, R., Lepori, G. M., Tai, C. C., & Sung, M. C., 2022, Can salience theory explain investor behaviour? Real-world evidence from the cryptocurrency market, International Review of Financial Analysis 84, 102419.
- Cosemans, M., & R. Frehen, 2021, Salience theory and stock prices: empirical evidence, Journal of Financial Economics 140(2), 460-483.
- Hu, S., Xiang, C., & Quan, X., 2023, Salience theory and mutual fund flows: Empirical evidence from China, Emerging Markets Review 54.

For further questions, e-mail me at beroglu@mail.uni-mannheim.de

T7. IPOs and Characteristic-Based Benchmark Returns

Mengnan Wu

Topic Description

- Underpricing of initial public offerings (IPOs) and the subsequent long-term reversal in returns are widely studied anomalies in the literature on financial economics. Empirical evidence on the share issuers' underperformance in the long run is not consistent when different approaches are implemented (Bessembinder and Zhang, 2013). Previous literature has identified a number of firm characteristics that have significant explanatory power for the cross-section of stock returns in the US. Bessembinder and Zhang (2019) finds that firm characteristics provide benchmarks to assess whether the returns following certain corporate events are abnormal with a C14 model.
- The task of the thesis is to evaluate the stock returns following IPOs with the characteristic-based benchmark proposed by Bessembinder and Zhang (2019), and to compare the results between two markets.

Requirements

- The empirical work requires the use of large databases (i.e. Refinitiv Eikon). The candidate should feel comfortable in the use of Stata and econometric methods.

T7. IPOs and Characteristic-Based Benchmark Returns

Mengnan Wu

Starting References

- Bessembinder, H., Cooper, M. J., & Zhang, F. (2019). Characteristic-based benchmark returns and corporate events. *The Review of Financial Studies*, 32(1), 75-125.
- Bessembinder, H., & Zhang, F. (2013). Firm characteristics and long-run stock returns after corporate events. *Journal of Financial Economics*, 109(1), 83-102.
- Loughran, T. (2021). Reconsidering equity issue performance: A focused criticism of the Fama-French factor models. Available at SSRN 3907523.
- Gandolfi, G., Regalli, M., Soana, M. G., & Arcuri, M. C. (2018). Underpricing and long-term performance of IPOs: Evidence from European intermediary-oriented markets. *Economics, Management & Financial Markets*, 13(3).

T8. Privacy Coins

Stefan Scharnowski

Topic Description

- While cryptocurrencies such as Bitcoin have been used for illicit purposes pretty much since their inception, the transparency of their blockchains makes tracking money flows relatively easy.
- Privacy coins address this “shortcoming” by introducing mechanisms to conceal the movement of funds, for example by using advanced cryptographic concepts such as zero-knowledge proofs or ring signatures.
- At a market capitalization of about USD 6bn as of May 2023, these privacy coins have become popular, especially for criminal activity (money laundering, terrorism, drugs, ...).
- The aim of this thesis is to empirically examine the market development, the (relative) pricing, and the trading activity of privacy coins. This topic thus allows students to get insights into important questions from the area of Decentralized Finance (DeFi).

Requirements

The candidate should feel comfortable in the use of a statistical software program (such as Stata) and econometric methods.

T8. Privacy Coins

Stefan Scharnowski

Starting References

- Foley, S., Karlsen, J. R., & Putniņš, T. J. (2019). Sex, drugs, and bitcoin: How much illegal activity is financed through cryptocurrencies?. *The Review of Financial Studies*, 32(5), 1798-1853.
- Sapkota, N., & Grobys, K. (2021). Asset market equilibria in cryptocurrency markets: Evidence from a study of privacy and non-privacy coins. *Journal of International Financial Markets, Institutions and Money*, 74, 101402. <https://doi.org/10.1016/j.intfin.2021.101402>
- Hilmola, O. P. (2021). On prices of privacy coins and Bitcoin. *Journal of Risk and Financial Management*, 14(8), 361. <https://doi.org/10.3390/jrfm14080361>
- And also
 - Androulaki, E., Karame, G. O., Roeschlin, M., Scherer, T., & Capkun, S. (2013). Evaluating user privacy in bitcoin. In Financial Cryptography and Data Security: 17th International Conference, FC 2013, Okinawa, Japan, April 1-5, 2013, Revised Selected Papers 17 (pp. 34-51). Springer Berlin Heidelberg.
 - Genkin, D., Papadopoulos, D., & Papamanthou, C. (2018). Privacy in decentralized cryptocurrencies. *Communications of the ACM*, 61(6), 78-88. <https://dl.acm.org/doi/fullHtml/10.1145/3132696>

T9. Long-Run Stock Returns After Corporate Events

Justus Veehof

Topic Description

- The two classical ways to determine long-run abnormal stock returns after corporate events are the buy-and-hold abnormal return (BHAR) approach and the calendar time portfolio approach. One problem of the BHAR approach is that matching event and control firms on several characteristics affecting expected returns might result in poor matches. Also, firm characteristics of event and control firms might diverge after the matching. Bessembinder and Zhang (2013), therefore, propose a refined version of the BHAR approach. Applying this procedure to different corporate events, such as IPOs and SEOs, the economists find that abnormal returns documented by prior studies turn statistically insignificant.
- The objective of this thesis is threefold. First, the student should review the literature on long-run event studies. Second, the student should replicate the main analyses of Bessembinder and Zhang (2013). Third, the student should extend the analyses of Bessembinder and Zhang (2013).

Requirements

The empirical work requires the use of large databases (i.e. CRSP & SDC). 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 (such as STATA) and econometric methods.

T9. Long-Run Stock Returns After Corporate Events

Justus Veehof

Starting References

- Bessembinder, H./Zhang F. (2013): Firm characteristics and long-run stock returns after corporate events. *Journal of Financial Economics* 109, 83-102.
- Barber, B./Lyon, J., 1997. Detecting long-run abnormal stock returns: empirical power and specification of test statistics. *Journal of Financial Economics* 43, 341–372.
- Campbell, J.Y./A.W. Lo/A.C. MacKinley (1997), *The Econometrics of Financial Markets*, Princeton University Press, New Jersey, Chapter 4.
- Loughran, T./Ritter, J., 2000. Uniformly least powerful test of market efficiency. *Journal of Financial Economics* 55, 361–389.
- Lyon, J./Barber, B./Tsai, C., 1999. Improved methods for tests of long-run abnormal stock returns. *Journal of Finance* 54, 165–201.