Master Thesis Topics FSS 2021
Chair of Finance – Prof. Dr. Erik Theissen
Master Thesis Topics

• Presentation is downloadable on our website:

Chair of Finance (I)

• **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
  – Secretary: Mo-Fr 09.00 – 12.00 am
Chair of Finance (II)

- Research at the Chair of Finance
  a) Market Microstructure
  b) Empirical Asset Pricing
  c) Blockchain & Cryptocurrency
Master Thesis Topics

• Prerequisite:
  – You must have successfully completed one seminar of the area "Banking, Finance, and Insurance" (Prof. Albrecht, Prof. Bucher-Koenen, Prof. Maug, Prof. Niessen-Ruenzi, Prof. Ruenzi, Prof. Spalt, Prof. Theissen, Prof. Weber/Wimmer).

• 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:
  – Monday, 08.03.2021 – Tuesday, 16.03.2021

• Topics Allocation Announcement:
  – Tuesday, 23.03.2021

• Registration Period:
  – Tuesday, 23.03.2021 – Tuesday, 30.03.2021

• Starting Date
  – Tuesday, 30.03.2021

• Colloquium
  – Friday, 28.05.2021 (probably online via Zoom)

• Submission Deadline
  – Friday, 30.07.2021
Guide to Scientific Writing

- 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/Services/Leitfaden_wissenschaftliche_Arbeiten_SeminarMaster.pdf

- 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
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 impacts your final grade.
  – The master thesis can be either written in English or German.
Master Topics

Questions ???
T1. Beta and Data Frequency
Prof. Dr. Erik Theissen

Topic Description

• Most classical empirical asset pricing studies estimate betas from monthly data. More recently, an increasing number of studies uses daily data (often over a shorter horizon, e.g. one year of daily data instead of five years of monthly data). The objective of the present thesis is to perform an empirical comparison of betas estimated from data at different frequency (daily and monthly). The analysis should address the following questions:
  • (How) do betas measured at different frequencies differ (e.g. when we sort against size)
  • Which betas are more stable over time (i.e., which provide better estimates of future betas)
  • (How) does it matter which betas we use in asset pricing tests (e.g. in Fama and MacBeth cross-sectional regressions)?

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.
Starting References

T2. Investor Herding in Cryptocurrency Markets
Stefan Scharnowski

Topic Description

• Herding in financial markets describes the inclination of investors to mimic the investment decisions of others instead of relying on other information. Herd behavior might lead to inefficient prices as investors disregard fundamental information, potentially leading to irrational bubbles. Understanding such behavior is important for investors and regulators alike.
• When it comes to the relatively new asset class of cryptocurrencies, herding behavior is particularly interesting. Firstly, there is relatively little fundamental information available, potentially leading to higher levels of herding as investors follow the market instead of relying on coin-specific information. Secondly, because the market for cryptocurrencies is still young and developing, price inefficiencies might be more pervasive than in other markets. Thirdly, with a large fraction of retail traders, the investor base of cryptocurrencies is different from other, more mature asset classes.
• The aim of this thesis is to empirically study the presence of herding behavior in cryptocurrency markets. A special emphasis should be placed on finding potential factors that influence investor herding.

Requirements
The empirical work requires the use of large datasets. The candidate should feel comfortable in the use of a statistical software program (such as Stata) and econometric methods.
Starting References


T3. Retail Trading in Derivatives
Thomas Johann

Topic Description

• There exists a large body of literature analyzing retail investor trading in the equity market. Much less research has shed light on retail traders’ behavior in the derivative market.

• Bauer et al. (2009) show that retail traders usually trade options for gambling purposes rather than for hedging. They also show that those investments have a negative alpha on average. These findings are consistent with those of Henderson/Pearson (2011) and Choy (2015).

• Against the background of increased retail trader participation in the stock market and cases like the Gamestop rally, it is important to better understand retail trader portfolio composition.

• In this master thesis the author should provide a broad literature review on the use of derivatives by retail traders. What options are available to retail traders to hedge their portfolios (warrants, structured products, options, futures, ...)? If used, how costly are these strategies? And are options actually used for risk management at all? This literature review will be complemented by a short empirical section analyzing a dataset of retail trades in a derivatives market to shed light on above questions.

• Recommended skills: Time Management, Programming (Stata, R or Python).
Starting References

T4. Socially Responsible Investments

Lukas Zimmermann

**Topic Description**

- A large strand of literature focusses on socially responsible investment (SRI). Relevant studies generally deal with the questions whether employing information about the environmental, social, and governance (ESG) performance to implement investment strategies gives rise to a premium, and whether using those information in investment decision has an impact on investment outcomes.
- The objective of this study is to examine ESG based investing. The thesis should consists of a shorter literature part and a large empirical part.
- At the beginning, the thesis should study the literature concerning corporate social investment and give an thorough overview.
- The empirical part should focus on two central questions concerning ESG based strategies. First, it should be studied whether investment strategies based on ESG measures used in the literature are profitable (i.e. whether there is an ESG premium for socially responsible firms). Second, it should be tested whether controlling for the ESG performance of firms when constructing important anomalies (e.g. value, profitability, quality, on which many factor-ETFs are based) has a significant impact on the anomaly returns and whether ESG management comes at a cost or improves performance.
Starting References

Topic Description

• The relatively new asset class of cryptocurrencies, of which Bitcoin is by far the most popular, has received a lot of attention in recent years, both in media and in academic research.

• However, the impact of design features on cryptocurrency market value (e.g. price, trading volume and market capitalization) is not well understood, including their influence via social media sentiment.

• Research question: To what extent does design features impact the cryptocurrency market value via social media sentiment?

• Design feature data will be provided. The student are also welcomed to come up with their own design feature data.

Requirements

The empirical work requires the use of large databases on cryptocurrency market data. The candidate should feel comfortable in the use of a statistical software program (such as STATA) and econometric methods.
Starting References


T6. Mutual fund flow-induced return comovement
Mengnan Wu

Topic Description

• A rapidly expanding literature has used the investor flows to and from mutual funds as a source of exogenous price pressure. If the required sales from individual investors are sufficiently large, the funds’ liquidity needs may put downward pressure on prices that is unrelated to the fundamental value of the underlying stocks (Wardlaw, 2020).

• The flow-induced trading, across mutual funds, have a significant impact on individual stock returns and drive stock prices temporarily away from their information-efficient benchmarks. The flow-based mechanism can potentially cause stock return comovement (Lou, 2012).

• Previous papers have examined the implications of mutual fund flow-induced trading for stock return comovement. Greenwood and Thesmar (2011) center on the covariance structure of investment flows across mutual funds. Anton and Polk (2014) focus on common institutional ownership across stocks.

• Following Lou (2012), the student is required to 1) measure institutional price pressure in equity markets, and 2) test whether stocks held by mutual funds with similar flows tend to experience correlated flow-induced trading, and thus comove with one another, if mutual funds with similar flows also have similar holdings, or mutual funds receive correlated inflows or face correlated outflows.

• Knowledge of econometric software is appreciated for the thesis.
T6. Mutual fund flow-induced return comovement
Mengnan Wu

Starting References


T7. Demand shocks, excess comovement and return predictability
Mengnan Wu

Topic Description

• Barberis et al. (2005) distinguish two explanations for return comovement: the traditional view, which attributes it to comovement in news about fundamental value, and an alternative view, in which frictions or sentiment delink it from fundamentals.

• Broman (2020) specifies the trading location of security as the source of the non-fundamental demand shocks.

• Many factors may contribute to the formation of local preferred habitats: Fund providers’ catering to local investor demand, lack of information, constraints on investors’ attention, or familiarity bias that arises when investors are unwilling to deviate from the status quo.

• The goal of the thesis is to broadly replicate Broman (2020), examining the excess comovement and the subsequent return reversal patterns in major European stock exchanges. The student should 1) measure the quantity of excess comovement resulting from local demand shocks, 2) identify the source of mispricing and differentiate between excess comovement that arises due to local non-fundamental demand, local fundamental demand (information diffusion), and stale pricing, and 3) test whether the peer-group price gap predicts future ETF returns.

• Knowledge of econometric software is appreciated for the thesis.
T7. Demand shocks, excess comovement and return predictability
Mengnan Wu

Starting References

T8. Macroeconomic News and Stock Market Anomalies
Can Yilanci

Topic Description

• The concepts of weak and semi-strong form market efficiency state that investors should not be able to earn risk-adjusted returns by analyzing past prices/returns and doing fundamental analysis (Fama, 1970). Yet, there exist various market anomalies that challenge these concepts. Black (1972) finds that stocks with low (high) beta have high (low) alphas (“beta anomaly”). Fama and French (1992) find that stocks with low market capitalization outperform stocks with large market capitalization. Moreover, they show that stocks with high book-to-market ratio outperform stocks with low book-to-market ratio. Last but not least, Jegadeesh and Titman (1993) show that stocks with high (low) returns in the past continue to have high (low) returns in the future (“momentum effect”). All these anomalies challenge the concept of market efficiency.

• Recently, Savor and Wilson (2014) show that the low-beta anomaly disappears when beta is estimated over macroeconomic announcement days (FOMC interest rate, unemployment, and inflation announcements). Does this mean that stock market participants pay more attention to the stock market when macroeconomic news are announced? And can macroeconomic announcement days help to explain other stock market anomalies as well?

• The student’s task is twofold. First, he/she should replicate the evidence in Savor and Wilson (2014) for the low-beta anomaly. Second, he/she should extend the analysis to other anomalies. The size, value, and momentum effects may serve as a starting point.

Requirements

The empirical work requires the use of large databases (i.e. CRSP and Compustat). 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.
Starting References