Chair of International Finance
Prof. Dr. Stefan Ruenzi

University of Mannheim · Business School · Chair of International Finance · 68161 Mannheim

Prof. Dr. Stefan Ruenzi
L9, 1-2
68161 Mannheim
Germany

https://www.bwl.uni-mannheim.de/ruenzi/

Master's Theses, FSS 2026

Topic R1: Does MAX matter for mutual funds?
Advisor: Alexandros Pierides

Topic R2: Signaling Safety
Advisor: Alexandros Pierides

Topic R3: Diversification Driven Demand for Large Stocks
Advisor: Qi Zhang

Topic R4: Short Selling Efficiency
Advisor: Qi Zhang

Topic R5: Decomposing the Cross-section of Stock Valuation Ratios
Advisor: Qi Zhang

Topic R6: Forest through the Trees: Building Cross-Sections of Stock Returns
Advisor: Paul Seidel

Topic R7: Earnings Extrapolation and Predictable Stock Market Returns
Advisor: Paul Seidel

Requirements:

All topics offered require empirical, statistical analyses and the use of large databases. The databases are readily accessible for affiliates of the University of Mannheim. The candidate should feel comfortable with the use of a statistical software program (such as STATA) and econometric methods.

Topic R1: Does MAX matter for mutual funds?

Classification: Empirical Topic

Advisor: Alexandros Pierides

A growing literature in behavioral asset pricing documents that investors exhibit a preference for lottery-like stocks — securities with a small probability of extremely high payoffs. One prominent measure of lottery-like characteristics is the maximum daily return (MAX) over the previous month, which has been shown to predict lower future stock returns. While much of the existing evidence focuses on individual investors and stock-level anomalies, considerably less is known about whether such lottery preferences also influence delegated portfolio management. Given the dominant role of mutual funds in modern financial markets, understanding whether professional managers tilt toward lottery-type stocks is crucial for assessing the broader asset-pricing implications of behavioral demand.

Goldie et al. (2019) examine whether the MAX effect matters for mutual funds. Using U.S. mutual fund holdings data, the authors analyze whether funds systematically invest in stocks with high MAX and whether such tilts affect subsequent fund performance. They show that many mutual funds exhibit significant exposure to high-MAX stocks, consistent with catering to investor demand for lottery-like payoffs. Importantly, funds with stronger exposure to MAX underperform in the future, suggesting that lottery-seeking behavior is costly even in a delegated management setting.

The aim of this thesis is as follows: First, the student is expected to replicate the main empirical findings of Goldie et al. (2019). Second, the student should extend the analysis to also cover the most recent years. Third, the student may extend the analysis by examining whether the use of different proxies for lottery-preferences (for example, skewness, idiosyncratic skewness, lottery index (Kumar et al. (2016) etc.) results in the same conclusion.

Requirements:

The empirical work requires the use of large databases, e.g., the CRSP Survivor Bias-Free Mutual Fund Database. The databases are readily accessible to affiliates of the University of Mannheim. The candidate should feel comfortable with the use of a statistical software program (such as STATA) and econometric methods.

Introductory Literature:

- Bali, T. G., Cakici, N., and Whitelaw, R. F. (2011). Maxing out: Stocks as lotteries and the cross-section of expected returns. Journal of financial economics, 99(2):427–446.
- Barber, B. M., Huang, X., and Odean, T. (2016). Which factors matter to investors? Evidence from mutual fund flows. The Review of Financial Studies, 29(10):2600–2642.
- Berk, J. B. and Green, R. C. (2004). Mutual fund flows and performance in rational markets. Journal of political economy, 112(6):1269–1295.
- Goldie, B. A., Henry, T. R., and Kassa, H. (2019). Does MAX matter for mutual funds? European Financial Management, 25(4):777–806.
- Kumar, A., Page, J. K., and Spalt, O. G. (2016). Gambling and comovement. Journal of Financial and Quantitative Analysis, 51(1):85–111.

Topic R2: Signaling Safety

Classification: Empirical Topic

Advisor: Alexandros Pierides

In recent years, a growing literature has documented strong investor demand for so-called "safe" stocks — firms perceived to have stable cash flows, low risk, and downside protection. This demand is often attributed to institutional constraints, benchmarking, or behavioral preferences for safety. While traditional asset pricing models suggest that safer assets should offer lower expected returns due to lower systematic risk exposure, empirical evidence indicates that safety characteristics may also be influenced by firm policies and managerial incentives. This raises the question of whether firms actively shape investor perceptions of safety and whether such signaling affects asset prices.

In a recent paper, Michaely et al. (2021) revisit the classic dividend-signaling hypothesis, which predicts that dividend changes convey information about future cash-flow levels. Using the Campbell (1991) return decomposition, they show that this prediction is not supported empirically. Instead, dividend changes and share repurchase announcements primarily signal shifts in expected cash-flow volatility. The authors argue that managers may cater to investor demand for safe assets by adopting policies that increase perceived stability. Using U.S. firm-level data, they show that firms adjust payout policies in ways consistent with signaling safety. Their findings suggest that payout policy serves as a mechanism through which firms communicate the riskiness of future cash flows rather than their magnitude.

The aim of this thesis is as follows: First, the student is expected to replicate the main empirical findings of Michaely et al. (2021). Second, the student should extend the analysis to also cover the most recent years. Thirdly, the student may extend the analysis by investigating whether the safety-signaling effect varies across market conditions (e.g., high-uncertainty periods), investor clienteles (retail vs. institutional ownership), or regulatory environments.

Requirements:

The empirical work requires the use of large databases, e.g., Compustat/CRSP. The databases are readily accessible to affiliates of the University of Mannheim. The candidate should feel comfortable with the use of a statistical software program (such as STATA) and econometric methods.

Introductory Literature:

- Campbell, J. Y. (1991). A variance decomposition for stock returns. The economic journal, 101(405):157–179.
- Michaely, R., Rossi, S., and Weber, M. (2021). Signaling safety. Journal of Financial Economics, 139(2):405–427.
- Miller, M. H. and Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. the Journal of Business, 34(4):411–433.

Topic R3: Diversification Driven Demand for Large Stocks

Classification: Empirical Topic

Advisor: Qi Zhang

Institutional risk management typically involves limiting the concentration of individual issuers and maintaining a practical level of portfolio diversification. For example, Morningstar (2023) reports that fewer than 30% of funds in the most concentrated Large-Growth category are formally classified as non-diversified. At the same time, large-cap stocks have grown substantially in weight due to strong performance, creating a potential conflict with diversification principles.

In a recent study, Chen (2025) documents that as a portfolio's value concentration increases, actively managed funds tend to trim large positions to maintain practical diversification. Since large stocks are widely held and often overweighted, this coordinated contrarian trading generates a diversification-driven demand that produces a novel return-reversal pattern in large stock portfolios, while simultaneously reinforcing momentum returns.

The aim of this thesis is as follows: first, the student is expected to replicate the main results of Chen (2025). Do actively managed funds trim large positions to maintain practical diversification? How does this behavior influence momentum returns? Second, the student could investigate whether similar patterns exist in international funds.

Requirements:

The empirical work requires the use of large databases, e.g., Morningstar/CRSP. The databases are readily accessible to affiliates of the University of Mannheim. The candidate should feel comfortable with the use of a statistical software program (such as STATA) and econometric methods.

Introductory Literature:

- Blume, M. E., & Keim, D. B. (2017). The changing nature of institutional stock investing. *Critical Finance Review*, *6*(1), 1-41.
- Chen, H. (2025). Diversification driven demand for large stock. *Journal of Financial Economics*, *172*, 104109.

Topic R4: Short Selling Efficiency

Classification: Empirical Topic

Advisor: Qi Zhang

Short selling is an essential activity in modern financial markets. Efficient short selling ensures that scarce short-sale resources are allocated to overpriced stocks, where investment opportunities are most valuable. While existing studies document a significant cross-sectional relation between short selling and stock returns, relatively little is known about the time-series relation between short-selling efficiency and aggregate market returns.

In a recent study, Chen et al. (2022) measure short-selling efficiency (SSE) using the slope coefficient from a cross-sectional regression of abnormal short interest on a monthly mispricing score. They show that future excess stock market returns are significantly and negatively related to SSE, both in-sample and out-of-sample, suggesting that mispricing is corrected when short sales are executed on the appropriate stocks. Additionally, they find that the CAPM performs well following periods of low SSE.

The aim of this thesis is as follows: first, the student should replicate the main results of Chen et al. (2022). Are there significant negative relations between aggregate stock market returns and SSE? Does the CAPM indeed perform well following periods of low SSE? Second, the student should extend the analysis to include more recent years. Third, the student is expected to replicate the calculation of short-selling profitability in Da et al. (2025) and compare it with SSE to explore similarities and differences between these measures.

Requirements:

The empirical work requires the use of large databases, e.g., CRSP/Compustat. The databases are readily accessible to affiliates of the University of Mannheim. The candidate should feel comfortable with the use of a statistical software program (such as STATA) and econometric methods.

Introductory Literature:

- Chen, Y., Da, Z., & Huang, D. (2022). Short selling efficiency. *Journal of Financial Economics*, *145*(2), 387-408.
- Da, Z., Fu, C., Lin, N., & Lu, L. (2025). Short-selling profitability, stock lending fees, and asset pricing anomalies. *Available at SSRN 5116351*.

Topic R5: Decomposing the Cross-section of Stock Valuation Ratios

Classification: Empirical Topic

Advisor: Qi Zhang

Valuation ratios such as price-earnings (P/E) ratios vary widely across firms, yet it remains an open question whether this dispersion reflects differences in future cash-flow growth or future returns. Understanding what drives the cross-section of stock prices is central to asset pricing, market efficiency, and investment decisions.

In a recent study, Delao et al. (2025) examine the cross-section of stock prices to determine whether variation in valuation ratios across firms is driven more by differences in expected future returns or by differences in expected future cash-flow growth. Using a variance decomposition approach, they find that approximately 75% of the cross-sectional dispersion in price-earnings ratios is explained by differences in future returns, and only about 25% is due to differences in future earnings growth. Their results suggest that variations in expected returns, rather than expected fundamentals, are the dominant source of cross-sectional price differences and are consistent with models emphasizing discount rate variation or mispricing over-earning growth.

The aim of this thesis is as follows: first, the student is expected to broadly replicate the main results of Delao et al. (2025). Does the cross-sectional dispersion in valuation ratios reflect mainly differences in future returns rather than future earnings growth in the U.S. stock market? Second, the student could examine whether return dominance differs across firm characteristics, such as size or book-to-market. Third, the student could extend the analysis to include more recent years.

Requirements:

The empirical work requires the use of large databases, e.g., CRSP/Compustat. The databases are readily accessible to affiliates of the University of Mannheim. The candidate should feel comfortable with the use of a statistical software program (such as STATA) and econometric methods.

Introductory Literature:

- Delao, R., Han, X., & Myers, S. (2025). The return of return dominance: Decomposing the cross-section of prices. *Journal of Financial Economics*, *169*, 104059.
- Vuolteenaho, T. (2002). What drives firm-level stock returns?. *The Journal of Finance*, *57*(1), 233-264.
- Harvey, C. R., Liu, Y., & Zhu, H. (2016). … and the cross-section of expected returns. *The Review of Financial Studies*, *29*(1), 5-68.

Topic R6: Forest through the Trees: Building Cross-Sections of Stock Returns

Classification: Empirical Topic

Advisor: Paul Seidel

A central workhorse in empirical asset pricing is to build test assets and risk factors from firm characteristics. Traditionally, researchers rely on single- and double-sorts, or on large sets of pre-specified portfolios that may become high-dimensional and hard to interpret. In a recent Journal of Finance paper, Bryzgalova, Pelger, and Zhu (2025) propose a decision-tree approach to construct *interpretable*, well-diversified managed portfolios that optimally span the projected stochastic discount factor for a given set of firm characteristics.

The authors show that their tree-built cross-sections are low-dimensional yet achieve substantially higher out-of-sample Sharpe ratios and alphas than (i) combinations of many traditional sorts and (ii) machine-learning prediction-based portfolio methods. This suggests that carefully designed, data-driven portfolio splits can improve the efficiency of cross-sectional asset pricing tests and factor construction.

The aim of this thesis is as follows: First, the student is expected to broadly replicate the main results of Bryzgalova, Pelger, and Zhu (2025). Can decision-tree portfolios deliver superior out-of-sample performance relative to standard benchmark constructions (e.g., single/double sorts or characteristic-managed portfolios)? Second, the student should extend the analysis and study the stability of the results across subsamples (e.g., pre/post major market regime changes). Third, the student could investigate economic and practical aspects of implementability, for example by incorporating (1) transaction costs, (2) turnover constraints, or (3) limits on portfolio complexity, and by quantifying the trade-off between interpretability and performance.

Requirements:

The empirical work requires the use of large databases, e.g., Compustat/CRSP (via WRDS) to construct characteristics and returns. The databases are readily accessible to affiliates of the University of Mannheim. The candidate should feel comfortable using a statistical software program (such as Python or STATA) and econometric methods.

Introductory Literature:

- Bryzgalova, S., Pelger, M., & Zhu, J. (2025). Forest through the Trees: Building Cross-Sections of Stock Returns. *The Journal of Finance.*
- Gu, S., Kelly, B., & Xiu, D. (2020). Empirical Asset Pricing via Machine Learning. *The Review of Financial Studies.*
- Chen, A. Y., & Zimmermann, T. (2020). Publication bias and the cross-section of stock returns. *Review of Asset Pricing Studies.*

Topic R7: Earnings Extrapolation and Predictable Stock Market Returns

Classification: Empirical Topic

Advisor: Paul Seidel

A recent paper by Guo (2025) argues that predictable stock market returns can arise from earnings extrapolation linked to the timing of earnings announcements ("earnings season" mechanics). The paper documents that the serial predictability in market returns depends on *when* returns are realized (e.g., "newsy months" tied to earnings-announcement intensity versus other months), and it connects these patterns to how investors learn about aggregate earnings information over the reporting cycle. The paper's U.S. analysis uses a long sample with monthly return data (1926–2021) and quarterly accounting/earnings-announcement information (1971–2021).

The goal of this thesis is two-fold: First, the student should broadly replicate the main empirical findings of Guo (2025) for the U.S. market. In particular, do lagged "newsy month" returns predict subsequent returns differently depending on whether the dependent-variable month is itself "newsy" or "non-newsy"?

Second, the student should extend the analysis:

- Cross-sectional heterogeneity: test whether the effect is stronger among firms where earnings information is plausibly more important for learning (e.g., low analyst coverage / high forecast dispersion, or high earnings volatility), using standard IBES-based measures.
- Simple implementability check: quantify whether a trading strategy implied by the predictability has economically meaningful performance.
- Optionally further extensions, selected jointly with the supervisor

Requirements:
The empirical work requires the use of large databases, e.g., Compustat/CRSP (via WRDS) to construct characteristics and returns. The databases are readily accessible to affiliates of the University of Mannheim. The candidate should feel comfortable using a statistical software program (such as Python or STATA) and econometric methods.

Introductory Literature:

- Guo, H. (2025). *Earnings Extrapolation and Predictable Stock Market Returns.* The Review of Financial Studies.
- Campbell, J. Y., & Shiller, R. J. (1988). Stock prices, earnings, and expected dividends. *The Journal of Finance.*
- Cochrane, J. H. (2011). Discount rates. *Journal of Finance.*