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Master's Theses, HWS 2026

Topic R1: Capturing lottery features through aggregation
Advisor: Alexandros Pierides

Topic R2: Overnight and daytime tug of war and future returns
Advisor: Alexandros Pierides

Topic R3: Spillover Effects in Mutual Fund Companies
Advisor: Alexandros Pierides

Topic R4: Volatility Management in the Cross Section of Factor Returns
Advisor: Qi Zhang

Topic R5: Stock Prices and the Cross-Section of Expected Returns
Advisor: Qi Zhang

Topic R6: Mutual Fund Performance at Long Horizons
Advisor: Qi Zhang

Topic R7: Copy Trading in Prediction Markets
Advisor: Sven Vahlpahl

Topic R8: Trading Strategies and Attention in Prediction Markets
Advisor: Sven Vahlpahl

Topic R9: Simulating FIRE: A Life-Cycle Framework for Financial Independence Strategies
Advisor: Sven Vahlpahl

Topic R10: Monetary Policy Momentum
Advisor: Paul Seidel

Topic R11: AI as a Technological Revolution – Stock-Market Repricing in the Generative-AI Era
Advisor: Paul Seidel

Topic R12: Do Stock-Market Anomalies Still Exist? Revisiting McLean and Pontiff
Advisor: Paul Seidel

Requirements:

All topics focus on empirical analyses (as most seminar topics or master's thesis offered in the finance area). The empirical work requires obtaining data and the use of a statistical software program (such as STATA or Python) to process and analyze the data. Data can be retrieved from databases that are readily accessible for affiliates of the University of Mannheim or is provided by the advisors. You should be motivated to acquire necessary skills for databases, software, and econometric methods during the writing phase.

Topic R1: Capturing lottery features through aggregation

Classification: Empirical topic

Advisor: Alexandros Pierides

A large literature in behavioral finance argues that investors exhibit a preference for lottery-like stocks, namely securities with a small probability of generating extremely large payoffs. This preference has been linked to several prominent asset pricing anomalies, including the MAX effect, the skewness premium, and the underperformance of speculative stocks. Empirical research in this area relies heavily on proxies intended to capture lottery-like characteristics, such as maximum daily returns, expected skewness, or idiosyncratic skewness. However, the large number of competing measures raises an important question regarding which proxies most effectively capture the lottery feature embedded in stock returns.

In a recent paper, Jiang et al. (2025) examine how different lottery proxies relate to one another and whether aggregating them improves the measurement of lottery characteristics. The authors show that commonly used proxies capture distinct dimensions of lottery-like behavior and therefore contain complementary information. Motivated by this observation, they construct an aggregate lottery measure that combines multiple existing proxies into a unified indicator. Their results demonstrate that the aggregated measure exhibits substantially stronger predictive power for future stock returns than individual lottery proxies alone. The findings suggest that lottery preferences are multidimensional and that combining information across measures provides a more robust characterization of speculative demand in financial markets.

The aim of this thesis is twofold. First, the student is expected to replicate the main empirical findings of Jiang et al. (2025). Second, the student may extend the analysis by examining settings in which lottery preferences are expected to be particularly pronounced. For example, the predictive power of the aggregated lottery measure may be stronger during periods of elevated investor sentiment or among stocks that are predominantly held by retail investors.

Requirements: The empirical work requires the use of large databases, e.g., CRSP/Compustat. These 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.
- Barberis, N. and Huang, M. (2008). Stocks as lotteries: The implications of probability weighting for security prices. American Economic Review, 98(5):2066–2100.
- Jiang, L., Zhou, G., and Zhu, Y. (2025). Which proxy: Capturing lottery feature through aggregation. Financial Management, 54(2):331–362.

Topic R2: Overnight and daytime tug of war and future returns

Classification: Empirical Topic

Advisor: Alexandros Pierides

A growing literature documents systematic differences between stock returns earned overnight and during regular trading hours. One explanation for these patterns is that different types of investors dominate trading at different times of the day. Retail and other less-informed investors are more active overnight, whereas sophisticated investors and arbitrageurs tend to trade during regular market hours. As a result, price pressure generated overnight may subsequently be reversed during the trading day. Understanding these recurring return patterns can provide insights into the interaction between investor heterogeneity, limits to arbitrage, and the efficiency of financial markets.

In a recent paper, Akbas et al. (2022) examine whether persistent reversals between overnight and daytime returns contain information about future stock returns. They measure the intensity of this daily "tug of war" by the frequency with which positive overnight returns are followed by negative daytime returns. The authors find that stocks experiencing these reversals more frequently earn significantly higher subsequent returns. They argue that daytime arbitrageurs may increasingly interpret repeated positive overnight returns as noise-driven demand and therefore overcorrect the associated price pressure. Because part of the overnight return may instead reflect valuable information, this behavior can push prices below fundamental value. Consistent with this explanation, the return predictability is concentrated in future overnight returns and is stronger when information uncertainty and investor sentiment are high.

The aim of this thesis is twofold. First, the student is expected to replicate the main empirical findings of Akbas et al. (2022). Second, the student may extend the analysis by examining whether this return predictability is particularly pronounced among lottery-like stocks. Since lottery-like stocks tend to attract speculative retail investors, the tug of war between overnight and daytime investors may be stronger for these stocks.

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:

- Akbas, F., Boehmer, E., Jiang, C., and Koch, P. D. (2022). Overnight returns, daytime reversals, and future stock returns. Journal of Financial Economics, 145(3):850–875.
- Lou, D., Polk, C., and Skouras, S. (2019). A tug of war: Overnight versus intraday expected returns. Journal of Financial Economics, 134(1):192–213.

Topic R3: Spillover Effects in Mutual Fund Companies

Classification: Empirical Topic

Advisor: Alexandros Pierides

A large literature in mutual funds documents that investors respond strongly to past fund performance when allocating capital across funds. However, mutual funds are often part of larger financial companies that operate across several business segments and share a common corporate brand. Consequently, investors may respond not only to the performance of the fund itself, but also to information about the company managing the fund. This creates the possibility that shocks to one part of a financial company spill over to its other business segments and influence the decisions of their customers.

In their paper, Sialm and Tham (2016) examine whether the performance of publicly traded mutual fund management companies affects investor flows into their affiliated funds. They find that flows into both equity and bond funds increase with the prior stock performance of the management company, even after controlling for the fund's own performance and other fund characteristics. Importantly, this flow response is not justified by superior subsequent fund performance. Their results therefore suggest that the reputation and performance of the management company can spill over to its mutual fund business and affect investors' capital allocation decisions.

The aim of this thesis is fourfold. First, the student is expected to replicate the main empirical findings of Sialm and Tham (2016). Second, the student may extend the analysis by examining whether these spillover effects vary with characteristics of the relationship between the fund and its management company, such as the importance of the mutual fund business to the parent company or the strength of the common brand. Third, the student could extend the analysis by examining the reverse relationship. Specifically, whether mutual fund performance has an effect on the performance of the management company. Fourth, the student could extend the analysis to cover more recent years.

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:

- Huang, J., Wei, K. D., & Yan, H. (2007). Participation costs and the sensitivity of fund flows to past performance. The journal of finance, 62 (3), 1273–1311
- Sialm, C., & Tham, T. M. (2016). Spillover effects in mutual fund companies. Management Science, 62 (5), 1472–1486.
- Sirri, E. R., & Tufano, P. (1998). Costly search and mutual fund flows. The journal of finance,53 (5), 1589–1622

Topic R4: Volatility Management in the Cross Section of Factor Returns

Classification: Empirical topic

Advisor: Qi Zhang

A fundamental premise in finance is that there is a strong risk-return trade-off. However, Moreira and Muir (2017) show that investors can increase Sharpe ratios by reducing exposure to risk factors when their volatility is high, which challenges the premise. In their framework they focus on volatility-managed individual-factor portfolios. But the returns of characteristic-based strategies can vary substantially over time, and it is necessary to consider a multifactor perspective.

In a recent study, DeMiguel et al. (2024) propose a novel conditional mean-variance multifactor portfolio whose weights on each factor decrease with market volatility. They show that accounting for changes in factor volatility can improve portfolio performance and the benefits of volatility management depend on the interaction among multiple equity factors. Moreover, they show that factor risk prices generally decrease with market volatility.

The aim of this thesis is as follows: first, the student is expected to replicate the main empirical findings of DeMiguel et al. (2024). Does the conditional multifactor portfolio outperform its unconditional counterpart? Second, the student should extend the analysis to also cover the most recent years. Third, the student should further investigate whether the effectiveness of volatility management differs across factor types or between periods of high and low market volatility.

Requirements: The empirical work requires the use of large databases, e.g., CRSP/Compustat. These 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 or Python) and econometric methods.

Introductory Literature:

- DeMiguel, V., Martin-Utrera, A., & Uppal, R. (2024). *A Multifactor Perspective on Volatility-Managed Portfolios*. Journal of Finance, 79(6), 3859–3891.
- Fama, E. F., & French, K. R. (2015). *A Five-Factor Asset Pricing Model*. Journal of Financial Economics, 116(1), 1–22.
- Frazzini, A., & Pedersen, L. H. (2014). *Betting Against Beta*. Journal of Financial Economics, 111(1), 1–25.
- Moreira, A., & Muir, T. (2017). *Volatility-Managed Portfolios*. Journal of Finance, 72(4), 1611–1644.

Topic R5: Stock Prices and the Cross-Section of Expected Returns

Classification: Empirical topic

Advisor: Qi Zhang

A large empirical asset pricing literature studies how well an asset pricing model explains stocks' observed price level. Because stock price levels can drive the financing and investment decisions of firms as well as the portfolio decisions of long-term buy-and-hold investors. However, the techniques for studying abnormal prices (the deviation of price from the present value of future dividends) are extremely limited. Since discount rates vary over time, abnormal price cannot simply be inferred from short-horizon abnormal returns (alphas).

In a recent study, Cho and Polk (2024) develop a novel way to estimate a portfolio's abnormal price. Using U.S. stock return and accounting information, they show that price-based tests provide economically meaningful information beyond conventional return-based tests. They claim that their method identifies the stocks that a buy-and-hold investor who measures risk using a particular asset pricing model should find the most attractive.

The aim of this thesis is as follows: first, the student is expected to replicate selected main empirical findings of Cho and Polk (2024). In particular, the student should examine the relation between value characteristics, stock prices, and subsequent stock returns using characteristic-sorted portfolios. Second, the student should extend the analysis beyond the book-to-market ratio and compare whether similar price-based return predictability can be observed for other standard firm characteristics, such as profitability and investment.

Requirements: The empirical work requires the use of large databases, e.g., CRSP/Compustat. These 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 or Python) and econometric methods.

Introductory Literature:

- Cho, T., & Polk, C. (2024). *Putting the Price in Asset Pricing*. Journal of Finance, 79(6), 3943–3984.
- Fama, E. F., & French, K. R. (1992). *The Cross-Section of Expected Stock Returns*. Journal of Finance, 47(2), 427–465.
- Fama, E. F., & French, K. R. (2015). *A Five-Factor Asset Pricing Model*. Journal of Financial Economics, 116(1), 1–22.

Topic R6: Mutual Fund Performance at Long Horizons

Classification: Empirical topic

Advisor: Qi Zhang

A large literature examines whether actively managed mutual funds outperform passive strategies. Fund performance is typically measured using average monthly returns or factor-adjusted alphas, but these short-horizon measures may not reflect long-term investor outcomes. Because returns compound and can be skewed, funds that perform well by conventional measures do not necessarily generate greater long-term wealth.

In a recent study, Bessembinder et al. (2023) examine the performance of U.S. equity mutual funds over different investment horizons. They show that the proportion of funds outperforming passive benchmarks decreases substantially as the investment horizon increases. Moreover, they document that funds with positive average monthly performance can nevertheless generate inferior long-horizon outcomes because of compounding and return skewness.

The aim of this thesis is as follows: first, the student is expected to replicate the main empirical findings of Bessembinder et al. (2023). In particular, the student should compare the performance of actively managed U.S. equity mutual funds with passive benchmarks over different investment horizons. Second, the student should extend the analysis to an international sample. Third, the student should investigate whether long-horizon fund performance differs across observable fund characteristics, such as fund size, expense ratio, turnover, or fund age. Fourth, the student should examine whether conventional short-horizon performance measures are able to predict long-horizon investment outcomes.

Requirements: The empirical work requires the use of large databases, e.g., CRSP/Compustat. These 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 or Python) and econometric methods.

Introductory Literature:

- Berk, J. B., & van Binsbergen, J. H. (2015). *Measuring Skill in the Mutual Fund Industry*. Journal of Financial Economics, 118(1), 1–20.
- Bessembinder, H., Cooper, M. J., & Zhang, F. (2023). *Mutual Fund Performance at Long Horizons*. Journal of Financial Economics, 147(1), 132–158.
- Carhart, M. M. (1997). *On Persistence in Mutual Fund Performance*. Journal of Finance, 52(1), 57–82.
- Fama, E. F., & French, K. R. (2010). *Luck versus Skill in the Cross-Section of Mutual Fund Returns*. Journal of Finance, 65(5), 1915–1947.

Topic R7: Copy Trading in Prediction Markets

Classification: Empirical topic

Advisor: Sven Vahlpahl

Blockchain-based prediction markets such as Polymarket have grown rapidly and now attract substantial trading volume on political, macroeconomic, and crypto-related events. Because all trades are recorded on-chain, these markets offer an unusually complete picture of individual trading behavior, including positions, entry and exit timing, and realized profits at the level of the individual wallet. A recurring observation in this setting is that trading activity and profits are highly concentrated among a small group of very large traders, so-called whales. Whether this concentration reflects genuine skill, superior information, or simply scale and risk taking is an open question with direct implications for market efficiency and for the interpretation of prediction-market prices as forecasts.

Akey, Grégoire, Harvie, and Martineau (2026) study who wins and who loses on Polymarket. Using the full transaction history of the platform, they document a pronounced concentration of trading profits and examine whether performance persists over time, which would be consistent with skill rather than luck. Complementary work by Reichenbach and Walther (2025) studies the accuracy, skill, and bias of decentralized prediction markets. Oliphant (2026), finds that copy trades of followers perform better than their own non-copy trades.

The aim of this thesis is twofold. First, the student is expected to replicate the core concentration and performance-persistence results of Akey et al. (2026). Second, the student should extend the analysis towards the question of whether the performance of successful traders can be captured by copying them. A first step is a follow-trading backtest that simulates copying the trades of top-decile or top-100 traders under realistic execution lag and slippage, and compares realized returns net of costs with the paper returns of the original traders. Building on this, the student should ask how a portfolio of traders to be copied could be constructed, addressing the selection of leaders on the basis of past performance persistence, the weighting of and diversification across leaders and markets, capacity and crowding limits, and rebalancing rules. A further extension is to identify copy-trading relationships that already exist on the platform, and to examine whether these observed copiers earn a positive return.

Requirements: The empirical work requires the use of Python. Part of the data is publicly available (e.g., the replication datasets published with the reference papers on Hugging Face), while additional data might have to be acquired or collected by the student, for instance through public APIs or on-chain data sources. Strong programming skills are therefore strongly recommended, as is comfort with handling large, unstructured datasets and with standard econometric methods.

Introductory Literature:

- Akey, P., Grégoire, V., Harvie, N., & Martineau, C. (2026). *Who Wins and Who Loses in Prediction Markets? Evidence from Polymarket*. Working Paper.
- Reichenbach, F., & Walther, M. (2025). *Exploring Decentralized Prediction Markets: Accuracy, Skill, and Bias on Polymarket*. SSRN Working Paper No. 5910522.
- Oliphant, P. (2026). *The Return to Imitation: Evidence from Copy Trading on Polymarket*. SSRN Working Paper No. 6670318.

Topic R8: Trading Strategies and Attention in Prediction Markets

Classification: Empirical topic

Advisor: Sven Vahlpahl

Studies of blockchain-based prediction markets typically treat all wallet addresses as a homogeneous population of traders. This is a strong simplification, because the traders active on a platform such as Polymarket pursue very different strategies: some provide liquidity and earn the spread, some trade at high frequency, some take long-horizon directional positions on the outcome of an event, and some appear to trade on superior information shortly before the underlying prices move. These strategies differ fundamentally in their risk, their capital requirements, and the source of their profits, so aggregate statements about who wins and who loses may conceal substantial heterogeneity.

Akey, Grégoire, Harvie, and Martineau (2026) document the growth of the Polymarket user base and show that trading profits are concentrated among a small share of wallets. Their analysis is conducted at the wallet level and provides the natural benchmark for the question above. Young (2026) provides synchronized high-frequency prediction-market and crypto-exchange data that provides one angle to identify periods of elevated attention.

The aim of this thesis is twofold. First, the student is expected to replicate the user-growth and profit-concentration results of the reference paper. Second, the student should extend the analysis in two directions. The first extension is an analysis of the profitability of traders broken down into strategy types such as market making or fundamental trading, among others. The second extension studies attention, proxied by large price movements and elevated volatility in the underlying crypto markets using the synchronized data of Young (2026), as well as other common attention proxies. Possible research directions are whether sign-ups and trading volume cluster in high-attention periods, whether traders who join during attention spikes subsequently under- or outperform traders who join during quiet periods, and whether the mix of strategies shifts with attention. If time permits, the student may additionally cluster wallets into likely single-trader entities using indicators, such as the co-movement of trade timing, position-sizing patterns, overlap in market selection, and shared periods of inactivity, and recompute concentration and performance statistics at the entity level for comparison with the wallet-level figures reported in the paper.

Requirements: The empirical work requires the use of Python. The student will work with public data (e.g. replication datasets and Google Trends), while additional data may have to be acquired or collected by the student, for instance through public APIs or on-chain data sources. Proficient programming skills are therefore strongly recommended, as is comfort with handling large, unstructured datasets and with standard econometric methods.

Introductory Literature:

- Akey, P., Grégoire, V., Harvie, N., & Martineau, C. (2026). *Who Wins and Who Loses in Prediction Markets? Evidence from Polymarket*. Working Paper.
- Barber, B. M., & Odean, T. (2008). *All That Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors*. Review of Financial Studies, 21(2), 785–818.
- Young, G. (2026). *OpenMarket: A Synchronized Polymarket-Binance Dataset for High-Frequency Prediction-Market Research*. arXiv preprint arXiv:2607.26245.

Topic R9: Simulating FIRE: A Life-Cycle Framework for Financial Independence Strategies

Classification: Empirical topic

Advisor: Sven Vahlpahl

The question of how much a household can safely withdraw from a portfolio in retirement is one of the central problems in personal finance. The classical answer, going back to Bengen (1994), is the four percent rule, which is based on historical U.S. return series. More recent work questions whether this benchmark survives once one accounts for the survivorship bias in U.S. data, for longevity risk, and for the sequence in which returns are realized. At the same time, the FIRE movement (Financial Independence, Retire Early) has popularized a range of strategies that differ substantially in savings rates, target wealth levels, retirement age, and the extent to which labor income continues after financial independence.

Anarkulova, Cederburg, O'Doherty, and Sias (2025) re-examine the safe withdrawal rate using a broad sample of developed markets and a bootstrap approach that jointly accounts for return, inflation, and mortality risk. They find substantially lower sustainable withdrawal rates than the classical U.S.-based estimates. Guyton and Klinger (2006) offer an alternative perspective by allowing withdrawals to adjust dynamically through guardrail-type decision rules, which raises initial withdrawal rates at the cost of variable consumption.

The aim of this thesis is threefold. First, the student is expected to replicate the core results of Anarkulova et al. (2025) for a subset of markets, for example the United States and a selection of other developed markets. Second, the student should build a unified life-cycle simulation engine that spans both the accumulation and the decumulation phase. Third, the student should use this engine to parameterize distinct FIRE styles (e.g. LeanFIRE, FatFIRE, CoastFIRE, and BaristaFIRE) as different accumulation and decumulation configurations, to analyze how sequence-of-returns risk affects success rates across styles and across historical starting decades, and to compare fixed withdrawal rules such as the four percent rule with dynamic guardrail rules in the spirit of Guyton and Klinger (2006).

Requirements: The empirical work requires the use of Python. Some data is publicly available, while additional data has to be acquired through databases accessible to affiliates of the University of Mannheim. The thesis involves building and validating a simulation engine, so strong programming skills are strongly recommended, as is comfort with standard statistical and econometric methods.

Introductory Literature:

- Anarkulova, A., Cederburg, S., O'Doherty, M. S., & Sias, R. (2025). *The Safe Withdrawal Rate: Evidence from a Broad Sample of Developed Markets*. Journal of Pension Economics & Finance, 24(3), 464–500.
- Bengen, W. P. (1994). *Determining Withdrawal Rates Using Historical Data*. Journal of Financial Planning, 7(4), 171–180.
- Guyton, J. T., & Klinger, W. J. (2006). *Decision Rules and Maximum Initial Withdrawal Rates*. Journal of Financial Planning, 19(3), 48–58.

Topic R10: Monetary Policy Momentum

Classification: Empirical topic

Advisor: Paul Seidel

Monetary policy announcements move stock markets not only through unexpected rate decisions but also through changes in expectations about future policy and the economy. Neuhierl and Weber (2024) document monetary momentum, showing that stock returns drift before and after FOMC surprises. At the same time, recent prediction-market data provide richer measures of monetary policy expectations by revealing the full distribution of beliefs rather than only the expected policy decision.

The aim of this thesis is threefold. First, the student should replicate the main monetary-momentum results of Neuhierl and Weber (2024), with particular attention to meetings with very small or zero conventional monetary policy surprises. Second, the analysis should be extended to the cross section of firms using CRSP and Compustat to test whether characteristics such as leverage, size, book-to-market, cash holdings, investment, or equity duration explain heterogeneous stock-price reactions. Third, prediction-market data from Polymarket and/or Kalshi should be used to construct measures of the distribution of ex-ante FOMC expectations, including uncertainty and potentially higher moments.

The central question is whether a zero first-moment monetary policy surprise is truly a zero-information event. For example, a fully anticipated zero shock may have very different implications from the same realized decision following substantial disagreement or uncertainty. The thesis therefore combines established monetary policy shock measures with firm-level asset-pricing data and newly available prediction-market beliefs.

Requirements: Strong programming skills in Python are recommended. The empirical analysis requires CRSP/Compustat data, monetary policy surprise measures, and the collection and processing of Polymarket and/or Kalshi data.

Introductory Literature:

- Neuhierl, A., & Weber, M. (2024). *Monetary Momentum*. LawFin Working Paper No. 37.
- Jarociński, M., & Karadi, P. (2020). *Deconstructing Monetary Policy Surprises—The Role of Information Shocks*. American Economic Journal: Macroeconomics, 12(2), 1–43.
- Diercks, A. M., Katz, J. D., & Wright, J. H. (2026). *Kalshi and the Rise of Macro Markets*. Finance and Economics Discussion Series 2026-010, Board of Governors of the Federal Reserve System; NBER Working Paper No. 34702.

Topic R11: AI as a Technological Revolution – Stock-Market Repricing in the Generative-AI Era

Classification: Empirical topic

Advisor: Paul Seidel

Major technological innovations can have large effects on stock prices as investors update their expectations about future productivity and profits. Pástor and Veronesi (2009) develop a prominent framework for understanding stock-market behavior during technological revolutions and document these dynamics during the railroad and Internet eras. The rapid emergence of generative AI provides a natural new setting in which to revisit these predictions. Recent work additionally provides publicly available measures of firms' and industries' exposure to artificial intelligence-

The aim of this thesis is threefold. First, the student should reproduce selected empirical patterns from the literature on technological revolutions and stock prices. Second, publicly available AI-exposure measures should be matched to U.S. firms to construct portfolios with high and low exposure to generative AI and examine their returns around the release of ChatGPT and subsequent major AI developments. Third, the student should investigate which firm characteristics explain heterogeneous repricing, for example size, book-to-market, profitability, investment, R&D intensity, or intangible assets. The central question is whether the emergence of generative AI produced the type of cross-sectional stock-market repricing associated with previous technological revolutions.

Requirements: The empirical work requires Python or an equivalent statistical programming language. AI-exposure measures from Felten, Raj, and Seamans are publicly available, including industry-level measures and extensions for language-model exposure. Stock returns and firm characteristics can be obtained from CRSP and Compustat through University of Mannheim databases.

Introductory Literature:

- Pástor, Ľ., & Veronesi, P. (2009). *Technological Revolutions and Stock Prices*. American Economic Review, 99(4), 1451–1483.
- Felten, E., Raj, M., & Seamans, R. (2021). *Occupational, Industry, and Geographic Exposure to Artificial Intelligence: A Novel Dataset and Its Potential Uses*. Strategic Management Journal, 42(12), 2195–2217.
- Eisfeldt, A. L., Schubert, G., Taska, B., & Zhang, M. B. (2026). *Generative AI and Firm Values*. Journal of Finance, forthcoming.

Topic R12: Do Stock-Market Anomalies Still Exist? Revisiting McLean and Pontiff

Classification: Empirical topic

Advisor: Paul Seidel

A large asset-pricing literature documents firm characteristics that predict future stock returns. McLean and Pontiff (2016) show that the returns associated with 97 published predictors decline substantially after the underlying academic findings become public: portfolio returns are approximately 58% lower after publication. They interpret this decline as evidence that investors learn about mispricing and subsequently trade against it. Ten years later, the continued availability of new data provides a natural opportunity to ask whether this process has continued and which anomalies have survived.

The aim of this thesis is threefold. First, the student should replicate the main post-publication decline documented by McLean and Pontiff (2016), potentially for a selected set of prominent anomalies. Second, the sample should be extended through the most recent available years to study whether anomaly returns have continued to decline, stabilized, or recovered. Third, the student should investigate which characteristics predict anomaly survival, for example liquidity, idiosyncratic volatility, turnover, firm size, or whether the signal is based on accounting or market information. The central question is therefore whether well-known return predictors still generate abnormal returns after many years of academic and investor attention.

The project can build on the Open-Source Cross-Sectional Asset Pricing database of Chen and Zimmermann (2022), which provides publicly available data and code for hundreds of published stock-return predictors and considerably reduces the data-construction burden.

Requirements: The empirical work requires Python or an equivalent statistical programming language. Much of the predictor data and replication code is publicly available through the Open Source Asset Pricing project. CRSP and Compustat may be used to extend the sample or construct additional firm-level variables.

Introductory Literature:

- McLean, R. D., & Pontiff, J. (2016). *Does Academic Research Destroy Stock Return Predictability?* Journal of Finance, 71(1), 5–32.
- Chen, A. Y., & Zimmermann, T. (2022). *Open Source Cross-Sectional Asset Pricing*. Critical Finance Review, 11(2), 207–264.