UNIVERSITY OF MANNHEIM
Business School

CHAIR OF FINANCIAL MARKETS AND FINANCIAL INSTITUTIONS

Master's Theses HWS 2024

Topic S1: TBA

Classification: Empirical Topic

Advisors: Sabrina Yufang

TBA (latest Monday 9th)

Topic S2: To Group or Not to Group: Team vs. Individual Managed Mutual Funds

Classification: Empirical topic

Advisor: Sabrina Yufang Sun

Mutual funds are a cornerstone of modern investment portfolios, offering individual and institutional investors a way to diversify their holdings and gain professional management of their assets. Hence, it is important to understand the factors that influence mutual fund performance and flow. One such factor is the manager structure of the mutual fund, i.e., whether a fund is managed by an individual or a team.

Traditionally, mutual funds have been predominantly managed by individual fund managers. Over the last two decades, however, there has been a steady shift toward team management. Today, approximately 80% of the active mutual funds are managed by teams, reflecting a major change in the industry's approach to fund management. This project seeks to understand how individual and team-managed funds differ from the perspective of investors.

The student has the following three tasks:

1) Conduct a thorough literature review on topics related to the performance and perception of team-management.
2) Compare the performance of individual and team managed mutual funds, with a special focus on fund return and fund flow.

Requirement:

The empirical work requires the use of large databases including MorningStar and CRSP. The candidate should feel comfortable with the use of a statistical software program (such as STATA) and econometric methods.

Introductory Literature:

Bär, M., Kempf, A. and Ruenzi, S., 2011. Is a team different from the sum of its parts? Evidence from mutual fund managers. *Review of Finance*, *15*(2), pp.359-396.

Massa, M., Reuter, J. and Zitzewitz, E., 2010. When should firms share credit with employees? Evidence from anonymously managed mutual funds. *Journal of Financial Economics*, *95*(3), pp.400-424.

Patel, S. and Sarkissian, S., 2017. To group or not to group? Evidence from mutual fund databases. *Journal of Financial and Quantitative Analysis*, *52*(5), pp.1989-2021.

Topic S3: Is there an Olympic gold medal rush in stock markets?

Classification: Empirical topic

Advisor: Annabelle Bröstl

A recent strand of the behavioral finance literature suggests that investor sentiment plays a critical role in shaping stock market behavior, with emotions and psychological factors driving market prices away from their fundamental values (Baker & Wurgler, 2006).

Studies have suggested that sports events, particularly major ones like the FIFA World Cup or the Super Bowl, might influence market sentiment and thus stock prices. For instance, Edmans, Garcia, and Norli (2007) found that national stock markets tend to perform worse after the national soccer team loses, suggesting that investor mood, influenced by such events, plays a role in market outcomes. Similarly, the work of Kaplanski and Levy (2010) documented how the FIFA world cup affects US stock markets.

Naturally, one could question whether investors pay enough attention to particular sports events such as soccer tournaments. The Olympic Games might represent a valid alternative to soccer tournaments which does not suffer from this criticism. They constitute one of the most globalized and important sports events - for the 2024 Olympics, it is estimated that several billion viewers worldwide watched some part of the coverage. This thesis should examine whether Olympic medals are associated with stock market outcomes in the medalists' countries. Furthermore, it could examine whether there are effects on the local economies in the birthplace regions of the winning athletes.

The goals of this thesis are threefold:

- First, the student should provide a review of the literature on investor sentiment and stock returns and develop hypotheses on how Olympic medals might be related to stock market outcomes in the medalists' country as well as to economic outcomes in his birthplace region.
- Second, the student should empirically analyze whether the number of gold medals won is related to stock market outcomes such as returns, trading volume and volatility in the medalists' country. This analysis can be conducted by broadly following the methodology of Edmans et al. (2007).
- Third, the student could extend the empirical analysis by assessing whether gold medals have an effect on the local economies in the athletes' birthplace regions.

Requirement:

The empirical work requires the use of large databases. The databases are accessible for affiliates of the University of Mannheim. The candidate should feel comfortable in the use of a statistical software program and econometric methods. International stock market data can be obtained from Datastream. Data on Olympic medalists, their countries and their birthplaces can be obtained from: https://edjnet.github.io/OlympicsGoNUTS/

Introductory Literature:

- Baker, M., & Wurgler, J. (2006). Investor sentiment and the cross‐section of stock returns. *The Journal of Finance*, 61(4), 1645-1680.
- Edmans, A., Garcia, D., & Norli, Ø. (2007). Sports sentiment and stock returns. *The Journal of Finance*, *62*(4), 1967-1998.
- Kaplanski, G., & Levy, H. (2010). Exploitable predictable irrationality: The FIFA World Cup effect on the US stock market. *Journal of Financial and Quantitative Analysis*, 45(2), 535-553.

Topic S4: Portfolio pumping of mutual funds: The role of investor attrition

Classification: Empirical topic

Advisor: Annabelle Bröstl

The relationship between mutual fund performance and investor flows has been extensively studied in the literature (see Christoffersen, Musto & Wermers, 2014). Prior literature suggests that the relationship between investor flows and past performance is not linear. In particular, Sirri & Tufano (1998) provide evidence that investor flows are strongly sensitive to performance only for the best-performing funds. This might give managers of mutual funds with slightly lower-than-best performance an incentive to inflate quarter-end performance.

Carhart et al. (2002) document that mutual fund returns indeed exhibit seasonality. They find that 80 percent of funds beat the S&P on the last day of the fourth quarter, whereas only 37 percent of funds beat the S&P the next day. Consistent with managers aiming to cross the threshold to top-performing funds, they provide evidence that the funds with the best year-to-date performance as of the second-to-last day of the year have the greatest price inflation on the last day of the quarter.

The first goals of the thesis are to summarize the literature on portfolio pumping and to replicate the main findings of Carhart et al. (2002) including more recent years.

In a more recent paper, Christoffersen & Xu (2017) show that mutual fund investors differ with respect to how sensitive they are to past performance. If portfolio pumping by mutual funds is motivated by investor flows, this should give mutual fund managers with less sensitive investors fewer incentives to inflate performance.

To explore this conjecture, the thesis should, second, investigate whether the findings are different for funds with less performance-sensitive investor flows. To extend the analysis, the student could propose and evaluate whether other fund or investor characteristics influence the extent to which mutual funds pump their portfolios.

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.

Introductory Literature:

Carhart, M. M., Kaniel, R., Musto, D. K., & Reed, A. V. (2002). Leaning for the tape: Evidence of gaming behavior in equity mutual funds. *The Journal of Finance*, 57(2), 661-693.

Christoffersen, S. E., Musto, D. K., & Wermers, R. (2014). Investor flows to asset managers: Causes and consequences. *Annu. Rev. Financ. Econ.*, 6(1), 289-310.

Christoffersen, S. E., & Xu, H. (2017). Investor attrition and fund flows in mutual funds. *Journal of Financial and Quantitative Analysis*, 52(3), 867-893.

Patel, S., & Sarkissian, S. (2021). Portfolio pumping and managerial structure. *The Review of Financial Studies*, 34(1), 194-226.

Topic S5: ESG Preference's Role in Disposition Effect: More or Less Underrection?

Classification: Empirical topic

Advisor: Yue Wu

The disposition effect was first introduced in the finance literature by Shefrin and Statman (1985), describing investors' tendency to sell winners too early and hold losers too long, extending Kahneman and Tversky (1979)'s prospect theory to investment behavior. Early research on the disposition effect focuses primarily on individual investors (represented by Odean (1998) using account-level transaction data), however, later literature finds that professional investors do not seem to avoid such behavioral biases (Wermer, 2003; Haigh and List, 2005).

Investors' underreaction to earnings information was documented as early as in Ball and Brown (1968), and since then, researchers have continuously studied the post-earnings announcement drift anomaly (hereafter as "PEAD") from the asset pricing side. To be more specific, stock prices underreact to earnings surprises such that positive (negative) surprises predict high (low) subsequent returns.

Frazzini (2006), among others, brings together the disposition effect of mutual funds and PEAD, demonstrating that the disposition effect has return predictability because it induces underreaction to earnings news, and stock prices drift in a known direction after the news event. Hence, it is possible to build an investment strategy based on the disposition effect and generate significant alpha. ESG preferences kicked in as a special taste of investors to specially pick stocks with good ESG performance (proxied by high ESG scores/ratings). Although there is no existing literature discussing this issue, we are curious about whether holding onto an ESG preference could magnify or mitigate the underreaction caused by disposition.

This master thesis may require students to have a basic knowledge or at least an interest in behavioral finance topics and empirical asset pricing models such as Fama-MacBeth regression. Students should aim to: first, review the related literature; second, replicate the main findings in Frazzini (2006); third, compare the disposition effect for groups of stocks with different levels of ESG scores, and try to include ESG score as a dimension to sort stocks into different portfolios when replicating the rolling portfolio approach.

Requirements:

The empirical work requires the use of large databases, i.e. CRSP and LESG Refinitiv. 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.

Introductory Literature:

Frazzini, A. (2006). The disposition effect and underreaction to news. *The Journal of Finance*, 61(4), 2017-2046.

Haigh, M. S., & List, J. A. (2005). Do professional traders exhibit myopic loss aversion? An experimental analysis. *The Journal of Finance*, 60(1), 523-534.

Hirshleifer, D., Lim, S. S., & Teoh, S. H. (2009). Driven to distraction: Extraneous events and underreaction to earnings news. *The Journal of Finance*, 64(5), 2289-2325.

Odean, T. (1998). Are investors reluctant to realize their losses?. *The Journal of Finance*, 53(5), 1775-1798.

Shefrin, H., & Statman, M. (1985). The disposition to sell winners too early and ride losers too long: Theory and evidence. *The Journal of Finance*, 40(3), 777-790.

Wermers, R. (2003). Is money really 'smart'? New evidence on the relation between mutual fund flows, manager behavior, and performance persistence, Working Paper.

* Reading should focus on the paper required to be replicated and empirical part of the other papers. Theoretical models of the listed literature are not mandatory readings.

Topic S6: Timing Corporate Investment Decisions Under Political Uncertainty

Classification: Empirical topic

Advisor: Yue Wu

With the multipolarization of the world, and a more serious and chaotic geopolitical situation than ever before (wars, conflicts, fuzzy variables in presidential elections, etc.), the impact of macro-political uncertainty on micro-level investment decisions has come back to the center of focus. The relationship between uncertainty and the timing of investment decisions has been studied as early as in Bernake (1983), where firms become more cautious and hold back on investments when facing more uncertainty and thus form an investment cycle at the firm level. In what follows, Rodrik (1991) and Pindyck and Solimano (1993) specify that political uncertainty reduces the level of firm investment expenditures. At the aggregate level, Barro (1991) finds that political instability, proxied by the number of revolutions and coups per year and number per million population of political assassinations per year, significantly reduces investment ratios.

Two concerns arise in this line of research: first, there is a clear line between political instability (measured by wars, conflicts, assassinations, etc.) and uncertainty (changes in political situation); second, we care about the investment cycle brought by political uncertainty (lower investment ratio when uncertainty is high, while higher investment ratio when uncertainty is low; thus the importance of timing investment decisions in the topic), and not just cross-sectional causality. Based on Bertrand et al. (2006)'s finding that politically connected firms increase their investment during election years to help their connection get re-elected, Julio and Yook (2012) proxy political uncertainty with country-level election and regime change data and find a tendency of firms reducing investments during election years, and reducing more when the election outcome is more uncertain. However, the paper documents 248 national elections in 48 countries held only between 1980 and 2005.

The goals of this master thesis are: first, to review the related literature; second, to replicate the main findings of Julio and Yook (2012), and considering the workload and data limits, students could choose a subset of countries as their sample (developed/ing countries, OECD countries, etc., as long as sound reasons are given); third, to expand the model to include data until year 2018 and to check if the political uncertainty-induced investment cycle hypothesis still stands in more recent times.

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. Election data used in Julio and Yook (2012) is from free and open Polity V database maintained by the Center for International Development and Conflict Management at the University of Maryland and can be accessed via https://www.systemicpeace.org/inscrdata.html. The candidate should feel comfortable in the use of a statistical software program (such as STATA) and econometric methods.

Introductory Literature:

Barro, R. J. (1991). Economic Growth in a Cross Section of Countries. *The Quarterly Journal of Economics*, 106(2), 407–443.

Bernanke, B. S. (1983). Irreversibility, uncertainty, and cyclical investment. *The Quarterly Journal of Economics*, 98(1), 85-106.

Bertrand, M., Kramarz, F., Schoar, A., & Thesmar, D. (2007). Politicians, firms and the political business cycle: Evidence from France. Unpublished working paper, University of Chicago, 1-40.

Julio, B., & Yook, Y. (2012). Political uncertainty and corporate investment cycles. *The Journal of Finance*, 67(1), 45-83.

Pindyck, R. S., & Solimano, A. (1993). Economic instability and aggregate investment. *NBER macroeconomics annual*, 8, 259-303.

Rodrik, D. (1991). Policy uncertainty and private investment in developing countries. *Journal of Development Economics*, 36(2), 229-242.

* Reading should focus on the paper required to be replicated and empirical part of the other papers. Theoretical models of the listed literature are not mandatory readings.

Topic S7: We have won but at what cost

Classification: Empirical topic

Advisor: Paul Seidel

The profitability of trading strategies based on risk factors has been a central topic in finance research. While these strategies appear highly profitable on paper, actual implementation in real-world conditions often erodes these profits due to various costs, including transaction costs and market impact. The paper by Patton and Weller (2020) investigates the gap between theoretical and realized returns by estimating the implementation costs associated with these anomalies.

This Master's thesis aims to replicate the main findings of Patton and Weller (2020) and then extend their analysis by exploring additional risk factors and the effects of varying market conditions over time. Specifically, this thesis will examine whether these additional factors also incur significant implementation costs and how these costs evolve during different market environments, such as bull and bear markets.

Specific tasks:

1. **Conduct a literature review** focusing on the impact of implementation costs on the profitability of trading strategies based on market anomalies.
2. **Replicate the main findings of Patton and Weller (2020)**, which includes re-estimating the implementation costs for value, size, and momentum factors using Fama-MacBeth regressions.
3. **Extend the analysis** by incorporating additional risk factors to determine if these factors also suffer from high implementation costs, examining the impact of different market environments (e.g., financial crises, high volatility periods) on the implementation costs of these trading strategies and your own ideas.

Requirements:

The student should be comfortable with using statistical software such as Stata for empirical analysis and have a solid econometric foundation.

Data:

The replication part uses historical financial data, primarily from the CRSP. The needed data can be received with the standard access from the university or is publicly available.

Introductory Literature:

Patton, A. J., & Weller, B. M. (2020). What you see is not what you get: The costs of trading market anomalies. *Journal of Financial Economics*, 137(3), 515-549.