UNIVERSITY OF MANNHEIM
Business School

CHAIR OF FINANCIAL MARKETS AND FINANCIAL INSTITUTIONS

# Master's Theses FSS 2023



AACSB ACCREDITED
EFMD EQUIS ACCREDITED
ASSOCIATION OF MBAS ACCREDITED

**Topic S1: The UN Principles of Responsible Investment – Effective Commitment or Greenwashing?**

Classification: Empirical Topic

**Advisor: Frederik Horn**

As the negative impact of climate change is becoming increasingly clear, policy makers have called upon financial institutions to take the charge in transforming the world's economy. In 2006, the UN has launched the "Principles for Responsible Investment" (PRI) which defines a framework to incorporate ESG principles in investment policies. Since then, over 3700 financial institutions have signed the principles with over $120 Trillion in assets under management. At first glance, this sounds like a promising initiative that promotes corporate social responsibility as large institutional investors should divest from "brown" companies and thereby force management to take action in becoming more sustainable (Chava, 2014).

However, a recent paper by Kim and Yoon (2022) demonstrates that institutional investors do not respond to signing the PRI by investing in more ESG friendly companies or divesting problematic companies. This is worrying as it indicates that the financial institutions signing the PRI are engaging in greenwashing but are not changing anything about their investment approach. Yet, some questions are left unanswered by the paper. Are more ESG oriented institutional investors signing the principles? Do fund families joining the PRI set up more ESG focused funds? Is there a subset of funds in the fund family that take the sustainability goals seriously? Do the companies maybe improve their ESG profile in response to their large institutional investors joining the initiative? Given the importance of transforming the economy to become more sustainable and the large role financial institutions play in this process, it would be interesting to further investigate the results of the PRI.

First, the student should write a comprehensive survey of the academic literature on institutional investors and ESG. Second, she should replicate the main findings of Kim and Yoon (2022). Finally, the student should extend the analyses to address the aforementioned questions.

**Introductory Literature:**

Chava, S. (2014). Environmental externalities and cost of capital. *Management Science*, *60*(9), 2223-2247.

Gibson Brandon, R., Glossner, S., Krueger, P., Matos, P., & Steffen, T. (2022). Do responsible investors invest responsibly?. *Review of Finance*, *26*(6), 1389-1432.

Kim, S., & Yoon, A. (2022). Analyzing active fund managers' commitment to ESG: Evidence from the United Nations Principles for Responsible Investment. *Management Science*.

**Topic S2: The Gender Gap in Stock Market Participation: Evaluating the Evidence**

Classification: Empirical Topic

**Advisor: Frederik Horn**

One of the most persistent puzzles in household finance is that households hold very little stocks (Haliassos and Bertaut, 1995). This is concerning as households potentially hamper their wealth accumulation and subsequently might face considerable shortcomings in retirement income. On top of that, previous research has shown that women tend to be even more reluctant to invest into the stock market. This is potentially problematic as it further increases the already large gap in wealth between men and women.

Several explanations have been proposed to explain the gap in stock market participation rates between men and women. These include marital status (Love, 2010), overconfidence (Barber and Odean, 2001), or gender norms (Ke, 2021). However, a comprehensive evaluation of the antecedents of the gender gap in stock market participation is lacking. Blau and Kahn (2017) explore the importance of various factors for the gender wage gap. Thus, it would be interesting to apply the same methodology to the gender gap in stock market participation.

First, the student should review the literature that proposes explanations for the difference in stock market participation rates between men and women. Hence, the first part of the thesis should include a comprehensive review of the academic literature regarding this topic. Second, the student should explore cross-sectional variations in the gender gap in stock market participation and how they interact with each other. Finally, following the methodology of Blau and Kahn (2017) the student should evaluate the explanations for the stock market participation gap between the genders. These analyses should be done for both data from USA and Australia.

**Introductory Literature:**

Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *The Quarterly Journal of Economics*, *116*(1), 261-292.

Blau, F. D., & Kahn, L. M. (2017). The gender wage gap: Extent, trends, and explanations. *Journal of Economic Literature*, *55*(3), 789-865.

Haliassos, M., & Bertaut, C. C. (1995). Why do so few hold stocks?. *The Economic Journal*, *105*(432), 1110-1129.

Ke, D. (2021). Who wears the pants? Gender identity norms and intrahousehold financial decision-making. *The Journal of Finance*, *76*(3), 1389-1425.

Love, D. A. (2010). The effects of marital status and children on savings and portfolio choice. *The Review of Financial Studies*, *23*(1), 385-432.

**<u>Topic S3: Active ETFs and closet indexing</u>**

Classification: Empirical Topic

**Advisor: Frederik Horn**

In recent years, one of the most prominent trends in finance has been the rise in passive index funds (ETFs). Since 2003, the global AUM of ETFs has grown from $200 billion to around $10 trillion which marks a 50-fold increase. Originally, the idea of ETFs was to closely track some kind of index and thereby provide investors with an easy and low-cost opportunity to participate in a well-diversified portfolio of stocks.

However, recently there has been a surge in specialized ETFs that either track some obscure index (e.g. obesity-related investments) or claim to generate superior returns by following a smart beta strategy which leads to a frequent rebalancing of the portfolio according to some investment objective (Cheng et al., 2019). In a comprehensive investigation of the ETF space, Easley et al. (2021) argue that most ETFs as of now are active either by aiming to generate positive alpha or are used as active investment vehicle by investors to capture a certain subset of companies.

In a similar vein, Akey et al. (2021) demonstrate that one third of ETFs are more active than the median active fund. This raises the question whether it is justified to even call most ETFs passive investments. At the same time, Cremers and Petajisto (2009) document that the share of active mutual funds that are mostly following an index when investing (so called “closet indexing”) has also increased dramatically. Hence, it would be interesting to compare the activeness, performance, and fund flows of ETFs and mutual funds and draw conclusions whether these products are significantly and sufficiently different.

First, the student should provide a comprehensive survey of the academic literature concerning ETFs. Second, she should replicate the main findings of Easley et al. (2021) and Akey et al. (2021). On top of that, the student should analyze mutual funds and their propensity to closet index. Finally, she should compare active ETFs and closet index mutual funds regarding their characteristics.

**Introductory Literature:**

Akey, P., Robertson, A., & Simutin, M. (2021). Closet active management of passive funds. *Rotman School of Management Working Paper*, (3874582).

Cheng, S., Massa, M., & Zhang, H. (2019). The unexpected activeness of passive investors: a worldwide analysis of ETFs. *The Review of Asset Pricing Studies*, *9*(2), 296-355.

Cremers, K. M., & Petajisto, A. (2009). How active is your fund manager? A new measure that predicts performance. *The Review of Financial Studies*, *22*(9), 3329-3365.

Easley, D., Michayluk, D., O’Hara, M., & Putniņš, T. J. (2021). The active world of passive investing. *Review of Finance*, *25*(5), 1433-1471.

**Topic S4: Are ESG Funds Walking the Talk or Window-Dressing? The Role of Fund Manager Characteristics**

Classification: Empirical topic

**Advisor: Sabrina Yufang Sun**

The number of mutual funds with "ESG" or "Sustainable" labels has increased exponentially over the past decade. Two questions are important to answer: How sustainable are the portfolios of these self-claimed ESG funds? What factors influence the sustainability of their portfolios?

Several recent papers have investigated the sustainability of ESG funds and reached contradicting conclusions. Dikolli et al. (2022) find that mutual funds with investment objectives designated as "Sustainable Investment" are more likely than other mutual funds to vote in support of ESG shareholder proposals, suggesting that ESG funds are "walking the talk", i.e. promoting ESG. Raghunandan and Rajgopal (2022), on the other hand, find that portfolios of self-labelled ESG funds have worse ESG track records with respect to labor and environmental compliance, supporting the "window-dressing" hypothesis.

The current thesis will replicate the main findings of Raghunandan and Rajgopal (2022) and extend the authors' analysis by investigating the influence of fund manager characteristics (race, gender, political affiliation) moderate the relationship found in the reference paper. Are female managers more likely to stay true to their ESG promise? Are liberal managers more likely to perform ESG window-dressing?

**Specific tasks:**

1) Conducting a literature review, with a focus on how fund manager characteristics influence the asset allocation of mutual funds in general, and ESG funds in particular.
2) Replicate the main findings in Raghunandan and Rajgopal (2022)
3) Extend the analysis by examining the effects of fund manager characteristics on ESG window-dressing.

**Requirement:**

The student should be comfortable with Stata and econometrics.

**Data:**

The replication part uses mutual fund data, all of which can be downloaded from the university's MorningStar and WRDS databases. For the extension part, I will provide the datasets on fund manager characteristics.

**Introductory Literature:**

Dikolli, S. S., Frank, M. M., Guo, Z. M., & Lynch, L. J. (2022). Walk the talk: ESG mutual fund voting on shareholder proposals. *Review of Accounting Studies*, 27(3), 864-896.a

Raghunandan, A., & Rajgopal, S. (2022). Do ESG funds make stakeholder-friendly investments? *Review of Accounting Studies*, 27(3), 822-863.

**Disclaimer:**

I am working on a related project.

**<u>Topic S5: Attention of the Robinhood Crowd: Social Media Sentiments and Retail Investor Trading</u>**

Classification: Empirical topic

**Advisor: Sabrina Yufang Sun**

The trading platform Robinhood was founded in 2013 with a plan to make stock market more accessible to retail investors.  By mid-2020, Robinhood has attracted over 13 million investors, with a typical account size of 2000 USD.

The active participation of such tiny investors on this large scale is a new phenomenon to both the practitioners and the academic finance literature. What types of stocks do Robinhood investors tend to hold? What are the driving forces for their trading behaviors?

A small number of recent papers investigate the trading behaviors of Robinhood investors. Barber et al (2022) find that Robinhood investors engage in more attention-induced trading than other retail investors. Welch (2022) find that Robinhood investors tilted primarily toward stocks with high past share volume and dollar-trading volume (mostly big stocks), and that the aggregated Robinhood portfolio from mid-2018 to mid-2020 had both good timing and good alpha.

The current thesis will replicate and extend the main finding of Barber et al (2022). The extension part will investigate how sentiments on social media drive the attention and trading behavior of Robinhood investors.

**Specific tasks:**

1) Conduct a thorough literature review on retail investor trading, with a focus on papers using data from Robinhood and similar trading platforms.
2) Replicate the main findings of Barber et al. (2022)
3) Extend the analysis of Barber et al. (2022) by investigating the social media sentiments that drive Robinhood investor trading.

**Requirement:**

The student should be comfortable with Stata and econometrics.

**Data:**

I will provide Robinhood trading data to the student writing this thesis. CRSP and Compustat data can be downloaded from the university's WRDS databases. I will show the student how to download social media data.

**Introductory Literature:**

Barber, B. M., Huang, X., Odean, T., & Schwarz, C. (2022). Attention ‐ Induced Trading and Returns: Evidence from Robinhood Users. *The Journal of Finance*, 77(6), 3141-3190.

Welch, I. (2022). The wisdom of the Robinhood crowd. *The Journal of Finance*, 77(3), 1489-1527.

**Disclaimer:**

I am working on a related project.

**Topic S6: Moral Sentiments and the Rise of Sustainable Investment in Germany**

Classification: Empirical topic (German language skill required!)

**Advisor: Sabrina Yufang Sun**

Traditionally, when we try to understand the financial markets, morality often takes a back seat. Recently, however, moral discourse about businesses have surged on both the main street and wall street. Thanks to the growing importance of millennials and their "woke" culture, corporate executives on the main street are now taking a stance on moralized issues like abortion and income equality. Mutual funds managers increasingly label their products as "sustainable".

While there are many investigations of this phenomenon in the United States, little is known about how popular moral sentiments drive the behaviors of German investors. This thesis seeks to fill this gap by investigating the relationship between the moral sentiments in public discourse and the rise of ESG investments in Germany. Specifically, the student will collect and categorize the moral sentiments in German newspaper articles and relate these to the financial decisions of German household investors, in particular to their growing interest in sustainable investment products such as ESG mutual funds.

**Specific tasks:**

1) Collect and analyze a set of German newspaper articles with moral sentiments on finance- and business-related topics. (I will provide concrete guidance on how to collect the articles and how to categorize the moral sentiments in the collected articles.)
2) Empirically examine how moral sentiments shape the investment decisions of German households, in particular their equity investment and their growing interest in sustainable investment.

**Requirement:**

1) Native-level German language skill is a must.
2) The student should be comfortable with Stata and econometrics.

**Data:**

1) I will provide the student with the numerical data needed for the empirical analysis.
2) The student will collect the textual data (newspaper articles).

**Disclaimer:**

1) I am currently working on this project myself.
2) This is not a replication project. Instead, the student will work closely with me throughout the thesis process. I will provide concrete guidance on how to collect articles, how to categorize them, and what empirical analyses to run.

**Topic S7: An Analysis of Gender Differences in Confidence Levels among Corporate Executives**

Classification: Empirical topic

**Advisor: Leah Zimmerer**

Several papers have documented evidence that CEOs are overconfident when making investment decisions for their firms, for example, Malmendier and Tate (2005) and Billet and Qian (2008).

Furthermore, previous research in finance and psychology has shown that men exhibit a higher level of overconfidence compared to women. For example, Barber and Odean (2001) analyze the investment decision of retail investors and show male retail investors are more overconfident than female retail investors.

Huang and Kisgen (2012) study those gender differences in the corporate setting. They compare the financial and investment decisions of male and female executives. They find that acquisitions made by companies with male executives tend to have announcement returns that are roughly 2% lower compared to those made by firms with female executives. Furthermore, debt offerings by companies with male executives also have lower announcement returns. This evidence suggests that men display a higher level of overconfidence compared to women when making important corporate decisions.

The first goal of the thesis is to replicate the main findings of Huang and Kisgen (2012) including more recent years, to explore whether we see changes over time and to analyze whether the results are different for CEOs and CFOs.
The second goal of the thesis is to examine whether networks are important. Are female executives with larger, male-dominated networks more confident?

**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:**

Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *The Quarterly Journal of Economics*, 116(1), 261-292.

Billett, M. T., & Qian, Y. (2008). Are overconfident CEOs born or made? Evidence of self-attribution bias from frequent acquirers. *Management Science*, *54*(6), 1037-1051.

Huang, J., & Kisgen, D. J. (2013). Gender and corporate finance: Are male executives overconfident relative to female executives?. *Journal of Financial Economics*, 108(3), 822-839.

Malmendier, U., & Tate, G. (2005). CEO overconfidence and corporate investment. *The Journal of Finance,* 60(6), 2661-2700.

**Topic S8: Gender Spillovers in US vs. European Corporate Leadership**

Classification: Empirical topic

**Advisor: Leah Zimmerer**

Gender inequality remains prevalent in leadership positions. Despite women constituting 47.1% of the U.S. labor force in 2021, according to the Department of Labor, they only held 25.2% of board seats and just 5.6% of CEOs in companies listed in the Russell 3000 are female in the second quarter of 2021.

The literature offers several possible explanations for the persisting differences in leadership positions: for example differences in preferences for competition and negotiation (Niederle and Vesterlund, 2007), educational and occupational choices (Blau and Kahn, 2017). Furthermore, there might be systematic demand-based barriers that prevent women from reaching leadership positions. The current top executives and corporate directors, who are largely male, may unconsciously discriminate or hold gender-based biases. Thus, Matsa and Milller (2011) argue that women in leadership positions can help other women to reach leadership position.

Matsa and Milller (2011) presents evidence that women play a supportive role in corporate America. The board of directors, being the governing body of a company, is responsible for appointing and overseeing its executives. They investigate the impact of having female representation on corporate boards on the gender diversity of a company's top management. Matsa and Miller (2011) find that the proportion of women on a company's board of directors in the preceding year has a positive and significant effect on the proportion of women in top executive positions. An increase of 10 percentage points in the female representation on the board of directors corresponds to a 1.4 percentage point increase in the number of female executives.

The first goal of the thesis is to provide a comprehensive survey of the academic literature concerning potential systematic demand-based and institutional barriers that present a “glass ceiling” for women and potential remedies to overcome the glass ceiling. The second goal of the thesis is to replicate the main findings of Matsa and Miller (2011) including more recent years and to explore whether we see changes over time. The third goal of the thesis is to explore whether the main findings can be replicated for European countries, e.g. does the German Corporate Landscape have an influence on the results, e.g. are family firms different?

**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:**

Blau, F. D. and L. M. Kahn (2017). The gender wage gap: Extent, trends, and explanations. *Journal of Economic Literature*, 55 (3), 789-865.

Matsa, D. A., & Miller, A. R. (2011). Chipping away at the glass ceiling: Gender spillovers in corporate leadership. *American Economic Review*, *101*(3), 635-639.

Niederle, M. and L. Vesterlund (2007). Do women shy away from competition? *The Quarterly Journal of Economics,* 122, 1067-1101.

**Topic S9: Uncovering the Impact of Noisy Factors on Institutional Investors' Returns**

Classification: Empirical topic

**Advisor: Leah Zimmerer**

Fama and French (1993) argue that the returns from three long-short portfolios, namely the market's excess return, the difference in returns between value and growth stocks (HML), and the difference in returns between small and large stocks (SMB), can explain the cross-section of stock returns. This three-factor model has had a major impact on finance research and is widely considered the standard for empirical studies. It is also widely used in asset pricing to assess stock returns, mutual fund performance, and M&A transactions.

To use the three-factor model, researchers usually download the factor returns provided by Kenneth French, which are available for download on his website and via WRDS.

However, Akey et al. (2022) show that the factor returns can vary greatly depending on the time of data download, e.g. 90% of the monthly HML returns between the 2005 and 2006 vintages are different. Akey et al. (2022) argue that only a limited number of these retrospective changes can be explained by revisions in the source data. Their analysis demonstrates that changes in factors can have a significant impact in two widely studied areas: pricing stocks across different sectors and mutual funds. The alpha of mutual funds changes by more than 1% depending on the time of the download of the factor returns.

The first goal of the thesis is to replicate the main findings of Akey et al. (2022). Do we see variation of factor returns depending on the time of download? Does it have an impact on mutual fund returns? The second goal of the thesis is to analyze the impact on institutional investor returns.

**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 different factor return vintages will be provided. The candidate should feel comfortable in the use of a statistical software program (such as STATA) and econometric methods.

**Introductory Literature:**

Akey, P., Robertson, A., & Simutin, M. (2022). Noisy factors. *Rotman School of Management Working Paper Forthcoming*.

Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics,* 33(1), 3-56.