

University of Mannheim  $\cdot$  Chair of Financial Markets and Financial Institutions  $\cdot$  L 9, 1-2  $\cdot$  68161 Mannheim  $\cdot$  Germany

# Seminar Theses, FSS 2019

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## S1: Does it pay for a firm to be moral?

Classification: Empirical Topic

**Advisor: Frederik Horn** 

Recently, companies have been under increasing scrutiny to not only consider the interest of shareholders, but also other stakeholders like employees or the surrounding community. There has been the call by policy makers and the general public for firms to also incorporate environmental, social, and corporate governance (ESG) related outcomes into their decision-making. On the other hand, there is the traditional view in Finance that companies should solely act in the interest of its shareholders (Friedman, 1970). According to that view, managers of a firm should only engage in activities that maximize shareholder value.

This conflict could be resolved if ESG activities of firms would actually enhance shareholder wealth. However, there is a discussion in the literature whether ESG activities are beneficial for the financial performance of a firm. Some argue that ESG investing raises returns (Edmans, 2011; Nagy, Kassam and Lee, 2015), whereas others claim that these activities must necessarily lower expected returns (Hong and Kacperczyk, 2009).

The student will be provided with a cleaned dataset containing measures of corporate social engagement, corporate governance, and environmental performance, as well as stock market returns of US firms. Based on this data, the student should build a measure of the ethical impact of a company. Next, the student should employ the methodology of Hong and Kacperczyk (2009) regarding stock returns of sin stocks and evaluate whether firms with a higher ESG score also exhibit better financial performance.

- Friedman, M. (1970). A Friedman doctrine: The social responsibility of business is to increase its profits. *The New York Times Magazine*, *13*(1970), 32-33.
- Hong, H., and Kacperczyk, M. (2009). The price of sin: The effects of social norms on markets. *Journal of Financial Economics*, *93*(1), 15-36.
- Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, 101(3), 621-640.
- Nagy, Z., Kassam, A., and Lee, L. E. (2015). Can ESG Add Alpha?. MSCI.





## S2: Public Perception of Corporate Fraud: Evidence from the Twitter Feed

Classification: Empirical Topic

**Advisor: Frederik Horn** 

A firm being caught committing corporate fraud usually incurs a hefty fine for their wrongdoing. However, the literature has found that the damage to the firm is not only restricted to this fine, but also a huge reputational loss, which results in a loss of customers and ultimately market value (Karpoff and Lott, 1993). This loss seems to be a lot higher than the initial fine. Karpoff, Lee and Martin (2008a) for example estimate that cost to be seven times higher than the actual cost incurred through fines. This makes it necessary for a firm to effectively manage public opinion during such a crisis to preserve shareholder value. Strategies might involve embedding negative news with a lot of positive, uplifting news or downplaying the severance of the committed fraud.

On 18th September 2015, the Environmental Protection Agency (EPA) in the US broke the news that VW had manipulated the emission data of their diesel cars by installing an unlawful software<sup>1</sup>. The scandal, known as Dieselgate, immensely tarnished the reputation of VW all around the world. The scandal is perfect setting to explore how a company deals with such an event as new allegations only gradually became public. This provides the opportunity to explore how VW reacts over time and how the stock market reacts.

The student will be provided with a dataset containing all VW tweets around the Dieselgate as well as replies to each of these tweets. In a first step, the student should descriptively analyze how VW deals with the scandal and how the public reacts to these attempts. This should be done by classifying tweets according to their sentiment. The student should also explore how public sentiment has changed towards VW through the event. In a next step, the student could analyze in an event study the impact of public perception management on stock prices. A good example for the event study methodology is for example provided by Hotchkiss and Strickland (2003).

- Karpoff, J. M., & Lott Jr, J. R. (1993). The reputational penalty firms bear from committing criminal fraud. *The Journal of Law and Economics*, *36*(2), 757-802.
- Hotchkiss, E. S., & Strickland, D. (2003). Does shareholder composition matter? Evidence from the market reaction to corporate earnings announcements. *The Journal of Finance*, *58*(4), 1469-1498.
- Karpoff, J. M., Lee, D. S., & Martin, G. S. (2008). The cost to firms of cooking the books. *Journal of Financial and Quantitative Analysis*, 43(3), 581-611.

<sup>&</sup>lt;sup>1</sup> https://detroit.cbslocal.com/2015/09/21/epa-volkswagon-thwarted-pollution-regulations-for-7-years/



#### **Topic S3: Mutual Funds and Risk Shifting**

Classification: Empirical topic

**Advisor: Leah Zimmerer** 

Mutual Funds substantially change their exposure to risk over time. The question whether the risk shifting has an impact on the performance of the fund is an ongoing discussion in research. Chevalier and Ellison (1997) state that fund managers have an incentive to strategically change the risk of the fund due to a convex fund flow-performance relationship. This study shows that risk-shifting has a negative impact on the performance of the fund. However, risk-shifting could be driven by the superior investment abilities of mutual fund managers (Kacperczyk, Marcin, Van Nieuwerburgh and Veldkamp, 2014). If the fund manager has superior stock picking or market timing abilities, she will change the composition of the fund portfolio and unintendedly the risk of the portfolio changes. Thus, risk-shifting might lead to superior performance of the fund.

Huang, Sialm and Zhang (2011) address the question whether the risk-shifting of mutual funds has an impact on the performance of the funds. They use a holdings-based measure of risk-shifting which is the difference between a fund's current holdings volatility and fund's past realized volatility. The advantage of this measure is that it uses overlapping time periods and therefore captures the risk changes induced by portfolio holding changes and not by changes in market conditions. The risk-shifting measure is used to analyze the performance consequences of the risk-shifting behavior. Huang et al. (2011) show that funds that change (increase) risk subsequently underperform those stocks with a stable risk shifting measure.

The goal of the thesis is to first replicate the main findings of Huang et al. (2011) including more recent years. Second, it can be examined if the risk-shifting varies over time and how it might be different in the financial crisis. Third, the student can analyze possible sources of risk-shifting (cash, systematic risk and idiosyncratic risk).

- Chevalier, J., & Ellison, G. (1997). Risk taking by mutual funds as a response to incentives. *Journal of Political Economy*, *105*(6), 1167-1200.
- Huang, J., Sialm, C., & Zhang, H. (2011). Risk shifting and mutual fund performance. *The Review of Financial Studies*, 24(8), 2575-2616.
- Kacperczyk, M., Nieuwerburgh, S. V., & Veldkamp, L. (2014). Time-varying fund manager skill. *The Journal of Finance*, 69(4), 1455-1484.





## **Topic S4: Twitter and Post Earnings Announcement Drift**

Classification: Empirical topic

**Advisor: Leah Zimmerer** 

After the earnings announcement of a firm, investors neglect a subset of information about firm's future profitability. The price reaction after good (bad) earnings surprises is too low (high) and thus the good (bad) earnings surprises predict higher (lower) returns (Hirshleifer and Teoh, 2005). Hence, stock prices underreact to earnings announcements. This anomaly is called post-earnings-announcement drift (Bernard and Thomas, 1989). Limited investor attention is a potential reason for the underreaction. For example, the PEAD is stronger when there is a greater number of distracting same-day earnings announcements from other firms (Hirshleifer, Lin and Teoh, 2009) or when the announcement is made on Fridays (DellaVigna and Pollet, 2009). Additionally, Mian and Sankaraguruswamy (2012) show that investor sentiment has an impact on the stock price sensitivity to earnings surprises. In low sentiment periods the reaction to bad earnings surprises is higher than during high sentiment periods.

One measure for investor attention and sentiment are the Twitter feeds. For example, Bollen et al. (2011) show that mood measured by the sentiment in Twitter feeds has an influence on stock market returns.

The goal of the thesis is to analyze the impact of investor attention and sentiment measured by Twitter data on the reaction to earnings surprises and the post earnings announcement drift. First, the idea is to test the hypothesis whether the stock market reaction to earnings surprises is weaker and the PEAD is stronger in low attention periods. Second, the student should examine whether the sentiment has an impact on the stock price sensitivity to earnings surprises.

- Bernard, V. L., & Thomas, J. K. (1989). Post-earnings-announcement drift: delayed price response or risk premium?. *Journal of Accounting research*, *27*, 1-36.
- Bollen, J., Mao, H., & Zeng, X. (2011). Twitter mood predicts the stock market. *Journal of computational science*, *2*(1), 1-8.
- DellaVigna, S., & Pollet, J. M. (2009). Investor inattention and Friday earnings announcements. *The Journal of Finance*, *64*(2), 709-749.
- 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.
- Hirshleifer, D., Lim, S. S., & Teoh, S. H. (2011). Limited investor attention and stock market misreactions to accounting information. *The Review of Asset Pricing Studies*, 1(1), 35-73.
- Mian, G. M., & Sankaraguruswamy, S. (2012). Investor sentiment and stock market response to earnings news. *The Accounting Review*, 87(4), 1357-1384.





## Topic S5: Household debt and consumer bankruptcy in Europe

Classification: Empirical topic

**Advisor: Alison Schultz** 

Over the last decades, individual household debt has increased dramatically. Concurrently, most industrial countries report a sharp rise in the number of consumer bankruptcy filings. Explanations for these developments range from demand- and supply-side arguments to changes in the institutional setting (Livshits 2015). Existing literature mainly focuses on the U.S.

The goal of this thesis is to empirically assess if the causes identified for the U.S. are useful to explain developments in Europe. It should find answers to the following questions: How has private household debt and consumer bankruptcy developed in Europe over recent years? What causes are given in the literature for a rise in consumer debt and bankruptcies? Are these causes cited in the U.S. based literature consistent with cross-country differences and developments in debt levels and default rates in Europe?

## **Requirements:**

The candidate should be willing to read the relevant literature and analyze it independently. S/he should have some econometric understanding and experience with a statistical programme (Stata, R, or Matlab). ECB and Bundesbank data on German and European household finance will be provided.

- Badarinza, Cristian, John Y. Campbell, and Tarun Ramadorai, 2016, International Comparative Household Finance, Annual Review of Economics 8, 111–144
- Creditreform eV, 2018, SchuldnerAtlas. Überschuldung von Verbrauchern, Jahr 2018.
- Gross, David B., and Nicholas S. Souleles, 2002, An Empirical Analysis of Personal Bankruptcy and Delinquency, *Review of Financial Studies* 15, 319–347.
- Livshits, Igor, 2015, Recent Developments in Consumer Credit and Default Literature, *Journal of Economic Surveys* 29, 594–613.





## <u>Topic 6: Corporate Investment Under Policy Uncertainty</u>

Classification: Empirical Topic

**Advisor: Jiri Tresl** 

Firm-level investments are a key driver for economic growth. When corporations make forward looking decisions like investments, uncertainty regarding the timing, content, and potential impact of policy decisions represent a serious obstacle. Therefore, research in finance has focused on investigating the impact of policy related uncertainty on economic activity. Baker, Bloom, and Davis (2016) develop a new method to measure economic policy uncertainty and their findings are consistent with theories that highlight negative economic effects of uncertainty shocks. Using this index, Gulen and Ion (2016) further show that policy uncertainty depresses corporate investment and that this effect is magnified for firms with a higher degree of investment irreversibility.

In this seminar paper, the student should provide a brief overview of the literature on policy uncertainty and economic consequences. In the empirical part, the purpose of this paper is to replicate the findings of Gulen and Ion (2016) and check whether they are robust to using a more recent time series. Access to the necessary financial data from Compustat will be provided.

- Gulen, H., Ion, M., 2016. Policy uncertainty and corporate investment. The Review of Financial Studies 29, 523-564.
- Baker, S.R., Bloom, N., Davis, S.J., 2016. Measuring economic policy uncertainty. The Quarterly Journal of Economics 131, 1593-1636.

