

## Seminar Thesis Spring 2021

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## **Topic S1: The Cost of Doing Business – Evidence from Environmental Fines**

Classification: Empirical Topic

**Advisor: Frederik Horn**

In 2010, the UN estimated that companies around the world caused 2.2 trillion US dollar in environmental damages in the year 2008 alone<sup>1</sup>. As the risk of climate change is materializing more and more, companies are facing increased scrutiny over their business practices. In theory, corporations should internalize their negative externalities (Pigou, 1929), in this case harmful actions against the environment, by for example being sued and fined by the government. Hefty fines should deter managers from engaging in activities that damage the environment as the expected cost of being penalized should greatly exceed the benefits from disregarding environmental regulation. However, it is often argued by environmental activists and organizations that these fines only represent a mere slap on the wrist and are already incorporated in the cost calculations of companies.

It would be interesting to test that claim empirically as it provides important policy implications. Assuming firms already incorporate the expected cost of fines in their cost-benefit analyses these would imply that the Environmental Protection Agency (EPA) should increase the size of the fines to worsen the trade-off. Testing this hypothesis could be done by exploring the stock market performance of violators compared to their peers and check whether the size of the fine affects the subsequent performance.

Previous finance literature has primarily focused on the short-term stock market reaction of investors to positive and negative environmental news about a company (Flammer, 2013; Krüger, 2015) or the overall performance of sin stocks compared to other stocks (Hong & Kacperczyk, 2009). Yet, from the academic literature does not emerge a clear picture whether investors penalize the negative environmental impact of firms.

First, the student should provide an overview over the literature on environmental performance and misconduct and financial outcomes. Second, she should empirically test whether firms that are regularly fined by regulators are indeed outperforming their environmentally responsible peers. This could be done utilizing the methodology proposed by Hong and Kacperczyk (2009). Finally, it would be interesting to test whether the relative size of the fines significantly affects the financial performance of the firm. The data on corporate environmental fines will be provided by the chair and financial data is readily available for download.

### **Introductory Literature:**

Flammer, C. (2013). Corporate social responsibility and shareholder reaction: The environmental awareness of investors. *Academy of Management Journal*, 56(3), 758-781.

Hong, H., & Kacperczyk, M. (2009). The price of sin: The effects of social norms on markets. *Journal of Financial Economics*, 93(1), 15-36.

Krüger, P. (2015). Corporate goodness and shareholder wealth. *Journal of Financial Economics*, 115(2), 304-329.

Pigou, A. C. (1929). Economics of welfare.

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<sup>1</sup> <https://www.theguardian.com/environment/2010/feb/18/worlds-top-firms-environmental-damage> (November 27th, 2020)

## **Topic S2: Mortality Beliefs and Saving Decisions**

Classification: Empirical Topic

**Advisor: Frederik Horn**

One important puzzle of the finance literature concerns the fact that young people save too little (Skinner, 2007) whereas older people save too much (Poterba, Venti, and Wise, 2011). This has important implications for individuals and the economy as a whole as it can lead to considerable gaps in retirement income and ultimately to old-age poverty.

In a recent paper, Heimer, Myrseth, and Schoenle (2019) propose mortality beliefs as a potential explanation for this puzzle. In classical finance models, individuals decide each period how much to consume and how much to save for retirement. The implicit assumption of these models is that individuals on average know accurately how long they are going to live. If you expect to live until 90 years old, you have to save a lot more during your work life compared to the situation where you do not reach retirement age.

However, Heimer et al. (2019) find that mortality beliefs vary considerably over a person's lifetime. More specifically, younger individuals underestimate their life expectancy whereas older people overestimate it. Thus, if you think you are going to die early, you are naturally saving less. They argue that this is the reason why young people save too little and the elder save too much.

The goal of the thesis is to first summarize the literature on mortality beliefs and saving decisions. Second, she should replicate the findings of Heimer et al. (2019) with regard to biases in mortality expectations and its effect on savings decisions using data from the survey of consumer financials (SCF). Finally, a possible extension could be to explore how mortality expectations vary with the age of an individual and how, in turn, this affects saving decisions. The micro data of the survey of consumer financials as well as life expectancies are readily available for download.

### **Introductory Literature:**

Heimer, R. Z., Myrseth, K. O. R., & Schoenle, R. S. (2019). YOLO: Mortality beliefs and household finance puzzles. *The Journal of Finance*, 74(6), 2957-2996.

Poterba, J., Venti, S., & Wise, D. (2011). The composition and drawdown of wealth in retirement. *Journal of Economic Perspectives*, 25(4), 95-118.

Skinner, J. (2007). Are you sure you're saving enough for retirement? *Journal of Economic Perspectives*, 21(3), 59-80.

### **Topic S3: The Impact of Employee Satisfaction on Equity Prices**

Classification: Empirical topic

**Advisor: Leah Zimmerer**

Is employee satisfaction beneficial for firm value? This question is nowadays widely discussed in finance research. Traditional theories argue that employees can be seen as an input factor (just like any other input factor) and thus the goal of the manager is to minimize their cost. Therefore, employee satisfaction which arises when employees are underworked or overpaid reduces firm value. (See for example, Taylor, 1911)

However, more recent human relations theories (e.g. Herzberg, 1959) state that employees are the key organizational asset (e.g. Rajan and Zingales, 1998) and argue that employees are important for the innovation and quality of products. Employee satisfaction increases employee's motivation and the employee's working quality. Thus, employee satisfaction increases firm value.

Overall, existing theories show conflicting predictions as to whether employee satisfaction is beneficial for firm value. While the traditional theories argue that employee satisfaction reduces firm value, the human relations theories reason that employee satisfaction increases firm value. The question whether employee satisfaction is beneficial for firm value is important for managers and investors.

Edmans (2011) examines the relationship between employee satisfaction and equity prices. He uses the "100 Best Companies to Work For in America" as a proxy for employee satisfaction. A value-weighted portfolio of the "100 Best Companies to Work For in America" generates, on average, an annual four-factor alpha of 3.5% from 1984 to 2009, and 2.1% above industry benchmarks.

The goal of the thesis is to first replicate the main findings of Edmans (2011) including more recent years. Second, the student should use the MSCI ESG KLD STATS to create an employee satisfaction index. Third, the student should use this index to analyze the impact on equity prices.

#### **Requirements:**

The empirical work requires the use of large databases, i.e. CRSP and COMPUSTAT. 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:**

Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, 101(3), 621-640.

Herzberg, F. (1959). *The Motivation to Work*. J.Wiley&Sons, NewYork.

Rajan, R. G., & Zingales, L. (1998). Power in a Theory of the Firm. *The Quarterly Journal of Economics*, 113(2), 387-432.

Taylor, F. W. (1911). *The principles of scientific management*. New York, 202.

**Topic S4: Securitization and Risk in the Banking Sector - The Global Financial Crisis and the Covid Outbreak**

Classification: Empirical topic

**Advisor: Alison Schultz**

For many years, banking researchers and practitioners praised securitization as a tool to disperse credit risk and thereby enhance the resilience of the financial system. With the outbreak of the last financial crisis, this view has changed fundamentally: Securitization, in particular the excessive use of asset-backed securities combined with off-balance vehicles, led to a concentration of risk in the run-up of the crisis. In consequence, securitization is now often seen as a threat to financial stability.

For the 2007-09 financial crisis, Acharya, Schnabl and Suarez (2013) document how securitization, combined with credit guarantees, contributed to the accumulation of risk: Banks set up conduits to securitize assets while insuring the newly securitized assets with credit guarantees. This structure allowed banks to bypass capital requirements. However, it left banks with almost the complete share of losses in case of default. When many securitized assets, in particular those backed by U.S. subprime mortgages, lost their value in summer 2007, banks with more exposure to conduits suffered more, resulting in a greater depression of stock prices.

With the outbreak of the Covid-pandemic in early 2020, default risk of consumers and firms became prevalent again. Similar to the financial crisis, this could have increased investors' doubt about the health of those banks that are highly exposed to securitization.

The goal of this thesis is to replicate Acharya, Schnabl and Suarez' most important findings. In particular, the candidate should replicate the event study used to show that the financial crisis hit banks with a high securitization level harder. The candidate should then apply Acharya, Schnabl and Suarez' methodology to the Covid-Outbreak in 2020 and investigate if stock prices of banks with a high securitization level declined more as compared to banks with a low securitization level.

**Requirements:**

The candidate should have a strong interest in the topic. She should be willing to engage with the details of securitization. She should have a good understanding of econometric concepts and some experience with a statistical programme (Stata, R, or Matlab). The student is encouraged to bring in her own ideas. Data on securitization and credit guarantees is accessible on [Philipp Schnabl's personal website](#), bank data will be provided by the advisor.

**Introductory Literature:**

Acharya, V. V., Schnabl, P., & Suarez, G. (2013). Securitization without risk transfer. *Journal of Financial Economics* 107(3), 515-536.

KPMG (2020). Covid-19: Impact on the banking sector. Available at: <https://home.kpmg/xx/en/home/insights/2020/07/covid-19-impact-on-banking-m-and-a-2020.html>

Shin, Hyun Song (2009). Securitisation and financial stability. *VoxEU*. Available at: <https://voxeu.org/article/securitisation-undermined-financial-stability>

European Parliamentary Research Service (2015). Understanding Securitisation. Available at: [https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/569017/EPRS\\_IDA%282015%29569017\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/569017/EPRS_IDA%282015%29569017_EN.pdf)