# Heterogeneous Investor Response to New Risks in Financial Markets: Evidence from Environmental Litigation Risk

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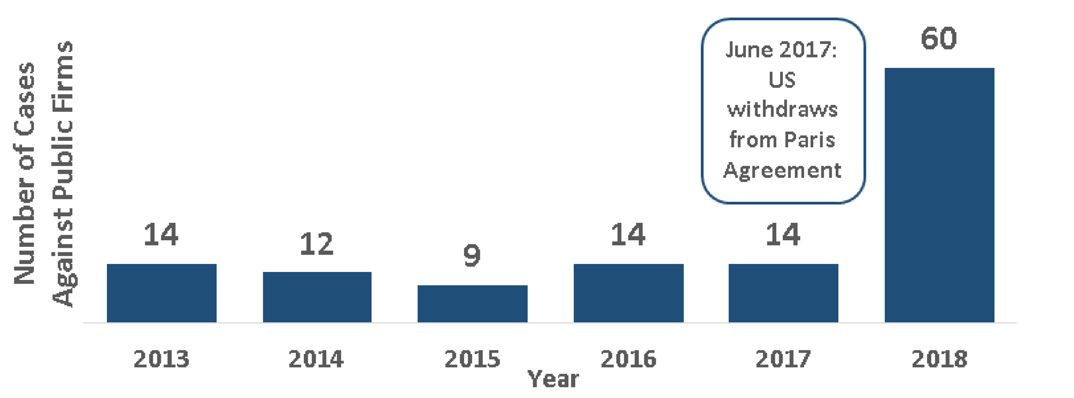
## A. Introduction

Climate change can pose risks to companies and it is unclear whether these factors are priced into asset values. I explore whether the financial market is processing climate risks as new information becomes available. I use new environmental lawsuits as a shock to both defendant and competitor litigation risk from climate change. Looking at competitor firms helps get around the selection effect issues of litigation. I then test four possible hypotheses that could be occuring in financial markets.

## B. Environmental Litigation

Litigation risk has been increasing over the past few years, especially after the US withdrew from the Paris Agreement in 2017. Litigation was seen as a way to influence firms in the absence of government policies.




## C1. Hypothesis 1: No Response

***Hypothesis:*** Environmental litigation risk is not being reflected in asset prices.

***Empirical Test:*** Determine if there is a negative price response after a litigation event using a Fama French 3-factor event study:

**Figure 1: CAR - Defendants**

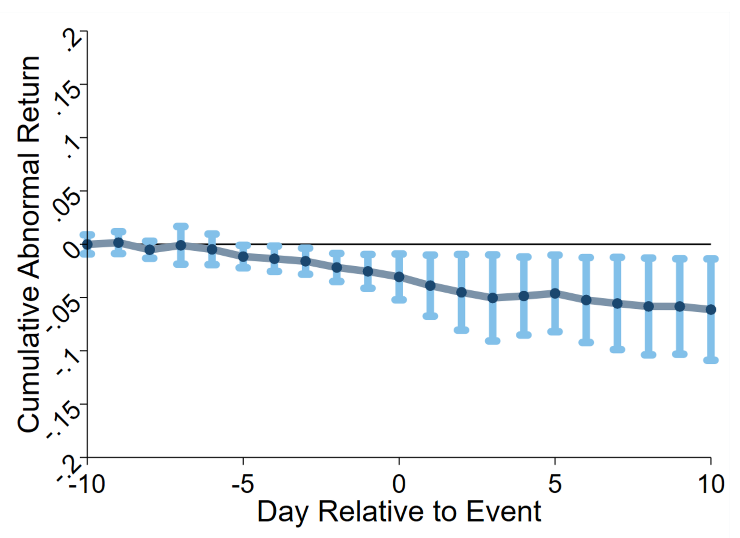
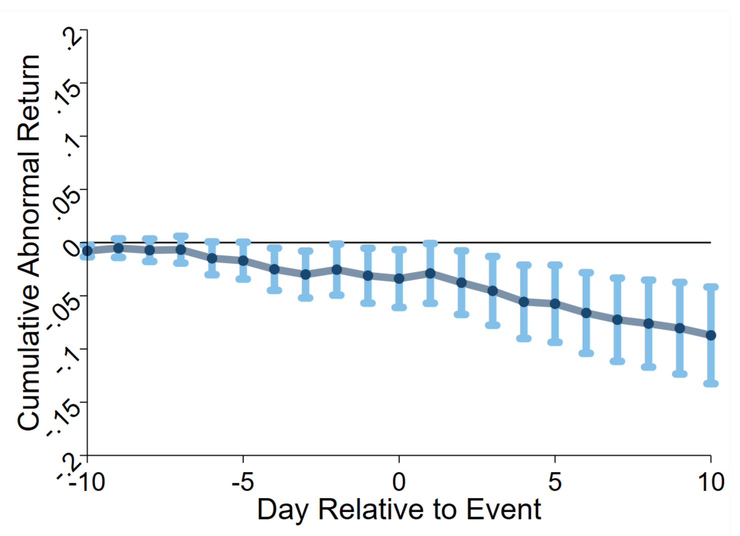



**Figure 2: CAR - Competitors**




***Conclusion:*** I find both a negative price response of around -5% for both defendants and competitors so it seems unlikely that investors aren't aware of these risks or monitoring them.

## D. Conclusion

After an environmental lawsuit, I find:

1. A negative price response of around -5%;
2. Large investors increasing holdings by about 100,000 shares;
3. ESG-conscious investors increasing holdings by about 100,000 shares; and
4. A decreased probability of an environmental shareholder proposal by about 2%.

These results may indicate that there is a comparative advantage to engagement; large, ESG-conscious investors may be buying up high risk firms and engaging with them to create value. I find a decrease in public environmental shareholder proposals, so the engagement is likely happening privately.

## C2. Hypothesis 2: Screening

***Hypothesis:*** Some investors are aware of this risk and are selling shares to other investors that aren't aware of this risk.

***Empirical Test:*** Test whether large investors are selling to smaller investors in the quarter of a lawsuit since large investors would have more resources to process risk information:

**Figure 3: Holdings by Size - Defendant**

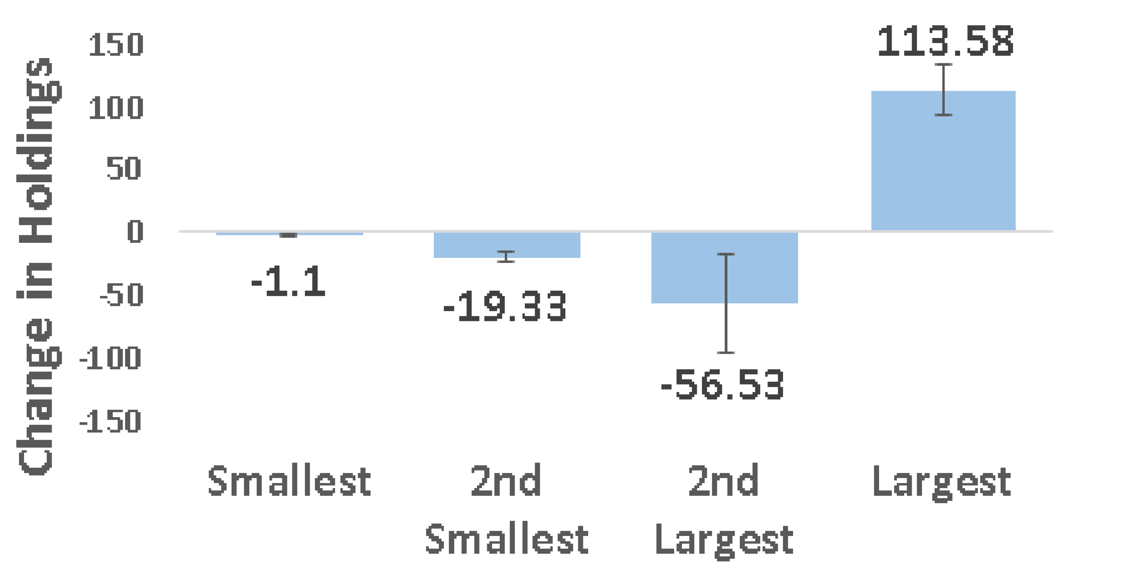
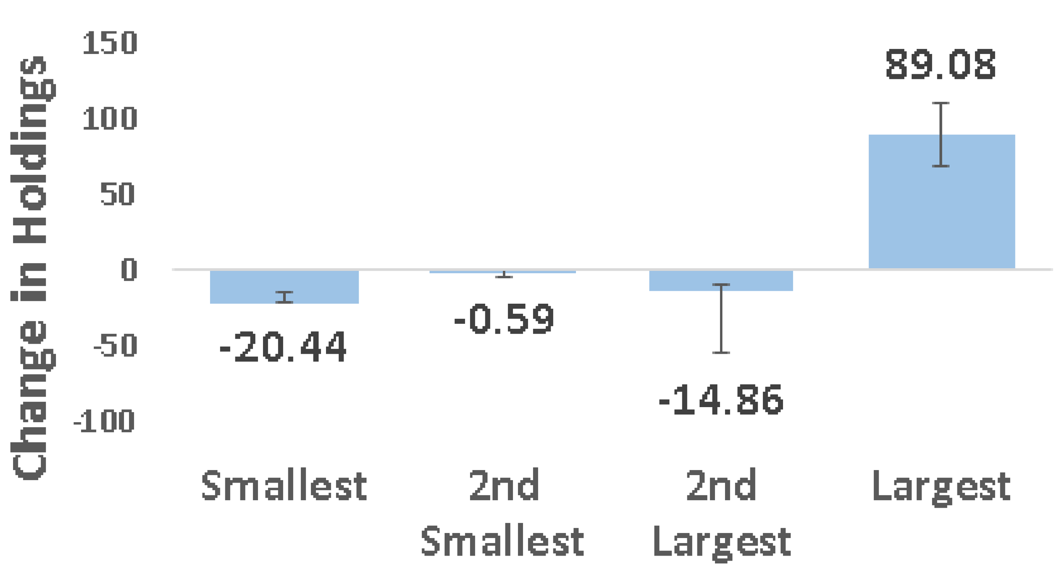



**Figure 4: Holdings by Size - Competitors**




***Conclusion:*** I find smaller investors are decreasing holdings and large investors are increasing holdings, so it seems unlikely that there are large information asymmetries with respect to this risk.

## C3. Hypothesis 3: Preferences

***Hypothesis:*** Investors redistribute company shares according to their preferences for ESG factors; ESG investors sell firms with high environmental litigation risk to other investors.

***Empirical Test:*** Test if ESG investors decrease holdings in defendant and competitor firms after litigation:

**Figure 5: Holdings by ESG - Defendant**

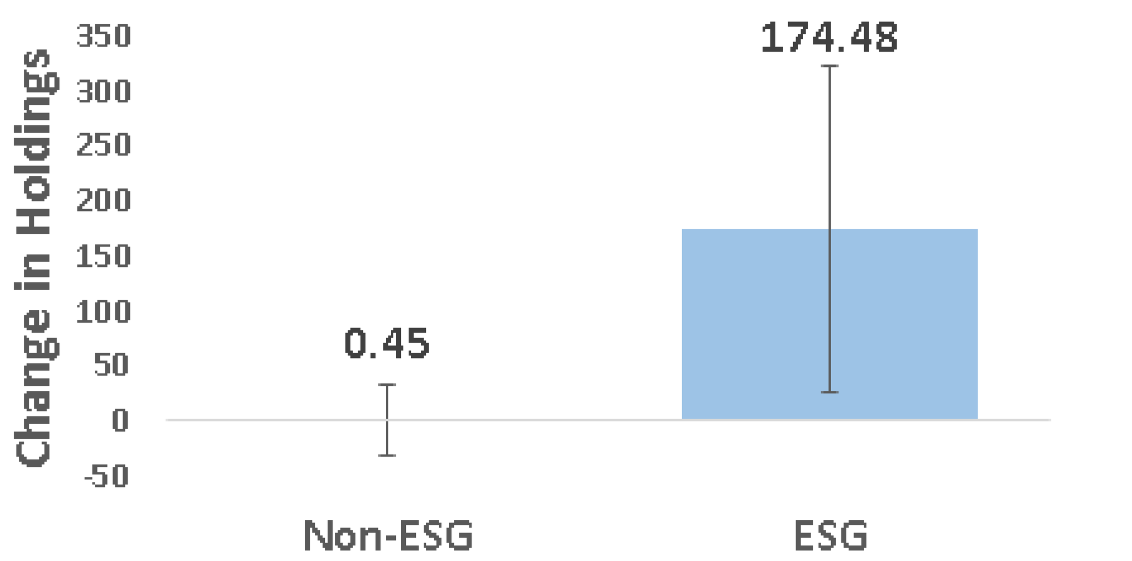
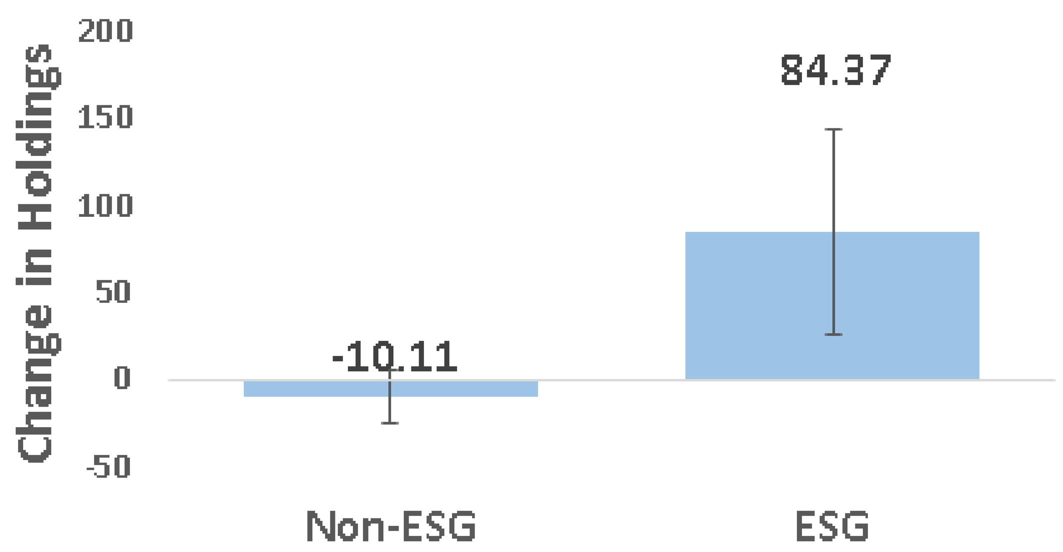



**Figure 6: Holdings by ESG - Competitors**




***Conclusion*** Since ESG investors are increasing holdings, it seems unlikely investors are redistributing based on their preferences for ESG factors.

## C4. Hypothesis 4: Engagement

***Hypothesis:*** Investors with a comparative advantage in engagement buy high risk firms, engage with the company and create value by improving environmental performance.

***Empirical Test:*** We already know large and ESG-conscious investors, which likely have a comparative advantage in engagement, are increasing holdings. Is there more engagement in the form of environmental shareholder proposals following a litigation event?:

**Figure 7: Proposals - Defendant**

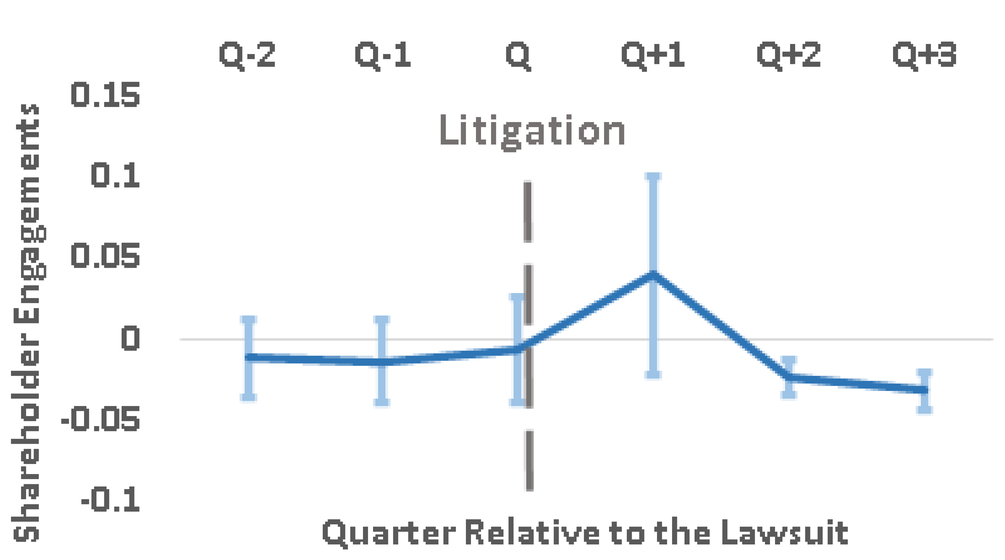
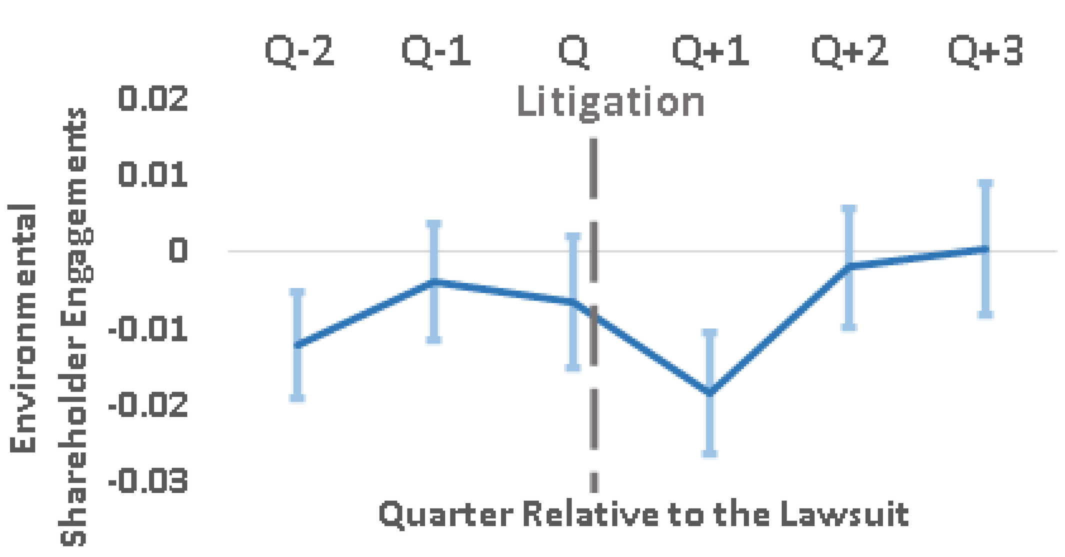



**Figure 8: Proposals - Competitors**




***Conclusion:*** There are fewer environmental shareholder proposals following a litigation event. There may be substitution from public engagement by smaller firms to private engagement by larger firms.