

The Role of Climate Information in Investment Decisions

What we have learned from academic research

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Motivations for incorporating climate information into investment decisions

Evidence from investor surveys and investor actions

The motivations depend on perspective:
Values versus Value

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- *Values* perspective:

Considerations of sustainability in investments develop from nonpecuniary preferences

Example: Investor does not want to be complicit in supporting “objectionable” corporate products or behavior that contributes to climate change

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- *Values* perspective:

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Example: Investor does not want to be complicit in supporting “objectionable” corporate products or behavior that contributes to climate change

- *Value* perspective:

Corporate climate risk affects investment risks and return opportunities because it can affect firm value.

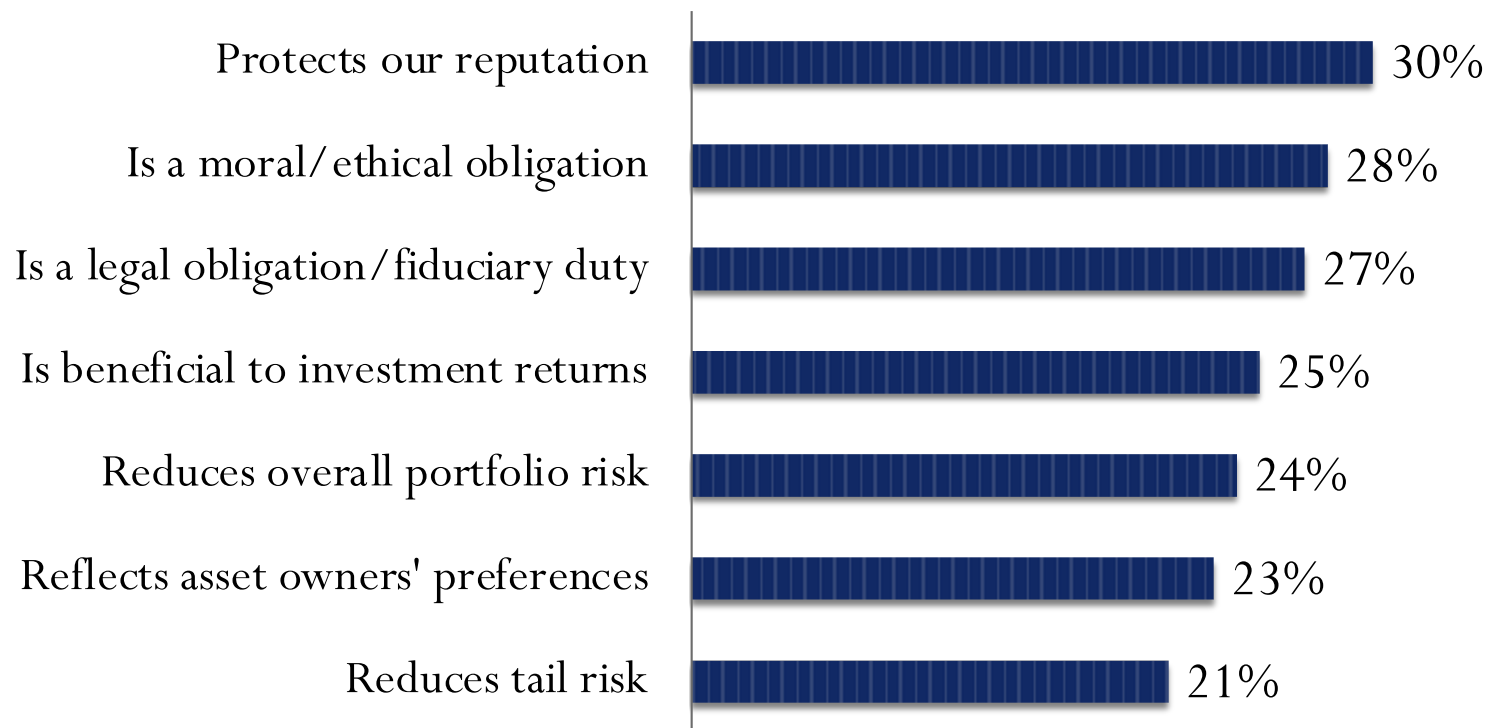
Evidence from worldwide survey of large institutional investors

Motivations for incorporating climate risk information into investment decisions

Survey

Institutional investor climate risk motivations

Top motivations for incorporating climate risk into investment decisions



These are not mutually exclusive.

Survey

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Value versus *Values*



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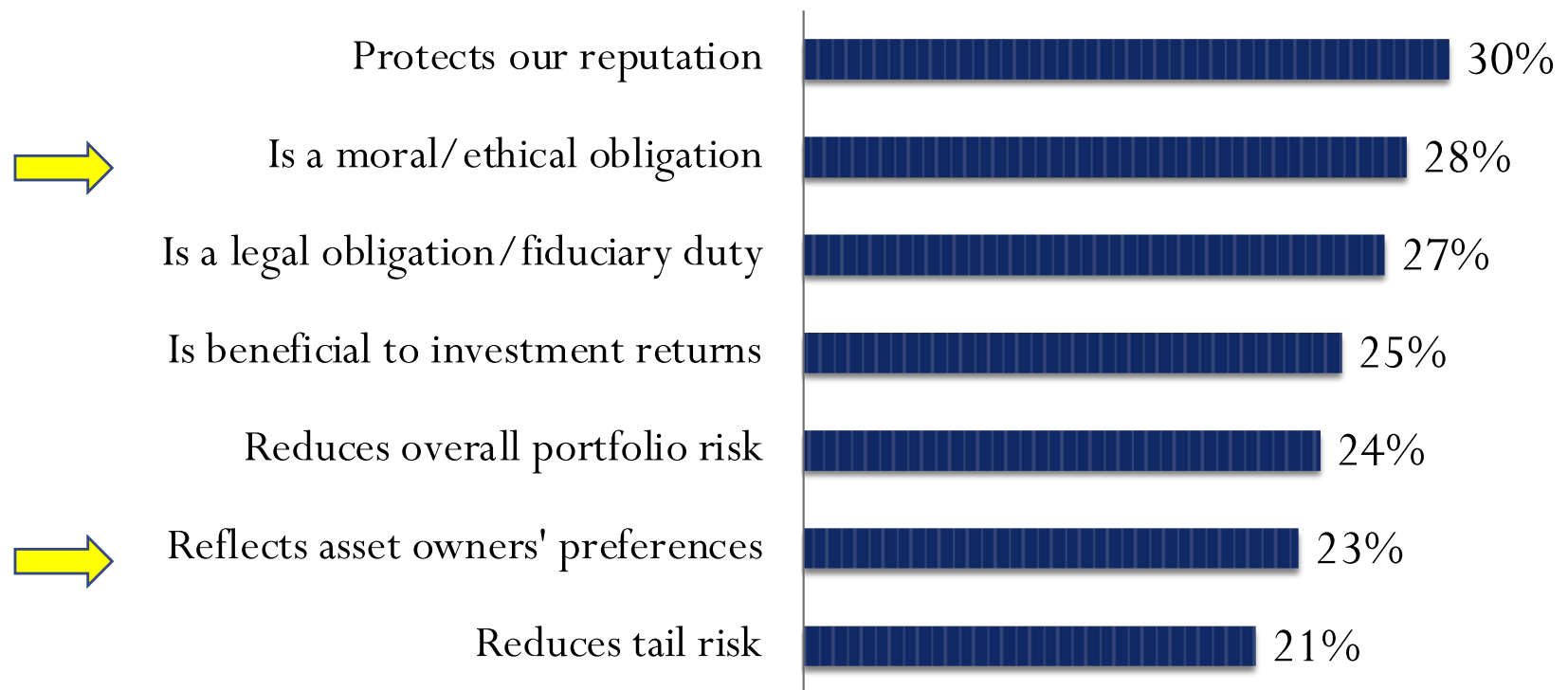
Value →

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Krueger, Sautner, and Starks (RFS, March 2020)

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Evidence from investor actions

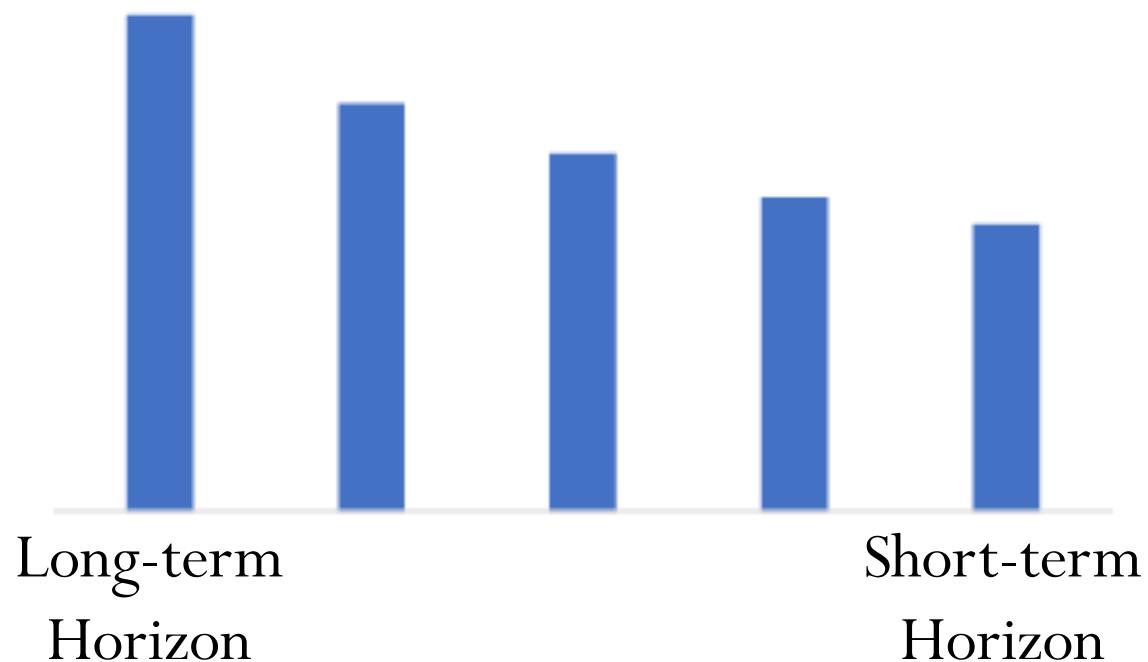
- Motivations for incorporating ESG or climate risk information into investment decisions

Actions

Equity markets: Long-term institutional investor interest in ESG

Asset managers, pension funds, mutual funds, insurance companies, banks

Average
Portfolio
ESG
Score



From Starks, Venkat, and Zhu (*Journal of Finance*, forthcoming)

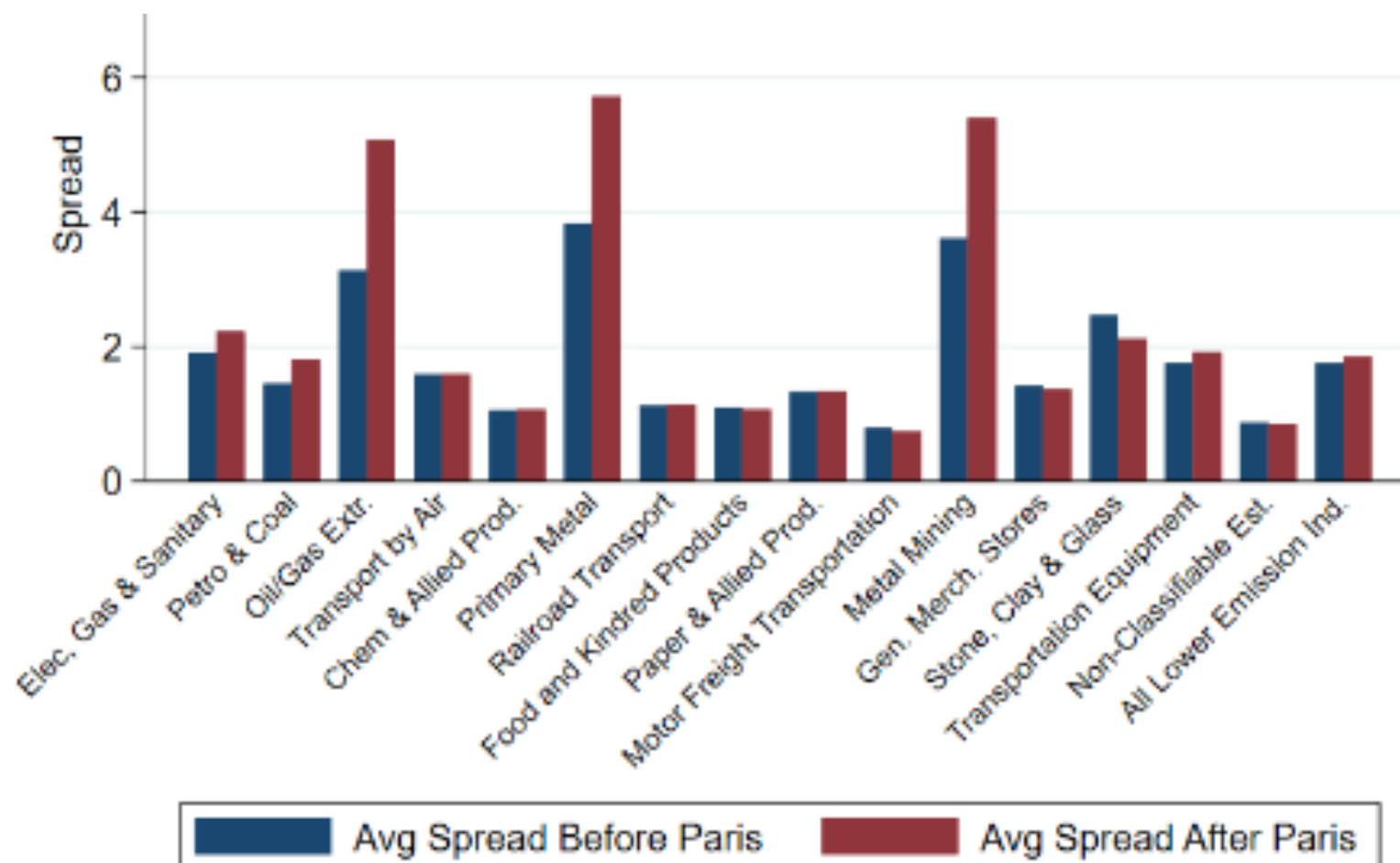
Bond markets: Evidence from market participant actions

- Price changes and credit rating changes after signing of Paris Agreement

Actions

Bond markets: Reaction to climate risk shock Corporate bond yield spreads

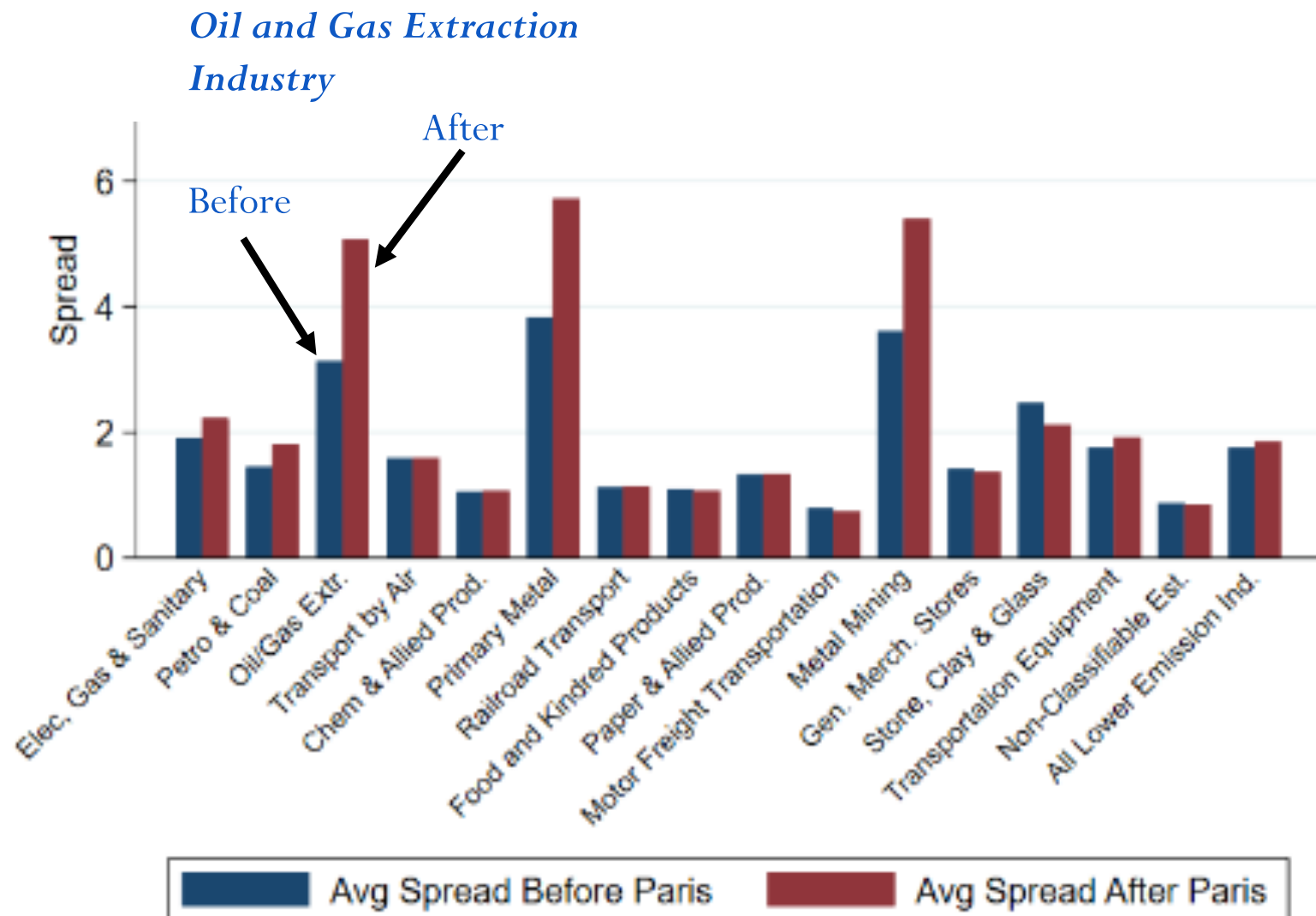
*Largest Carbon Emissions Industries
before and after the Paris Agreement*



Actions

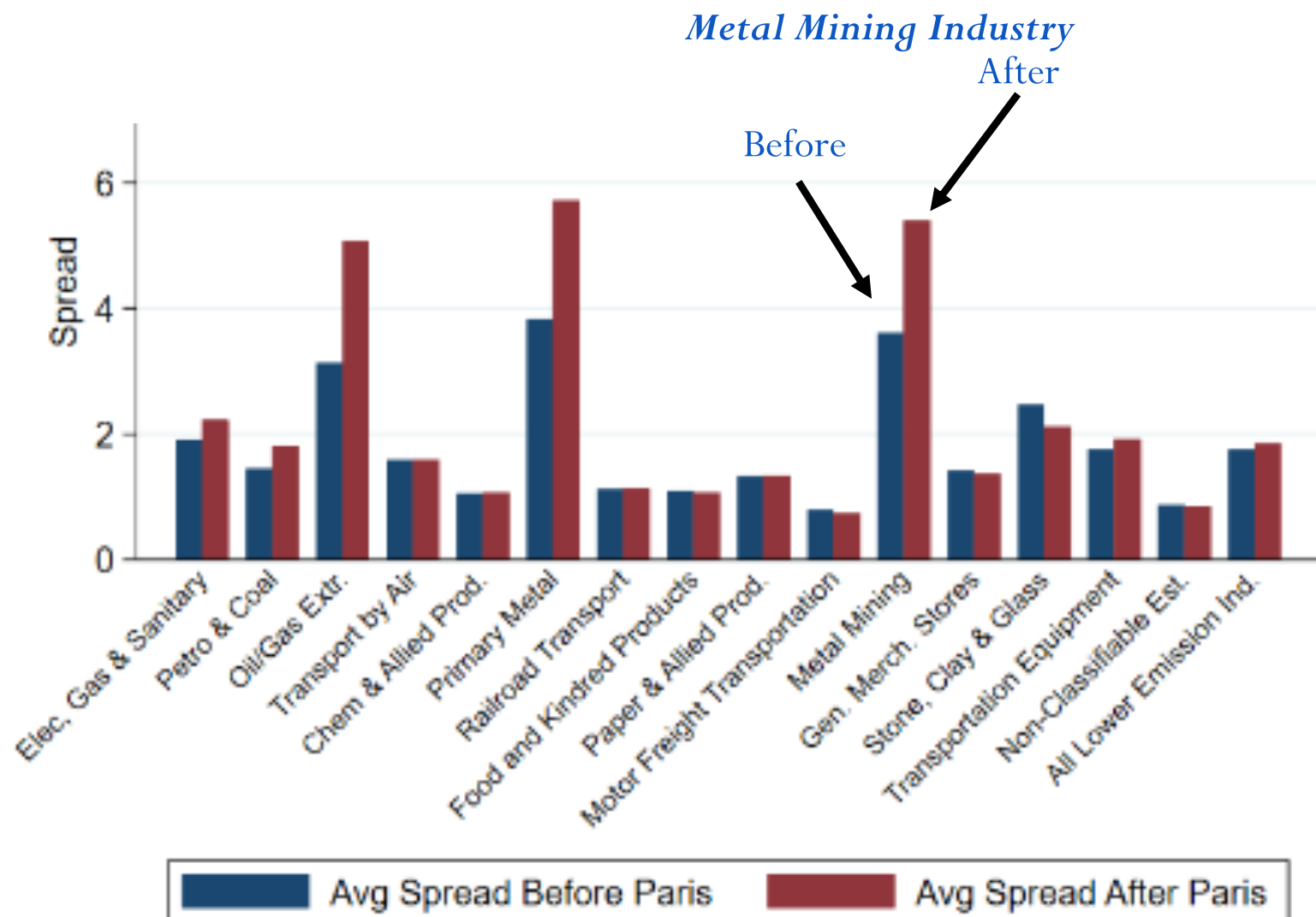
Bond markets: Reaction to climate risk shock

Corporate bond yield spreads



Actions

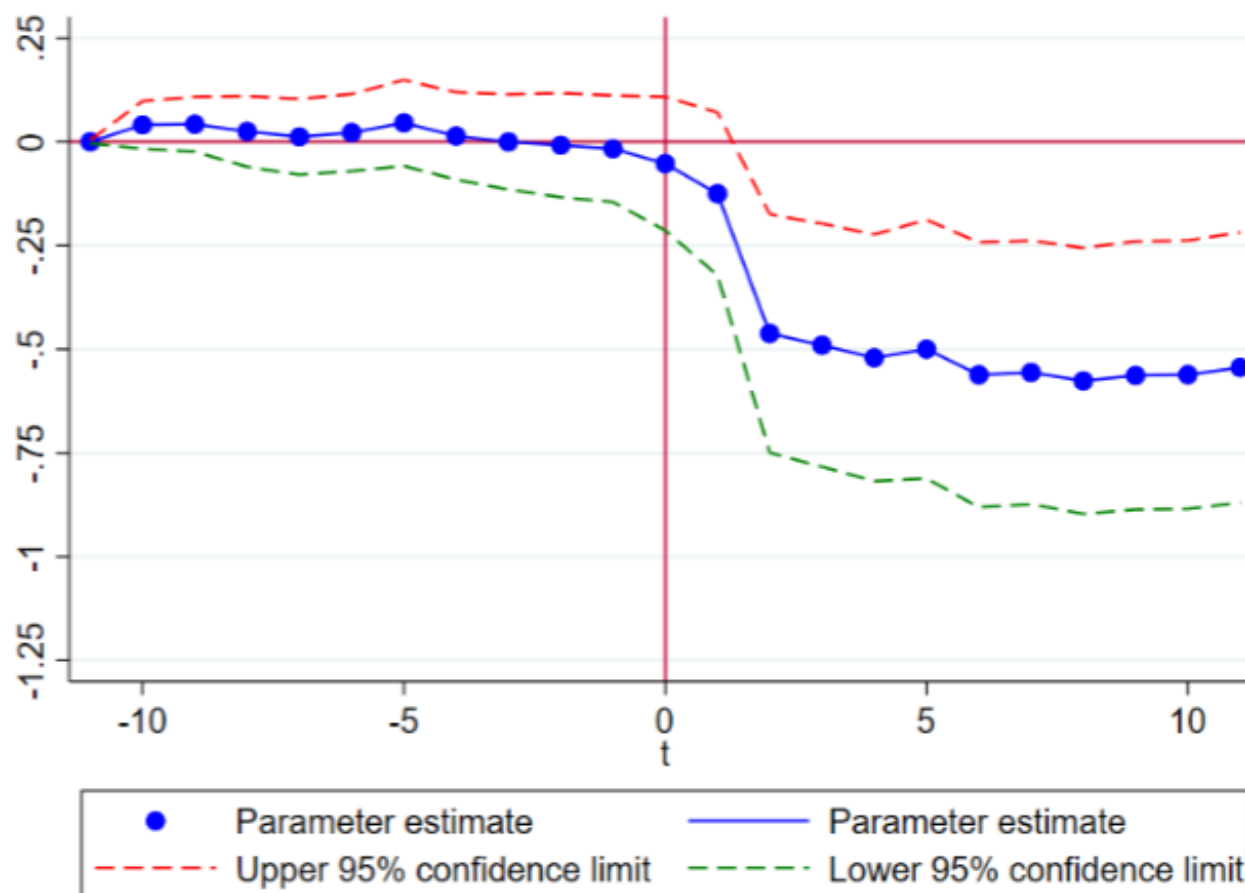
Bond markets: Reaction to climate risk shock Corporate bond yield spreads



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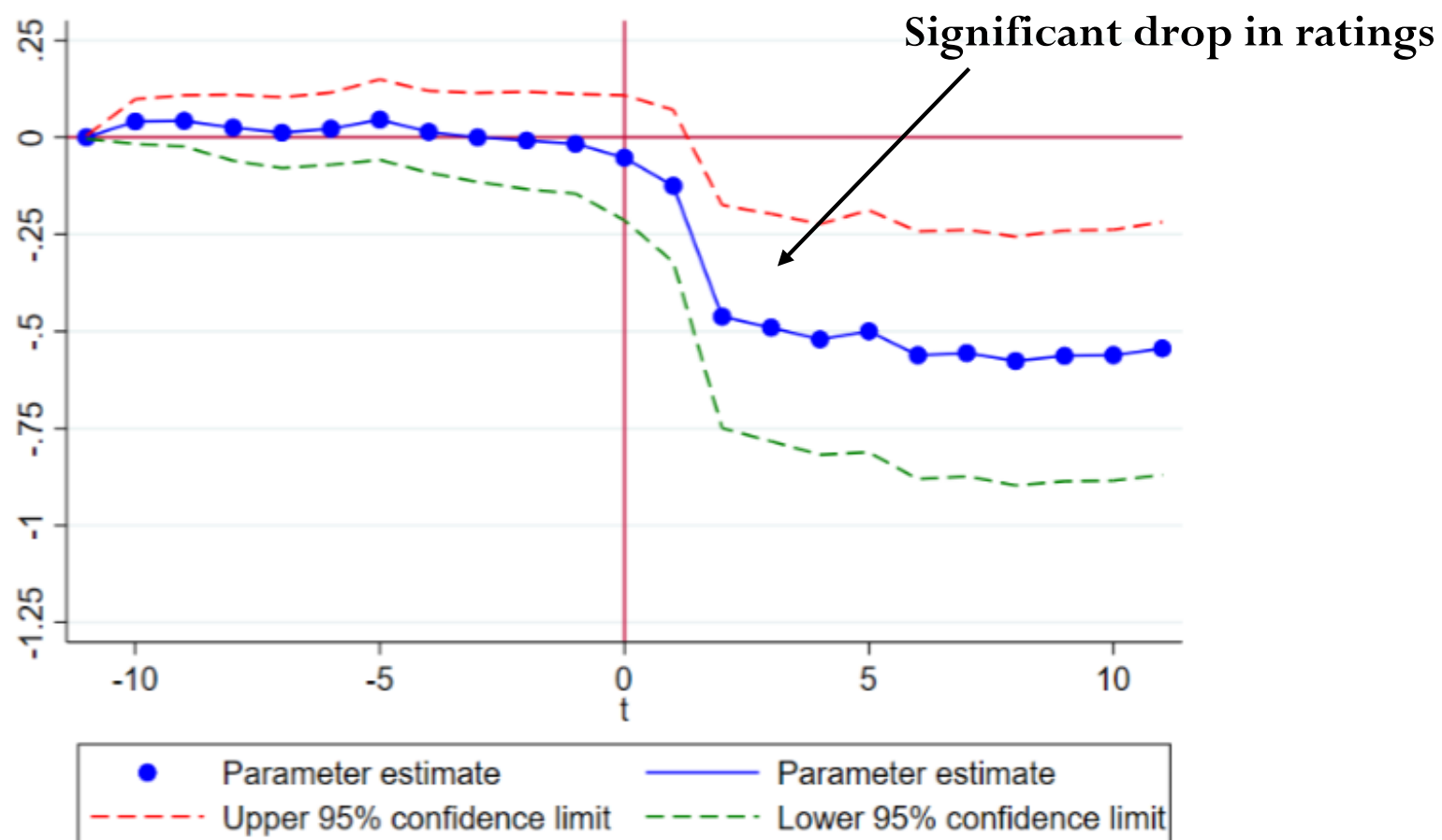
Difference-in-differences tests

From Seltzer, Starks, Zhu (2025)

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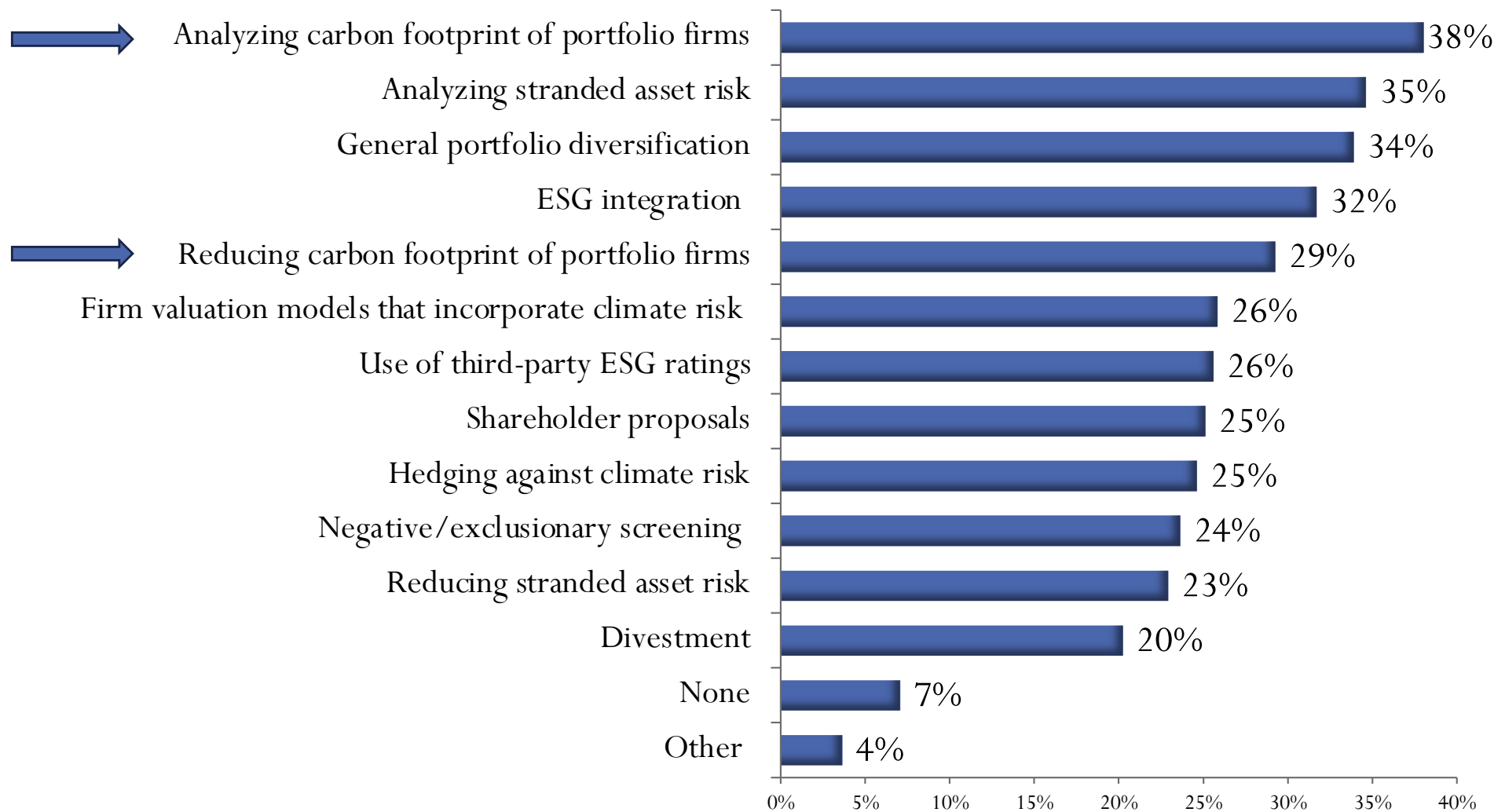


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From Seltzer, Starks, Zhu (2025)

Approaches taken to incorporate climate risk information into the investment process

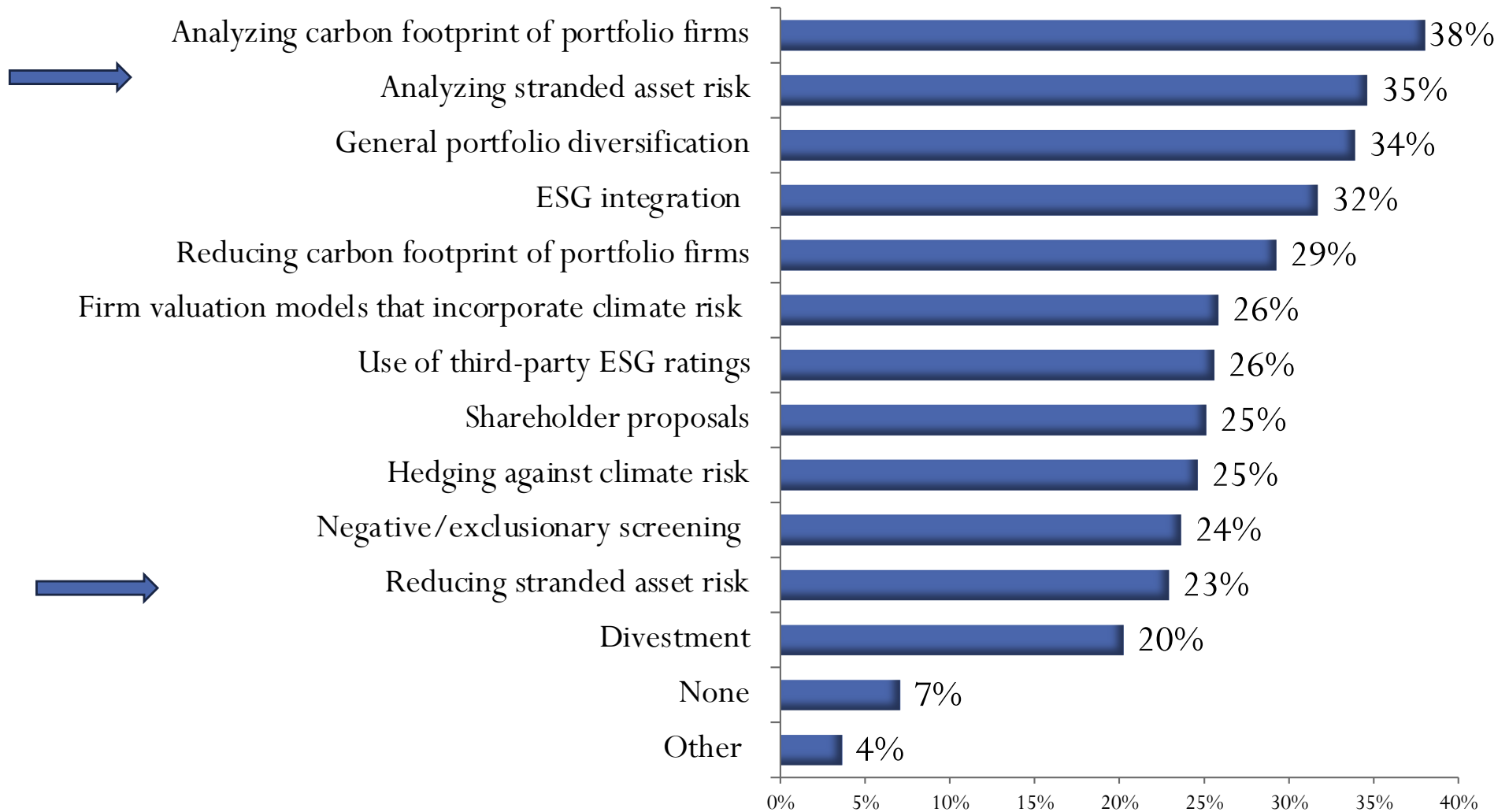
These also reflect the value versus values perspectives



Krueger, Sautner, and Starks (RFS, March 2020)

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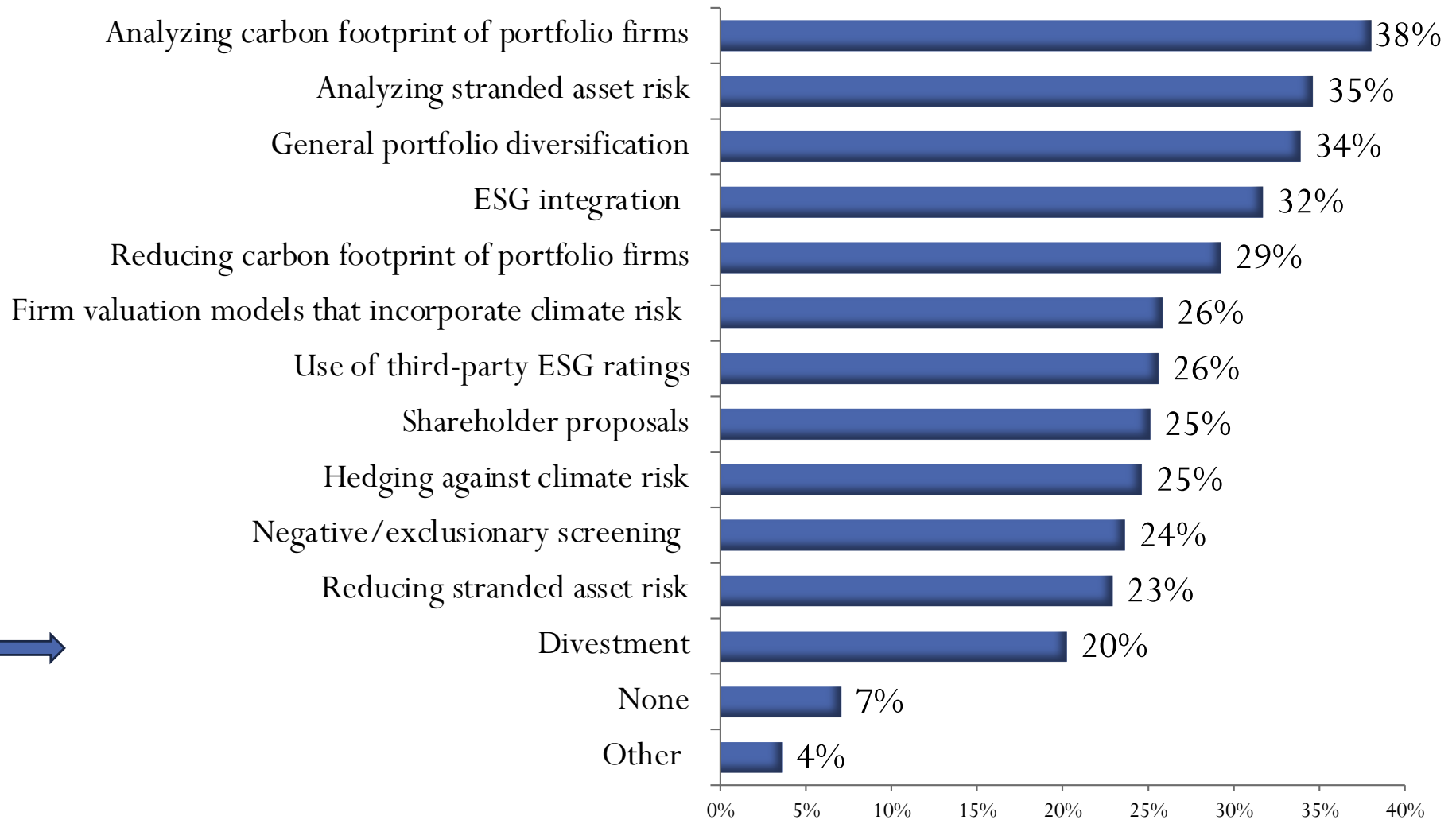
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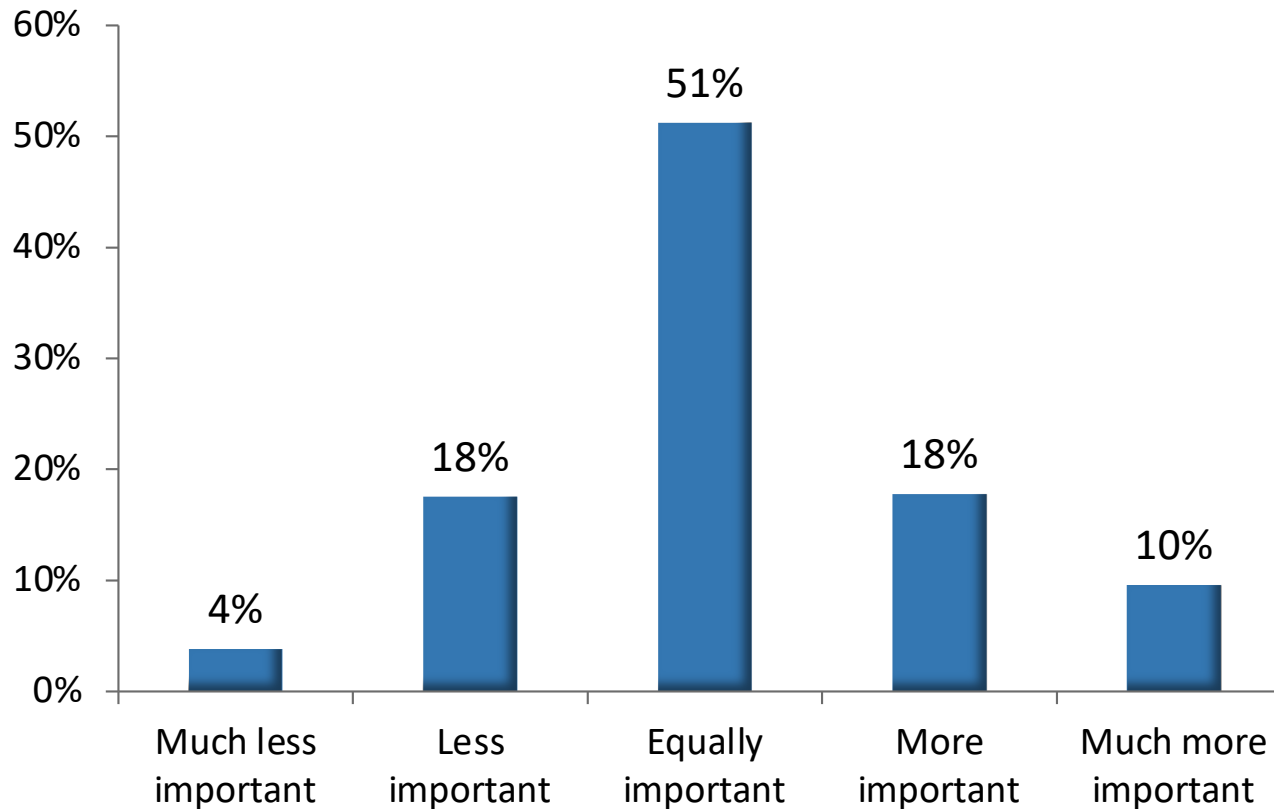
Climate Risk Disclosure

Importance of Climate Risk Information Disclosure

- **Financial market efficiency** relies on **timely** and **accurate** information regarding firms' **risk exposures**
- **High-quality information** on firms' climate **risk exposures** is necessary **for informed investment decisions** and the **correct market pricing** of climate-related risks and opportunities
- **Sound disclosure** on **climate risks** is also essential for **regulatory efforts** to **protect financial stability**

How important do investors consider climate risk disclosure?

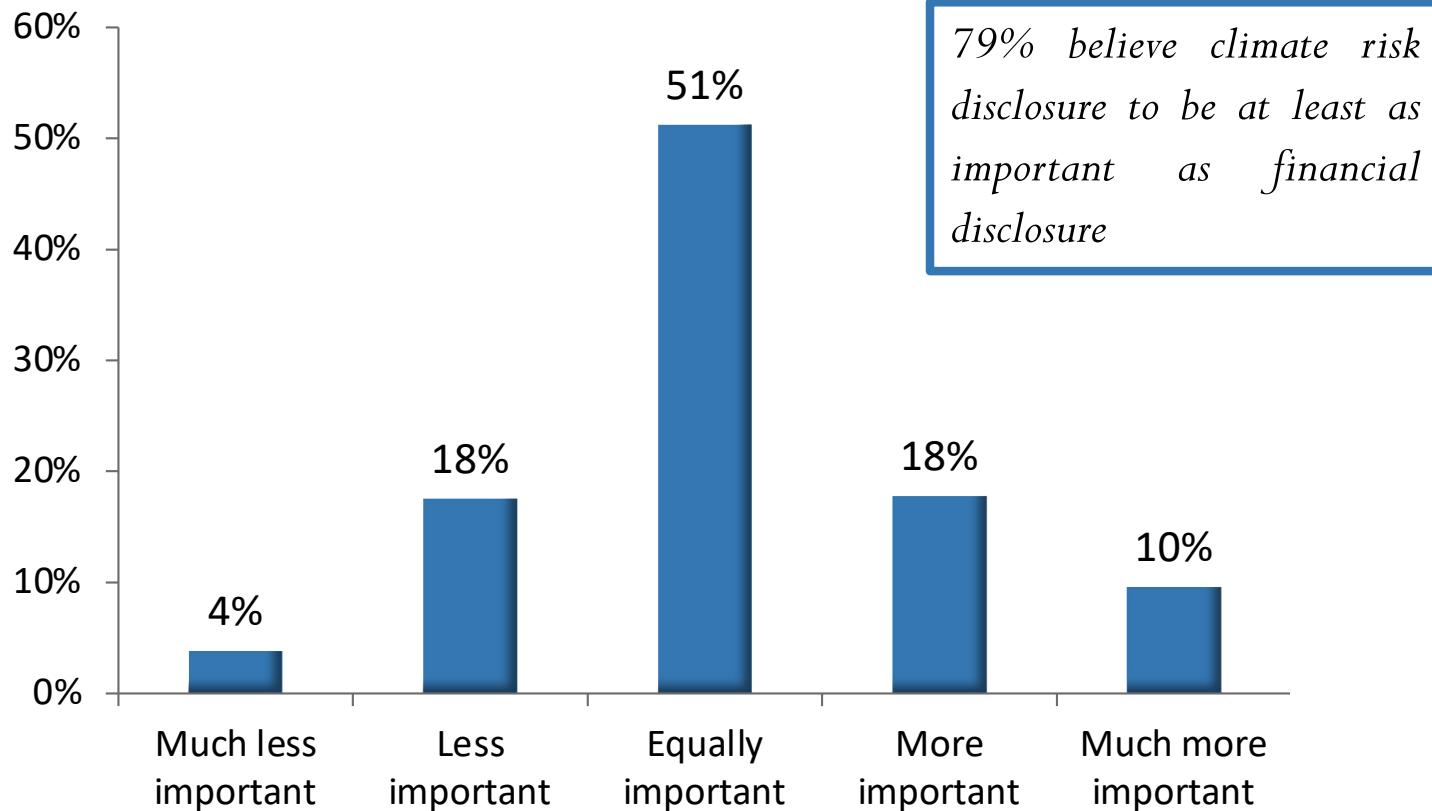
Compared to reporting on financial information



From Ilhan, Krüger, Sautner, and Starks, RFS 2023

How important do investors consider climate risk disclosure?

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Two possible goals of mandatory climate risk disclosure

- **Goal 1:** Give the investors the information they want on firms' climate effects
 - Basically **single materiality** – how does climate change affect the firm and its risks?
 - **This is a *Value Perspective***

Two possible goals of mandatory climate risk disclosure

- **Goal 1:** Give the investors the information they want on firms' climate effects
 - Basically **single materiality** – how does climate change affect the firm and its risks?
 - **This is a *Value Perspective***
- **Goal 2:** Drive change in the firms' climate finance behavior through the disclosure regime
 - Basically, **double materiality** – how does climate change affect the firm and how do the firm's actions affect society and the environment?
 - **This is a *Values Perspective***

Challenges in climate risk information

- **Use environmental score, carbon intensity or total carbon emissions?**
 - Research varies on whether security returns are related to these measures of climate risk
- **Availability and biases in data on emissions due to lack of mandatory reporting**
 - **Voluntary disclosure** – fewer firms and potential selection bias
 - **Estimated emissions** – Is estimation procedure accurate enough?

Example: Selection bias in voluntary reporting?

Companies worldwide reporting to CDP



But coverage varies by index

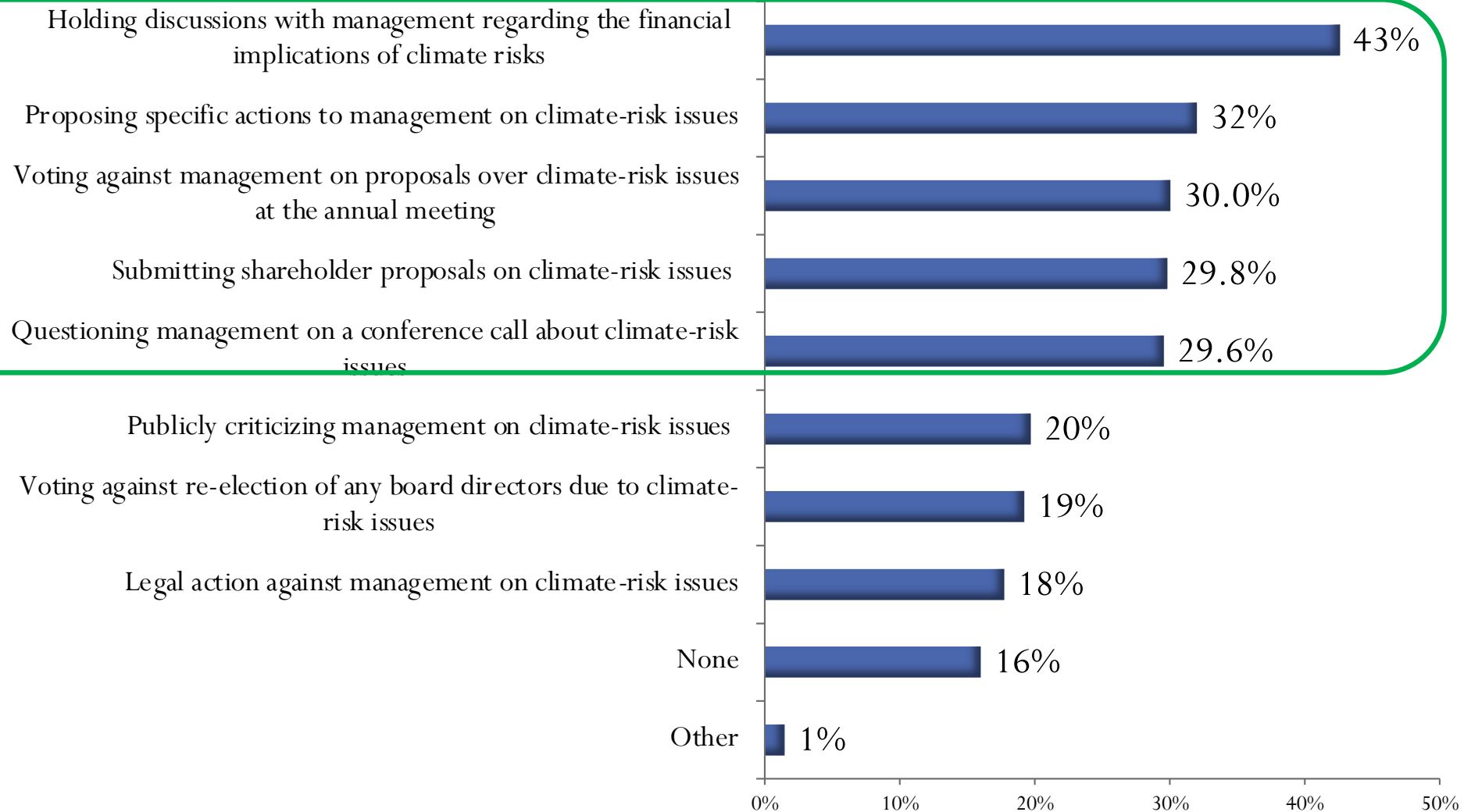
| Index | Carbon emissions coverage |
|--------------------|---------------------------|
| FTSE Eurofirst 300 | 91% |
| S&P 500 | 86% |
| MSCI ACWI | 61% |
| S&P ASX 300 | 27% |
| CSI 300 | 18% |

From CDP

Engagement on climate risk

Investor engagement on climate risk

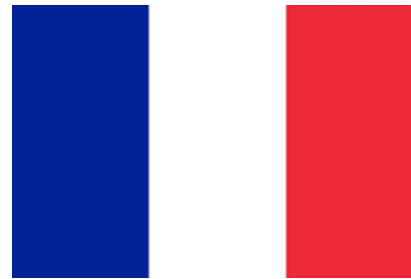
Survey responses



Krueger, Sautner, and Starks (RFS, March 2020)

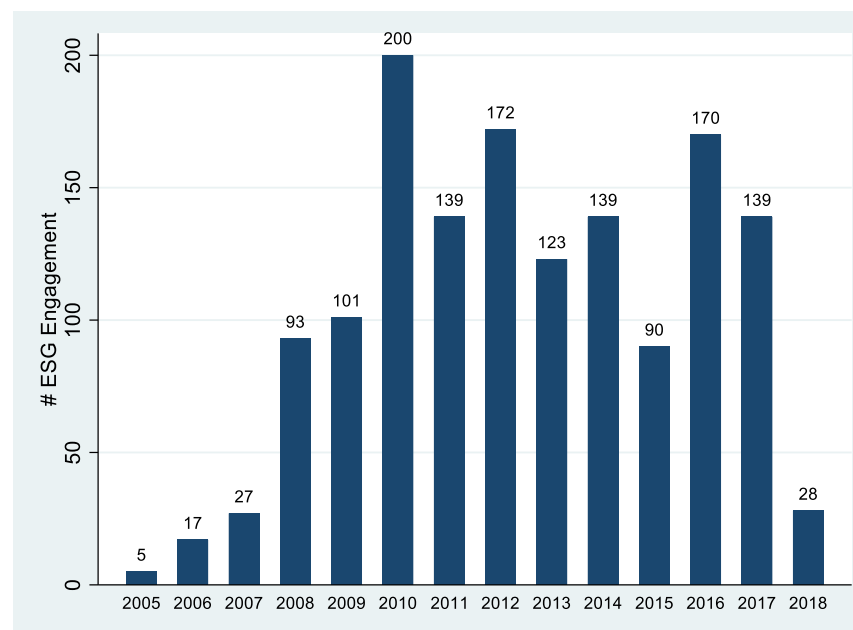
Evidence on successful investor influence on climate risk disclosure

- **When France legislated** that **institutional investors** must **disclose** their climate risk (French Article 173) in 2016, **climate risk disclosure of firms owned** by many **French institutions** improved.



One investor's engagements

- Can engagement reduce downside risk from climate change?
- Examining one large investor's engagements on E, S, and G issues



1,443 engagements across 485 targeted firms
2005-2018

Key findings and implications regarding investor engagements

- Corporate sustainability engagements resulted in **reduced downside risk**
 - Measured by both Value at Risk and Lower Partial Moments
- Risk reduction **effects were stronger** for the more successful engagements
- Effects were also **stronger when environmental issues**, particularly **climate change**, were addressed

Overall, research shows that

- **Investors care about climate risk**
- They use and value **climate risk information**.
- Their **motivations** for doing so vary across both **value and values** perspectives.
- Investors employ a number of **different approaches** in their **use of climate risk information**.
- **Challenges exist** due to the **lack of mandatory** climate risk information disclosure
- **Investor engagement** on **climate risk** can often be **successful**.