

Corporate Governance, Institutional Investors and Climate Risk

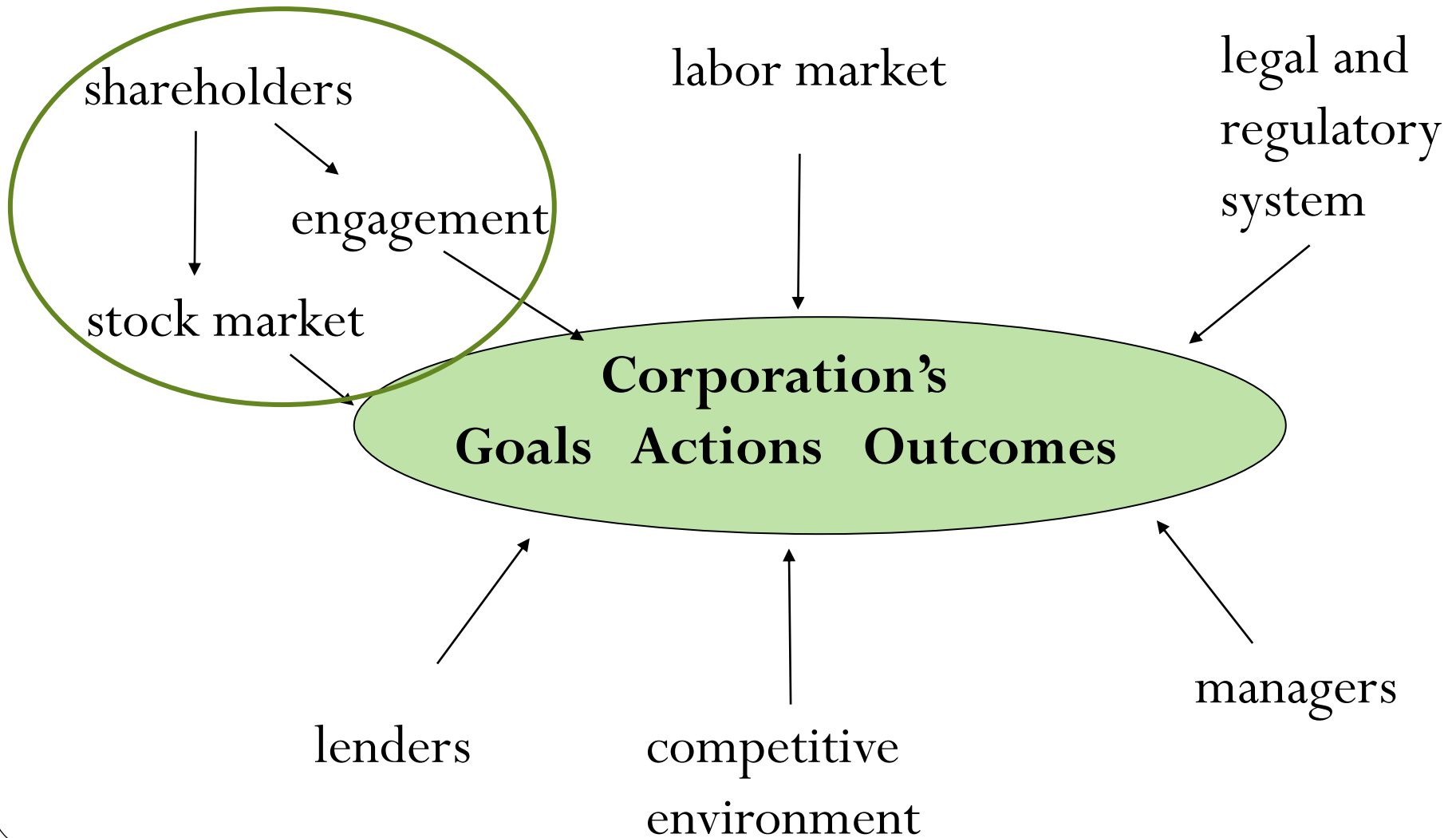
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Corporate governance

- As ECGI has long recognized
 - Good corporate governance is central to a successful firm

Corporate governance system



Institutional investors

- Dominant investors in many markets.
- A major influence on financial markets.
 - Through their trading
 - Through their monitoring
- Institutional investors have been involved in the evolution of corporate governance over time

Institutional investor involvement in corporate governance

- Many theory models focus on the benefits of corrective actions through direct intervention (“voice”)
 - e.g., Shleifer and Vishny (1986); Huddart (1993); Admati, Pfleiderer, and Zechner (1994); Maug (1998); Kahn and Winton (1998); Bolton and von Thadden (1998); Faure-Grimaud and Gromb (2004), Levit (2019)
- Other models consider activism through “exit”
 - e.g., Hirschman (1970), Admati and Pfleiderer (2009); Gopalan (2008); Edmans (2009); Edmans and Manso (2011); Attari, Banerjee, and Noe (2006), Dasgupta and Piacentino (2015); Broccardo, Hart and Zingales (2022); Cvijanovic, Dasgupta and Zachariadis (2022)

Evidence on institutional investor voice

Direct evidence

- Actions by asset managers or hedge funds

Indirect evidence

- Relationships between institutional or large investors and corporate governance mechanisms

Direct evidence on institutional investor voice

Most direct evidence on shareholder activism by institutional investors comes from two types of studies:

- Analyses of hedge fund activism in aggregate

Brav, Jiang, Partnoy, and Thomas (2008), Klein and Zur (2009), Becht, Franks, Grant, and Wagner (2014), Clifford (2008), Bebchuk, Brav and Jiang (2013 and 2014); Brav, Jiang and Li (2021)

- Analyses of individual activist managers

- Smith (1996); Carleton, Nelson and Weisbach (1998); Becht, Franks, Mayer, and Rossi (2009); Dimson, Karakas, and Li (2015); Becht, Franks, Grant, Wagner (2017); Becht, Franks, Wagner (2021); Hoepner, Oikonomou, Sautner, Starks, Zhou (2022)

One way to measure institutional shareholder monitoring: Surveys

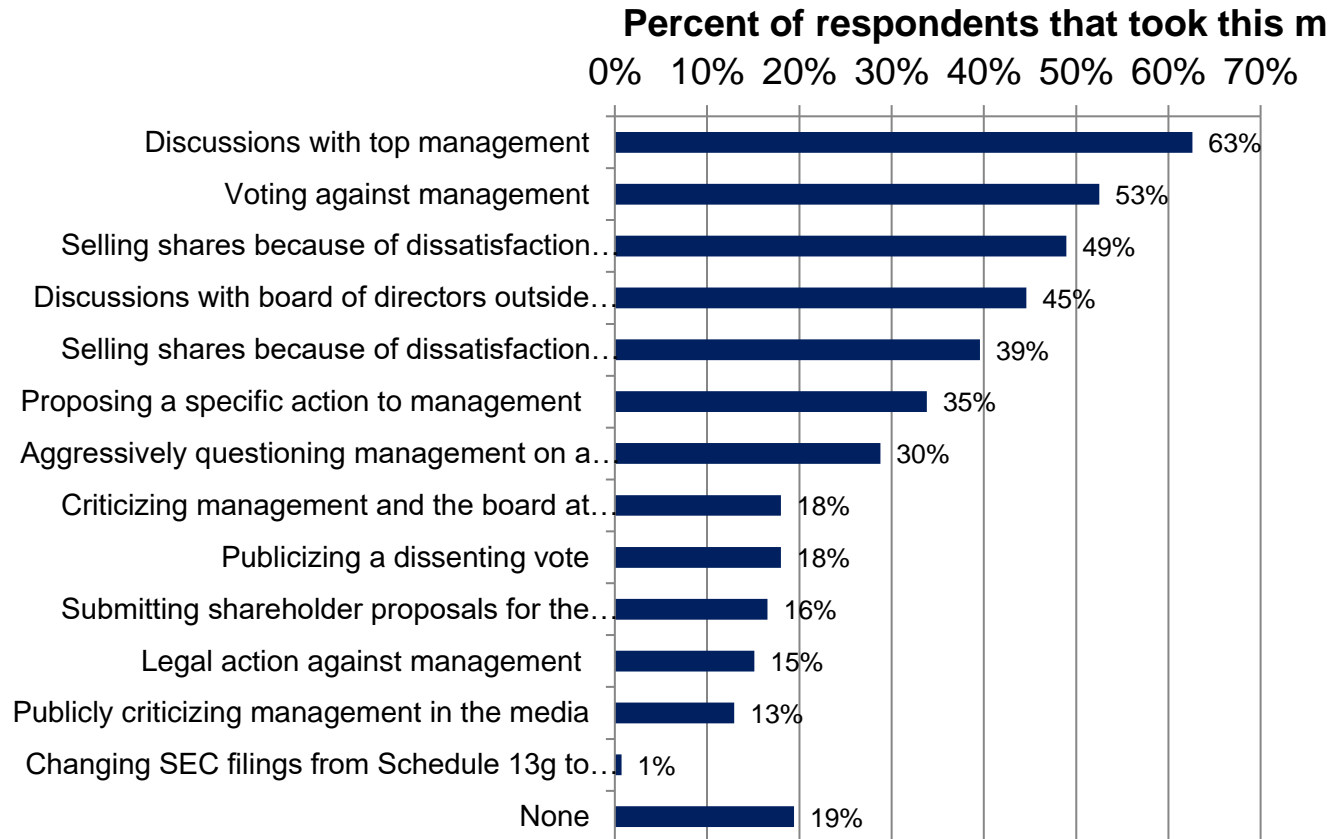
Why a survey?

- Many engagement measures take place behind the scenes and are unobservable
- Surveys allow us to assess the theories on institutional investors and governance, which is otherwise not possible.
- Exit due to governance reasons are difficult to differentiate from exit for other (liquidity) reasons
- There are many uncertainties and unknowns regarding climate risk and surveys allow us insights into how institutional investors think about the issues.

Institutional investor surveys regarding governance and climate risks

- **Behind the Scenes: The Governance Preferences of Institutional Investors**
by Joseph McCahery, Zacharias Sautner, and Laura Starks
(Journal of Finance)
- **The Importance of Climate Risks for Institutional Investors**
by Philipp Krüger, Zacharias Sautner, and Laura Starks
(Review of Financial Studies)
- **Climate Risk Disclosure and Institutional Investors**
by Emir Ilhan, Philipp Krüger, Zacharias Sautner, and Laura Starks
(Working Paper)

Shareholder engagement channels



Overall observations from institutional investor survey

- Generally very high level of engagement by our respondents
 - Only 19% have not taken any corrective actions
- Investors use multiple channels to engage
 - Rely on both voice and exit
 - The investors in our survey view exit as a viable strategy, over the previous 5 years
 - 49% had exited because of performance
 - 39% had exited because of corporate governance
- Widespread use of behind-the-scenes engagement

Focus on institutional investor
influence and corporate climate risk

Predictions on costs of climate risk

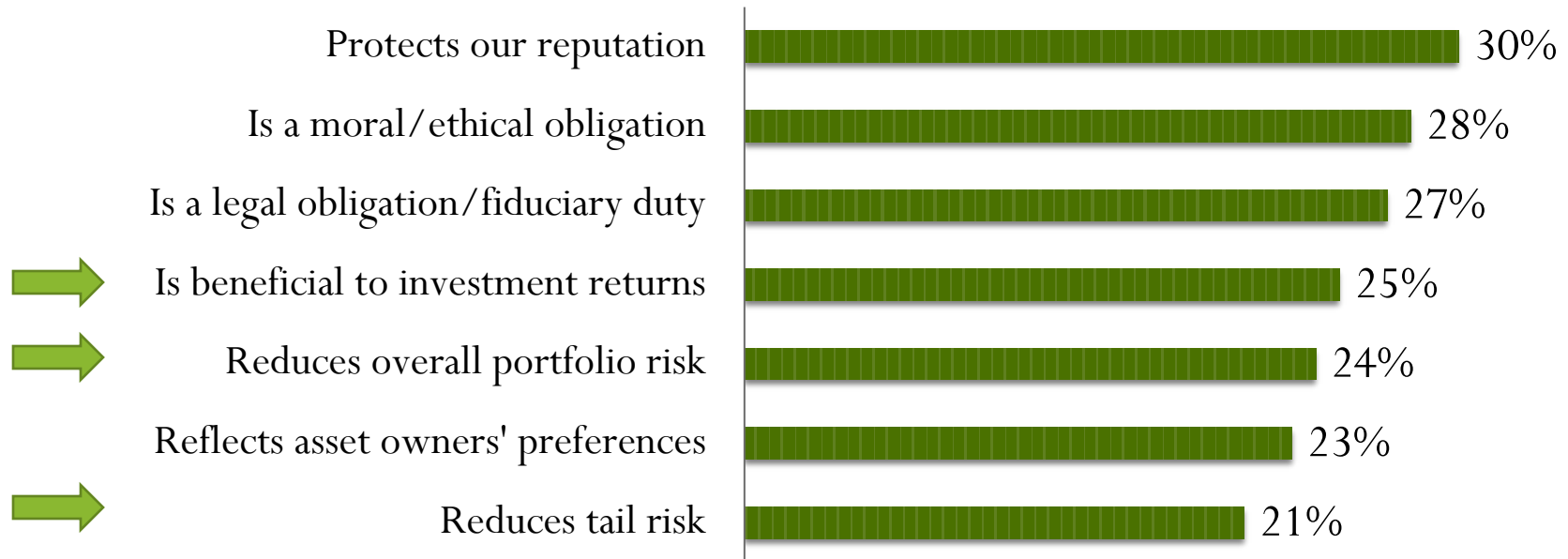
- CDP (June 2019):
World's biggest companies face \$1 trillion in climate change risks
- CDP and UCL (October 2020):
Climate change costs to reach \$31 trillion a year if emissions not urgently reduced
- CDP (February 2021)
Environmental supply chain risks to cost companies \$120 billion by 2026 (in present value terms)
- *Caveat: These estimates are based on future expectations and there exists a lot of uncertainty regarding what could happen.*

What are the challenges and issues with climate risk for investors?

- Climate risk is an E, S and G risk for investors.
 - Still need to understand for given investors
 - how much is due to financial concerns
 - how much is nonpecuniary (i.e., based on the investors' tastes and preferences)

Investor motivations to incorporate climate risks into investment process

Top 7 motivations



THESE ARE NOT MUTUALLY EXCLUSIVE

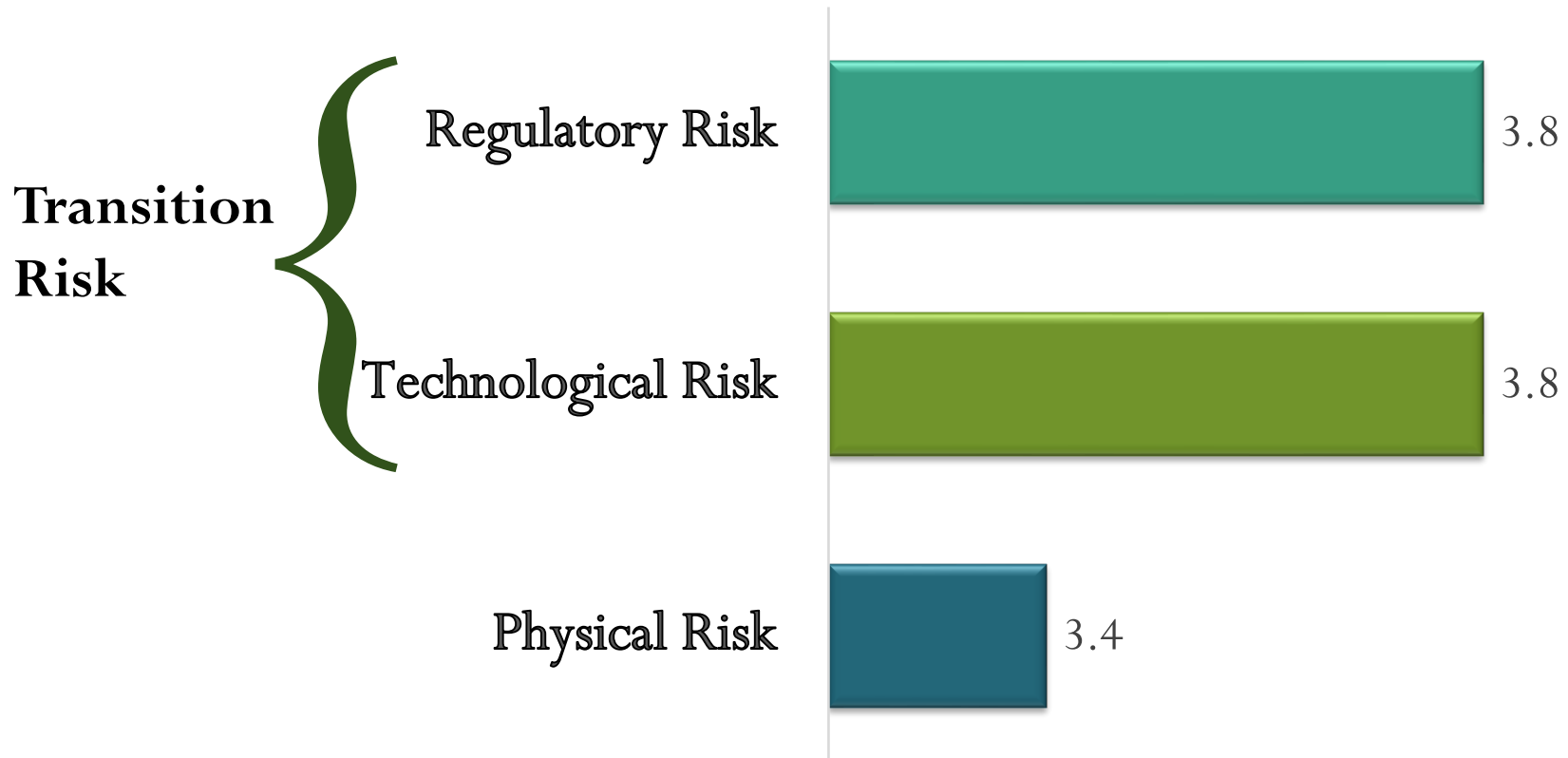
Krueger, Sautner, and Starks (RFS, March 2020)

What are the challenges and issues with climate risk for investors?

- Climate risk is an E, S and G risk for investors.
 - Still need to understand for given investors
 - how much is due to financial concerns
 - how much is nonpecuniary (i.e., based on the investors' tastes and preferences)
- Climate risk is difficult to price and hedge due to
 - its systematic nature
 - a lack of sufficient disclosure by portfolio firms
 - difficulty in finding suitable hedging instruments
- Climate risk has become a first order topic for policy makers, thus, increasing the regulatory risk component and requiring consideration of its time-varying nature.
- Climate risk is usually considered in light of its negative effects on asset values, but it can also provide return opportunities.

Importance of climate risks to institutional investors

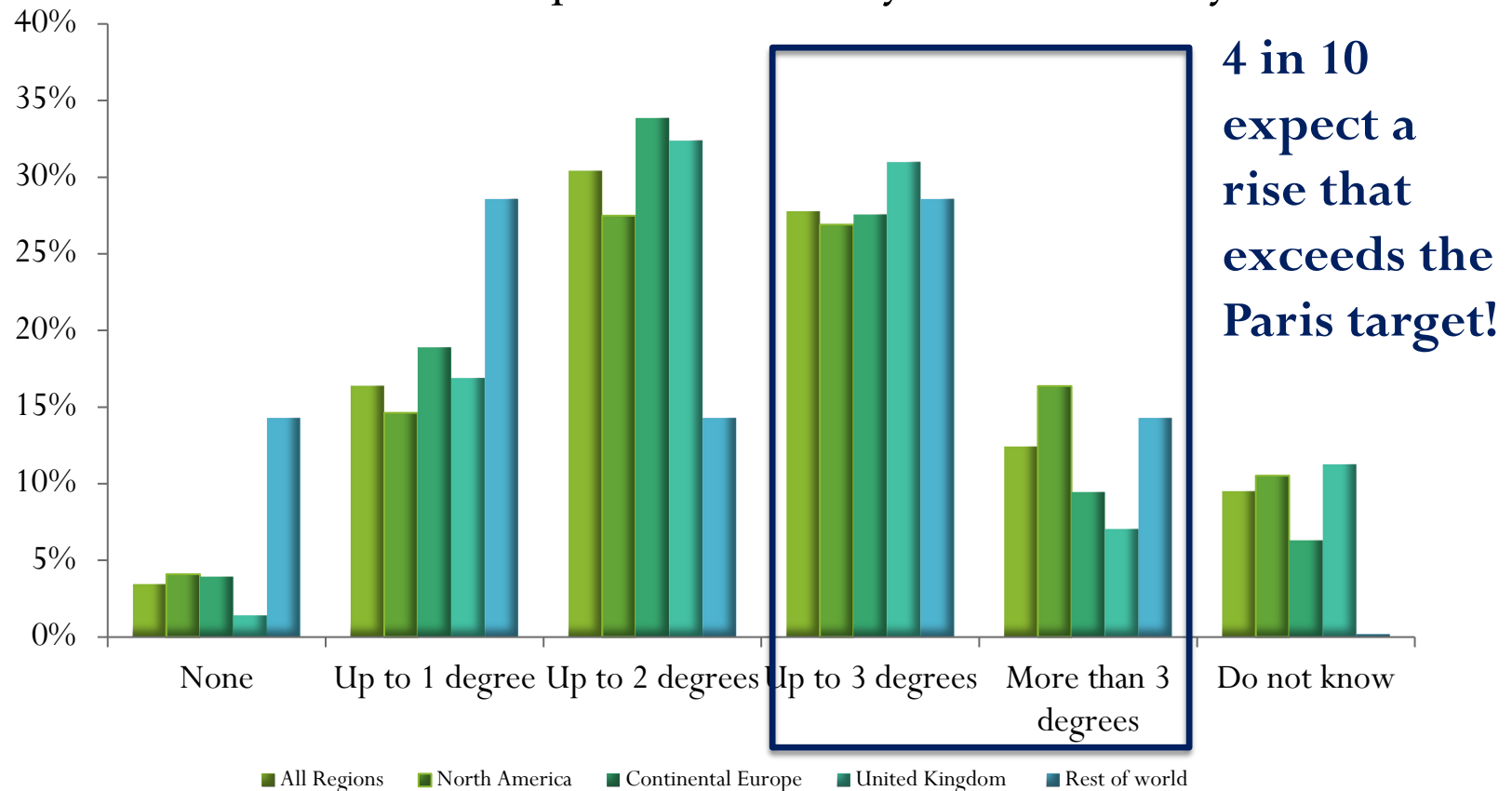
Rating the importance of climate risk from 1 to 5:



Does climate risk matter to investors?

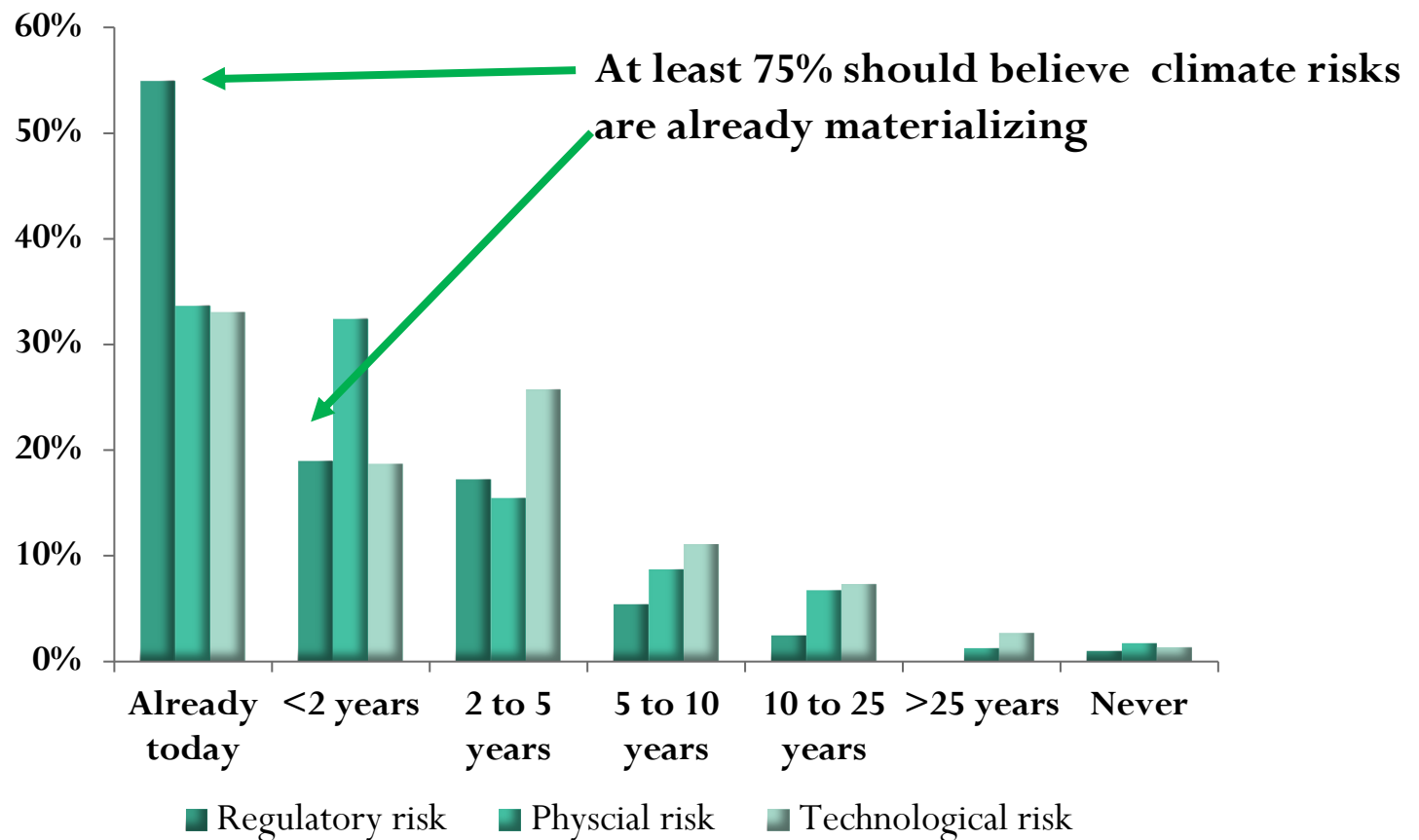
Investor climate expectations

How much will temperatures rise by end of century?



What horizon do investors put on climate risk?

Over what time horizons, if any, do you expect these risks to materialize?



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

Pricing of climate risks

- **Climate risks can impact equity and bond markets**
 - Litterman, 2011; Bansal, Ochoa and Kiku, 2017; Daniel, Litterman, and Wagner 2017 ; Painter 2019; Bolton and Kacperczyk 2020, 2021, 2022; Ilhan, Sautner and Vilkov 2020; Seltzer, Starks and Zhu 2022; Ramelli, Wagner, Zeckhauser, Ziegler 2021
 - And many more
- **And markets may be unable to correctly value them**
 - Andersen, Bolton, and Samama, 2016
 - Hong, Li, Xu, 2017

Evidence on how investors react to changes in regulatory climate risk

- Does climate regulatory risk affect corporate bond risk and pricing?
- Hypothesis: climate risks would be borne by corporate bond issuers and investors and particularly through the risk of regulatory enforcement
- Examine Paris Agreement as natural experiment

Why corporate bonds?

- For corporations raising funds in financial markets, the bond market, rather than the equity market, is the '*marginal source of finance*.'

Gourio 2013

- For most firms, climate and environmental risks are fundamentally downside risks

Hoepner, Oikonomou, Sautner, Starks and Zhou 202

Ilhan, Sautner, Vilkov 2020

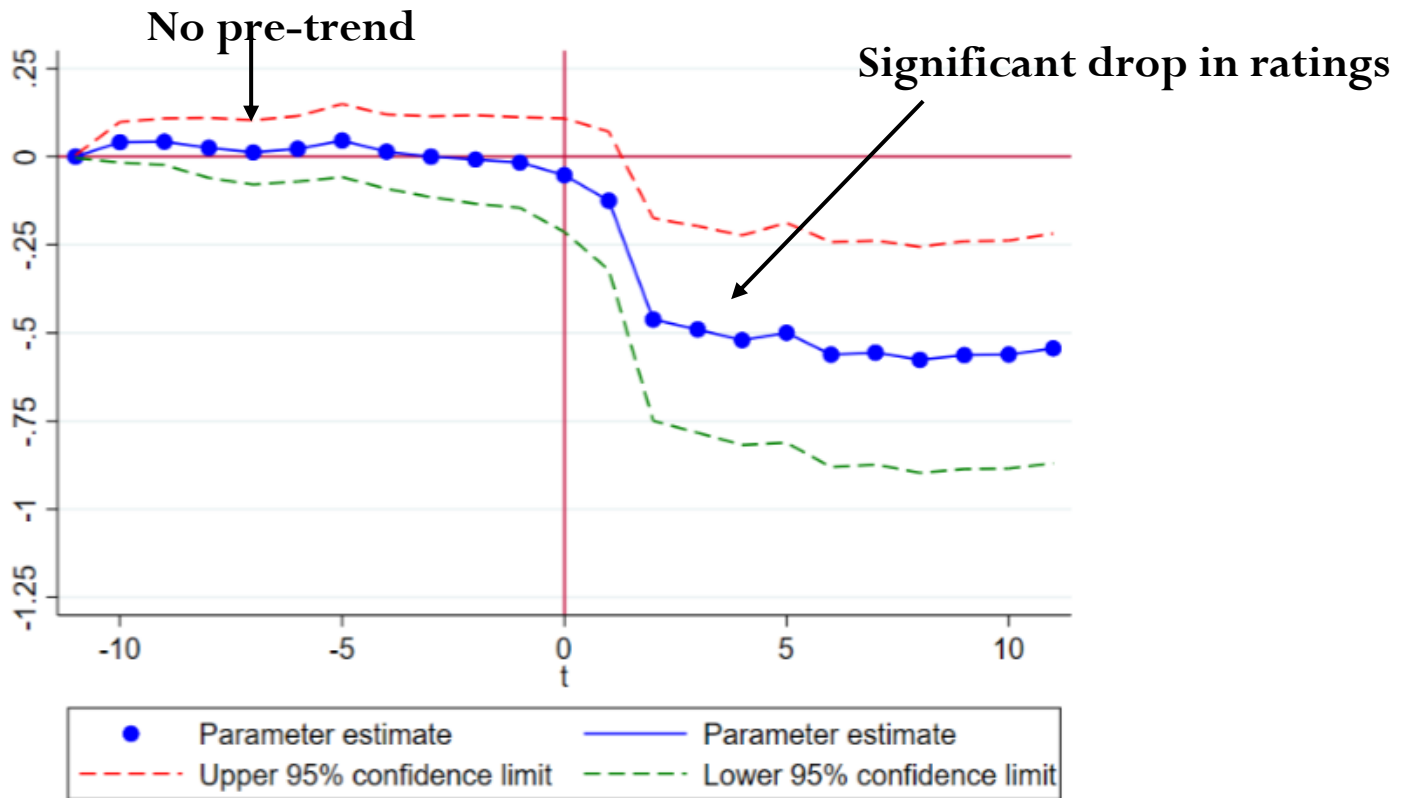
- Further, in the cross-section, downside risk has been shown to be the strongest predictor of future bond returns.

Bai, Bali and Wen (2019)

Changes in regulatory risk? Credit ratings around Paris Agreement

Difference-in-differences tests

Treatment = Top high emissions industries

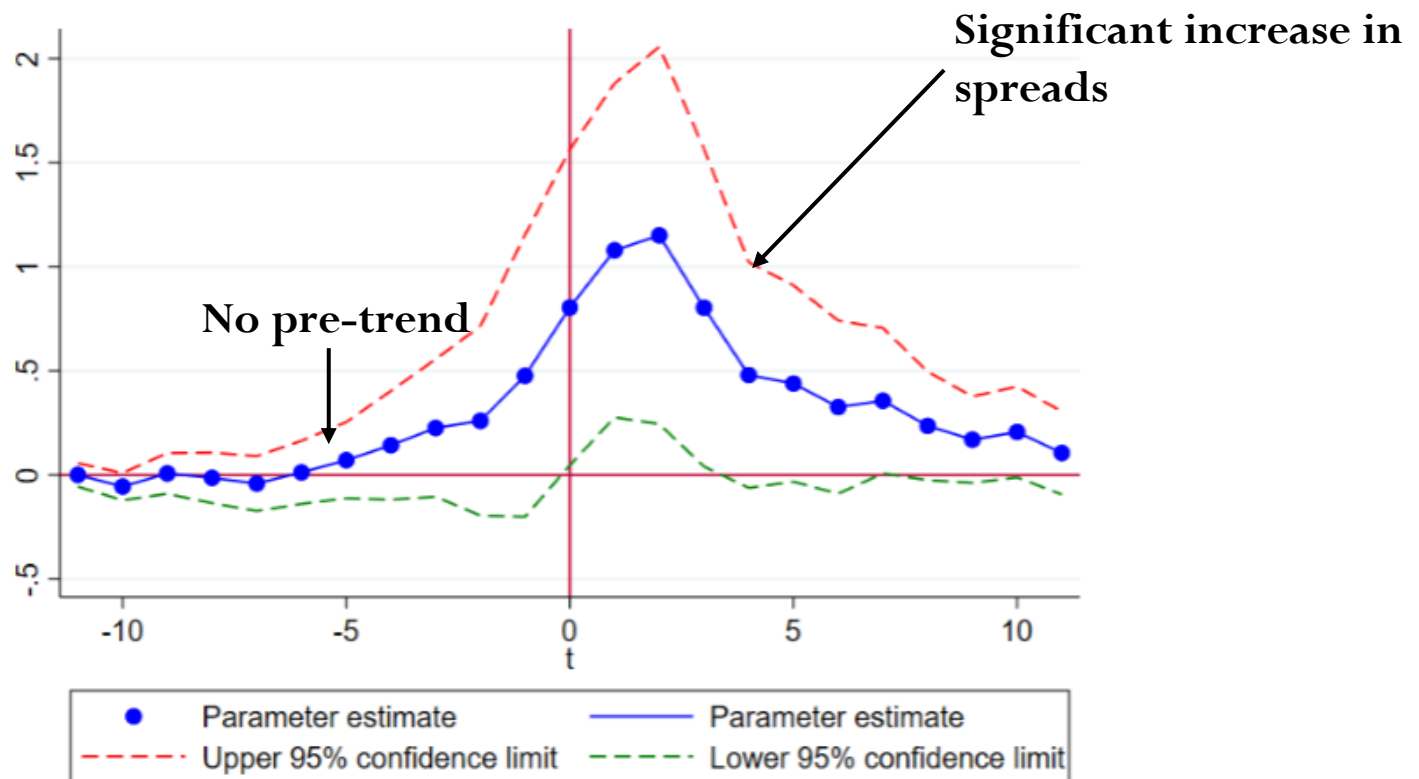


From Seltzer, Starks, Zhu (2022)

Yield spreads around Paris Agreement

Difference-in-differences test

(a) $EnvProf_j = BelowMedEnv_j$

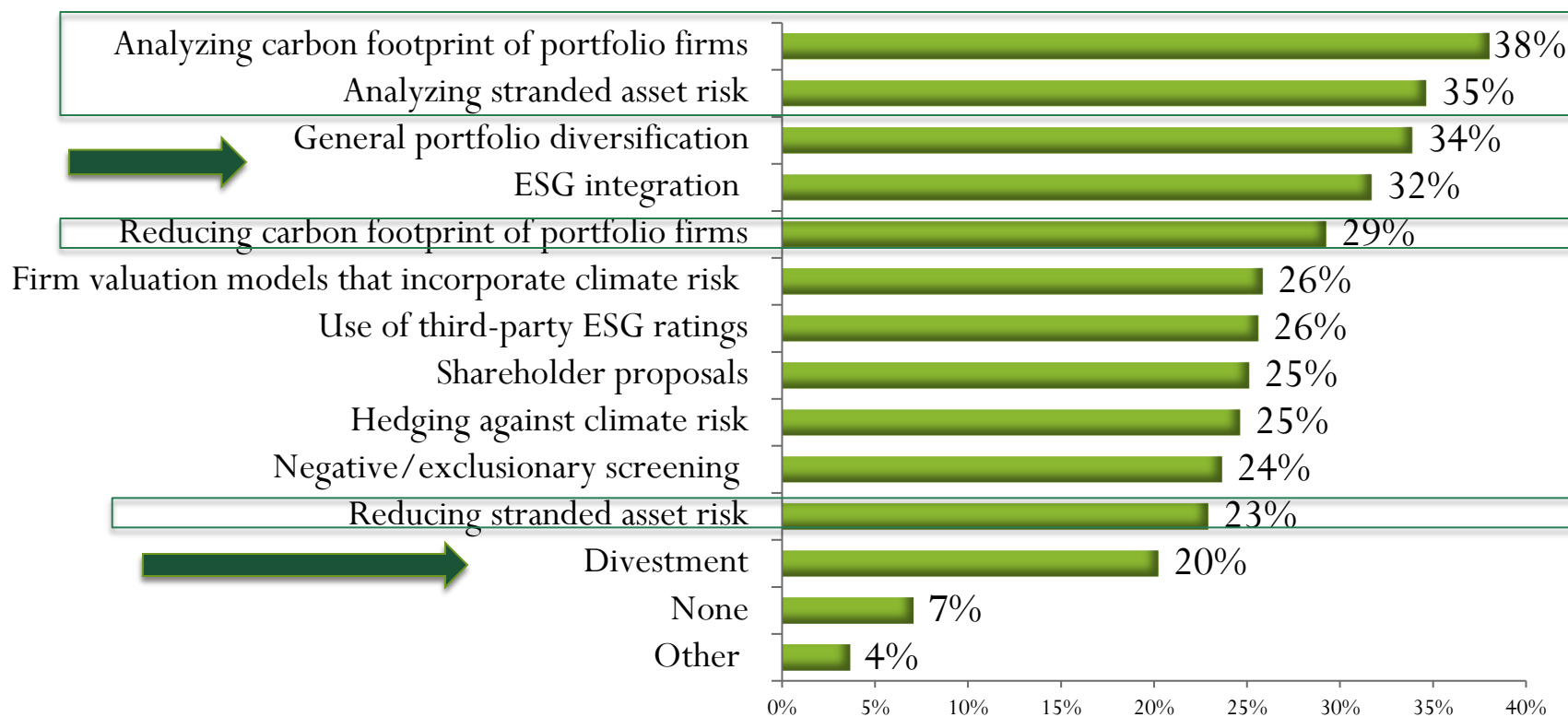


Differences in how institutional investors react: Changes in ownership

Treated bond defined by: Ownership (%) by	High emission industries			Below-median firm environmental score		
	All institutions	Mutual funds	Insurance firms	All institutions	Mutual funds	Insurance firms
	(1)	(2)	(3)	(4)	(5)	(6)
Treated bonds * Post Paris Agreement	-1.237*** (0.173)	-0.0333 (0.0512)	-1.209*** (0.215)	-0.426* (0.221)	0.265*** (0.0231)	-0.675** (0.218)
Treated bonds	0.297 (1.083)	0.780 (0.826)	-0.516 (1.376)	4.759*** (1.338)	2.921** (1.001)	1.802 (1.672)
Ln(Issue amount)	-7.633*** (1.007)	1.148 (0.687)	-8.812*** (1.241)	-3.633** (1.210)	2.965** (0.983)	-6.747*** (1.475)
Years to maturity	-0.00141 (0.0710)	-0.214*** (0.0288)	0.222** (0.0789)	-0.107 (0.0886)	-0.258*** (0.0510)	0.160 (0.103)
Credit rating (numerical)	-0.554*** (0.153)	-1.110*** (0.183)	0.563** (0.190)	0.195 (0.182)	-1.458*** (0.270)	1.667*** (0.328)

Decrease in institutional bond ownership after Paris Agreement driven by insurance firms selling while mutual funds buy.

Approaches taken to incorporate climate risk management in the investment process



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

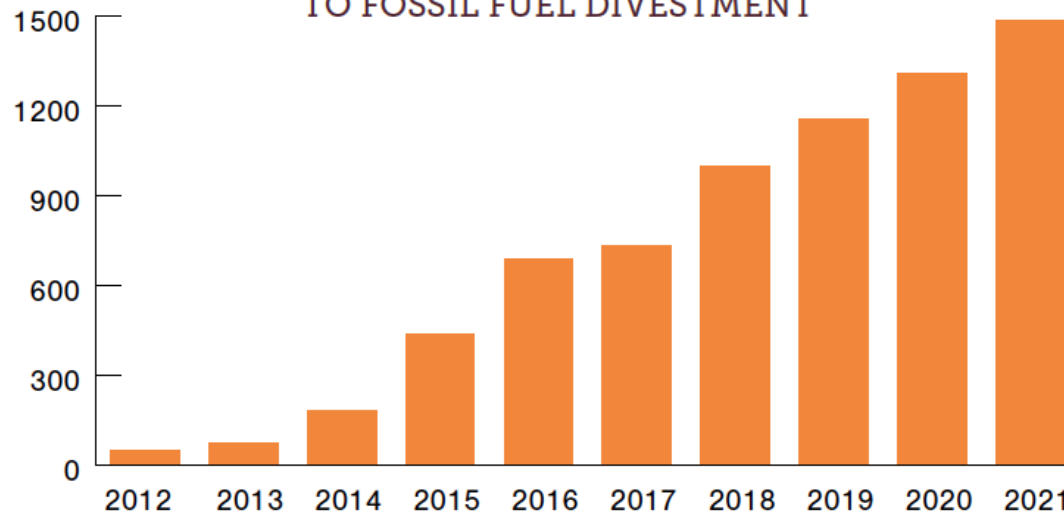
Exit and voice with regard to climate risk

Evidence on exit

GROWTH IN DIVESTMENT COMMITMENTS

TOTAL PUBLIC INSTITUTIONAL COMMITMENTS
TO FOSSIL FUEL DIVESTMENT

No. of
Institutions



Source: Global Divestment Commitments Database

\$40.48 TRILLION

Approximate value of
institutions divesting.

<https://divestmentdatabase.org/>

Evidence on effectiveness of exit/divestment (or threat of exit)

- Theoretical/conceptual arguments
 - Exit should be ineffective given most managerial compensation contracts
Davies and van Wesep (2018)
 - Effect on cost of capital will be too low to make a difference
Berk and van Bingsbergen (2022)
 - Effectiveness depends on motivations of a majority of the shareholders
Broccado, Hart and Zingales (2022)
- Empirical evidence
 - Little discernible effect on firm values from South African divestments
Teoh, Welch and Wazzan (1996)
 - Exit can be effective under certain conditions including having E&S-conscious institutional investors
Gantchev, Giannetti, and Li (2022)

Evidence on coordinated voice

Examples of institutional investor collaborative efforts:

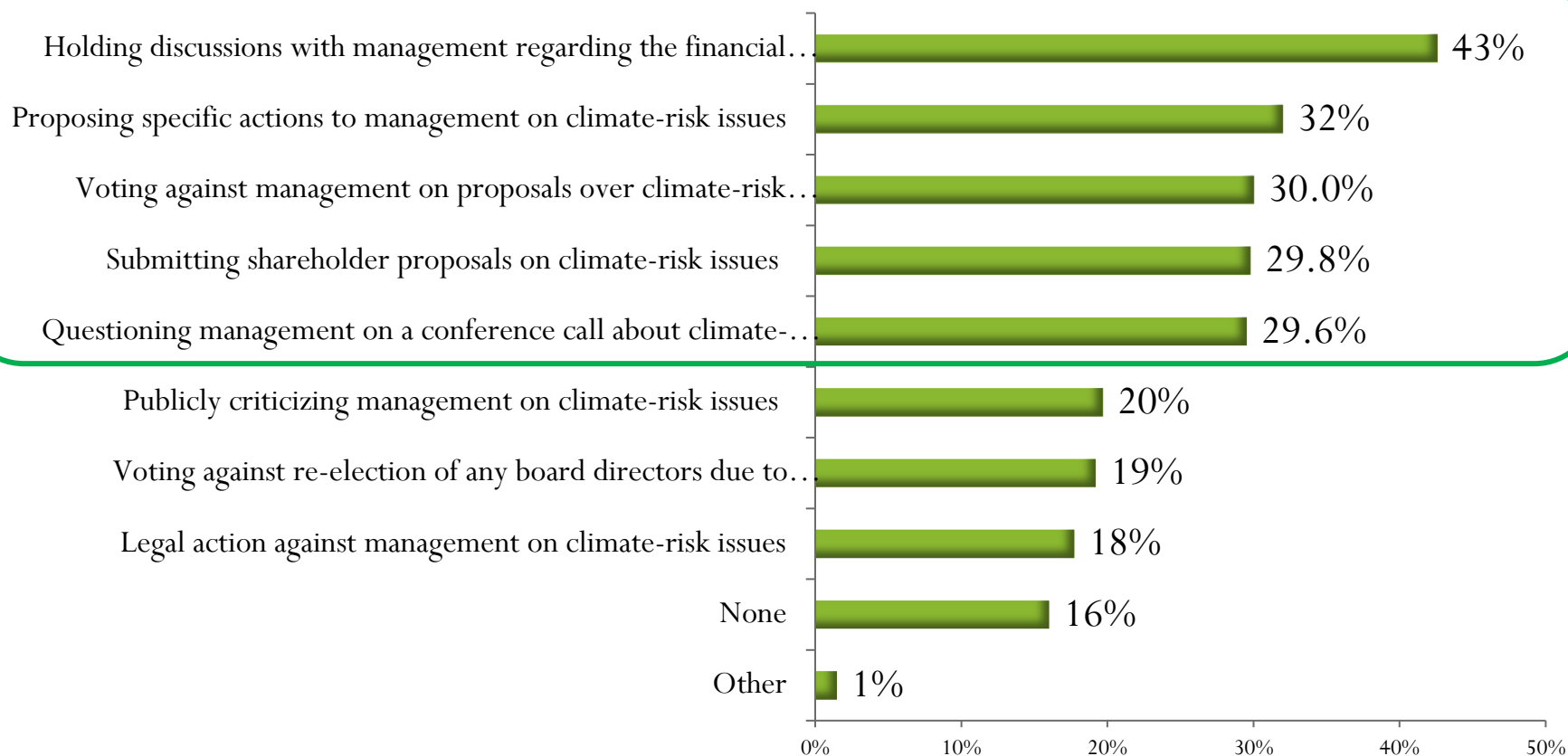
- **CDP (formerly The Carbon Disclosure Project)**
collects data on how firms address and manage risks related to climate change.
- **Portfolio Decarbonization Coalition**
goal to decarbonize their portfolios
- **Transition Pathway Initiative (TPI)**
assesses companies preparedness for the transition to a low carbon economy
- **Principles of Responsible Investing (PRI)**
Collaborative engagements on climate issues (see for example Dimson, Karakas and Li, 2020)

Academic evidence on coordinated voice

Indirect and direct evidence that coordinated engagements work

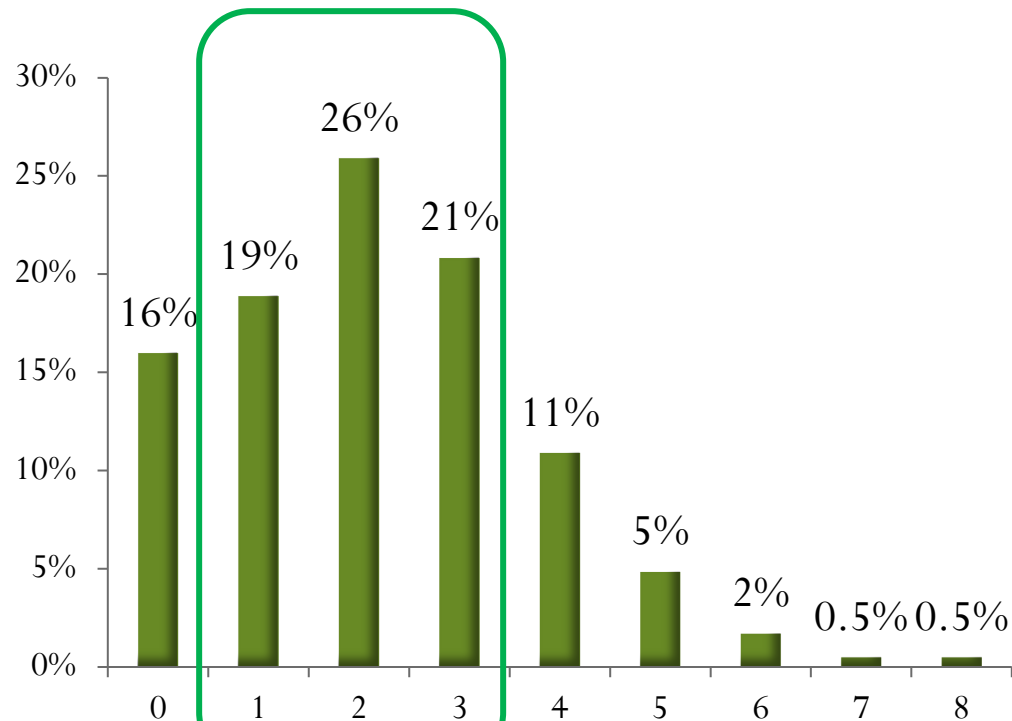
- Becht, Franks, Grant and Wagner (2017)
- Crane, Koch and Michenaud (2019)
- Dimson, Karakas and Li (2021)

Investor engagement on climate risk



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

Number of engagement channels taken by investors



Similar to finding on governance engagement in
McCahery, Sautner and Starks, JF 2016

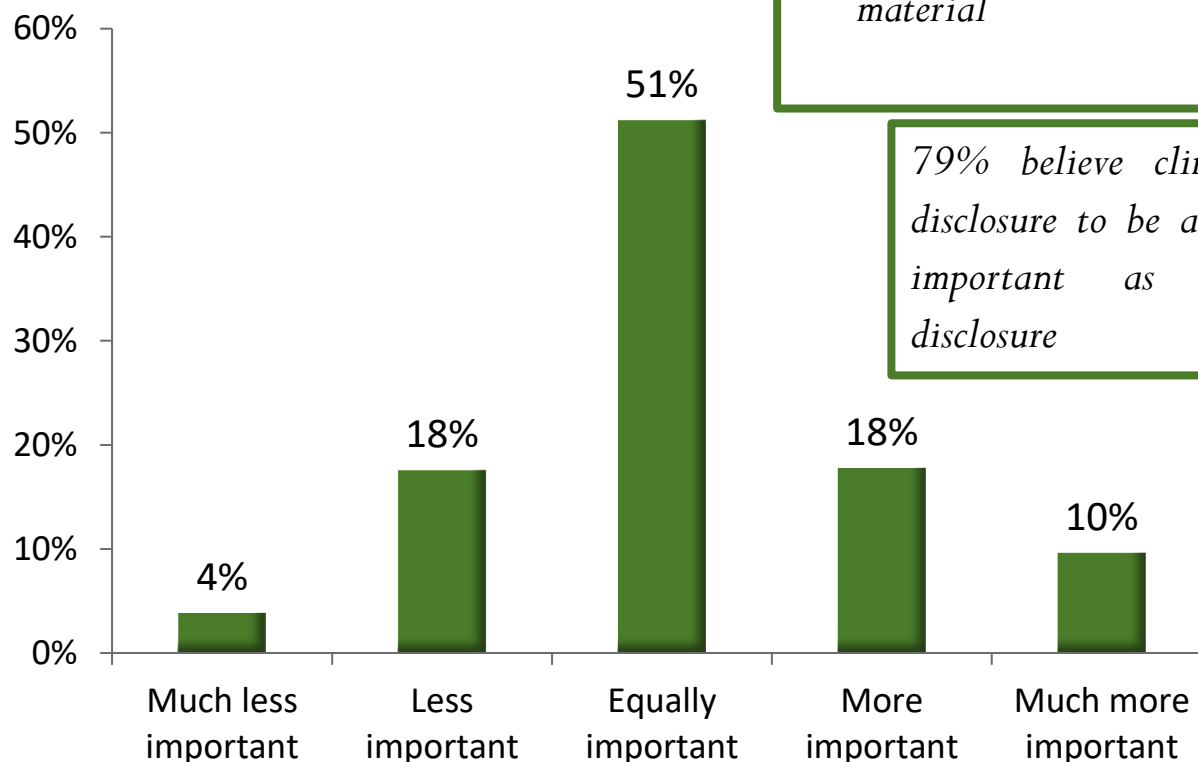
What about disclosure? Importance of climate-related information

- Financial market efficiency relies on timely and accurate information regarding firms' risk exposures
- Given the increasingly important risk exposure related to climate change, 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



Investors who thought it was more important:

- *Larger AUM*
- *Higher ESG share of portfolio*
- *Believe climate risk to be more financially material*

79% believe climate risk disclosure to be at least as important as financial disclosure

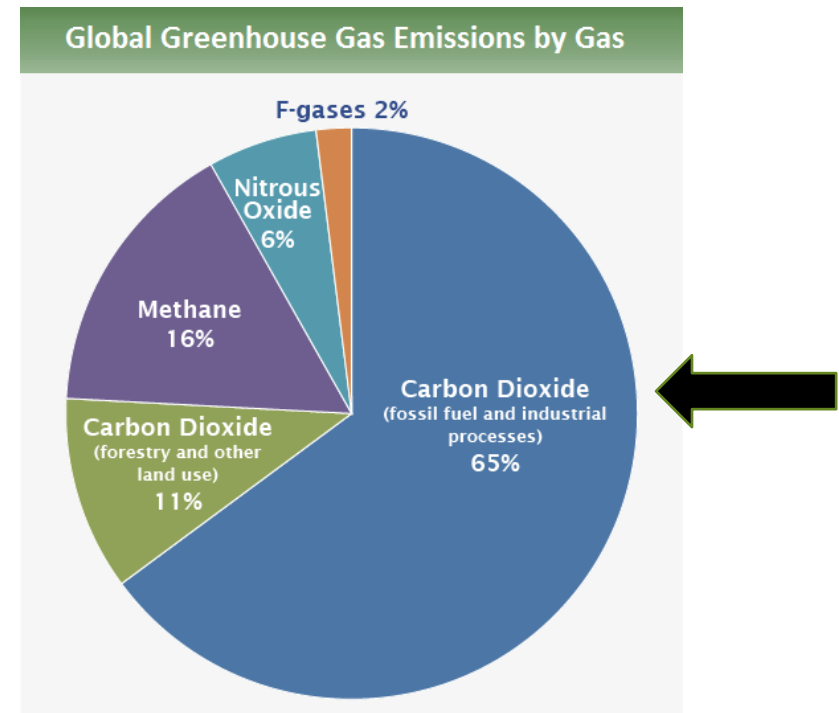
How does carbon-related disclosure differ from financial disclosure?

Carbon-related disclosure is:

- Often demanded by a wider audience, such as consumers, community members, policy makers as well as investors and regulators
- Multidimensional,
- Difficult to measure in monetary terms,
- Hard to compare and standardize, and
- Has externality benefits that go beyond the firm

Example of issues: Carbon emissions as a measure of climate risk

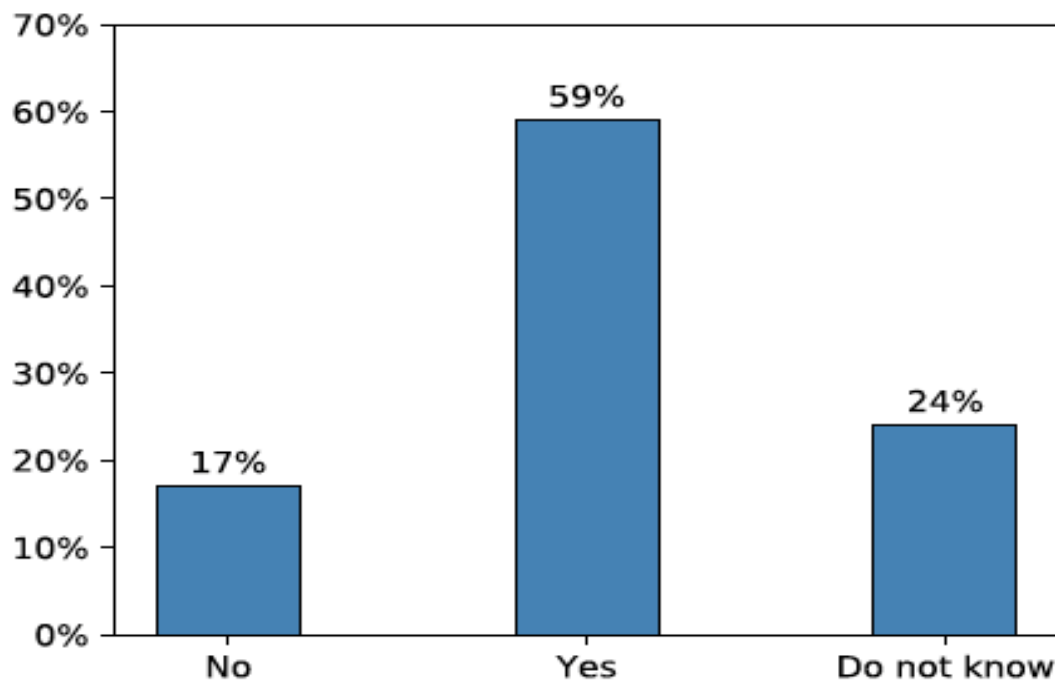
- Which carbon emissions measure?
 - **Scope 1** – A company's direct emissions
 - **Scope 2** – A company's indirect emissions associated with energy purchases
 - **Scope 3** – Other emissions in a company's value chain
 - **Carbon intensity** – emissions/sales



But, in most countries companies do not have to report their Scope 1, 2 or 3 emissions!

Engagement of portfolio firms on TCFD recommendations

Do you engage (or plan to engage) portfolio companies to report according to the recommendations of the Task Force on Climate related Financial Disclosures (TCFD)?

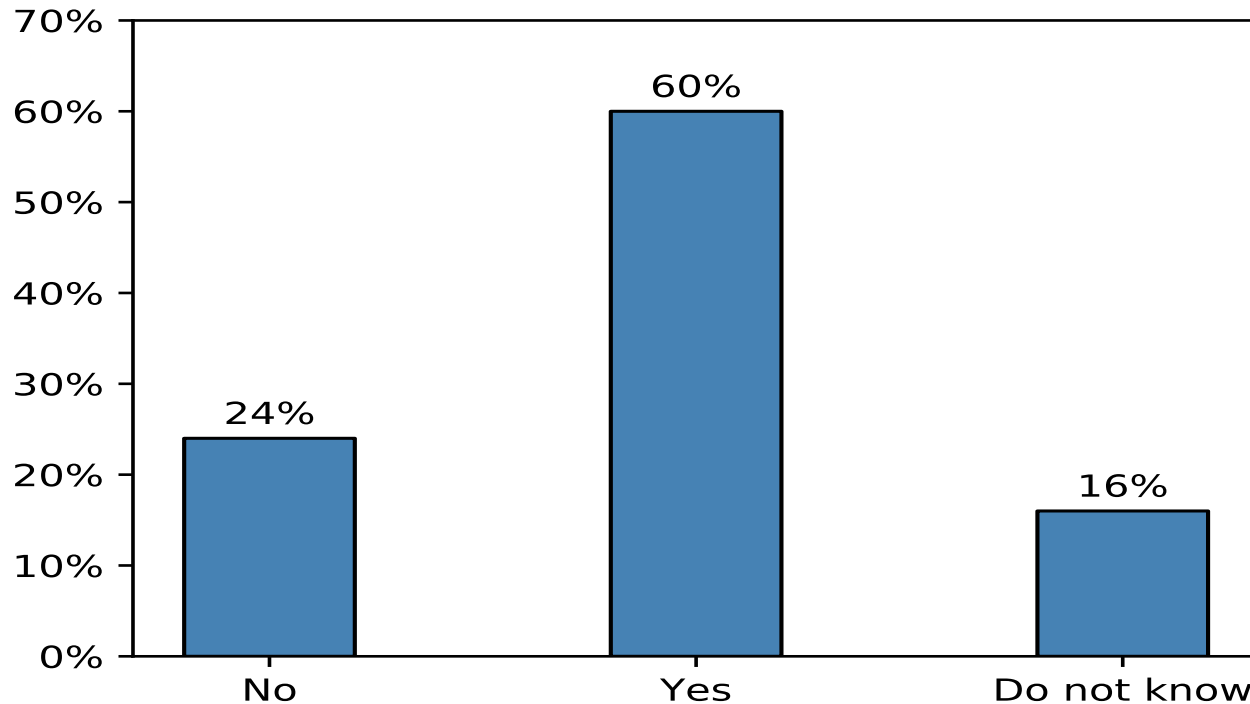


The investors who engage:

- *Higher ESG share of portfolio*
- *Believe climate risk to be more financially material*
- *Located in countries with higher social norms about the environment.*

Investors' views on their own disclosures

Do you plan to report the carbon footprint of your portfolios?



The investors who report:

- *Larger AUM*
- *Higher ESG share of portfolio*
- *Believe climate risk to be more financially material.*

Hypotheses on how institutional investors are reacting to disclosures

- Baseline relations
 - Climate-conscious institutional ownership is positively related to climate risk disclosure
- Costs and benefits of climate-related disclosure
 - Effect weakened if the proprietary costs of the disclosure are higher
 - Consider role of competition
 - Effect strengthened if the information production costs of the disclosure are relatively lower
 - Consider role of firm size
 - Effect strengthened if the externality benefits from the disclosure are higher
 - Consider role of carbon emissions

Baseline estimation: Who owns the firms with better disclosure?

	<i>Scope 1 disclosure</i>			<i>Climate risk disclosure</i>			<i>Log(Climate disclosure score)</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Stewardship code IO</i>	0.19** (0.07)			0.57* (0.29)			0.98* (0.51)		
<i>High-norms IO</i>		0.24* (0.12)			0.52* (0.29)			0.72* (0.42)	
<i>Universal owner IO</i>			0.45*** (0.08)			0.76*** (0.20)			1.51*** (0.29)
<i>Non-stewardship code IO</i>	0.10 (0.08)			-0.02 (0.37)			-0.00 (0.57)		
<i>Low-norms IO</i>		0.09 (0.14)			0.11 (0.41)			0.27 (0.64)	
<i>Non-universal owner IO</i>			-0.09 (0.11)			-0.12 (0.30)			-0.38 (0.50)
Sample	All Firms			All Firms			All Firms		
Years	2010-2019			2011-2016			2010-2015		
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	29467	29467	28185	19947	19947	19415	19801	19801	19282
Adj. R-sq.	0.300	0.300	0.298	0.258	0.258	0.257	0.311	0.310	0.310

Costs and benefits of climate-related disclosure

- Demand for climate risk reporting depends on the costs and benefits of the disclosures
 - Goldstein and Yang (2017); Christensen, Hail, and Leuz (2019)
- Strong evidence that disclosure demand is affected by climate-specific disclosure costs and benefits
- Effect of climate-conscious ownership on climate-related disclosure is
 - Moderated among firms with high proprietary disclosure costs
 - Magnified among large firms with lower information production costs
 - Magnified among firms in highly carbon-polluting industries

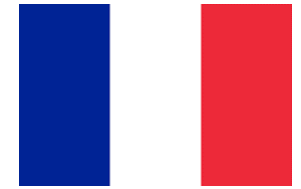
Influence versus selection effects

- Estimated relations may exist for two *nonmutually* exclusive reasons.
- Influence Effect
 - Climate-conscious institutions may actively engage firms to demand that they voluntarily produce such information
- Selection Effect
 - Climate-conscious institutions could have a propensity to invest in firms that provide such disclosures
- We examine the imposition of French Article 173 to understand the influence versus selection effects.



French Article 173

Evidence on influence effects



	Scope 1 disclosure				Climate risk disclosure
	(1)	(2)	(3)	(4)	(5)
Post Article 173 x High French IO	0.020**	0.021**	0.032**		0.078**
	(0.009)	(0.010)	(0.014)		(0.037)
Post Article 173 x French IO				1.379**	
				(0.540)	
High French IO	0.059***	0.059***	-0.007		0.074
	(0.012)	(0.012)	(0.012)		(0.052)
French IO				0.621	
				(0.445)	
Forecast occurrence	0.07***	0.07***	0.02	-0.06*	0.15**
	(0.02)	(0.02)	(0.02)	(0.03)	(0.06)
Sample	All Firms	Non-French Firms	Balanced Panel	French IO >3%	All Firms
Years	2013-2017	2013-2017	2013-2017	2013-2017	2013-2016
Industry x Year Fixed Effects	Yes	Yes	No	Yes	Yes
Country Fixed Effects	Yes	Yes	No	Yes	Yes
Year Fixed Effects	No	No	Yes	No	No
Firm Fixed Effects	No	No	Yes	No	No
N	17878	16835	13126	1113	14294

Conclusions

- Institutional investors are an important influence on firms' corporate governance
 - Evidence shows that they use both voice and exit
 - They have the ability to influence corporate boards and management with regard to climate risk management
- According to the institutional investors, climate risks
 - Are important investment risks with financial implications for portfolio firms
 - Have started to materialize, especially those related to regulation
 - They are using both exit and voice regarding these risks
- Institutional investors value and demand climate-related disclosures
 - Their disclosure demand is affected by climate-specific disclosure costs and benefits
 - Influence effects explain the equilibrium relations between institutional ownership and disclosure