

CORPORATE DISCLOSURE OF CLIMATE CHANGE RISK – A PILOT STUDY

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Abstract

On March 21, 2022, the US Securities and Exchange Commission (SEC) proposed new climate change disclosure rules that would require companies to provide extensive and specific disclosures about the impact of climate change on their corporate policies and financial performance in mandatory company filings. Using hand collected data from 99 annual reports of 34 randomly selected S&P 500 firms from the 2019 to 2021 period, we find that 91% of the annual reports in the sample include some disclosures on climate-related risks. The extent of the disclosure varies across industries but increases over our sample period. We also find that firms with higher fixed-asset intensity, higher profitability, and lower operating cash flows are more likely to make climate-related risk disclosures than their counterparts and tend to disclose more information in their annual reports. Finally, we find a positive relationship between climate-related disclosures and

firms' financial performance. Taken together, our results suggest a potential benefit of the disclosure of climate-related risks.

INTRODUCTION

As officially stated, the mission of the SEC is “to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation” (SEC, 2022). A large part of this mission is not just to strengthen investor protections but also unify the system to make investing consistent across the country. Accordingly, it requires firms to disclose information about their finances so that investors can make informed decisions about investing in these companies. Such transparency is a crucial tool for preventing corporate fraud and leveling the playing field for investors. Traditionally, these mandatory disclosures have focused on firm financial data, such as profits and losses, business investments, and future business plans, because these are the areas that investors focused on. Recently, there has been a small but growing percentage of investors that consider more than just financials when making their decisions. Investors are increasingly looking at the triple bottom line, which includes using a company's social and environmental impact to judge a company's overall health. As climate-related disasters become more intense and more frequent, it is becoming harder to say that environmental factors do not influence a firm's finances. For example, it is estimated that Hurricane Sandy was responsible for over 30 billion dollars of insured losses (Coburn & Cook, 2014). Due to increased public interest, some companies have started to assess their sustainability or how climate change will affect business either in the form of mandatory reports or through voluntary disclosures.¹

¹ We note that some companies provide climate-risk related information due to pressures from various stakeholders or because their CEOs are taking path of least resistance. We thank the reviewer for pointing out this alternative motivation of voluntary disclosures on climate-risk related information.

In February 2010, the SEC issued an Interactive Guidance (SEC, 2010) to provide firms with guidance on disclosing climate-related risks in company filings. The SEC's guidelines provided a four-pillar framework for these disclosures: climate-related governance; strategy; risk management and metrics; and goals. These guidelines were the first time the government had shown any recognition of the fact that climate change was not only real but also that it could have an impact on the economy. In the two years after its release, the SEC put some effort into the enforcement of the 2010 Guidance. Although there were not any real penalties, companies that failed to address the Guidance in their disclosures received a letter from the SEC with a warning. However, enforcement waned and by 2013 no letters were sent out, even though 41% of companies did not refer to the Guidance (Coburn & Cook, 2014). The ones that did only offered brief descriptions with little to no quantitative analyses.

Although the SEC 2010 Guidance does not standardize or require climate disclosures in firms' financial filings, some companies use other guidelines for their voluntary disclosure of climate-related risks. For example, the Climate Registry, GHG Protocol, Global Reporting Initiative, and Stock Exchange Sustainability Standards have had some success in making companies more aware of their carbon footprint by encouraging them to track and release emissions information. While this guidance provides some framework for firms to follow when disclosing climate-related risks, such reporting is still voluntary and not standardized. As a result, stakeholders have limited ability to verify the reports or to encourage companies to disclose the information. This is why the SEC's new proposal on climate-change risk disclosure rules is so important.

In March 2022, under current chair Gary Gensler, the SEC proposed a new set of regulations to formalize the 2010 Guidance and make climate change disclosure a mandatory part of financial reports. The new regulations would require firms to provide detailed information about climate-change related governance, strategy, risk management and metrics and goals, the original four pillars

identified by the Taskforce for Climate-related Financial Disclosures (TCFD). The proposed rules also require third-party verified data on their direct GHG emissions (Scope 1) and indirect GHG emissions from purchased electricity and other forms of energy (Scope 2) for larger firms and data regarding material Scope 3 emissions (those that are the result of activities from assets not owned or controlled by the company but that the company indirectly impacts in its upstream or downstream value chains through these activities). Under these new rules, firms are required to quantify the impact of climate-related risks and convey this information through line items in their financial statements. If adopted, the proposed rules would require extensive and specific disclosures about the impact of climate change on companies' corporate policies and financial performance.

The regulations are backed by widespread public support: the Just Capital survey shows that 87% of 1,115 U.S adults support the release of environmental impact data (Tonti, 2022). Although based on the 2010 guidance, the new regulations are much more granular and set stricter standards regarding scope 1, 2 and 3 emissions. While less stringent than the European Union regulations, the inclusion of scope 3 is important as it puts the US on the forefront of emissions policy. Scope 3 emission refers to emissions occurring throughout a firm's entire supply chain, not just the firm's direct (Scope 1) and indirect (Scope 2) emissions. The new rules would require disclosure of "How any climate related risks have had a material impact on business and financial statements" (Tonti, 2022) and set quantifiable standards for internal carbon prices.

It is worth noting that although much scientific evidence suggests that increased levels of carbon emissions lead to environmental conditions that trap heat within the earth's atmosphere, there are still opposing sources that show conflicting data. One theory is that the earth goes through natural cycles of temperature change and that we just happen to be experiencing a particularly warm part of the cycle (USDA, 2022). If this is the case, then it would be meaningless to force companies to track and

disclose their emissions data. The added regulations of these new proposals would purely create extra cost as the benefits they are supposedly bringing would not be realized.

The main opposition hits on the points that this new regulation will slow down business growth and that the added costs of the regulations will outweigh the benefits (Corb et al. 2022). These are reasonable concerns, as the SEC estimates that compliance will cost larger firms \$75,000-\$145,000 (Rajgopal 2022). In a bid to combat this pain point, the SEC has constructed regulations such that only the biggest conglomerates will be subject to the expensive scope 3 tracking. Most firms will only have to comply with scopes 1 and 2 which are significantly less stringent and less costly. Regardless of firm size, it is predicted that the adoption of these new standards will increase the long-term profits of compliant firms. Investors need information about a firm to accurately price its stock. As firms disclose their climate response, investors will see which firms are handling it well and include that into their decision model. Rajgopal (2022) argues that this effect is expected to more than outweigh the compliance cost over the long term.

In this paper, we examine the current state of corporate disclosures of climate-related risks in their annual reports (10-Ks). Using hand collected data from 99 annual reports by 34 randomly selected S&P 500 firms during the 2019 to 2021 period, we find that 91% of the annual reports have some disclosures on climate-related risks. The extent of the disclosure varies by industry but increases over our sample period. We also investigate the determinants and impact of climate-related risk disclosures and find that firms with higher fixed-asset intensity, higher profitability, and lower operating cash flows are more likely to make climate-related risk disclosures and disclose more information in their annual reports than their counterparts. Our evidence suggests that climate-related disclosure is positively associated with firms' financial performance, as evidenced by the positive relationships between climate-related disclosures and total revenues. Our findings imply that while mandatory disclosure requirement on climate-related risks might

bring in additional costs, firms might also benefit from such disclosures. Therefore, our findings will be informative to policy setters.

SAMPLE

The goal of our research is to understand the current state of climate change-related disclosure in company filings. To do this, we randomly select a sample of 99 annual reports (Form 10-K) filed by 34 unique S&P 500 firms between the fiscal years of 2019 and 2021. We focus on S&P 500 firms to ensure that our sample firms are all of a certain size. Larger companies will be disproportionately affected by these regulations as they will be the first to be required to comply and may have more to report. While our sample size is relatively small due to the requirements of hand-collected data, the size is large enough for statistical analyses.

Table 1 summarizes the characteristics of our sample firms. We obtain firms' financial data from COMPUSTAT. The average total assets of the sample firms is about \$75 billion. These firms are on average profitable and earn 6% return on assets (*ROA*). They spent about 3% of total assets in capital expenditures (*SCAPX*), and 47% of their assets are fixed assets (*SPPEGT*). The sample firms have a leverage ratio of 3.15 and hold 30% of their assets in long-term debt (*SDLTT*) and 3% in short-term debt (*SDLC*). Their book value of common equity is 33% of assets (*SCEQ*) and they hold 10% of their total assets in cash. In addition, the average sample firm generates annual revenues equal to 58% of their assets (*SREVT*) and operating cash flow worth 10% of their total assets (*SOANCF*). In general, these firms are financially healthy.

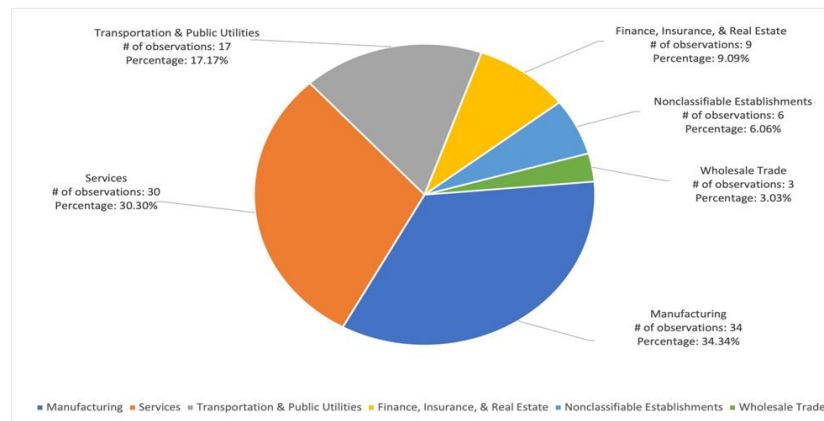
Figure 1 presents the industry composition of our sample firms. Our sample firms span over six major industries: finance, insurance & real estate, manufacturing, services, transportation & public utilities, wholesale trade, and non-classifiable establishments. Manufacturing firms account for the largest portion of our sample (35%) and firms in the wholesale trade industry account for the smallest portion of our sample (3%).

Table 1
Summary Statistics

Variable	Mean	Std Dev	25th Pctl	Median	75th Pctl
<i>AT</i>	74499.39	85796.40	12509.00	47490.00	86381.00
<i>SCAPX</i>	0.03	0.03	0.01	0.02	0.05
<i>SCEQ</i>	0.33	0.18	0.20	0.30	0.44
<i>SCHE</i>	0.10	0.11	0.02	0.07	0.14
<i>SDLC</i>	0.04	0.04	0.01	0.03	0.05
<i>SDLTT</i>	0.31	0.17	0.20	0.29	0.42
<i>SIB</i>	0.07	0.07	0.02	0.05	0.09
<i>SOANCF</i>	0.10	0.07	0.06	0.09	0.14
<i>SPPEGT</i>	0.47	0.36	0.21	0.39	0.72
<i>SREVT</i>	0.58	0.37	0.31	0.52	0.78
<i>LEVERAGE</i>	3.15	10.21	1.16	2.21	3.56

This table summarizes the characteristics of our sample firms (N = 99). All variables are defined in Appendix A and all of the continuous variables are winsorized at the 1% and 99% to mitigate outlier effect.

Figure 1
Industry Composition of the Sample



DATA COLLECTION PROCESS

We use the SEC archives to hand collect data on companies' disclosure of climate-related risks in their annual financial reports (Form 10-K) from 2019 to 2021. We track the frequency of keywords associated with climate change or sustainability to find trends in their usage. We hypothesize that the frequency of these keywords will increase as these new regulations are anticipated to be put in place, therefore showing a possible link between the introduction of regulations and increased focus by the firms.

The specific data collection procedure is as follows. Within the forms, we search for the following keywords: climate, weather, GHG, emission, carbon dioxide, CO₂, greenhouse, and environment. We track how many times each of these words are used and how many unique sections of the form they are found in. Then, for each time a keyword is mentioned in the text, the relevant paragraph is copied into the spreadsheet. The combined word count for all the paragraphs is recorded. Special care is taken around the instances of the word "environment," as firms could use these words in many different contexts. We only count instances where the word is related to the natural environment.²

EMPIRICAL ANALYSES

Descriptive analyses

The goal of our research is to understand the current state of climate change-related disclosure in public company filings. Using data collected from the 10-K forms, we define variables to measure firms' climate-related disclosures. First, we measure the extent of the disclosure using the number of times that the keywords (including the keyword "environment") are mentioned in the firms' annual reports (*COMBINED_SHOW*). Second, we define an

² Something we found interesting throughout this process was how the language is changing. Firms are moving away from using words like GHG and CO₂ and picking up new vocabulary like carbon neutral and ESG. The new keywords can be added to our list in the future when we expand our sample to stay up to date with the vocabulary firms are using.

indicator variable *D_COMBINED* equal to one if there is at least one of the keywords mentioned in the annual reports, and zero otherwise. Third, we track the number of different sections where any of these keywords appear in the forms (*N_SEC*). Fourth, we record the word count of the paragraphs in which keywords appear (*WC*). To avoid double counting, our third and fourth variables do not measure the disclosure using the keyword (environment) because “environment” could appear in the same sections or paragraphs as the other keywords we track.

These measures capture a detailed picture of how climate change topics are disclosed in 10-Ks. For example, the information about the number of sections in the annual reports in which companies disclose climate change-related information can show that a firm is looking at how climate change affects different sectors of their business, rather than just mentioning it in boilerplate language at the beginning. The word count is also important, as it indicates the depth in which these topics are covered. Even if the nominal mentions are not increasing, we can use the word count to show whether the topics are expanded on where they are mentioned.

Table 2 presents the summary statistics of our disclosure measures for our sample firms. In our sample, the mean of *D_COMBINED* is 0.91, indicating that 91% of our sample firms have some disclosures about climate-related risk. If we do not include the disclosure of the keyword “environment,” 88% of our sample annual reports have disclosures about climate-related risk (*DTTL*). This is expected because our sample firms are all large firms that are impacted by climate change to some extent. The average appearance of the keywords including “environment” (*COMBINED_SHOW*) is 51 times in a report and the average word count of the paragraphs in which the relevant keywords appear is 1,392. These numbers seem high at first glance, but the annual reports of large firms can be more than 100 pages long with word counts of 100,000. Firms also disclose these keywords in multiple sections of the 10-Ks and the average number of sections of the 10-K where the keywords are mentioned is 2, suggesting that firms discuss these risks in quite concentrated sections. The summary

statistics indicate that during the 2019 to 2021 period, climate-related disclosure is quite common.

Table 2
Summary Statistics of Climate-related Disclosure Measures

Variable	Mean	Std Dev	25 th Pctl	Median	75 th Pctl
<i>DTTL</i>	0.88	0.33	1.00	1.00	1.00
<i>D_COMBINED</i>	0.91	0.29	1.00	1.00	1.00
<i>COMBINED_SHOW</i>	51.04	55.70	8.00	24.00	83.00
<i>N_SEC</i>	2.25	1.47	1.00	2.00	4.00
<i>WC</i>	1392.18	1546.28	243.00	763.00	2298.00

This table summarizes the characteristics of our sample firms (N = 99). All variables are defined in Appendix A and all of the continuous variables are winsorized at the 1% and 99% to mitigate outlier effect.

Figure 2
Time Trend of Climate-related Disclosure –
COMBINED_SHOW

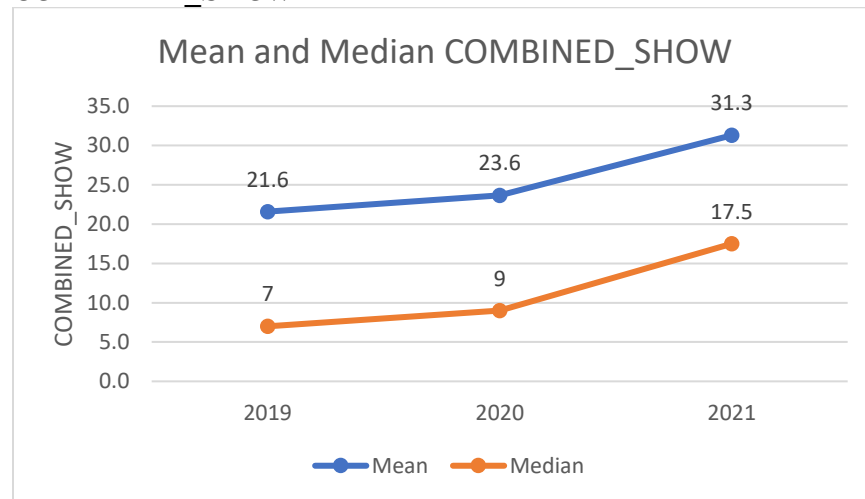
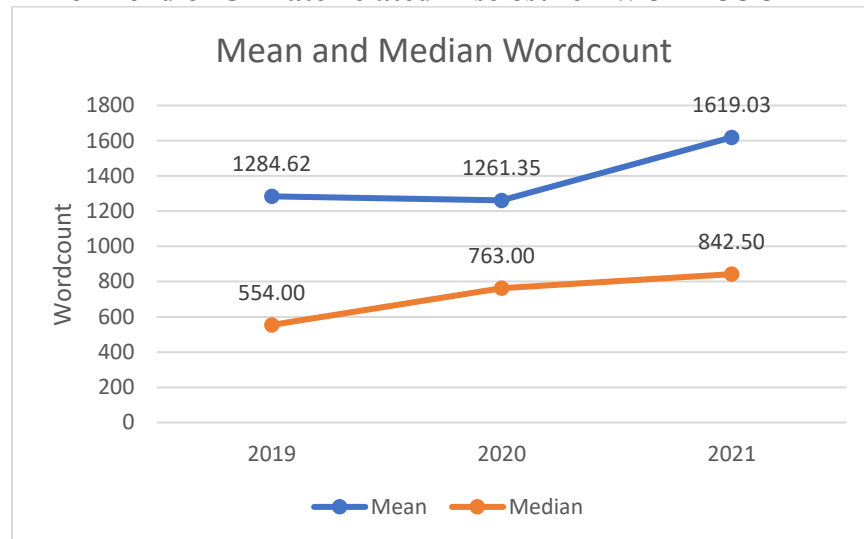


Figure 3
Time Trend of Climate-related Disclosure – WORDCOUNT



Figures 2 and 3 show the time trend of the disclosure measures. Figure 2 presents the time trend of *COMBINED_SHOW* and Figure 3 presents the time trend of *WC*. The biggest takeaway is the significant increase in the frequency of keywords and word count over our sample period. Between 2020 and 2021, the median number of keywords almost doubled. An increase of this size is indicative that most firms are aware of the proposed new regulations and are trying to get ahead of the game before they are made official.³

The Determinants of Climate-risk Disclosure

Although 91% of our sample firms provide some sort of climate-risk disclosure, the extent of the disclosure is variable. To investigate how firm characteristics are associated with firms'

³ A large number of firms still use non-specific, boilerplate language in response to the new regulations. Usually something along the lines of, "We intend to comply with any and all regulations set forth by the SEC but currently we have no indication of how they will effect business."

decisions to disclose climate-related risks and the among they disclose, we estimate the following equation.

$$\begin{aligned}
 Disclosure = & \beta_0 + \beta_1 SPPEGT + \beta_2 SCHE + \beta_3 SIB + \\
 & \beta_4 SCEQ + \beta_5 SDLC + \beta_6 SOANCF + \beta_7 Leverage + \\
 & \beta_8 LOGAT
 \end{aligned}
 \tag{1}$$

The dependent variables are the four measures of climate-related disclosures explained above. All other variables are defined in Appendix A.

Table 3 reports the results. In column 1, we estimate logistic regressions using Equation 1 where the dependent variable is the dummy variable *D_COMBINED*. The coefficient on *SPPEGT* is significantly positive, suggesting that firms with high fixed assets intensity are more likely to disclose climate-related risks in their annual reports than firms with low fixed assets intensity. This is expected, as firms with high levels of fixed assets may be impacted more by climate change than firms with low levels of fixed assets. Net income (*SIB*) is also positively related to the likelihood of climate-risk disclosure, meaning that more profitable firms are more likely to make disclosures than less profitable firms. Again, this is plausible, as profitable firms are likely to make more disclosures. Columns 2-4 investigate the relationship between firm characteristics and the extent of climate-risk disclosures. The coefficients on *SPPEGT* are positive in all three models, again suggesting that fixed assets increase firms' exposure to climate change and thus they disclose more information related to climate-change risks. The coefficients on net income are positive in columns 3 and 4, suggesting that more profitable firms provide more disclosure. In addition, firms with higher short-term debts (*SDLC*) and lower operating cash flows (*SOANCF*) disclose more information about climate risk than their counterparts.

Table 3
Determinants of Climate-related Disclosure

<i>Dep. Var.</i>	(1)	(2)	(3)	(4)
	<i>D_COMBINED</i>	<i>LOGCMBSHOW</i>	<i>LOGN_SEC</i>	<i>LOGWC</i>
<i>SPPEGT</i>	5.359** (2.233)	2.461*** (6.447)	0.780*** (5.512)	2.699*** (3.955)
<i>SCHE</i>	-2.086 (-0.437)	-0.267 (-0.194)	-0.441 (-0.864)	-4.760* (-1.934)
<i>SIB</i>	22.082* (1.849)	2.528 (0.705)	2.256* (1.698)	12.801** (1.997)
<i>SCEQ</i>	-4.629 (-0.945)	-0.682 (-0.787)	0.061 (0.190)	-1.335 (-0.861)
<i>SDLC</i>	1.138 (0.095)	7.991** (2.356)	1.459 (1.161)	12.465** (2.056)
<i>SOANCF</i>	-16.023 (-1.256)	-8.047*** (-2.667)	-3.179*** (-2.843)	-13.215** (-2.450)
<i>LEVERAGE</i>	0.048 (0.245)	-0.004 (-0.310)	0.002 (0.437)	0.007 (0.308)
<i>LOGAT</i>	-0.310 (-0.715)	-0.096 (-0.733)	0.042 (0.874)	0.179 (0.766)
Constant	5.646 (0.945)	3.306** (2.181)	0.323 (0.575)	3.451 (1.273)
Observations	99	99	99	99
YearDummies	Yes	Yes	Yes	Yes
Pseudo R2	0.214	0.364	0.290	0.243

This table reports the results of the determinants of climate-related disclosure analyses. All of the variables are defined in Appendix B. ***, **, and * indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively, under two-tailed tests for nondirectional predictions and one-tailed tests for directional predictions. All of the continuous variables are winsorized at 1% and 99% to mitigate outliers.

These results suggest that climate-related disclosure increases with firm net income and current liabilities. A plausible reason for this phenomenon is that bigger firms generally have more to disclose, and bigger firms will also have more net income and debt. However, although our findings provide evidence of a relationship, they do not indicate whether it is coincidental or causal. We note that other variables have no significant relationship with disclosure level. This could be because the sample is small and lacks test power. Together, these variables do a good job of explaining disclosure with a multiple R Square of 0.214 to 0.364 meaning that on average 30% of the variation in disclosure is explained by these variables.

The Impact of Climate-Risk Disclosure

Voluntary disclosure can benefit firms in many ways. Stakeholders such as customers, investors, or employees may view the voluntary disclosure of climate-related risks as an indication that a firm is more transparent and responsible. We investigate the impact of firms' voluntary disclosure of climate-related risks on firms' financial performance using the following equation.

$$SREVT = \delta_0 + \delta_1 DISCLOSURE + Controls + YearDummy + \varepsilon \quad (2)$$

The dependent variable is total revenue scaled by total assets (*SREVT*). We include control variables that can affect firms' total revenue such as firms' cash holdings (*SCHE*), short-term debt (*SDLC*), operating cash flows (*SOANCF*), leverage, size (*LOGAT*), and capital expenditures (*SCAPX*). Disclosure consists of our four measures of climate-related disclosure in firms' annual reports. We investigate the impact of climate-related disclosures on total revenue because total revenue is one of the most important metrics in financial performance evaluations, and climate change could significantly impact firms' ability to generate revenue.

Table 4 reports the results. In column 1, the coefficient on *D_COMBINED* is significantly positive, indicating that firms that make climate-risk disclosures have, on average, higher total revenue. Columns 2-4 examine the relationship between the extent

of disclosure and total revenues. The results suggest that more disclosure is associated with higher total revenues, perhaps because firms that make more disclosures about their operations are viewed as more transparent and credible, which in turn leads to higher revenues. Although these data provide a good picture of a relationship between disclosure and revenue, we cannot interpret the results as causal relationships.

Table 4
Impact of Climate-risk Disclosures

<i>DEP. VAR</i>	(1) <i>SREVT</i>	(2) <i>SREVT</i>	(3) <i>SREVT</i>	(4) <i>SREVT</i>
<i>DCBSHOW</i>	0.207* (1.727)			
<i>SCHE</i>	-0.239 (-0.659)	-0.178 (-0.494)	-0.155 (-0.450)	-0.100 (-0.271)
<i>SDLC</i>	-0.614 (-0.648)	-0.795 (-0.843)	-0.536 (-0.599)	-0.852 (-0.898)
<i>SOANCF</i>	1.082 (1.592)	1.452** (2.078)	1.622** (2.460)	1.232* (1.809)
<i>LEVERAGE</i>	-0.002 (-0.629)	-0.002 (-0.470)	-0.002 (-0.630)	-0.002 (-0.574)
<i>LOGAT</i>	-0.060* (-1.730)	-0.059* (-1.713)	-0.066** (-2.031)	-0.067* (-1.946)
<i>SCAPX</i>	3.317** (2.040)	2.448 (1.450)	1.559 (0.962)	3.022* (1.852)
<i>LOGCMBSHOW</i>		0.056** (2.158)		
<i>LOGN_SEC</i>			0.261*** (3.756)	
<i>LOGWC</i>				0.031** (2.042)
Constant	0.858** (2.192)	0.868** (2.274)	0.847** (2.360)	0.931** (2.464)
Observations	99	99	99	99
Adjusted R-squared	0.174	0.188	0.263	0.184
YearDummies	Yes	Yes	Yes	Yes

This table reports the results of the impact of climate-related disclosure analyses. All of the variables are defined in Appendix B. ***, **, and * indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively, under two-tailed tests

for nondirectional predictions and one-tailed tests for directional predictions. All of the continuous variables are winsorized at 1% and 99% to mitigate outliers.

CONCLUSION

We provide initial descriptive evidence of the effects of corporate voluntary disclosure of climate-related risks. Using a small sample that covers six industries, we find that 91% of annual reports contain some disclosures of climate-related risks. The extent of the disclosure varies by industry but increases over our sample period. In examining the determinants and impact of such voluntary disclosures, we find evidence that firms with high fixed-asset intensity, high profitability, and low operating cash flows are more likely to make disclosures and to have more disclosures on climate-related risks than their counterparts. Finally, our evidence suggests that climate-risk disclosure is positively associated with firms' financial performance, probably because climate-risk disclosures are viewed positively by stakeholders.

Our paper offers early evidence of the costs and benefits of climate-risk related disclosures and the findings may be informative for policy setters. In general, the goal of the SEC is to set regulations that provide investors with access to information that will inform them on the wellbeing of the firm. Major opponents of these regulations claim that they will hurt firms financially by forcing them to track unnecessary things. While our sample is small, our evidence suggests that this may not be the case; rather, if these regulations were to become official, they are likely to help investors while not harming firms.

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Appendix A
Variable definitions

Variable	Definition
<i>AT</i>	Total assets.
<i>COMBINED_SHO W</i>	The number of times that the keywords (including “environment”) appear in an annual report.
<i>D_COMBINED</i>	An indicator variable equal to one if any of the keywords (including “environment”) appear in an annual report, and zero otherwise.
<i>DTTL</i>	An indicator variable equal to one if any of the keywords (excluding “environment”) appear in an annual report, and zero otherwise.
<i>LEVERAGE</i>	The ratio of total debt divided by total common equity.
<i>LOGAT</i>	Log of (<i>AT</i> +1).
<i>LOGCMBSHOW</i>	Log of (<i>COMBINED_SHOW</i> + 1)
<i>LOGN_SEC</i>	Log of (<i>N_SEC</i> +1).
<i>LOGWC</i>	Log of (<i>WORDCOUNT</i> + 1).
<i>N_SEC</i>	The number of different sections in an annual report in which at least one keyword appears.
<i>SCAPX</i>	Capital expenditures scaled by total assets.
<i>SCEQ</i>	Total common/ordinary equity scaled by total assets.
<i>SCHE</i>	Cash and short-term investments scaled by total assets.
<i>SDLC</i>	Short-term debt scaled by total assets.
<i>SDLTT</i>	Long-term debt scaled by total assets.
<i>SIB</i>	Net income scaled by total assets.
<i>SOANCF</i>	Cash flow from operations, divided by total assets at the end of the year.

<i>SPPEGT</i>	Total property, plant, and equipment scaled by total assets.
<i>SREVT</i>	Total revenue scaled by total assets.
<i>WC</i>	Word count of the paragraphs in which at least one key word appears
