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CLIMATE CHANGE AND SHAREHOLDER LAWSUITS

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As climate change has accelerated, activists have become frustrated with the waffling of governments and grown progressively vocal in their demands that the largest companies take action to slow global warming. These calls have resulted in a cascade of voluntary climate and ESG disclosures, and recently, the SEC's promulgation of draft rules mandating climate disclosures for public companies. The goals of such disclosures include prodding firms to be more climate-friendly and enabling climate-conscious investors to pull their money out of firms that do not share their values.

But the positive effects of such disclosures are likely to be muted if the disclosures are not accurate. The controversy surrounding climate disclosures has largely overlooked an important question: Can shareholder litigation effectively police the accuracy of firms' climate-related disclosures? To answer this question, I examine the climate-related lawsuits that shareholders have brought against their firms, creating a typology illustrating where such lawsuits are likely to arise. I find that much climate-related shareholder litigation has so far been follow-on litigation, piggy-backing off information produced either by the government, or by market participants such as short-sellers who are willing to do substantial digging, usually because they have an interest in the firm's relatively short-term financial prospects.

While some inaccuracies in climate risk disclosures may be adequately—or even excessively—litigated under this regime, others that do not directly affect the firm's bottom line might slip through the cracks. Key among these may be greenhouse gas disclosures, which so far have failed to generate any shareholder

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lawsuits. Moreover, the plaintiffs who seem best suited to bring these lawsuits	_
the climate activist investors who have lobbied so hard for firms to act	on
climate—have been virtually absent in climate-related shareholder litigati	on
to date. Accordingly, I argue that under the current regime for sharehold	der
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Introduction

As climate change has accelerated, weather has intensified, and glaciers have melted, activists have become frustrated with the waffling of governments, and have focused their energies on a new, powerful set of actors: public companies. Activist investors have grown progressively vocal in their demands that the largest companies take action to slow global warming.

These efforts have become increasingly fruitful. Large asset managers¹ have joined activist investors² and academics in calls for climate accountability. These calls have prompted an avalanche of voluntary climate and ESG disclosures from companies, and many firms have adopted ambitious greenhouse gas emissions targets.³ They have also made their way to the halls of the Securities and Exchange Commission. In March

^{1.} See, e.g., Michelle Edkins et al., BlackRock's 2022 Engagement Priorities, HARV. L. SCH. F. ON CORP. GOVERNANCE (Mar. 28, 2022), https://corpgov.law. harvard.edu/2022/03/28/blackrocks-2022-engagement-priorities/ ("As the world works toward a transition to a low-carbon economy, we are interested in hearing from companies our clients are invested in about their strategies and plans for responding to the challenges and capturing the opportunities this transition creates. As we are long-term investors on behalf of our clients, how well companies navigate and adapt through the transition will have a direct impact on our clients' investment outcomes and financial well-being.").

^{2.} Tim McDonnell, *Climate Activist Shareholders Are Finally Starting to Win*, Quartz (Feb. 9, 2022), https://qz.com/2124167/climate-activist-shareholders-are-finally-starting-to-win/.

^{3.} See, e.g., Ford Expands Climate Change Goals, Sets Target to Become Carbon-Neutral by 2050: Annual Sustainability Report, FORD MEDIA CTR. (June 24, 2020), https://media.ford.com/content/fordmedia/fna/us/en/news/2020/06/24/ford-expands-climate-changegoals.html; American Airlines Commits to Setting Science Based Target for Reducing Greenhouse Gas Emissions, Am. Airlines Newsroom (July 16, 2021), https://news.aa.com/news/news-details/2021/American-Airlines-Commits-to-Setting-Science-BasedTarget-for-Reducing-Greenhouse-Gas-Emissions-CORP-OTH-07/default.aspx ("American has committed to develop a science-based target for reducing greenhouse gas emissions by 2035, supporting its existing commitment to reach net-zero emissions by 2050."); see also Disha Shetty, A Fifth of World's Largest Companies Committed to Net Zero Target, FORBES (Mar. 24, 2021), https://

2022, to equal cheers and consternation, the SEC made good on its promise to propose mandatory climate disclosures for public companies.⁴

The climate disclosures demanded by investors—and possibly, in the future, regulators—could directly affect the way firms do business. First, the simple fact that their environmentally unfriendly practices will be exposed to public view might induce firms to alter their behavior. And second, with better access to information on those practices, climate-conscious investors may pull their money out of firms that do not align with their views. But the controversy around climate disclosures has largely overlooked an important point: any effects on firms' behavior may be muted if the disclosures that firms release are not accurate.

How might the accuracy of firms' climate disclosures to investors be policed? Though multiple avenues exist, by some accounts, the private right of action has become the most powerful mechanism in the enforcement arsenal to prevent companies from lying to their shareholders.⁵ The SEC inevitably lacks the resources, and in a controversial area like climate,

 $www.forbes.com/sites/dishashetty/2021/03/24/a-fifth-of-worlds-largest-companies-committed-to-net-zero-target/?sh=13ab4b4c662f\ .$

^{4.} SEC Proposes Rules to Enhance and Standardize Climate-Related Disclosures for Investors, SEC (Mar. 21, 2022), https://www.sec.gov/news/ press-release/2022-46; Press Release, The White House, FACT SHEET: President Biden Directs Agencies to Analyze and Mitigate the Risk Climate Change Poses to Homeowners and Consumers, Businesses and Workers, and the Financial System and Federal Government Itself," (May 20, 2021), https:// www.whitehouse.gov/briefingroom/statementsreleases/2021/05/20/factsheet-president-biden-directs-agencies-to-analyze-and-mitigate-the-riskclimate-changeposes-to-homeowners-and-consumers-businesses-and-workers-and-the-financial-system-and-federalgovernment/; Press Release, Elizabeth Warren, Warren Urges SEC to Require Climate Risk Disclosures to Address Financial and Economic Threats Posed by Climate Change, (August 13, 2020), https://www.warren.senate.gov/newsroom/press-releases/warrenurges-sec-to-require-climate-riskdisclosures-to-address-financial-and-economic-threats-posed-by-climate-change; Letter from Elizabeth Warren, Senator, to Gary Gensler, Chairman of the SEC (Feb. 9, 2022), https://www.warren. senate.gov/imo/media/doc/2022.02.09%20Gen sler%20Climate%20letter. pdf (declaring that delays in promulgating climate risk disclosure regulations were "unwarranted and unacceptable"); Al Barbarino, SEC Climate Plan Would Unleash Flood of Demands on Cos., LAW360 (Mar. 22, 2022, 9:09 PM) https:// www.law360.com/ articles/1476346.

^{5.} See J. I. Case Co. v. Borak, 377 U.S. 426, 432 (1964) ("[T]he possibility of civil damages or injunctive relief serves as a most effective weapon in the enforcement" of the securities laws.); see also Tamar Frankel, Implied Rights of Action, 67 VA. L. Rev. 553, 556 (1981) ("[I]n the decisions implying private

may also lack the political will to police misstatements in the climate disclosures of all public firms. Thus emerges a crucial policy question: Will private enforcement by shareholders fill the gap?

In this Article, I provide at least a preliminary answer to this question: "Probably not." So far, climate-related shareholder litigation is rare, and largely resembles other shareholder litigation in that it is brought when a firm's financial fortunes take a hit, and not—as climate advocates might like—when the benefits to the public are greatest. Although there may be some exceptions, the structure of most shareholder litigation means this pattern is likely to continue, even as climate-related disclosures become more frequent, specific, and perhaps even mandatory.

I reach this conclusion by examining the climate-related shareholder litigation brought to date. Though in its early stages, evidence of whether private enforcement by shareholders can make up for the SEC's shortcomings is already beginning to emerge. As activist investors have pressed for climate action, public firms have responded with voluntary disclosures, and some of these disclosures have generated shareholder lawsuits. In this paper, I examine all shareholder lawsuits from 2011 to 2021 based on firms' climate-related actions. In scouring the filings of these lawsuits, I develop a typology categorizing the lawsuits that have emerged in this area. This typology illuminates the circumstances under which climate-related shareholder claims are likely to be brought, shedding light on areas where the accuracy of climate disclosures may be over- or under-enforced.

I find that most climate-related shareholder litigation falls into two general categories that help police the accuracy of climate-related disclosures. First, some lawsuits relate to what I broadly call "greenwashing." These are claims that the firm has misrepresented its products or practices as more climate-friendly than they are. Second, some cases involve voluntary disclosures discussing the risks of climate change to the firm's business, and the measures the firm has taken to mitigate these risks. These two categories of claims primarily generate actions based on violation of the securities laws and breach of

rights of action under the securities acts, the deterrence of unlawful conduct became a key factor.").

^{6.} These lawsuits are relatively rare, which likely reflects the difficulty of stating a colorable claim for a firm's climate actions or inactions under the corporate and securities laws.

fiduciary duties, but also give rise to lawsuits to enforce corporate books and records demands and claims against the administrators of employee stock ownership plans.⁷

My inquiry sheds light on the types of plaintiffs who are using the shareholder litigation mechanism in the climate context, and for what purposes. The findings suggest that climaterelated shareholder litigation occurs when the costs of bringing it are low, and not necessarily when the benefits to shareholders—or indeed, the public—are high. The heightened pleading standards for most shareholder lawsuits require plaintiffs to plead specific facts that are expensive and time-consuming to uncover—unless they are already public. Accordingly, most existing climate-related shareholder litigation consists of follow-on lawsuits where alleging falsity is cheap and easy because bad facts have already been exposed in public reports. These reports come either from the government, or from market participants, such as short-sellers, willing to do substantial digging because they have an interest in the firm's relatively short-term financial prospects.

Thus, the climate-related shareholder lawsuits generated by these reports are based on misstatements or omissions that affected the firm's bottom line. The greenwashing cases involve claims that a firm marketed its flagship product as climate-friendly when it was not, or stated that it complied with key climate-related regulation when it did not. The cases involving climate risk disclosures all arise from one incident, where ExxonMobil was accused of grossly overstating the internal measures it took in calculating the costs of transition away from a carbon economy, allegedly causing it to write down \$2 billion in assets.⁸ Put another way, climate-related shareholder litigation, like other shareholder litigation, follows the money.⁹

Such litigation will probably continue to follow the money, and as climate disclosures proliferate, or perhaps become

^{7.} I also find an additional group of cases, which challenge corporate omission of climate-related proposals from the company proxy. However, these types of cases do not challenge the accuracy of the climate-related disclosures that firms make.

^{8.} See text accompanying infra notes 150–154.

^{9.} See Dorothy S. Lund & Elizabeth Pollman, The Corporate Governance Machine, 121 COLUM. L. REV. 2563, 2563 (2021) (tracing the evolution of shareholder primacy and arguing that "advocacy pushing corporations to consider the interests of employees, communities, and the environment will likely fail unless such effort is framed as advancing shareholder interests.").

mandatory, some related shareholder litigation may intensify. Claims that a firm greenwashed its products or its compliance with climate-related laws may not increase in frequency but may be more successful as disclosures become more specific. Claims involving firms' disclosures of climate risks to their businesses are likely to proliferate as rising floodwaters and drought, as well as more intense regulatory scrutiny and public pressure, increasingly affect the firms' financial status. As in shareholder litigation more generally, these effects may be more pronounced for larger firms. Shareholder lawsuits generally proliferate where outside reports of misconduct emerge, and where defendants have the deep pockets to pay expensive damages awards and the attendant attorney fees.¹⁰

But some climate-related misstatements may fall through the cracks. My findings suggest that there are likely to be gaps in private enforcement of climate disclosures where information asymmetries between investors and the company are high, and where the potential damages award does not warrant the investment of time and money in investigating inaccuracies. Most importantly to climate advocates, misstatements in greenhouse gas disclosures, which do not usually affect a firm's bottom line but are a key component of the SEC's proposed rules, will probably go undetected without government intervention.¹¹ According to recent studies, upwards of 80% of large public companies *already* issue voluntary reports on their greenhouse gas emissions.¹² Yet not one of the lawsuits I found challenges their accuracy, probably for two reasons. First, inaccuracies in such disclosures may be difficult to detect.¹³ Second, unless such inaccuracies have a substantial effect on the firm's business, few market participants have any incentive to try to detect them.

^{10.} See, e.g., Stephen J. Choi et al., Risk and Reward: The Securities Class Action Lottery, U.S. CHAMBER OF COM. INST. FOR LEGAL REFORM (Feb. 2019), https://instituteforlegalreform.com/research/risk-and-reward-the-securities-fraud-class-action-lottery/.

^{11.} I note here that the same propensity for underenforcement could arise with respect to other kinds of socially motivated disclosures that generally do not reflect the financial status of a firm, such as conflict mineral disclosures (indeed, in the years that these were required, they appear not to have generated a single shareholder lawsuit). For the purposes of this paper, however, I focus on greenhouse gas disclosures.

^{12.} See Lynn M. LoPucki, Corporate Greenhouse Gas Disclosures, 56 U.C. DAVIS L. REV. 405, 435 (2022).

^{13.} See infra Part III.A.

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It seems like there should be a straightforward fix for this. What about the climate activist investors whose tireless crusades prompted voluntary climate actions by firms, and then the SEC's engagement in the first place?¹⁴ Could these investors not fill the enforcement gap, investigating potential inaccuracies in greenhouse gas disclosures because they are motivated by mission, rather than profit? While these investors seem like obvious candidates for courtroom as well as boardroom activism, climate activist investors almost never sue,¹⁵ and generally do not publish investigative reports that would facilitate shareholder lawsuits for others. This may be because the models that these organizations follow focus on disseminating information and promoting engagement over large numbers of portfolio companies, and they lack an interest in second-guessing the disclosures that firms make in response to climate activism.

Other potential climate investigators, such as journalists or disgruntled employees, may yet surface. But they have not appeared in climate-related shareholder litigation to date, and until such alternatives materialize, an enforcement gap may persist if the government does not do the heavy investigatory lifting. Shareholder lawsuits that follow on government investigations may be highly deterrent, causing firms to think twice about misstating their climate risks and goals. But the universe of misconduct captured by these lawsuits will be limited to what regulators pursue. Moreover, both public and private enforcement will stall in administrations that police climate disclosures less rigorously.

Though accuracy of climate-related disclosures is essential, it is unclear whether shareholder litigation is up to the job of enforcing it. The litigation that arises is likely to look very much like shareholder lawsuits in other areas: Where financially salient climate-related misstatements are brought to light by short-sellers or where there is already government scrutiny, lawsuits are likely to mushroom, especially if the defendant firm is large. But other kinds of misstatements that are important to those demanding climate disclosures, such as misstated

^{14.} See Mindy Lubber, Comment: With financial losses from climate change mounting, the SEC must act now, Reuters (Sept. 14, 2022, 2:35 PM), https://www.reuters.com/business/sustainable-business/comment-with-financial-losses-climate-change-mounting-sec-must-act-now-2022-09-14/.

^{15.} Such investors appear as plaintiffs only in a single, idiosyncratic case among those that I examine.

greenhouse gas disclosures, may be inadequately policed. The unevenness of private litigation in this area suggests that the shareholder litigation regime may not be an optimal match for policing the accuracy of climate disclosures.

This Article will proceed as follows. Part I provides background on shareholder engagement in the climate arena and the mechanics of shareholder litigation. Part II lays out a typology of climate-related shareholder lawsuits to date, and Part III assesses the key findings from the typology. Part IV evaluates the potential evolution of climate-related shareholder litigation and addresses the implications of my findings for broader debates on climate disclosures.

I. Background

A. The History and Rationale of Climate-Driven Shareholder Engagement

The involvement of shareholders in environmental protection is not a recent phenomenon. The genesis of this involvement dates back to the 1970s, when environmental concerns and regulation exploded. The sudden existence of complex new environmental regulatory regimes—and newly vocal interest groups advocating for them—meant that public companies suddenly needed to contend with the liabilities arising out of those regimes, and which liabilities needed to be disclosed to the SEC and to investors. Moreover, it was clear early on that shareholders cared about the environmental practices of the companies in which they held stock; by 1975, the SEC acknowledged, "[T]here is a degree of interest among some investors in corporate environmental practices." Firms

^{16.} Mark Latham, Environmental Liabilities and the Federal Securities Laws: A Proposal for Improved Disclosure of Climate Change-Related Risks, 39 ENVTL. L. 647, 679 (2009) ("The explosive development of environmental law began in 1970 and culminated in the passage of numerous statutes targeting serious environmental concerns such as air pollution, untreated wastewater discharges, and the unregulated disposal of hazardous wastes, all of which were associated with the heavy industry that dominated the nation's business landscape at the time.").

^{17.} Disclosure of Environmental Matters, Securities Act Release No. 5627, Exchange Act Release No. 11,733, 8 SEC Docket 41, 47 (Oct. 14, 1975).

began filing statements about their environmental values with their SEC disclosure documents.¹⁸

The SEC's initial response was to require that firms report whether their compliance with environmental regulations would give rise to material costs or changes to the business and any material litigation under environmental laws. ¹⁹ Congress passed the National Environmental Policy Act ("NEPA"), which required agencies "to assess the environmental impact of 'major Federal actions significantly affecting the quality of the human environment' and to consider alternatives that would have less of an environmental impact" in 1969;²⁰ in response to this mandate, the SEC required the disclosure of any environmental litigation involving the government, even if nonmaterial.²¹

Other forms of activist investor engagement also began in earnest in the 1970s. One of the first at least partially environmental activist campaigns was to persuade General Motors in 1970 to adopt "socially responsible" policies on, among other issues, mass transit and air pollution.²² Environmental shareholder activism accelerated in the aftermath of the infamous 1989 Exxon Valdez accident, where an oil tanker spilled 11 million gallons of crude oil into Alaska's Prince William Sound.²³ The catastrophe prompted environmentally-minded

^{18.} Elizabeth Glass Geltman & Andrew E. Skroback, *Environmental Activism and the Ethical Investor*, 22 J. Corp. L. 465, 467 (1997).

^{19.} Latham, *supra* note 16, at 679–80.

^{20.} *Id.* at 681

^{21.} *Id.* at 682. The SEC has since revised this requirement to mandate only the disclosure of environmental litigation if it is material, involves a claim for damages worth more than 10% of the current assets of the registrant, or involves a government action with a potential penalty of more than \$100,000. *Id.* at 684. The Natural Resources Defense Coalition filed a rulemaking petition requesting that the SEC adopt extensive environmental disclosures regarding the impact of their products, but the SEC declined. The NRDC sued the SEC, arguing that it had not complied with the APA in promulgating its rules. The D.D.C. agreed. The SEC went back to the drawing board and developed an exhaustive record consisting of over 10,000 pages. It subsequently rejected the NRDC's proposal a second time, on the ground that the proposed disclosures would be prohibitively costly, and that investors were more interested in the binary question of whether firms were in compliance with the applicable regulations or not. *Id.* at 682–83.

^{22.} Joel Seligman, A Sheep in Wolf's Clothing: The American Law Institute Principles of Corporate Governance Project, 55 Geo. Wash. L. Rev. 325, 328–29 (1987).

^{23.} See Jay W. Eisenhofer & Leslie A. Conason, Shareholder Activism & Global Warming, 12 No. 23 Andrews Sec. Litig. & Regul. Rep. 2, Mar. 21, 2007, 2007 WL 788797, at *2; Latham, supra note 16, at 654–55.

shareholders to request the inclusion of the Valdez Principles, ten guidelines designed to regulate corporate environmental conduct, which ask registrants to voluntarily report information they need not under the securities laws,²⁴ on the corporate ballots of many Fortune 500 companies.²⁵ That year, environmental measures were proposed on the ballots of 56 American companies.²⁶

This seems like small potatoes today. Some 576 proposals involving environmental or social issues were filed in the 2022 proxy season, up from 499 the previous year.²⁷ This is likely the result of a change in SEC's guidance that make it harder for firms to exclude shareholder proposals from corporate ballots.²⁸ Climate activist shareholders achieved some high-profile wins in 2021, including, famously, replacing three members of the ExxonMobil board with more climate-conscious dedicated directors.²⁹ In combination with the SEC's revised guidance, such victories seem to have emboldened environmental shareholder activists; recent proposals have been "more prescriptive and constraining on management,"³⁰ and more are expected to survive to corporate ballots.³¹

^{24.} Richard Matthews, *Valdez Principles (Ceres Principles) Ceres Pledge*, The Green Market Oracle (Mar. 2, 2015), https://changeoracle.com/2015/03/02/valdez-principles-ceres-principles/; Geltman & Skroback, *supra* note 18, at 468. The Valdez Principles are now more commonly called the CERES principles, named for the Coalition for Environmentally Responsible Economies, a corporate activist nonprofit, that penned them. *Id. See also About Us*, Ceres, https://www.ceres.org/about-us ("Ceres is a nonprofit organization transforming the economy to build a just and sustainable future for people and the planet. We work with the most influential capital market leaders to solve the world's greatest sustainability challenges. Through our powerful networks and global collaborations of investors, companies and nonprofits, we drive action and inspire equitable market-based and policy solutions throughout the economy.").

^{25.} Geltman & Skroback, supra note 18, at 477.

^{26.} Id.

^{27.} Catherine Boudreau & Jordan Wolman, SEC Shift Fuels Surge in Climate-Linked Proxy Proposals, POLITICO (Apr. 19, 2022), https://www.politico.com/news/2022/04/19/sec-investor-sustainability-agenda-00026200.

^{28.} Id.

^{29.} Matt Phillips, Exxon's Board Defeat Signals Rise of Social-Good Activists, N.Y. Times (June 9, 2021), https://www.nytimes.com/2021/06/09/business/exxon-mobil-engine-nol-activist.html.

^{30. 2022} climate-Related Shareholder Proposals More Prescriptive than 2021, BLACKROCK INVESTMENT STEWARDSHIP (May 2022), https://www.blackrock.com/corporate/literature/publication/commentary-bis-approach-shareholder-proposals.pdf.

^{31.} See, e.g., Merel Spierings, 70% of Environmental Shareholder Proposals Going to Vote, The Conference Board (May 20, 2022), https://www.confer-

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But all this raises an important question: Why are the capital markets, and with them, the laws governing the relationships between managers and shareholders, the right sphere in which to address climate change? This question is susceptible to many responses and the subject of vociferous debate. Climate activist investors argue, "Sustainability integration across capital markets makes good business sense, financial sense, and just plain common sense."32 The rallying cry has carried over to the biggest Wall Street asset managers; in 2018, Larry Fink, CEO of Blackrock, famously published a letter to CEOs stating, "[A] company's ability to manage environmental, social, and governance matters demonstrates the leadership and good governance that is so essential to sustainable growth, which is why we are increasingly integrating these issues into our investment process."33 Marty Lipton, titan of Wall Street lawyers, observed, "[S]ustainability has become a major, mainstream governance topic."34

Others have challenged the idea that most investors need or even want climate disclosures. Some commentators have argued that such disclosures are responsive to the desires of large asset managers such as index funds, which would like to compete by marketing themselves as "climate-friendly" but cannot incur substantial costs to do so, or public employee pension funds, whose boards include political appointees who may be interested in politics over returns. The Recent studies have suggested that retail investors may not exhibit the same demand for such disclosures, although the dollars flooding into ESG

ence-board.org/blog/environmental-social-governance/focus-on-environmental-shareholder-proposals-2022.

^{32.} Mindy Lubber, \hat{Home} , CERES, https://ceres.org/homepage (last visited Sept. 8, 2023).

^{33.} Larry Fink, Larry Fink's 2018 Letter to CEOs: A Sense of Purpose, BLACK-ROCK, https://www.blackrock.com/corporate/investor-relations/2018-larry-fink-ceo-letter (last visited Sept. 8, 2023).

^{34.} Martin Lipton, *Spotlight on Boards 2018*, Harv. L. Sch. F. on Corp. Governance (May 31, 2018), https://corpgov.law.harvard.edu/2018/05/31/spotlight-on-boards-2018/.

^{35.} Lawrence Cunningham et al., Comment Letter on Proposed Rule Regarding the Enhancement and Standardization of Climate-Related Disclosures for Investors Under the Securities Act of 1933 and Securities Exchange Act of 1934 (Apr. 25, 2022), https://www.sec.gov/comments/s7-10-22/s71022-20126528-287180.pdf (arguing that the proposed rule "exceeds the SEC's authority").

^{36.} See Austin Moss et al., The Irrelevance of ESG Disclosure to Retail Investors: Evidence from Robinhood (Oct. 21, 2022) (unpublished manuscript) (available at https://papers.ssrn.com/abstract_id=3604847) ("ESG disclosures

funds³⁷ suggest that there is substantial retail interest in sustainable investing.

More broadly, it seems inapposite that the goal of climate change regulation should be accomplished indirectly, through the capital markets, boardrooms, and chancery courts of America, rather than directly through legislation and regulation by the obvious candidates such as Congress and the Environmental Protection Agency. Here, I argue that there is a pragmatic answer, which is that those means have been tried, and largely, have fallen short. Partisan gridlock has largely blocked the passage of more direct, durable regulation of firms' emissions.³⁸ In the resulting vacuum, there have been increasing calls for private firms to step up their efforts to fight climate change.³⁹ The SEC's proposed disclosures can be understood as a prod to these efforts, since the SEC cannot regulate climate directly. Moreover, earlier scholars have commented on the procedural hurdles that stymied the "first wave" of climate litigation, including the federal displacement doctrine, courts' lack of expertise, and a judicial preference to defer climate issues to legislatures. 40 The regime for shareholder litigation, by contrast, avoids some

are irrelevant to retail investors' portfolio allocation decisions."); Scott Hirst et al., *How Much Do Investors Care About Social Responsibility*? (Eur. Corp. Governance Inst., Working Paper, Paper No. 674, 2023).

^{37.} Greg Iacurci, Money Invested in ESG Funds More Than Doubles in a Year, CNBC (Feb. 11, 2021), https://www.cnbc.com/2021/02/11/sustain-able-investment-funds-more-than-doubled-in-2020-.html; but see Tommy Wilkes & Patturaja Murugaboopathy, ESG Equity Funds Suffer Big Outflows, Buffeted by Market Jitters and U.S. Backlash, Reuters (July 6, 2023), https://www.reuters.com/sustainability/sustainable-finance-reporting/esg-equity-funds-suffer-big-outflows-buffeted-by-market-jitters-us-backlash-2023-07-06/.

^{38.} Wolman et al., *The SEC Shift You Didn't Notice*, POLITICO (Apr. 19, 2022), https://www.politico.com/newsletters/the-long-game/2022/04/19/the-sec-rule-you-didnt-notice-00026223 ("There is a sense of urgency on climate change and a sympathetic ear in the White House . . . Also, the big enchilada—the Build Back Better agenda—is dead. So what else is going to cause action in the private sector to address climate change?").

^{39.} See, e.g., Fink, supra note 33 ("We also see many governments failing to prepare for the future, on issues ranging from retirement and infrastructure to automation and worker retraining. As a result, society increasingly is turning to the private sector and asking that companies respond to broader societal challenges.").

^{40.} See, e.g., Lisa Benjamin, The Road to Paris Runs Through Delaware: Climate Litigation and Directors' Duties, 2020 UTAH L. REV. 313, 327 (2020) ("The first wave of cases against carbon-majors failed primarily due to the federal displacement doctrine—that federal legislation such as the Clean Air Act displaces federal common law. A number of courts in the United States preferred to defer the issue, instead, to legislative bodies. Judges were also

of these problems. Shares are largely fungible, alleviating many class representation and standing problems. Shareholder disputes under the securities laws and the corporate laws of Delaware cannot be diluted through arbitration agreements. Some specialized courts are quite experienced at evaluating the expert analysis necessary to try shareholder cases, and do not seem to feel the need to relegate such disputes to the legislative process. In short, private markets and the regime that governs them simply seem more functional in some respects than those that would naturally be expected to do the work of curbing climate change.

B. The SEC Draft Climate Disclosure Rules

In response to nearly twenty years of advocacy,⁴⁴ the SEC also released proposed rules for climate-related disclosures.⁴⁵ The SEC's climate risk framework since 2010 has been principles-based, and involved the disclosure of the material impact of climate change on the company.⁴⁶ Under the Biden

reluctant and/or poorly equipped to deal with the complexities of climate science.").

^{41.} For example, shareholders subject to a drop in the value of their shares are not disparately harmed as, say, residents of a rising coastline or breathers of polluted air might be, and fraud by a firm whose conduct caused the price of its shares to drop is a far less attenuated cause of shareholder harm than the conduct of a firm whose carbon emissions may contribute to increasingly frequent extreme weather events.

^{42.} For newly public firms, the SEC has refused to accelerate the effective dates of registration statements of companies going public with mandatory arbitration provisions in their charters. The SEC has also prevented firms from modifying their bylaws to include such provisions by declining to recommend enforcement actions where such provisions are omitted from proxy materials. Salvatore Graziano & Robert Trisotto, *Keeping Investors Out of Court—The Looming Threat of Mandatory Arbitration*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Feb. 18, 2019), https://corpgov.law.harvard.edu/2019/02/18/keeping-investors-out-of-court-the-looming-threat-of-mandatory-arbitration/.

^{43.} But see Fisch et al., The Logic and Limits of Event Studies in Securities Fraud Litigation, 96 Tex. L. Rev. 553, 553 (2018).

^{44.} Mindy Lubber, Comment: With Financial Losses from Climate Change Mounting, the SEC Must Act Now, REUTERS (Sept. 14, 2022), https://www.reuters.com/business/sustainable-business/comment-with-financial-losses-climatechange-mounting-sec-must-act-now-2022-09-14/.

^{45.} The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21334 (proposed Apr. 11, 2022).

^{46.} Amy D. Roy et al., Litigation Risks Posed by "Greenwashing" Claims for ESG Funds, HARV. L. SCH. F. ON CORP. GOVERNANCE (Apr. 25, 2022), https://

administration, however, the SEC received great pressure from shareholders⁴⁷ and lawmakers⁴⁸ for more comprehensive disclosures. The draft rules were released in March, 2022, and as of this writing, they have not been finalized. The draft rules were, of course immediately celebrated by climate activists.⁴⁹ They are also 510 pages long and are of such breadth and comprehensiveness that they immediately sparked significant backlash from the business community. Lawyers were "stunned" by the scope of the proposed disclosures, calling the draft rules "the most extensive, comprehensive and complicated disclosure initiative in decades."⁵⁰ The disclosures themselves have been described as "shocking," with "[t]he sheer quantity of information that would be required in Form 10-K and the third-party attestation requirements dramatically increase[ing] climate-related

corpgov. law. harvard. edu/2022/04/25/litigation-risks-posed-by green was hing-claims-for-esg-funds/.

^{47.} See 40 Investors with Nearly \$1 Trillion Join Other Leaders to Urge U.S. Financial Regulators to Act on Climate Change as Systemic Financial Risk, CERES (July 21, 2020), https://www.ceres.org/news-center/press-releases/40-investors-nearly-1-trillion-join-other-leaders-urge-us-financial.

^{48.} See Press Release, The White House, FACT SHEET: President Biden Directs Agencies to Analyze and Mitigate the Risk Climate Change Poses to Homeowners and Consumers, Businesses and Workers, and the Financial System and Federal Government Itself," (May 20, 2021), https://www.whitehouse. gov/briefingroom/statementsreleases/2021/05/20/fact-sheet-presidentbiden-directs-agencies-to-analyze-and-mitigate-the-riskclimate-changeposesto-homeowners-and-consumers-businesses-and-workers-and-the-financial-system-and-federalgovernment/ (directing agencies to ""assess climate-related financial risk to the stability of the federal government and the stability of the U.S. financial system."); Press Release, Elizabeth Warren, Warren Urges SEC to Require Climate Risk Disclosures to Address Financial and Economic Threats Posed by Climate Change, (August 13, 2020), https://www.warren. senate.gov/newsroom/press-releases/warren-urges-sec-to-require-climateriskdisclosures-to-address-financial-and-economic-threats-posed-by-climatechange; see also Letter from Elizabeth Warren, Senator, to Gary Gensler, Chairman of the SEC (Feb. 9, 2022), https://www.warren.senate.gov/imo/ media/doc/2022.02.09%20Gensler%20Climate%20letter.pdf (declaring that delays in promulgating climate risk disclosure regulations were "unwarranted and unacceptable").

^{49.} See, e.g., Cision, Ceres Welcomes SEC's New Landmark Climate Disclosure Rule Proposal, PRNEwswire (Mar. 21, 2020, 1:45 PM), https://www.prnewswire.com/news-releases/ceres-welcomes-secs-new-landmark-climate-disclosure-ruleproposal-301506932.html ("The SEC is finally heeding the calls from institutional investors, companies, regulators, and the public.").

^{50.} Al Barbarino, SEC Climate Plan Would Unleash Flood of Demands on Cos., Law360 (Mar. 22, 2022, 9:09 PM) https://www.law360.com/articles/1476346.

disclosure obligations and related costs."⁵¹ Politicians⁵² and academics⁵³ have argued that the SEC's rulemaking authority does not extend to the climate risk disclosures mandated by the draft rule;⁵⁴ in what has become a heated debate, others have staunchly defended the rule as within the SEC's purview.⁵⁵

I take no position on whether the proposed rules exceed the SEC's authority, and in light of the potential for revisions that could follow an onslaught of comments,⁵⁶ do not describe them in great detail. However, the broad outlines of the proposed rules are likely to persist in public debate if not in the final regulation, and the potential for private enforcement of such rules is the main substance of this paper. Accordingly, a high-level summary of some of the proposal's key requirements follows.

The proposed regulation requires two general categories of disclosure. The first involves the climate risks the company faces. The second involves the greenhouse gas emissions of the company. Climate risks must be specifically categorized as

^{51.} *Id*.

^{52.} Letter from Republican Governors to President Biden, President of the U.S. (May 31, 2020), https://www.rga.org/wpcontent/uploads/2022/05/Joint-Governors-Letter-on-SEC-Climate-Disclosure-Proposal-5-31-22.pdf (characterizing the proposed rule as an "unprecedented level of federal overreach").

^{53.} Lawrence A. Cunningham, *Comment on SEC Climate Disclosure Proposal by 22 Law and Finance Professors* (Apr. 25, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4109278 (arguing that the proposed rule "exceeds the SEC's authority").

^{54.} This position may be bolstered by the Supreme Court's recent embrace of the "major questions" doctrine. *See West Virginia v. EPA*, 597 U.S. 2587 (June 30, 2022).

^{55.} See, e.g., George S. Georgiev, The SEC's Climate Disclosure Proposal: Critiquing the Critics (Mar. 29, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4068539 (arguing that the proposed rules are "firmly grounded within the traditional SEC disclosure framework"); Marc Hafstead et al., Will the SEC's Proposed Climate Disclosure Rule Come Up Against Legal and Economic Challenges?, Resources (Mar. 19, 2022), https://www.resources.org/special-series-sec/will-the-secs-proposed-climate-disclosure-rule-come-up-against-legaland-economic-challenges/ ("By repeatedly anchoring its proposed climate disclosure rule in investors' use and needs for such information, presented in an understandable and comparable format, the SEC would seem to be within its lane.").

^{56.} See Press Release, U.S. Sec. and Exch. Comm'n, SEC Extends Comment Period for Proposed Rules on Climate-Related Disclosures, Reopens Comment Periods for Proposed Rules Regarding Private Fund Advisors and Regulation ATS (May 9, 2022), https://www.sec.gov/news/press-release/2022-82.

either physical or transition risks,⁵⁷ and must be described in some detail. For example, the location of physical risks must be listed by zip code, and transition risks must be categorized as related to regulatory, market, technological, liability, reputational, or other risks.⁵⁸ Both risks must be described in the short, medium, and long term, and include the business's "value chain" (comprising supply chains and distribution or end use issues).⁵⁹ Issuers must also describe "the actual and potential impacts of any [identified] climate-related risks . . . on the registrant's strategy, business model, and outlook."60 This would include the nature of the impact and activities to mitigate it, how the impact is integrated into the company's business model and financial statements, how any climate change metrics or targets are integrated into the company's business model, and the resilience of business strategy in light of climate risks, including any analysis conducted to support such resiliency.⁶¹ Finally, issuers must report on their climate change risk oversight and management. Such disclosures include, with respect to both the board and the management, who is responsible for monitoring climate-related risk and what their qualifications and processes are. 62 Companies must also describe their risk identification, assessment, and management processes, and how these processes are integrated into overall risk management.⁶³ Any transition plan away from fossil fuels must also be disclosed.⁶⁴

^{57.} The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21334 (proposed Apr. 11, 2022) (to be codified at 17 CFR 210, 229, 232, 239, and 249,), https://www.federalregister.gov/documents/2022/04/11/2022-06342/the-enhancement-and-standardization-of-climate-related-disclosures-for-investors; see also Summary of and Considerations Regarding the SEC's Rules on Climate Change Disclosure, Gibson Dunn (Apr. 15, 2022), https://www.gibsondunn.com/summary-of-and-considerations-regarding-the-sec-proposed-rules-on-climate-changedisclosure/. Physical risks are those arising from the physical effects of climate change, such as rising seas or extreme weather. Transition risks are those incurred in the effort to transition away from a carbon-based economy, such as compliance costs of new regulation, or the cost of "stranded assets" (assets that become useless with the transition away from traditional energy, such as oil wells). Id.

^{58.} Gibson Dunn, *supra* note 57.

^{59.} Id.

^{60.} Id.

^{61.} Id.

^{62.} Id.

^{63.} *Id*.

^{64.} Id.

The second category of disclosures firms must make under the proposed rules are their greenhouse gas emissions. The proposed rules would require all reporting firms to disclose their Scope 1 and 2 emissions, 65 and disclosure of Scope 3 emissions would be required if they are material to the company, or if the company has set a target with respect to such emissions.⁶⁶ The aggregate amount of greenhouse gas emissions must be disclosed in metric tons, along with constituent breakdown of greenhouse gases, excluding offsets.⁶⁷ The rules would "require emissions disclosure for recently completed fiscal year, and for the historical fiscal years included in [their] consolidated financial statements in the filing, to the extent such historical GHG emissions data is reasonably available."68 Accelerated filers must obtain attestation from an independent expert with "significant experience" in GHG emissions for their Scope 1 and 2 emissions disclosures.⁶⁹

C. Private Attorneys General: The Role of Plaintiff Lawyers in the Enforcement of Corporate Disclosures

For climate activists, the promulgation of the SEC's draft climate risk disclosure rules has been received as a decisive win (though with the caveat that the rule may be susceptible to judicial challenge or watered down in its final form, and the general sentiment that there is still more to be done). The implicit assumption seems to be that *if* such disclosures are within the SEC's authority, and *if* investors care about climate, these disclosures will result in "name-and-shame" campaigns that will cause outflows of socially conscious money and ultimately, governance shakeups in companies that fall short. Mandatory disclosure, the thinking goes, will make such shortfalls easily

^{65.} *Id.* Scope 1 emissions are direct emissions from operations owned or controlled by the company. Scope 2 emissions are the emissions generated by purchased or acquired energy that the company consumes. *Id.*

^{66.} *Id.* Scope 3 emissions are "[a]ll other indirect emissions not otherwise included in Scope 2 that occur in upstream and downstream activities of a company's value chain."

^{67.} *Id.* Greenhouse gases are defined as according to the Kyoto Protocol, and include carbon dioxide, methane, nitrous oxide, nitrogen trifluoride, hydroflurocarbons, perfluorocarbons, and sulphur hexafluoride.

^{68.} *Id*.

^{69.} Id.

visible, making it far less costly for investors to vote with their wallets or via proxy.

This stance, however, equates mandatory disclosure with truthful disclosure. It seems reasonable to think that the SEC gets the disclosures it mandates, and when it does not, it cracks down on the liars. And to a certain extent, this is true. However, the initiated know that enforcement in the U.S. corporate realm relies heavily on private enforcement of the law by private attorneys general; in other words, on plaintiffs' lawyers. Although this system has many detractors as well as proponents, it is difficult to argue that the system for enforcing securities and corporate laws relies to a large extent on private lawsuits, which in many instances "overshadow" public enforcement.

The success of this model in shareholder litigation has been resoundingly critiqued for nearly four decades.⁷⁴

^{70.} See, e.g., J. I. Case Co. v. Borak, 377 U.S. 426, 432 (1964) (declaring private lawsuits to be a "necessary supplement" to public enforcement of the securities laws); Myriam Gilles & Gary B. Friedman, Exploding the Class Action Agency Costs Myth: The Social Utility of Entrepreneurial Lawyers, 155 U. Pa. L. Rev. 103, 106 (2006) ("But does anyone seriously doubt that there is immense deterrent power in the contemporary class action? Executives tempted to lie about earnings are more concerned about [plaintiffs' lawyers] than they are about the Securities and Exchange Commission."); John C. Coffee, Jr., Law and the Market: The Impact of Enforcement, 156 U. Pa. L. Rev. 229, 245 (2007) ("In the United States, public enforcement of law is supplemented by a vigorous, arguably even hyperactive, system of private enforcement. Relying on class actions and an entrepreneurial plaintiffs' bar motivated by contingent fees, the U.S. system of private 'enforcement by bounty hunter' appears in fact to exact greater annual aggregate sanctions than do its public enforcers.").

^{71.} See, e.g., Amanda M. Rose, Reforming Securities Litigation Reform: Restructuring the Relationship Between Public and Private Enforcement of Rule 10b-5, 108 Colum. L. Rev. 1301, 1301 (2008) ("Commentators have long debated how to reform the controversial Rule 10b-5 class action without pausing to ask whether the game is worth the candle. Is private enforcement of Rule 10b-5 worth preserving, or might we be better off with exclusive public enforcement?").

^{72.} See Gilles & Friedman, supra note 70.

^{73.} See Coffee, supra note 70, at 273 ("Although public enforcement in the United States (as measured by SEC sanctions) has become increasingly punitive over recent years, this shift is overshadowed by even greater increases in the amounts collected by private enforcement in the United States.").

^{74.} See, e.g., John C. Coffee, Jr., Rescuing the Private Attorney General: Why the Model of the Lawyer as Bounty Hunter is Not Working, 42 MD. L. Rev. 215, 215–16 (1983); Jonathan R. Macey & Geoffrey P. Miller, The Plaintiffs' Attorney's Role in Class Action and Derivative Litigation: Economic Analysis and Recommendations for Reform, 58 U. Chi. L. Rev. 1, 3 (1991).

Nonetheless, the driving role of shareholder plaintiffs' lawyers in enforcement, whether for good or evil, is indisputable. No one argues that in its current incarnation, the SEC can do this work on its own. Assessment of whether mandatory climate disclosures will live up to the hopes of their proponents, therefore, must take into account the enforcement of these disclosures by private plaintiffs. How climate-related disclosures have interacted with the private shareholder litigation regime, and are likely to interact in the future, comprise the following substance of this paper.

II.

Typology of Existing Climate-Related Shareholder Litigation

Lawsuits involving firms' contributions to climate change have become an increasingly loud drumbeat in the public consciousness. These lawsuits have been brought under many rubrics, from federal environmental statutes to state tort law. Some scholars have commented on the difficulties encountered in many of these lawsuits,⁷⁵ and others have argued that laws governing the relationships between managers and shareholders may play a role climate change issues.⁷⁶

But to what extent have climate-related shareholder lawsuits actually been brought? What do they look like, and how well do they work? To examine these questions, I review all securities and financial cases compiled in the U.S. Climate Change Litigation database.⁷⁷ Private lawsuits by shareholders

^{75.} See, e.g., Lisa Benjamin, The Road to Paris Runs Through Delaware: Climate Litigation and Directors' Duties, 2020 Utah L. Rev. 313, 327 (2020) (discussing the "hurdles in the first wave of climate change litigation."); Perry E. Wallace, Climate Change, Corporate Strategy, and Corporate Law Duties, 44 Wake Forest L. Rev. 757, 772 (2009).

^{76.} Id.

^{77.} U.S. Climate Change Litigation, Securities and Financial Litigation, Sabin Center for Climate Change Law, Climate Change Litigation Databases, http://climatecasechart.com/case-category/securities-and-financial-regulation/ (last visited Sept. 2, 2023). These cases are compiled by Columbia Law School's Sabin Center for Climate Change Law in partnership with Arnold & Porter Kaye Scholer LLP. These cases include only those that are brought before judicial bodies, and "climate change law, policy, or science must be a material issue of law or fact in the case." About, Sabin Center for Climate Change Law, Climate Change Litigation Databases, http://climatecasechart.com/about/ (last visited Sept. 2, 2023).

to address climate change issues regarding the companies whose stock they hold is rare, 78 comprising 22 of only 29 total cases,⁷⁹ most are quite recent, and many have not yet been resolved, meaning that assessing their merits based on outcome is difficult. However, I comprehensively review the dockets of these cases, comprised of over 4,000 documents, and categorize them to illustrate how climate-related private enforcement actually arises under the federal securities laws and state laws governing the relationships between shareholders and management. Very broadly, these cases involve claims of greenwashing, which may include event-driven litigation; claims that a firm's statements about the impact of climate change on the firm's business were false; claims that shareholder proposals related to climate change were wrongfully excluded from the proxy; and claims that employee stock ownership plan managers breached their fiduciary duties by investing in firms thought to have climate-change-related problems. All but three shareholder actions fall into these categories.80 In this section, I discuss the

^{78.} Only 24 securities and financial cases appear in the U.S. Climate Change Litigation Database. To supplement these, I searched in Westlaw, LexisNexis, and Bloomberg Law for additional cases brought by shareholders under federal or state law in which climate change appeared to be a significant issue driving the case. I collected only five additional cases.

^{79.} The remainder involve public enforcement actions by state attorneys general, see Commonwealth v. ExxonMobil Corp., 187 N.E.3d 393 (Mass. 1986); US Virgin Islands Office of the Att'y Gen. v. ExxonMobil Corp., No. 2016-CA-002469 (D.C. Super. Ct. filed Apr. 4, 2016)); Matter of People v. PriceWaterhouseCoopers LLP, 150 A.D.3d 578 (N.Y. App. Div. 2017); People v. ExxonMobil Corp., 119 N.Y.S.3d 829 (N.Y. Sup. Ct. 2019); a motion to set aside a civil investigative demand, ExxonMobil v. Office of the Attorney General, No. SJC-12376 (Mass. Apr. 13, 2018); and an action not brought by shareholders, Harvard Climate Justice Coalition v. President & Fellows of Harvard College, No. 2013-3620-H, 2015 WL 1519036 at *1 (Mass. Super. Ct. Mar. 17 2015), judgment entered sub nom. Harvard Climate Just. Coal. v. Harvard Corp., No. 2014-3620-H, 2015 WL 12839708 (Mass. Super. Mar. 18, 2015), aff'd sub nom. Harvard Climate Just. Coal. v. President & Fellows of Harvard Coll., 60 N.E.3d 380 (2016).

^{80.} The exceptions are Barnett v. Climate Futures Exchange, LLC, No. 2011-L-013468 (Ill. Cir. Ct. filed Dec. 14, 2011) (involving claims of fraud against the founder of the Chicago Climate Futures Exchange, and therefore not a conventional shareholder lawsuit); In re Tesla Motors, Inc. Stockholder Litig., No. 12711-VCS, 2022 WL 1237185, at *1 (Del. Ch. Apr. 27, 2022), judgment entered sub nom. In re Tesla Motors, Inc., 2022 WL 1267229 (Del. Ch. 2022), aff'd sub nom. In re Tesla Motors, Inc. Stockholder Litig., 2023 WL 3854008 (Del. June 6, 2023) (involving claims that conflicted controlling stockholder, Elon Musk, violated his fiduciaries in connection with a merger with SolarCity, which was undertaken to execute Tesla's Master Plan to reduce

cases in my sample and the characteristics of the broad categories into which they fall.

A. Greenwashing

Classically, the term "greenwashing" has come to "signify misleading claims as they appl[y] to the environment."⁸¹ The term was anecdotally coined in the 1980s to describe companies that "present themselves as caring environmental stewards, even as they were engaging in environmentally unsustainable practices."⁸² As environmental awareness has increased, and consumers are willing to pay more for ecologically responsible products, or products produced by ecologically responsible firms, greenwashing has proceeded apace.⁸³ Practices have also evolved, in some instances becoming more subtle as more educated "consumers, investors, and auditing bodies are less inclined to accept disingenuous messaging around sustainability."⁸⁴ Much of the public debate around greenwashing centers on "what counts as environmentally friendly activity versus pure PR bluster."⁸⁵

The climate change-related shareholder lawsuits brought based on what I loosely term "greenwashing" involve one of two extreme versions of this phenomenon. The first "greenwashing" cases in my sample constitute what has come to be

reliance on fossil fuels); Nickerson v. Am. Elec. Power Co., Inc., No. 2:20-CV-4243, 2021 WL 5998536, at *1–3 (S.D. Ohio Dec. 20, 2021) (involving claims that the defendant firm secretly lobbied for an ostensible clean energy bill only to ensure that it allowed its coal-fired power plants to continue operation).

^{81.} Miriam A. Cherry, The Law and Economics of Corporate Social Responsibility and Greenwashing, 14 U.C. Davis Bus. L. J. 281, 284 (2014).

^{82.} Bruce Watson, *The Troubling Evolution of Corporate Greenwashing*, The Guardian (Aug. 20, 2016, 10:00 AM), https://www.theguardian.com/sustainable-business/2016/aug/20/greenwashing-environmentalism-lies-companies.

^{83.} Paul Polman, *Corporate Greenwashing is All the Rage, How Can we Stop It?*, FORTUNE (Apr. 11, 2021, 10:00 AM), https://fortune.com/2021/04/11/greenwashing-esg-businesses-corporations-climate-change/ ("The proliferation of corporate decarbonization plans and sustainability initiatives has now reached an impressive crescendo. But regrettably, the same can also be said of greenwashing[.]").

of greenwashing[.]"). 84. Beau River, *The Increasing Dangers of Corporate Greenwashing in the Era of Sustainability*, FORBES, (Apr. 29, 2021, 7:16 PM), https://www.forbes.com/sites/beauriver/2021/04/29/the-increasing-dangers-of-corporategreenwashing-in-the-era-of-sustainability/?sh=6d6f446f4a32.

^{85.} Polman, supra note 83.

colloquially known as "event-driven litigation": shareholder law-suits following a major disaster for which the defendant firm is somehow responsible. I characterize these as greenwashing lawsuits for the purpose of this article because they involve claims that the defendant firms represented themselves as compliant with climate-protective laws, when in fact they were not. Second, many of my lawsuits involve claims that a firm's product—usually a core product—was touted as environmentally friendly and climate-conscious, when in fact, it was not. I discuss these cases below.

1. Event-Driven Claims

All of the event-driven lawsuits follow government investigations. The facts of some of these cases are well known, and they are more likely to have institutional investors as lead plaintiffs. For example, in In re PG&E Corp. Securities Litigation, plaintiff shareholders and bondholders consolidated various lawsuits alleging that PG&E made material misstatements and omissions in connection with its safety procedures and the infamous Northern California and Camp wildfires. Broadly, the plaintiffs, led by Public Employees Retirement Association of New Mexico, 87 alleged Rule 10b-5 and Section 11 claims on the ground that "[b]ecause it was vital for PG&E's business to be perceived as making safety its highest priority, Defendants assured investors that the Company's wildfire safety measures were adequate and compliant with applicable laws and regulations. However, the investigations following these devastating fires have revealed that PG&E's assurances were false: evidence has emerged that PG&E's safety violations caused at least twelve of these devastating fires, including the Camp Fire, California's deadliest and most destructive wildfire ever."88 The case has been stayed since PG&E filed for Chapter 11 bankruptcy; shareholder and bondholder plaintiffs have been given

^{86.} See Emily Strauss, Is Everything Securities Fraud?, 12 U.C. IRVINE L. REV. 1331, 1339 (2022).

^{87.} Public Employees Retirement Association of New Mexico was appointed lead plaintiff. *See* Stipulation and Order to Consolidate and File Third Amended Consolidated Class Action Complaint, In re PG&E Corp. Sec. Litig., No. 19-cv-00994 (N.D. Cal. May 7, 2019).

^{88.} Third Amended Complaint at 4, In re PG&E Corp. Sec. Litig., No. 3:18-cv-03509, (N.D. Cal. May 28, 2019).

the opportunity to file individual claims in the bankruptcy proceedings.⁸⁹

Similarly, in *Barnes v. Edison*, ⁹³ shareholders sued Edison, an electricity utility, under the Securities and Exchange Acts for statements made prior to the Thomas and Woolsey wildfires in southern California. ⁹⁰ The lead plaintiffs' complaint, filed by Ironworkers Local 585, ⁹¹ alleged misstatements and omissions relating to the safety precautions Edison took against wildfires, the regulations it purported to abide by, the liabilities the company stood to incur as a result of wildfires, and its statements regarding its responsibility for the Thomas and Woolsey fires. ⁹² The court dismissed the Securities Act claims on the ground that they were untimely, and the Exchange Act claims on the grounds that they were either puffery or not false and misleading. ⁹³

Finally, in *Shupak v. Reed*, plaintiff shareholders brought a derivative action alleging that the boards of SoCalGas, a natural gas provider, and Sempra, its holding company, had breached their fiduciary duties in connection with a methane leak from one of SoCalGas' wells. Over the course of several months, the leak pumped an estimated 75 million metric tons of carbon into the air, "erasing years of progress" in California's effort to combat climate change. The complaint alleges "actual or constructive knowledge that inadequate safety protocols were in place to prevent the leak, causing harm to the companies, nearby residents, and the environment."

2. Product Greenwashing

The product greenwashing cases all involve firms manufacturing a product—usually, their flagship product—and

^{89.} Nicholas Iovino, *PG&E Investors Lose Bid to File One Massive Securities Fraud Claim*, Courthouse News Service (Feb. 24, 2020), https://www.courthousenews.com/judge-wont-let-pge-investors-file-one-massive-securities-fraud-claim/.

^{90.} Amended Order at 9, Barnes v. Edison, No. 18-cv-09690 (C.D. Cal., Apr. $27,\,2021).$

^{91.} Ironworkers Local 585 was appointed as lead plaintiff. *See* Consolidated Second Amended Class Action Complaint at 1, Barnes v. Edison, No. 18-cv-09690 (C.D. Cal Nov. 27, 2019).

^{92.} Id. at 59-60.

^{93.} Id

^{94.} Complaint at 16–17, Shupak v. Reed, No. BC-617444 (Cal. Super. Ct. Apr. 19, 2016).

^{95.} Id. at 26.

marketing it as climate-friendly. The lawsuits arise when a short-seller or regulator discovers that the product is not, in fact, as climate-friendly as it is purported to be, and broadly disseminates this information.

Three of the four product greenwashing cases are based on reports by short-sellers. All of these cases involve individual lead plaintiffs and relatively young companies that offer a narrow range of products, the environmental friendliness of which is an important component of the firms' image and sales pitch. For instance, in *In re Oatly AB Securities Litigation*, plaintiffs brought claims under Section 11 and Rule 10b-5 against Oatly, a Swedish manufacturer of oat milk. The claims were based, in part, on allegations that Oatly had overstated its environmental practices and impact. In its offering documents, Oatly reported that "on average, a liter of Oatly product consumed in place of cow's milk results in around 80% less greenhouse gas emissions, 79% less land usage and 60% less energy consumption."96 The offering documents also included more generalized statements about Oatly's commitment to sustainability: "Rooted and validated through our research, we believe the growth of our products is an actionable solution to some of society's greatest environmental and nutritional challenges . . . With every liter of Oatly we produce, our positive environmental and societal impact increases . . . Our unwavering commitment to sustainability fuels our growth."97 Similarly, Perri v. Croskrey⁹⁸ and Rosencrants v. Danimer Scientific, Inc.⁹⁹ arise from the same events, namely the alleged misstatements of Danimer Scientific regarding its purportedly biodegradable plastics, marketed under the name Nodax to replace traditional fossil-fuel based plastics. 100 Danimer touted Nodax as "100% biodegradable, renewable, and sustainable plastic," and "the first PHA polymer to be certified as marine degradable, the highest standard of biodegradability, which verifies the material will fully degrade in ocean water without leaving behind harmful

^{96.} Consolidated Amended Complaint at 21, In re Oatly Group AB Securities Litigation, No. 21-cv-06360, Dkt. No. 64, (S.D.N.Y Mar. 4, 2022).

^{97.} *Id.* at 21–22.

^{98.} Complaint at 1, Perri v Croskrey, No. 21-cv-01423 (D. Del. Oct. 6, 2021)

^{99.} Complaint at 1, Rosencrants v. Danimer Scientific Inc., No. 21-cv-02708 (E.D.N.Y. May 14, 2021).

^{100.} Id. at 8.

microplastics."¹⁰¹ Various other Danimer's filings also touted the "environmental friendliness of Danimer's operations."¹⁰² Finally, in *Hunt v. Bloom Energy Corp.*, ¹⁰³ defendants consisted of an energy company manufacturing and leasing power cells that converted natural gas to electric power.¹⁰⁴ Plaintiffs brought Section 11 and Section 10 claims challenging, among other issues involving accounting, facility construction, and internal controls, Bloom's statements about its fuel cells' efficiency and emissions.¹⁰⁵

These shareholder lawsuits are based on reports originally published by short-sellers. The facts casting doubt on Oatly's rosy claims were initially brought to light by a report from short-seller Spruce Point Capital Management, entitled "Sour on an Oatlier Investment," which revealed that the wastewater transmitted from Oatly's New Jersey facility contained "very high" amounts of harmful wastewater byproducts sufficient to worry local regulators. Plaintiffs noted that the release of the Spruce Point report precipitated an 8.8% drop in Oatly's stock price. Plaintiffs also noted that U.K. regulators had recently banned Oatly's ads which touted the environmental benefits of oat milk, on the basis that claims that Oatly's product generated less CO₉ than cows' milk were misleading. 109

^{101.} Id. at 10.

^{102.} Id. at 12.

^{103.} Hunt v. Bloom Energy Corp., No.19-cv-02935-HSG, 2022 U.S. Dist. LEXIS 69306 (N.D. Cal. Apr. 14, 2022).

^{104.} Second Amended Complaint at 7, Hunt v. Bloom Energy, No. 19-cv-02935-HSG (N.D. Cal. Apr. 21, 2020).

^{105.} *Id.* at 1–2.

^{106.} *Id.* Third Consolidated Complaint at 33, *In re Oatley Group AB Securities Litigation*, No. 21-cv-06360 (Aug. 11, 2023); Spruce Point Capital, *Sour on an Oatlier Investment*, chrome-extension://efaidnbmnnnibpcajpcglclefind-mkaj/https://assets-global.website-files.com/64dd091f91b3ca8e6309dc-0d/64e79e8af3f37f596335d921_otly_research_thesis_7-14-2021-compactado.pdf (Jul. 14, 2021) at 13.

^{107.} Spruce Point Capital, *Sour on an Oatlier Investment*, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://assets-global.web-site-files.com/64dd091f91b3ca8e6309dc0d/64e79e8af3f37f596335d921_otly_research_thesis_7-14-2021-compactado.pdf (Jul. 14, 2021) at 13.

^{108.} *Id.* Third Consolidated Complaint at 54, *In re Oatley Group AB Securities Litigation*, No. 21-cv-06360 (Aug. 11, 2023).

^{109.} Third Consolidated Complaint at 54, In re Oatley Group AB Securities Litigation, No. 21-cy-06360 (Aug. 11, 2023); Jack Wright and James Gant, Oatly ads BANNED over misleading environmental boast that ditching dairy is good for the planet: Oat drink brand gave no evidence it 'generated 73% less CO2' than regular cow's milk, Daily Mail (Jan. 25, 2022), https://www.

Spruce Point also published two reports on Danimer, reporting that bioplastics such as Nodax had "less than 10% of biodegradability over a period of one year in aquatic environments, while biodegradation was in general below 50% after one year in soil environment."110 It also disclosed that disposal of bioplastics in sealed landfills resulted in methane, a severe greenhouse gas. 111 Spruce Point's second report disclosed that Danimer had not only "wildly overstated' production figures, pricing, and financial projections," but that its production facilities emitted "hazardous air pollutants, and that [Danimer] had been subject to prior regulatory violations."112 These facts gave rise to allegations, in the consolidated case in the Eastern District of New York, that Danimer and various individual defendants had violated Sections 11, 12(a)(2) and 15 (with respect to misstatements in the registration statement), Section 14(a) (proxy fraud), and Rules 10b-5 and 20(a) (misstatements and omissions in connection with the purchase or sale of a security). 113 Based on the same facts, in the District of Delaware, plaintiffs pled against individual defendants control

 $[\]label{lem:dailymail.co.uk/news/article-10441759/Oatly-ads-banned misleading environmental-claims. html.$

^{110.} Spruce Point Capital, When the Tide Goes Out, What Will Wash Ashore? https://www.sprucepointcap.com/research/danimer-scientific-inc (May 21, 2021) at 44.

^{111.} Id. at 45.

^{112.} Spruce Point Capital, When the Tide Goes Out, What Will Wash Ashore?, https://www.sprucepointcap.com/research/danimer-scientific-inc. A Wall Street Journal article also reported that "many claims about Nodax are exaggerated and misleading, according to several experts on biodegradable plastics," and that, despite breaking down more quickly than traditional fossil-fuel plastics, "[b]iodegradable straws, bottles and bags can persist in the ocean for several years." The article included statements by plastics experts characterizing Danimer's claims as "sensationalized" and "greenwashing." *Id.* at 13

^{113.} Consolidated Complaint for Violations of the Federal Secuirities Laws, In re Danimer Scientific, Inc. Securities Litigation, No. 21-cv-02708 (E.D.N.Y, Jan. 19, 2022). An individual has been selected as lead plaintiff. See ORDER CONSOLIDATING RELATED ACTIONS, APPOINTING LEAD PLAINTIFF, AND APPROVING LEAD PLAINTIFF, SELECTION OF COUNSEL, Rosencrants v. Danimer Scientific, No. 21-cv-02708, Dkt. No. 40, Sept. 24, 2021 (E.D.N.Y.). See Order Consolidating Related Actions, Appointing Lead Plaintiff, and Approving Lead Plaintiff's Selection of Counsel, Rosencrants v. Danimer Scientific, Inc., No. 21-cv-02708, (E.D.N.Y. Sept. 24, 2021), ECF No. 40.

person liability, breaches of fiduciary duty (sounding in claims under *Caremark*), unjust enrichment, and waste.¹¹⁴

Short-seller Hindenberg was responsible for the report that drove the lawsuits against Bloom Energy. Plaintiffs alleged that Bloom made statements in the registration statement and elsewhere that its power cells were more efficient than they really were. 115 They also alleged that Bloom's statements that its cells produced "nearly 60% less carbon emissions compared to the average U.S. combustion power generation" and that the cells "emitted virtually no criteria air pollutants" were false. 116 The court dismissed the claims regarding emissions, finding that the sources cited by the plaintiffs (the Hindenberg report and other California litigation) did not support falsity, but allowed the efficiency claims to proceed. 117 The facts that formed the basis for *Hunt v. Bloom* were also grounds for a Rule 220 Books and Records demand in the Delaware Court of Chancery. Plaintiffs based their demand on the Hindenburg Report, which the Bloom board declined as insufficient to form a credible basis to suspect wrongdoing.¹¹⁸ The court disagreed and granted the demand (though it narrowed the scope of the documents Bloom was obligated to produce). 119

The final greenwashing lawsuit involving a product was the Volkswagen emissions scandal, which gave rise to hundreds of lawsuits under federal securities laws. These were ultimately consolidated in the Northern District of California under the handles "ADR litigation" and "bondholder litigation." The

^{114.} Complaint at 1, Perri v. Croskrey, No. 21-cv-01423 (D. Del. Oct. 6, 2021).

^{115.} Hunt v. Bloom Energy Corp., No. 19-CV-02935-HSG, 2021 WL 4461171, at *10 (N.D. Cal. Sept. 29, 2021), motion to certify appeal denied, No. 19-CV-02935-HSG, 2022 WL 1122835 at *3 (N.D. Cal. Apr. 14, 2022). An individual lead plaintiff was appointed. See id.

^{116.} Second Amended Complaint. Roberts v. Bloom, No. 19-cv-02935 (Apr. 21, 2020) at 24.

^{117.} Id.

^{118.} Memorandum Opinion, Jacob v. Bloom Energy Corp., No. 2020-0023 (Del. Ch. Ct. Feb. 25, 2021).

^{119.} Id.

^{120.} In re Volkswagen "Clean Diesel" Mktg., Sales Practices, & Prod. Liab. Litig., No. MDL 2672, 2017 WL 3058563, at *2 (N.D. Cal. July 19, 2017).

^{121.} *In re* Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation, MDL No. 2672, 2018 U.S. Dist. LEXIS 201681 at *2 (N.D. Cal. Nov. 2018).

^{122.} *Id.* Pension funds were appointed as lead plaintiffs in both cases. *See id.* (Puerto Rico Government Employees and Judiciary Retirement Systems

facts of the scandal are by now well known. In pursuit of an ambitious plan to more than double its sales in the United States, Volkswagen aggressively promoted its diesel vehicles as "low-emission, fuel-efficient cars that achieved performance comparable with gasoline vehicles."123 Among other statements, Volkswagen marketed its diesel vehicles as "clean" and "green;" stated that its "top priority for research and development in 2012, 2013 and 2014 was to develop engines and drivetrain concepts to reduce emissions;" commented that "a focal point of Volkswagen's current and future development activities is and will be innovative mobility concepts and the reduction of fuel consumption and emissions;" and noted that its vehicles "must comply with increasingly stringent requirements concerning emissions."124 Volkswagen had also made statements about its "commitment to doing what's right for the environment," and that "[c]utting-edge technologies have enabled Volkswagen to progress toward carbon-neutral vehicles."125 In fact, between 2009 and 2015, Volkswagen installed illegal "defeat devices," software designed to detect when the car was undergoing emissions testing and turn on emissions controls for the duration of the test, while turning them off at all other times, in many of its cars. 126 This meant that when the cars were not being tested, they released up to 40 times the permitted levels of some pollutants. 127 The truth came to light following an on-road test led by the California Air Resources Board, which revealed that the cars emitted dramatically more pollutants than in official emissions tests.¹²⁸ On September 18, 2015, the EPA issued Volkswagen a Notice of Violation, and the next day, the New York Times ran an article entitled, "U.S. Orders Major VW Recall

Administration appointed as lead plaintiff in bondholder case); See In re Volk-swagen AG Securities Litigation, Bernstein Litowitz Berger & Grossmann, LLP (Arkansas State Highway Employees Retirement System appointed as lead plaintiff in ADR case).

^{123.} Complaint at 8, In re Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation, No. 16-cv-03435 (N.D. Cal. June 20, 2016).

^{124.} *Id.* at 8–11.

^{125.} Id. at 15.

^{126.} Id. at 3.

^{127.} Gates et al., *How do Volkswagen's 'Defeat Devices' Work?*, N.Y. Times (Mar. 17, 2017), https://www.nytimes.com/interactive/2015/business/international/vw-diesel-emissions-scandal-explained.html.

^{128.} Id.

Over Emissions Test Trickery."¹²⁹ In response, Volkswagen's stock price fell by more than 30%.¹³⁰ The ADR litigants settled in August, 2018 for \$48 million.¹³¹ Following a decision by the Northern District of California denying summary judgment in the bondholder action, the Ninth Circuit reversed and remanded, ordering the district court to reconsider whether there was a triable issue of fact.¹³²

How successful are these greenwashing lawsuits? As many are still in their early stages, it is difficult to say. The lawsuits that seem to have arisen out of the incidents with the highest news profiles—the Volkswagen scandal and the California wildfires—have institutional lead plaintiffs, which are associated in some literature with higher quality lawsuits.¹³³ The remaining cases are brought by individual plaintiffs. So far, only the Volkswagen ADR litigation has produced a settlement for securities holders. The event-driven cases have been dismissed¹³⁴ or stayed,¹³⁵ or are ongoing.¹³⁶ The claims involving carbon emissions were

^{129.} Complaint supra note 123 at 3.

^{130.} Id.

^{131.} Nicholas Iovino, supra note 89.

^{132.} Puerto Rico Government Employees and Judiciary Retirement Systems Admin. v. Volkswagen AG, No. 20-15564, 2021 U.S. App. LEXIS 18987 (9th Cir. June 25, 2021); see also Jody Godoy & Jonathan Stempel, VW wins ruling in US Bondholder litigation over emissions cheating, Reuters (June 25, 2021,) https://www.reuters.com/business/autos-transportation/vw-winsruling-us-bondholder-litigation-over-emissions-cheating-2021-06-25/.

^{133.} James D. Cox et al., *There Are Plaintiffs and ... There Are Plaintiffs: An Empirical Analysis of Securities Class Action Settlements*, 61 VAND. L. REV. 355, 368 (2008); Stephen J. Choi, Jill E. Fisch & A. C. Pritchard, Do Institutions Matter? The Impact of the Lead Plaintiff Provision of the Private Securities Litigation Reform Act, 83 WASH. U. L. Q. 869 (2005).

^{134.} Barnes v. Edison, Int'l, 2021 WL 2325060, at *1 (C.D. Cal. Apr. 27, 2021), *aff'd*, No. 21-55589, 2022 WL 822191 (9th Cir. Mar. 18, 2022). This is interesting in light of other research which has suggested that event-driven securities class actions are 20% less likely than other securities class actions to be dismissed. *See* Strauss, *supra* note 41.

^{135.} Geoffrey Mohan & Ben Welsh, *Q&A: How much pollution did VW's emissions cheating create?*, L. A. Times (Oct. 9, 2015, 6:30 PM), https://www.latimes.com/business/la-fi-vw-pollution-footprint-20151007-htmlstory.html#:~:text=Regulators%20say%20the%20vehicles%20they,of%2070%20milligrams%20per%20mile.&text=With%20nearly%20a%20half%2Dmillion,tons%20of%20additional%20nitrogen%20oxides.

^{136.} Shupak v. Reed, supra note 94.

dismissed in *Hunt v. Bloom*, ¹³⁷ and the remaining cases involving greenwashing products have not yet produced any decisions. ¹³⁸

B. Failure to Consider/Disclose Effects of Climate Change on Business

The second category of cases consists of cases arising from a single incident, involving allegations that a firm's climate risk disclosures were false. Currently, under the principles-based framework, firms are obligated to disclose any material impacts of climate change, ¹³⁹ and recent data suggests that an increasing number of firms—currently, about 25%—view climate change as material. ¹⁴⁰ The number of large companies voluntarily publishing climate reports is increasing. ¹⁴¹ Accordingly, while such allegations gave rise to only one cluster of lawsuits, the incidence of such disclosures—and therefore, possibilities for further lawsuits—could be significant.

The lawsuits in this category involve disclosures made by ExxonMobil. In March 2014, in response to demands from activist investors, including Ceres, Christopher Reynolds

^{137.} Hunt v. Bloom Energy Corp, supra note 103.

^{138.} I note, however, that although the alleged misstatements regarding Oatly's environmental practices are stated in the offering documents and thus subject to virtually strict liability under Section 11, they are unlikely to survive a motion to dismiss. Oatly's broad statements about its "unwavering commitment to sustainability" likely constitute nonactionable puffery. See Eisenstadt v. Centel Corp., 113 F.3d 738, 746 (7th Cir. 1997) ("Mere sales puffery is not actionable under Rule 10b-5."). Its more specific statements regarding the relative advantages of oat milk over dairy milk in terms of greenhouse emissions, land use, and energy consumption are not directly contradicted by facts in the complaint or the underlying sources. See Wright & Gant, supra note 109 (noting that the UK regulator told Oatly, "to ensure that the basis of any environmental claim was made clear, including what parts of the lifecycle had been included and which excluded." Oatly's spokesperson replied that "[W]e could have been more specific in the way we described some of the scientific data.").

^{139.} Amy D. Roy et al., Litigation Risks Posed by "Greenwashing" Claims for ESG Funds, HARV. L. SCH. F. ON CORP. GOVERNANCE (Apr. 25, 2022), https://corpgov.law.harvard.edu/2022/04/25/litigation-risks-posed-bygreenwashing-claims-for-esg-funds/.

^{140.} Esther Whieldon et al., Climate Disclosures are Increasing in the US, but Still Far From What the SEC Has Proposed, S&P GLOBAL (Apr. 5, 2022), https://www.spglobal.com/esg/insights/climate-disclosures-areincreasing-in-the-us-but-still-far-from-what-the-sec-has-proposed.

^{141.} Id.

Foundation, Walden Asset Management, and Arjuna Capital, 142 Exxon Mobil agreed to release reports on the risks to its business model posed by climate change. 143 One report stated that Exxon "makes long-term investment decisions based in part on rigorous, comprehensive annual analysis of the global outlook for energy," and that according to this analysis, "we are confident that none of our hydrocarbon reserves are now or will become 'stranded.'"144 This analysis was based, in part, on Exxon's use of a "proxy cost of carbon" in its financial calculations; this proxy cost was intended to address "the potential for future climate-related controls, including the potential for restriction on emissions," and "all types of actions and policies that governments may take . . . relating to the exploration, development, production, transportation or use of carbon-based fuels."145 A twin report stated that in OECD nations, Exxon applied a proxy cost of \$60 per ton in 2030, and \$80 per ton in 2040. 146

Plaintiffs alleged, however, that Exxon actually used a separate, internally prescribed set of proxy costs that were significantly lower than those Exxon publicly reported, and for certain valuation processes, Exxon used no proxy costs at all. ¹⁴⁷ These allegations were based on an investigation by the New York Office of the Attorney General and published in The Guardian near the end of 2015. ¹⁴⁸ Shareholders alleged that when oil prices tanked in mid-2014, other fossil fuel companies wrote off over \$20 billion in reserves, but Exxon wrote down none. ¹⁴⁹ Finally, in October 2016, under the pressure of the NYAG investigation, scrutiny from investors and analysts, and

^{142.} People by James v. Exxon Mobil Corp., 119 N.Y.S.3d 829 (N.Y. Sup. Ct. 2019)

^{143.} Suzanne Goldberg, Exxon Agrees to report on Climate Change's Effect on Business Model, The Guardian (Mar. 20, 2014), https://www.theguardian.com/business/2014/mar/20/exxon-mobil-climate-change-report-business-model. Specifically, under an agreement with Arjuna Capital, Exxon agreed to address the risks posed by "stranded assets, how the company is preparing for potential regulations and how it will be affected by climate risks." Id. Exxon agreed to release the reports on the condition that shareholders withdraw two proposed resolutions that would require increased climate risk disclosures. Consolidated Complaint at 2, Ramirez v. Exxon Mobil Corp., No. 16-cv03111 (N.D. Tex. July 26, 2017).

^{144.} *Id.* at 3.

^{145.} Id.

^{146.} Id.; James v. Exxon Mobil Corp., supra note 142.

^{147.} Id. at 4.

^{148.} Id. at 6.

^{149.} Id.

a downgraded credit rating, Exxon acknowledged that nearly 20% of its proved reserves might no longer satisfy the SEC's definition of "proved." A few months later, in January 2017, Exxon recorded an impairment charge of nearly \$2 billion. 151

The action by the New York Attorney General went all the way to a bench trial only for the judge to find that Exxon was not liable for any claims. In a 2019 opinion, Justice Ostrager found that the NYAG had failed to prove by a preponderance of the evidence that Exxon had violated either the Martin Act or Executive Law 63(12), generally finding that Exxon's proxy cost representations in its disclosures had been true, in that the proxy costs were incorporated into Exxon's projections except where better information was available (which was also in the disclosures), and that Exxon's projections for 2030 and 2040 were not material to investors. The NYAG did not allege any misstatements or omissions in Exxon's balance sheet, income statements, or other financial disclosures, and a previous investigation by the SEC was terminated without requiring Exxon to restate any financials.

However, several follow-on cases by shareholders endured. *Ramirez v. Exxon Mobil Corp.*, ¹⁵⁵ where plaintiffs alleged violations of Rules 10b-5 and 20(a) based on the NYAG investigation, survived a motion to dismiss prior to the NYAG opinion, ¹⁵⁶ which the judge twice declined to reconsider, ¹⁵⁷ even following the NYAG verdict. ¹⁵⁸ However, the court ultimately declined to certify the class regarding Exxon's alleged misstatements about

^{150.} Id. at 8.

^{151.} *Id.* These allegations by the New York Attorney General, and gave rise to a host of public enforcement actions by other regulators. *See* Appellant's Brief, Exxon Mobil Corp. v. Commonwealth, No. 2021-P-0860, (Mass. App. Ct. Nov. 8, 2021); James v. Exxon Mobil Corporation, *supra* note 142; People v. PricewaterhouseCoopers LLP, *supra* note 79; Exxon Mobil Corp. v. Healey, 18-311, U.S. Sup. Ct.; U.S. Virgin Islands Office of the Att'y General v. Exxon-Mobil Corp., *supra* note 79.

^{152.} James v. Exxon Mobil Corp., supra note 142.

^{153.} Id. at 19.

^{154.} Id. at 20.

^{155.} Ramirez v. Exxon Mobil Corp., supra note 143.

^{156.} Ramirez v. Exxon Mobil Corp., 334 F. Supp. 3d 832, 859 (N.D. Tex. 2018). The Greater Pennsylvania Carpenters Pension Fund was appointed lead plaintiff in this action. *Id.* at 839.

^{157.} Order at 1, Ramirez v. Exxon Mobil Corp., 334 F. Supp. 3d 832 (N.D. Tex. Nov. 5, 2018) (No. 3:16-cv-3111-K), ECF No. 80.

^{158.} Order at 1, Ramirez v. Exxon Mobil Corp., 334 F. Supp. 3d 832 (N.D. Tex. Mar. 31, 2022) (No. 3:16-cv-3111-K), ECF No. 171.

its proxy cost of carbon.¹⁵⁹ The facts also gave rise to several derivative lawsuits which were ultimately consolidated in the Northern District of Texas.¹⁶⁰

Finally, this incident also prompted a Books and Records demand in the New Jersey state courts. The plaintiff alleged that ExxonMobil had "participated in a decades-long surreptitious practice of funding 'outside groups' to discredit the scientific community's opinions about climate change" even though its "internal scientists . . . shared the view 'that human-influenced global climate change was real and required a dramatic reduction in the dependence of [sic] fossil fuels." 161 As basis for its demand, the plaintiff cites press articles and previous investigations of ExxonMobil. 162 The trial court denied the demand on the grounds that one plaintiff lacked standing, and that "the crux of the request' was 'an interest in climate change[,]' which is 'a rather amorphous concept[.]' The judge elaborated that plaintiff's request was "certainly not as specific" as previous requests that had qualified as having a "proper purpose" in prior cases.¹⁶³ The Appellate Division affirmed, holding that the plaintiff "failed to establish proof of a proper purpose to support its inspection request."164

C. Lawsuits That Do Not Meaningfully Police the Accuracy of Climate-Related Disclosures

In this section, I briefly describe two other types of share-holder lawsuits I encounter that do not meaningfully police the accuracy of firms' climate-related disclosures: lawsuits challenging the exclusion of climate-related shareholder proposals from the proxy and ERISA claims.

Climate related shareholder proposals have increased sharply in recent years. 165 But firms can decline to include

^{159.} Memorandum Opinion and Order at 56, Ramirez v. Exxon Mobil Corp., No. 3:16-cv-03111 (N.D. Tex. Aug. 21, 2023), ECF No. 178.

^{160.} Order at 1, In re Exxon Mobil Derivative Litigation, No. 3:19-cv-01067 (N.D. Tex. Sept. 1, 2020), ECF No. 60.

^{161.} City of Birmingham Relief & Ret. Sys. v. ExxonMobil Corp., No. A-4279-17T3, 2019 WL 1986543, at *1 (N.J. Super. Ct. App. Div. May 6, 2019).

^{162.} Id.

^{163.} Id. at 2.

^{164.} Id. at 4.

^{165.} Proposals related to climate change comprised roughly twenty percent of proposals filed in the 2022 proxy season; analysts referred to this as

shareholder proposals on their ballots for a well-established list of specific reasons and may seek a no-action letter from the SEC to ensure that they avoid liability for doing so. The most common reasons historically for companies to omit shareholder proposals from their ballots were that these proposals were not relevant to, or sought to micromanage, the business. ¹⁶⁶ Under the Trump administration, companies had broader latitude to decline such proposals. In late 2021, however, the SEC under the Biden administration tossed the guidance that allowed firms to omit many proposals, and more have accordingly been included; the SEC rejected 48 no-action requests in the first four months of 2022 alone, compared with only 37 in all of 2021. ¹⁶⁷ All lawsuits involving wrongful omission of climate change proposals from the proxy precede this change in guidance. ¹⁶⁸

The other claims in my sample that do not meaningfully police the accuracy of firms' climate disclosures are claims that fund managers of employee stock ownership plans (ESOPs) violated their fiduciary duties under ERISA. ¹⁶⁹ ESOPs are usually offered by very large firms, which allow employees to invest their retirement savings primarily in the stock of the company for which they work. ¹⁷⁰ Managers of these plans have no duty to diversify their holdings, and therefore, any event that affects the price of the company's stock can significantly impact the

a "massive increase, totally unprecedented." Karin Rives, Climate Resolutions Top "Unprecedented" Number of Shareholder Proposals in 2022, S&P GLOBAL MARKET INTELLIGENCE (Apr. 4, 2022), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/climateresolutions-top-unprecedented-number-of-shareholder-proposals-in-2022-69641049.

166. Paul Kiernan, SEC Rescinds Trump-Era Policy, Eases Path for Share-

^{166.} Paul Kiernan, SEC Rescinds Trump-Era Policy, Eases Path for Share-holder Proposals on Environmental, Social Issues, WALL St. J., Nov. 3, 2021, https://www.wsj.com/articles/sec-eases-path-forshareholder-proposals-on-environmental-social-issues-11635979349.

^{167.} Rives, supra note 165.

^{168.} See Complaint at 7, Tosdal v. Northwest, Complaint, No. 9:19-cv-00205 (D. Mont. Dec. 23, 2019); Complaint at 11, New York City Employee's Retirement System et al. v. Transdigm Group, No. 1:18-cv-11344 (S.D.N.Y. Dec. 6, 2018), ECF No. 3; Complaint, Interfaith Center on Corporate Responsibility v. SEC, No. 21-cv-01620, June 15, 2021 (D.D.C.).

^{169.} See Complaint at 4, Roe v. Arch Coal, No. 4:15-cv-00910 (E.D. Mo. June 9, 2015); Complaint at 3, Lynn v. Peabody, No. 4:15-cv-00916 (E.D. Mo. June 11, 2015); Fentress v. Exxon Mobil Corp., No. 4:16-cv-3484, 2019 WL 426147, at *1 (S.D. Tex. Feb. 4, 2019).

^{170.} Michael S. Barr et al., Financial Regulation: Law and Policy, 1193–97 (Saul Leymore et al., eds., 3rd ed. 2021).

value of the ESOP. The gravamen of these complaints that the defendants failed to use "care, skill, prudence, and diligence . . . that a prudent man acting in a like capacity and familiar with such matters would use"¹⁷¹ by continuing to offer company stock as an investment option and maintaining preexisting interests in the stock when it was no longer prudent to do so.¹⁷² However, these cases are unlikely to play a meaningful role in policing the accuracy of climate disclosures because the applicable standard targets the fiduciary of the fund, rather than the issuer of the disclosures and is very difficult to achieve. To prevail on such a claim, plaintiffs must demonstrate that remaining silent and retaining the stock in the ESOP "could have resulted in a drop in stock prices that would have done more harm than good to the Plan."¹⁷³ Indeed, none of the ERISA cases in the sample satisfied it.

III.

LESSONS FROM EXISTING CLIMATE-RELATED SHAREHOLDER LITIGATION

The next task is to assess the patterns that emerge from existing lawsuits. Why have these lawsuits materialized where they have? Equally important, in what areas have such lawsuits failed to materialize, and what are the implications for climate-related policy? This section explores these questions.

A. Shareholder Lawsuits Materialize Where the Money Is

The preexisting areas of climate-related shareholder litigation that most directly police the accuracy of climate-related disclosures—greenwashing lawsuits and the lawsuits based on the misstatements regarding climate risks—are based entirely on information gathered by other players, and on misstatements likely to directly affect the defendant firms' business. Both of these attributes are the direct result of requirements for successful lawsuits under the shareholder litigation regime. First, such lawsuits must clear heightened pleading standards

^{171.} See Employee Retirement Income Security Act of 1974 \S 404(a)(1), 29 U.S.C. \S 1104(a)(1).

^{172.} Complaint, Lynn v. Peabody, *supra* note 169, at 3–4; Complaint, Roe v. Arch Coal, *supra* note 169 at 2.

^{173.} Fentress v. Exxon Mobil Corp., *supra* note 169, at 5.

without the benefit of discovery to withstand a motion to dismiss. Second, to have a viable claim, a shareholder must experience a loss; that is to say, the misconduct at issue must result in the drop of the defendant firm's stock price. Where these criteria are not met, climate-related shareholder lawsuits do not emerge. In the following sections, I explore these attributes, and I evaluate their implications for the success of climate-related shareholder litigation.

Climate-Related Shareholder Lawsuits Emerge Where Informational Barriers are Low and Potential Damages are High

Climate-related shareholder lawsuits are likely to emerge where detailed investigations of the misconduct at issue are already public and where the misstatements at issue have direct implications for the firm's business. In this section, I discuss each of these characteristics in turn.

So far, climate-related shareholder litigation has followed entirely on reports of firm misconduct investigated by other players. These other players consist, first, of short-sellers and others in the analyst community. The second investigative player that furnishes facts for shareholder complaints is the government. Such follow-on lawsuits are very common in shareholder litigation generally. This is because shareholder plaintiffs' lawyers may achieve the most lucrative outcomes when capitalizing on expensive investigations by others¹⁷⁴ in order to clear the demanding Private Securities Litigation Reform Act (PSLRA) pleading standards or demand futility test.¹⁷⁵ As I have discussed in previous work,¹⁷⁶ the PSLRA imposes a stay on discovery in pendency of motions to dismiss, but requires

^{174.} Choi et al., supra note 10.

^{175.} Roy Shapira, *Corporate Law, Retooled: How Books and Records Revamped Judicial Oversight, 42 Cardozo L. Rev. 1949 (2020). Although both these types of lawsuits involve heightened pleading standards, it is also worth noting that scholarship has found that derivative lawsuits are consistently filed after securities class actions based on the same misconduct. See Jessica M. Erickson, Overlitigating Corporate Fraud: An Empirical Examination, 97 Iowa L. Rev. 49, 72–73 (2011) (finding that 82.1% of derivative lawsuits were filed after parallel securities class actions). This means that these derivative lawsuits benefit from the facts pleaded in the securities class action complaints. Thus, the pleading standards for securities class actions may be more determinative in the overall level of shareholder lawsuits.

^{176.} Strauss, supra note 86.

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putative class action plaintiffs suing under Rule 10b-5 to plead their claims, including scienter, with specificity.¹⁷⁷ Gathering the facts to plead such specificity is expensive and difficult for plaintiffs' lawyers. Accordingly, this standard augments the importance of facts garnered from other sources such as regulatory investigations or short-seller analyst reports. Similarly, to bring a derivative lawsuit under state corporate law, plaintiffs must plead demand futility, a basis on which the court may find that the majority of the board was conflicted, and therefore could not be asked to sue on the company's behalf. 178 Accordingly, plaintiffs must also have significant information to get the lawsuit off the ground, which they could achieve through a potentially expensive upfront investigation or by capitalizing on the investigative work of others. 179 Studies have noted that shareholder-plaintiffs' lawyers (particularly in the securities class action context) seek out the cases likely to result in the highest fees with the least effort. 180 These cases typically involve "obvious indicia of fraud," such as a parallel investigation 181 and are brought against large companies. 182 Accordingly, the

^{177.} Tellabs, Inc. v. Makor Issues & Rts., Ltd., 551 U.S. 308 (2007).

^{178.} See United Food & Com. Workers Union v. Zuckerberg, 262 A.3d 1034 (Del. 2021).

^{179.} Recent work has also argued that these standards, and a concomitant relaxation of the requirements for DGCL Section 220 books and records requests, have given rise to an increase in such requests as a way that plaintiffs might gather the information necessary to plead the facts required in the complaint. See Shapira, supra note 175, at 1963. This is likely true. I note, however, that even books and records requests require a "credible basis" for suspected wrongdoing. In my cases at least, this requirement has been met with short-seller reports, see Jacob, No. 2020-0023.

^{180.} Choi et al., *supra* note 10. Because of the collective action problems faced by dispersed shareholders generally, and in the class action context in particular, these lawyers, rather than the plaintiffs they represent, drive most shareholder lawsuits. When suing for damages, they are typically paid a percentage, usually between 25% and 30%, of the fund they procure for the shareholders, making their interest in the case larger, in many instances, than those of the shareholders. John Matheson, *Restoring the Promise of the Shareholder Derivative Suit*, 50 GA. L. REV. 327, 398 (2016) (discussing common fund attorney fees in derivative lawsuits); Stephen J. Choi et al., *Working Hard or Making Work? Plaintiffs' Attorney Fees in Securities Fraud Class Actions*, 17 J. LEGAL EMPIRICAL STUD. 438 (2020).

^{181.} Choi et al., *supra* note 10, at 2 ("[T]hese settlements are more likely to involve obvious indicia of fraud, such as a parallel Securities and Exchange Commission (SEC) investigation or an officer termination."). *See also* Strauss, *supra* note 42 (finding that non-SEC investigations also spur event-driven securities lawsuits resulting in large settlements).

^{182.} Choi et al., supra note 10.

highest-reward cases for these attorneys may not be those where the plaintiffs' lawyers "dig[] up the evidence needed to prove the claims," but where there is preexisting public evidence of wrongdoing gathered by somebody else. My climate-related cases uniformly fit this paradigm, drawing on facts gathered either by short-sellers or regulators.

Despite the chorus of academics¹⁸⁴ and practitioners¹⁸⁵ bemoaning the shareholder primacy norm, managers generally have duties only to their shareholders, and this duty is violated¹⁸⁶—and securities claims are actionable—only if misstatement is sufficiently material that the stock price of the firm drops.¹⁸⁷ A stock price drop is not only required to make a shareholder lawsuit viable but also provides the investigatory incentive for non-government actors to expose such misstatements. It is therefore unsurprising that all the climate-related lawsuits in the sample arise where the defendant firms' alleged misstatements directly implicated the business of those firms. Greenwashing lawsuits involving products that purport to be more climate-friendly than they actually are currently appear to draw their facts most directly from the analyst community. Here, the implications for the firm's business model are obvious: the revelation that a product, especially a flagship product, does not work as advertised is likely enough to damage the prospects of any firm. In addition to ensuring the viability of a shareholder

^{183.} Id. at 2.

^{184.} See, e.g., Frank Partnoy, Shareholder Primacy is Illogical, in Research Handbook on Corporate Purpose and Personhood (Elizabeth Pollman & Robert B. Thompson eds., 2021); Lynn Stout, The Shareholder Value Myth: How Putting Shareholders First Harms Investors, Corporations, and the Public (2012); Aneil Kovvali, Stark Choices for Corporate Reform, 123 Colum. L. Rev. 693, 700 (2023).

^{185.} See, e.g., Martin Lipton, Corporate Governance: The New Paradigm, Harv. L. Sch. F. on Corp. Governance (Jan. 11, 2017), https://corpgov.law.harvard.edu/2017/01/11/corporate-governance-the-new-paradigm/; Cydney Posner, So Long to Shareholder Primacy, Harv. L. Sch. F. on Corp. Governance (Aug. 22, 2019), https://corpgov.law.harvard.edu/2019/08/22/so-long-to-shareholder-primacy/; Frederick Alexander et al., From Shareholder Primacy to Stakeholder Capitalism, Harv. L. Sch. F. on Corp. Governance (Oct. 26, 2020), https://corpgov.law.harvard.edu/2020/10/26/from-shareholder-primacy-to-stakeholder-capitalism/.

^{186.} I note here that benefit corporations and the like, where managers owe fiduciary duties to a broader set of constituents, Brett McDonnell, *Committing To Doing Good and Doing Well: Fiduciary Duty in Benefit Corporations*, 20 FORDHAM J. CORP. & FIN. L. 19, 34 (2014), do not appear as defendants in the lawsuits in my sample.

^{187.} Basic v. Levinson, 485 U.S. 224 (1988).

lawsuit, this damage is also an incentive for short-sellers to investigate such inaccuracies in the first place, as they profit by taking short positions in the companies they investigate and reap the rewards when the bad conduct comes to light. The complaints in this area usually include the release of the shortseller report as a revelatory event causing the defendant's stock price to drop. 188 In addition to digging up evidence that the company's primary products are not as climate-friendly as they are marketed to be, the claims derived from their reports also involve extensive details about the more mundane accounting and marketing issues affecting the expected return on any investment. To illustrate this point, in the Oatly litigation, the greenwashing allegations take up a total of roughly one-and-ahalf double-spaced page in a 74-page complaint. 189 The bulk of the allegations relate to Oatly's alleged misstatements concerning market demand for Oatly's products, and the rising price of Oatly's raw ingredients.

Similarly, businesses that misstate the climate risks they face are likely to experience a stock price drop when misstatements are discovered, and draw the investigatory interest of the the analyst community and government regulators, especially when the effects of climate change on the particular business is profound. This is most obviously true for firms in the fossil fuels, utilities, and automotive sectors, which will likely be forced to completely reconfigure their business models as the push away from carbon fuels accelerates. These businesses will likely face increased costs and greater regulatory scrutiny in the short run, and in the longer run, must face the risk of stranded assets and the expensive task of researching and implementing alternate energy solutions. However, other industries may also be affected. For instance, firms whose properties are primarily in coastal or fire risk areas may need to pay for higher insurance premiums and greater weather precautions, and firms that rely on agricultural inputs that become harder to grow due to changing weather conditions may need to procure alternatives. 190 Accordingly, misstatements regarding climate risks may

^{188.} See text accompanying supra notes 108–123.

^{189.} Consolidated Amended Complaint for Violation of the Federal Securities Laws at 21–22, In re Oatly Group AB Securities Litigation, No. 21-cv-06360, (S.D.N.Y. Mar. 4, 2022).

^{190.} For instance, grape production is expected to shift to higher latitudes and altitudes, creating input issues for the wine industry. See Lee Hannah

not only produce a stock price drop, but also draw the interest of short-sellers and perhaps others in the analyst community.

2. Where Shareholder Lawsuits Have Not Materialized

There is one area that has so far failed to generate *any* private enforcement: Lawsuits have so far failed to appear involving misstatements or omissions in firms' voluntary greenhouse gas disclosures.

A significant percentage of large companies already issue greenhouse gas emission disclosures. A recent study of 200 randomly selected S&P 500 companies found that a whopping 81% of the sampled firms already disclose their Scope 1 and Scope 2 greenhouse gas emissions. 191 There is some variation in these disclosures. Some report location-based numbers for Scope 2 emissions, and some report market-based numbers. 192 Roughly 60% of the firms that reported their greenhouse gas emissions obtained third-party assurances of those disclosures by an accredited auditor. 193 The study notes that while the reports themselves were sometimes difficult to decipher, the certificates of attestation created by the assuring auditors were often much clearer.¹⁹⁴ While 82% of the firms that disclosed their emissions chose the GHG Protocol as their reporting framework—also the framework that forms the backbone of the SEC's proposed rules¹⁹⁵—a smorgasbord of other standards make up the minority.¹⁹⁶

The important fact, for my purposes, is that *none* of these voluntary disclosures appears to have generated a shareholder lawsuit. To be sure, these voluntary disclosures do not expose the firms that make them to the same liability that the SEC's proposed disclosures would because they are "furnished," rather than "filed" with the SEC. "Filing" in this context means

et al., Climate Change, Wine, and Conservation, 110 Proc. of the Nat'l Acad. of Scis. 6907 (2013).

^{191.} Lynn M. Lo
Pucki, Corporate Greenhouse Gas Disclosures, 56 U.C. Davis L. Rev. 405, 435 (2022).

^{192.} Id. at 420.

^{193.} Id. at 437.

^{194.} Id. at 438.

^{195.} See Nick Grabar et al, SEC's Climate Disclosure Rules: GHG Emissions Disclosure Requirements, HARV. L. SCH. F. ON CORP. GOVERNANCE (May 6, 2022), https://corpgov.law.harvard.edu/2022/05/06/secs-climate-disclosure-rules-ghg-emissions-disclosure-requirements/.

^{196.} LoPucki, *supra* note 191, at 437.

that the disclosures will be incorporated by reference into the company's registration statement, thus subjecting the firm to potential Section 18 liability. But material misstatements and omissions in voluntary greenhouse gas disclosures could still subject firms to the much more common liability under Rule 10b-5, which broadly covers material misstatements or omissions in connection with the purchase or sale of securities. If climate change has so increased its stature in investors' eyes, why have these cases not been brought?

Possible explanations fall into three complementary categories. The first is that there may be little business motivation to uncover whether a firm's greenhouse gas disclosures are false. Areas in which climate-related shareholder litigation currently exists—such as lies about the environmental-friend-liness of a major flagship product, or misrepresentations about how climate-related risks will affect the firm's business—involve misstatements and omissions designed to make the financial performance of the firm seem better than it really is. By contrast, although greenhouse gas emissions may function as a helpful proxy for some climate risks faced by a firm, ¹⁹⁸ misstatements about the amount of greenhouse gas a firm emits do not necessarily implicate serious problems with the firm's business model.

This issue may be compounded by the fact that misstatements and omissions in greenhouse gas disclosures may be difficult to detect; measuring and reporting emissions may be complex and might require specialized equipment and many layers of internal data. ¹⁹⁹ As other commentators have noted, "practicable and continuous monitors for some forms of emissions are unavailable, on-site monitoring equipment is subject to tampering to disguise high emissions, and midnight

^{197.} Furnished Versus Filed: What's the Difference?, Practical Law Practice Note w-019-3203 ("Section 18(a) provides an express private right of action for any person who, relying on a false or misleading statement or omission made in an Exchange Act report or other filings made with the SEC, buys or sells a security at a price affected by that statement or omission.")

^{198.} See Proposed Rules, supra note 55. at 147 (noting that greenhouse gas disclosures may be particularly useful in conducting transition risk analysis).

^{199.} See Greenhouse Gas Reporting Program, Emission Calculation Methodologies, EPA, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.epa.gov/sites/default/files/2017-12/documents/ghgrp_methodology_fact-sheet.pdf.

dumping of pollutants remains a significant problem."200 Moreover, emissions that are "less visible . . . than point-source emissions or involve a broader segment of society"201 may be even more difficult to detect. Authors of recent headlines declaring the inaccuracy of various climate-related statements have had difficulty measuring emissions with any specificity; one recent study that found that firms were exaggerating their climate actions based its conclusions in large part on the failure to "provide concrete details about their plans to reduce emissions to achieve net zero."²⁰² A recent investigation by the Washington Post into countries' reports on their emissions to the United Nations bases its conclusions in part on misstatements so colossal that they could not possibly be true (that the trees in Malaysia absorb carbon at four times the rate of those in Indonesia, for example).²⁰³ It also relies on statistical modeling and information generated by new-generation satellites which can "detect massive methane leaks." But the analysis detected most discrepancies in firms' reporting based on their accounting of land use for offsets, 205 which are not included in the SEC proposed greenhouse gas disclosure reports.²¹³ The difficulties of monitoring greenhouse gas emissions thus appear to be well documented. 206 In the absence of a compelling business reason, neither an investor nor a short-seller is likely to conduct such an arduous investigation.

It is, of course, possible that there are no lawsuits based on these disclosures because there is no reason to doubt their accuracy. However, this seems unlikely. The recent headlines

^{200.} Barton H. Thompson, Jr., *The Continuing Innovation of Citizen Enforcement*, 2000 U. Ill. L. Rev. 185, 190 (2000).

^{201.} Id.

^{202.} Isabelle Jani-Friend & Angela Dewan, *Some of the World's Biggest Companies are Failing on Their Own Climate Pledges, Researchers Say, CNN Business* (Feb. 7, 2022), https://www.cnn.com/2022/02/07/business/companies-net-zero-climate-report-intl/index.html.

^{203.} Chris Mooney et al., Countries' Climate Pledges Built on Flawed Data, Post Investigation Finds, Washington Post (Nov. 7, 2021), https://www.washingtonpost.com/climateenvironment/interactive/2021/greenhouse-gas-emissions-pledges-data/.

^{204.} *Id*.

^{205.} Id.

^{206.} See, e.g., id.; Jani-Friend, supra note 206; Sam Meredith, World's Biggest Companies Accused of Exaggerating Their Climate Actions, CNBC (Feb. 7, 2022), https://www.cnbc.com/2022/02/07/studyworlds-biggest-firms-seen-exaggerating-their-climate-actions.html.

about firms, and indeed, countries, 215 overstating or fudging their climate achievements seem of a piece with a historically lackadaisical attitude toward environmental disclosures in general. The SEC has long required registrants to disclose environment-related liabilities in their financial statements. 207 Similarly, it has required registrants to disclose environmental litigation and environmental enforcement proceedings.²⁰⁸ Yet, in 2001, the EPA issued a memorandum directing its enforcement staff to remind public registrants of these obligations.²⁰⁹ The memorandum was in response to several studies which found that, among other things, 62% of reporting companies did not report any environment-related exposures in their financial statements, and a whopping 74% of companies did not report any environmental litigation. 210 Thus, it seems more likely that spotting the inaccuracies is difficult and labor-intensive, and simply not worth the trouble to those interested in the firm's bottom line.

Another straightforward reason why greenhouse gas disclosures have not, thus far, drawn shareholder litigation may be that corporate and securities laws are a difficult match for such lawsuits. If inaccuracies in greenhouse gas disclosures were brought to light, would they be sufficiently material to investors to cause the stock price to drop, thus creating the basis for a viable claim?²¹¹ The answer to this likely depends on a wide array of factors, including the magnitude of the misstatement, the firm's reputation, and enforcement climate (no pun intended). Recent scholarship,²¹² as well as numerous public figures,²¹³ have argued that markets do not adequately price climate-related risks. The courts in some of the few climate-related shareholder lawsuits that I analyze have commented on precisely this difficulty:

Nothing in this opinion is intended to absolve ExxonMobil from responsibility for contributing to climate change through the emission of

^{207.} Latham, *supra* note 16, at 697.

^{208.} Id.

^{209.} Id.

^{210.} Id.

^{211.} See Basic v. Levinson, 485 US 224 (1988).

^{212.} Madison Condon, *Market Myopia's Climate Bubble*, 1 Utah L. Rev. 63, 65 (2022).

^{213.} Id.

greenhouse gases in the production of its fossil fuel products. ExxonMobil does not dispute either that its operations produce greenhouse gases or that greenhouse gases contribute to climate change. But ExxonMobil is in the business of producing energy, and this is a securities fraud case, not a climate change case. Applying the applicable legal standards, the Court finds that the Office of the Attorney General failed to prove by a preponderance of the evidence that ExxonMobil made any material misrepresentations that "would have been viewed by a reasonable investor as having significantly altered the 'total mix' of information made available."²¹⁴

To the extent that the SEC and other agencies become active in enforcing the accuracy of greenhouse gas disclosures, they may remedy these issues to some extent. Such misstatements will become material to shareholders and the stock price will likely fall because shareholders do not like firms in which they own stock to be embroiled in expensive regulatory investigations. And it may be the case that firms' lies about their greenhouse gas disclosures are in fact material to investors in any case. ²¹⁵ But the difficulties of verifying such disclosures may nonetheless impede these lawsuits unless the government has done the heavy investigatory lifting or there is an independent business reason for an investor or other party to do it.

^{214.} People v. Exxon Mobil Corp., 65 Misc. 3d 1233(A), 119 N.Y.S.3d 829 (N.Y. Sup. Ct. 2019); *see also* Fentress v. Exxon Mobil Corp., No. 4:16-cv-3484, 2019 WL 426147, at *5 (S.D. Tex. Feb. 4, 2019). As with its earlier order, the Court wishes to emphasize what the instant Memorandum & Order does not decide. It does not decide whether Exxon or any of its affiliates engaged in false advertising, concealed negative financial or environmental information, or contributed to climate change. The Court decides only the issues raised by Defendants' Motion to Dismiss the Second Amended Class Action Complaint in this ERISA action.

^{215.} See Patrick Bolton & Marcin T. Kacperczyk, Global Pricing of Carbon Transition Risk (Aug. 5, 2022), J. Fin. (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3550233 (finding elevated risk for firms with higher or growing GHG emissions).

3. Is the Shareholder Litigation Regime a Good Fit for Policing Climate Disclosures?

I have argued that the structure of shareholder litigation has shaped the climate-related shareholder lawsuits we have seen thus far, with results that may not seem optimal to those who champion climate disclosures. The most obvious problem, that shareholders have no claim in the absence of a stock price drop, is not the most intractable. Society in general and shareholders in particular (at least, some) appear to care about climate change. When confronted with misstatements in climate risk disclosures, even those, such as greenhouse gas disclosures, that may not directly affect the firm's bottom line, reputational backlash on its own may be sufficient for the share price of the firm to drop. And even if the misstatements on their own are not material to investors, regulators could insure a stock price drop by enforcing climate risk disclosures aggressively; even if investors do not care that the disclosures are inaccurate, they certainly care that the firm could draw regulatory scrutiny, and the possibility of an expensive government investigation alone would likely trigger a drop in stock price.

The less obvious and more pernicious problem brought to light by climate-related shareholder litigation to date is that there appear to be limited incentives for market actors to expose certain kinds of misstatements. Put another way, the problem is not that falsity will be immaterial once discovered, but that it may not be discovered in the first place. This is a product of the complex lawyering regime that has grown up around the most lucrative shareholder lawsuits. Plaintiffs' lawyers must hit the ground with detailed facts to survive a motion to dismiss under the PSLRA or to allege demand futility in bringing a derivative lawsuit. Finding these facts is expensive, unless someone else has already found them. The incentive to defray costs and uncertainty by relying on outside reports of misconduct is

^{216.} Although both these types of lawsuits involve heightened pleading standards, it is also worth noting that scholarship has found that derivative lawsuits are consistently filed after securities class actions based on the same misconduct. See Jessica Erickson, Overlitigating Corporate Fraud, 96 IOWA L. REV. 49, 72–73 (2011) (finding that 82.1% of derivative lawsuits were filed after parallel securities class actions). This means that these derivative lawsuits benefit from the facts pleaded in the securities class action complaints. Thus, the pleading standards for securities class actions may be more determinative in the overall level of shareholder lawsuits.

strong. Equally strong is the incentive to sue large firms with deep pockets that can pay out big settlements—20-30% of which will go to plaintiffs' counsel. Some studies have concluded that defendant selection based on firm size and the availability of public bad facts "skews... cases toward large companies and away from the most egregious frauds. It is therefore possible that when outside reports of misconduct emerge, the misconduct may be overlitigated, especially if the defendant is large, while worse misconduct by smaller companies may go undetected. This problem is not specific to climate risk disclosures, has been extensively examined elsewhere, and may not be susceptible to an easy solution. The climate-specific problem is that where outside reports do not surface, private enforcement may stall, especially where climate-related issues—such as greenhouse gas emissions—do not affect the firm's bottom line.

The structural features of shareholder litigation leading to this result are likely here to stay. It is difficult to envision a Congress willing, after nearly 30 years, to dial back the pleading standards of the PSLRA, and the broad increase in securities litigation that such a move would surely entail may not be desirable. It is similarly difficult to envision the Delaware Court of Chancery reimagining its standard for demand futility. Reliance on outside actors to furnish facts for shareholder complaints is, accordingly, likely to continue as a feature of shareholder litigation generally, and climate-related shareholder litigation in particular.

I have argued that non-government actors are likely to investigate misstatements in climate disclosures only when there is a financial reason to do so. What does this imply for the balance between public and private enforcement? A common justification for the promotion of "private attorneys general," as they are sometimes called, is the supplement that they provide for government enforcement efforts. Private attorneys might be helpful in promoting the public interest because they are

^{217.} Choi et al., supra note 10.

^{218.} Id. at 28–29.

^{219.} See Erickson, supra note 216.

^{220.} See, e.g., John C. Coffee, Jr., Rescuing the Private Attorney General: Why the Model of the Lawyer as Bounty Hunter Is Not Working, 42 Md. L. Rev. 215, 226–27 (1983); Choi et al., supra note 10.

^{221.} Indeed, it recently had the opportunity to do so in United Food & Com. Workers Union & Participating Food Indus. Emps. Tri-State Pension Fund v. Zuckerberg, 262 A.3d 1034 (Del. 2021), but did not.

"better at either discerning or pursuing private wrongdoing . . . for a variety of reasons—because public attorneys may be fewer in number, underfunded, less skilled, or prone to political pressures." Private plaintiffs may also supplement public enforcement efforts by "increasing the intensity of the penalty wrongdoers must pay." 223

However, not all lawsuits brought by private attorneys general have the same design or effects. Particularly where private enforcement follows public enforcement—as is common in many shareholder lawsuits, and as seems like the most likely impetus for private, standalone actions based on inaccuracies in greenhouse gas disclosures²²⁴—the effects on overall enforcement may be significant. To the extent that climate-related shareholder litigation is generated by government investigations, the result will be a system that amplifies, rather than complements, public enforcement; private efficiency leads to increased penalties.²²⁵ The SEC or other government enforcement agencies that pursue firms for violating their climate disclosure obligations will certainly generate costs to those companies beyond what the agencies impose; defendant firms will also have to contend with litigation and possible settlement costs for follow-on shareholder lawsuits. 226 This doubling-down effect of public enforcement may be advantageous, in that it will increase the penalties of firms more likely to be engaged in true misconduct; regulators, with their scarce resources, are unlikely to pursue investigations against companies unless there

^{222.} William B. Rubenstein, On What a "Private Attorney General" Is—and Why It Matters, 57 Vand. L. Rev. 2129, 2149–50 (2004).

^{223.} Id. at 2149. See also John C. Coffee, Jr., Rescuing the Private Attorney General: Why the Model of the Lawyer as Bounty Hunter Is Not Working, 42 Md. L. Rev. 215, 226–27 (1983) ("Private enforcement is potentially more "efficient," because only the successful attorney is compensated and because private enforcement may be able to mobilize and reallocate its resources more quickly than the public enforcer, who is confined within a bureaucratic setting. Private enforcement also is potentially "fairer" because the private plaintiff does not have the same built-in advantage as the public prosecutor or regulatory agency, to whom courts have a tendency to defer. Nor may the private plaintiff stretch or change the rules to fit the needs of its case (as public agencies have been known to do.").

^{224.} I note, of course, that other types of climate-related lawsuits can piggy-back on government investigations, as has already occurred in the Volkswagen and ExxonMobil cases.

^{225.} See Coffee, Jr., supra note 223, at 226-27.

^{226.} See Alexander I. Platt, "Gatekeeping" in the Dark: Sec Control over Private Securities Litigation Revisited, 72 Admin. L. Rev. 27, 29 (2020).

are signs that something truly fishy is afoot.²²⁷ Such a system is also likely to ratchet up deterrence for other firms, which know they will bear greater costs if the SEC sets its sights on them.²²⁸ On the other hand, regulators cannot catch everything, and if private enforcement follows public, some misconduct may fall through the cracks. Moreover, in an area like climate change, public enforcement is likely to vary wildly with the politics of the administration in office. If there is a risk of underenforcement even when the SEC or other regulators pursue violations, such risk will only be aggravated if an administration comes into office that chooses to do no enforcement at all.²²⁹ Historically, greenhouse gas reports and mandated environmental disclosures generally²³⁰ have been revealed to be inaccurate on a somewhat astounding scale. The value of such disclosures to investors if this trend persists is dubious.²³¹

Finally, it is worth noting that a private enforcement system that relies in significant part on following public enforcement is precisely opposite what Congress envisioned in providing for citizen suits under the environmental laws, the vast majority of which include provisions authorizing enforcement by private plaintiffs.²³²

^{227.} Adam C. Pritchard et al., The Screening Effect of the Private Securities Litigation Reform Act, 6 J. Empirical Stud. 35, 43 (2009).

^{228.} See Catherine M. Sharkey, Punitive Damages Transformed into Societal Damages, in Punishment in Private Law (Elise Bant et al. eds., 2021).

^{229.} See Jody Freeman & Sharon Jacobs, Structural Deregulation (U. Colo. L. Legal Stud. Research Paper No. 21-20), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3835246.

^{230.} See text accompanying supra notes 209–219.

^{231.} An additional improvement would be for the SEC to develop a memorandum of understanding with the Environmental Protection Agency. In light of calls for such cooperation, it is somewhat shocking that such formal cooperation between these agencies does not already exist. See Latham, supra note 16, at 698. The EPA likely has greater expertise in detecting inaccuracies in reported pollutants, and to the extent that the SEC wishes to vigorously enforce the accuracy of greenhouse gas disclosures (thereby also providing opportunities for private enforcement), such expertise could be valuable.

^{232.} Thompson, *supra* note 200 ("Every major environmental law passed since 1970 now includes a citizen suit provision (with the anomalous exception of the Federal Insecticide, Fungicide, and Rodenticide Act)."); Lucia A. Silecchia, *The Catalyst Calamity: Post-Buckhannon Fee-Shifting in Environmental Litigation and A Proposal for Congressional Action*, 29 COLUM. J. ENVTL. L. 1, 10–11 (2004) ("[C]itizen suit and fee-shifting provisions are found in all major

These laws generally allow any plaintiff with constitutional standing to sue for an injunction against a defendant in violation of the relevant statute, and some allow for the imposition of monetary penalties or settlements involving cessation, remediation plans, or payment to the plaintiff or other entities.²³³ The provisions of environmental statutes allowing for citizen lawsuits do not permit duplicative public and private enforcement. Plaintiffs must provide sixty days' notice of the alleged violation to the federal government, the relevant state, and the putative defendant.²³⁴ If a regulator initiates a civil, criminal, or under some statutes, administrative action, the putative plaintiff is barred from filing a private lawsuit. This makes private enforcement a true supplement to public enforcement and gives the EPA effective control over private litigation under the statutes in its purview.²³⁵ While such a system may create incentives that lead to underenforcement of environmental laws, it does address some of the widely circulated concerns about overlapping public and private enforcement that have been produced in the securities arena. ²³⁶

statutes except for the National Environmental Policy Act ("NEPA"), the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), the Coastal Zone Management Act ("CZMA"), the Oil Pollution Act of 1990 ("OPA"),45 and the Pollution Prevention Act of 1990 ("PPA").").

^{233.} Thompson, *supra* note 200, at 192–93 (2000).

^{234.} *Id.* at 193.

^{235.} Indeed, some securities law scholars have recommended a roughly analogous solution for what some regard as the dysfunctionality of the 10b-5 class action. See Amanda Rose, Reforming Securities Litigation Reform: Restructuring the Relationship of Public and Private Enforcement of Rule 10b-5, 108 COLUM. L. REV. 1301, 1306 (2008) (proposing greater SEC oversight of Rule 10b-5 class actions).

^{236.} *Id.* This design was a deliberate choice by Congress, partially in response to the evolution of private enforcement in the securities arena. During the enactment of the Clean Air Act, the first environmental statute to include a citizen suit provision, "supporters and opponents alike worried about the potential for overlapping actions by private and public prosecutors—a problem that had plagued both the antitrust and securities fields where coextensive public prosecutions and private compensation actions were permissible." *Id.*

B. Where Are the "Riverkeepers?"

It is, of course, possible that other actors will step into the investigative gap with respect to greenhouse gas disclosures. Environmental law generally benefits from "riverkeepers" and other monitoring organizations [who] keep tabs on individual watersheds or ecosystems, ferreting out regulatory violations and either reporting them to the public enforcement authorities or directly prosecuting the violations under citizen suit provisions."237 But the plaintiffs in existing climate-related shareholder lawsuits are virtually indistinguishable from those that populate other shareholder litigation, consisting almost entirely of individuals and pension funds. Why have mission-driven plaintiffs not yet emerged in connection with the voluntary greenhouse gas disclosures that firms already make? This absence is, at least facially, even more puzzling when one considers the extremely vocal climate-related shareholder activist groups that have agitated for such disclosures and other climate action in recent years. Why don't climate shareholder activists sue²³⁸ when greenhouse gas disclosures are inaccurate, or conduct investigations that would allow others to do so?239

The lawyering landscape for more traditional "riverkeepers" is quite different from that of shareholder lawsuits in ways that might hinder climate activist investors from bringing shareholder claims. The environmental statutes providing for private enforcement include fee-shifting provisions allowing plaintiffs'

^{237.} Thompson, *supra* note 200, at 186.

^{238.} The sole lawsuit in my sample brought by such a group is Interfaith Center on Corporate Responsibility v. SEC, No. 21-cv-01620 (D.D.C. June 15, 2021). This case was brought against the SEC on the ground that the agency violated the APA in promulgating new rules for the inclusion of shareholder proposals that made the inclusion of climate-related proposals more difficult.

^{239.} I note here that other possible candidates for bringing climate-related shareholder cases include large mutual funds, which have been vocal in recent years in promoting sustainability policies. See, e.g., Larry Fink, supra note 33. They also offer a gamut of ESG-oriented funds into which retail investor dollar have increasingly flowed. See Saijel Kishan, ESG By the Numbers: Sustainable Investing Set Records in 2021, Bloomberg, Feb. 3, 2022, https://www.bloomberg.com/news/articles/2022-02-03/esg-by-thenumbers-sustainable-investing-set-records-in-2021 ("[A]ssets are set to balloon to \$50 trillion by 2025 from \$35 trillion. . . ."); Tim Quinson, Cash Keeps Flowing Into ESG While Markets Tank, Bloomberg, May 4, 2022, https://www.bloomberg.com/news/articles/2022-05-04/cash-keeps-flowing-into-esg-while-markets-tank-green-insight?embedded-checkout=true.

counsel to recover from defendants under some circumstances. However, there are arguments that these provisions have been construed so as to underproduce private enforcement. Citizen suits in environmental law appear to be driven in large part by environmental nonprofits and public interest lawyers.²⁴⁰ This may be because citizen suits brought under these laws are not merely incidental to private interests, as are analogous private rights of action under securities and corporate law, where plaintiffs mostly seek compensation for damages they have suffered.²⁴¹ Many of these environmental public interest organizations retain a main benefit of the nonprofit form, which is tax deductible donations, and many such organizations receive most of their funding through such donations.²⁴² However, this makes recoveries from lawsuits less important to such organizations, and in fact, the IRS prohibits these nonprofits from using "the likelihood or probability of a fee award as a consideration in its selection of cases," and an organization may lose its charitable status if it defrays more than a certain percentage of its legal costs through fee awards.²⁴³ Accordingly, environmental

^{240.} Thompson, supra note 200, at 194 ("Courts ultimately concluded that public interest attorneys should be compensated at the rate at which they would be billed in a private law firm"); Silecchia, supra note 200, at 70. ("One of the key rationales for fee-shifting generally is to compensate attorneys who do public interest work, often for clients unable to pay their fees."); see also Steven M. Dunne, Attorney's Fees for Citizen Enforcement of Environmental Statutes: The Obstacles for Public Interest Law Firms, 9 STAN. ENVIL. L.J. 1, 22 (1990) ("Citizenenforcers simply cannot attract private attorneys in the marketplace when partial success leads to partial fees, risk of nonpayment is not taken into account, and government defendants can ignore the timevalue of money. Citizenenforcers must rely on public interest lawyers to take their cases."). Historically, "in some areas of litigation [including] . . . securities class actions [and] shareholder derivative actions . . . the 'entrepreneurial' private attorneys general predominate, while in other areas [such as] . . . environmental law . . . the 'ideological' private attorneys general are the principal players." John C. Coffee, Jr., Rescuing the Private Attorney General: Why the Model of the Lawyer as Bounty Hunter Is Not Working, 42 MD. L. REV. 215, 235-36 (1983). Commentators argued that "[t]his dichotomy may not last much longer," and predicted a "migration" of entrepreneurial attorneys into areas such as environmental law "as more attorneys become acquainted with the substance of (and profit potential in)" this field. Id. However, it appears that this prediction has not yet come to pass.

^{241.} Thompson, supra note 200, at 197.

^{242.} *Id.* at 194.

^{243.} Id. at 195; REV. PROC. 75-13, 1975-1 C.B. 662.

nonprofits may not have incentives to choose the cases they are most likely to win, and thus, collect lawyers' fees for.²⁴⁴

Conversely, in the securities arena, the shareholder cases that often provide the greatest deterrence value—10b-5 securities class actions²⁴⁵—presumptively require lead plaintiffs to be the shareholders that sustained the most damages.²⁴⁶ Climate activist investors may not care to any great extent about reaping financial rewards for their hypothetical litigatory endeavors, as most putative lead plaintiffs do, but appointment as lead plaintiff is the only way such groups could recoup their potentially vast investigatory costs. Appointment as a lead plaintiff almost certainly requires far more shares than submitting a proposal to a company proxy, accordingly shareholder proposals and concurrent negotiations with management have become a popular

244. Such fees, in any case, must be "appropriate," and often are awarded only when the plaintiff "prevail[s] or substantially prevail[s]." Lucia A. Silecchia, The Catalyst Calamity: Post-Buckhannon Fee-Shifting in Environmental Litigation and a Proposal for Congressional Action, 29 Colum. J. Envil. L. 1 (2004) (also discussing the removal of one means of "substantially prevailing" with the loss of the "catalyst theory," under which a plaintiff would be awarded if their lawsuit lead to a government action). Courts have generally interpreted "appropriate" fees to be the number of hours worked times a reasonable fee rate for an attorney in a private firm (even if the lawyer is in fact a public interest lawyer); however, no increases are allowed for a "job well done," Thompson, supra note 200, at 194 ("Courts ultimately concluded that public interest attorneys should be compensated at the rate at which they would be billed in a private law firm"). Moreover, the means by which a plaintiff may "substantially prevail" have narrowed in recent years. Silecchia, supra note 232, at 2 (discussing the removal of one means of "substantially prevailing" with the loss of the "catalyst theory," under which a plaintiff would be awarded if their lawsuit lead to a government action). All these factors have combined to create an environment that has failed to give rise to a private plaintiffs' bar specializing in citizen lawsuits under the environmental laws. Thompson, supra note 200, at 216. By contrast, shareholder plaintiff lawyers comprise a stable, private bar, composed of firms of varying degrees of repute.

245. See Sean J. Griffith & Dorothy S. Lund, A Mission Statement for Mutual Funds in Shareholder Litigation, 87 U. Chi. L. Rev. 1149, 1165, 1175 (2020) ("Governance reforms are a much more likely outcome of derivative litigation than monetary relief. . . . These reforms are qualitative and therefore difficult to assess empirically, but the authors of the leading studies have expressed skepticism, noting that such reforms are typically 'inconsequential' or 'cosmetic.'"); ("[R]ecoveries in securities class actions vastly exceed typical recoveries under state fiduciary duty claims."). See also Jessica Erickson, Corporate Governance in the Courtroom: An Empirical Analysis, 51 Wm. & Mary L. Rev. 1749, 1807 (2010); Roberta Romano, The Shareholder Suit: Litigation Without Foundation?, 7 J. L. Econ. & Org. 55, 58, 61 n.12 (1991).

246. Pub. L. No. 104-67, 109 Stat. 737 (codified and amended in scattered sections of 15 U.S.C. and 18 U.S.C.).

alternative to seeking a litigative role as lead plaintiff.²⁴⁷ Many activist investors appear to have built their machinery for change around demanding increased disclosures and targets for climate change, and building and leveraging relationships with other investors to express these demands directly to management, or through the proxy system.²⁴⁸ This may be a more effective way to influence a large number of companies, rather than investing large amounts in specific firms in anticipation of leading a lawsuit should a misstatement come to light.

But there are ways other than suing that climate activist shareholders could contribute to enforcing the accuracy of climate disclosures. In addition to their governance activities, many also write copious reports focusing on specific issues or sectors. Some also amass impressive environmental data (although these appear to be largely self-reported) and issue scorecards for individual firms. The goal of these reports is to better inform diversified investors seeking to consider various sustainability factors in their investment decisions. If these organizations shifted the orientation of these reports from surveys to investigations—drilling down on the climate-related

^{247.} See SEC Procedural Requirements & Resubmission Thresholds under Exchange Act Rule 14a-8, 17 C.F.R. §240 (Dec. 4, 2019), https://www.sec.gov/rules/2020/09/procedural-requirements-and-resubmission-thresholds-under-exchange-act-rule-14a-8.

^{248.} See, e.g., CERES AMBITION 2030, https://ceres.org/climate/ambition2030 ("We leverage the power of investors and corporate stakeholders to engage with North American companies in the highest emitting sectors[.]."); As You Sow, Energy and Climate Resolutions, https://www.asyousow.org/our-work/energy/resolutions (listing the climate-oriented shareholder resolutions which As You Sow has promoted); Climate Action 100, Engagement Process, https://www.climateaction100.org/approach/engagement-process/("Engagement [with focus company executives and board members] is spearheaded by a lead investor or co-lead investors, who work [cooperatively] with a number of contributing investors. . . . [I]nvestors may also engage with focus companies on an individual basis . . . but are required to: liaise with relevant network staff and/or lead investors to ensure engagement priorities and ambition are aligned with the goals of the initiative, as well as with the overall collaborative approach").

^{249.} See, e.g., CERES, Reports, https://ceres.org/resources/reports; As You Sow, Energy and Climate Reports, https://www.asyousow.org/our-work/energy/reports; CDP, Research, https://www.cdp.net/en/research.

^{250.} See, e.g., CDP, Explore CDP Data, https://www.cdp.net/en/data. 251. Ceres, Gaining Ground: Corporate Progress on the Ceres Roadmap for Sustainability, https://www.ceres.org/resources/reports/gaining-ground-corporate-progress-ceres-roadmap-sustainability.

^{252.} See CDP, supra note 249 ("This data is invaluable for cities, companies and investors to take urgent action to build a truly sustainable economy.").

disclosures and statements of individual firms where there is reason to believe they are untrue—such reports would be a boon to the shareholder plaintiffs' bar, and would doubtless generate far more lawsuits in this area. Such a shift is unlikely to materialize, however. Not only may such misstatements be very difficult to detect, but climate activist investors arguably get more bang for their buck by publishing broad reports using available data that motivate investors to move their money to more sustainable firms, than by ferreting out the firms that are lying. Moreover, calling out a firm for falsifying the disclosures that climate activist investors cajoled and cooperated with management to obtain may diminish potential for cooperation in the future, and may undermine the aspirational nature of the activists' work. Accordingly, while climate activist investors seem like the logical choice to fill in any gaps in private enforcement of climate disclosures, there are reasons to believe that they will not.

There may, of course, be other actors that step in to fill the investigatory gap with respect to climate disclosures. Previous scholarship examining cases between 1996 and 2004 has found that the majority of corporate fraud is not detected by "standard corporate governance actors," investors, the SEC, and auditors; rather, employees, media, and non-SEC regulators play an important role. 253 Shareholders account for only 3% of detected frauds, while other financial analysts and auditors account collectively for 24%. 254 Media reports, by contrast, account for 13% of detected frauds, non-financial regulators for 13%, and employees for 17%. 255 Notably, securities lawsuits account for only 2% of detected frauds. Some of these findings are roughly consistent the cases examined in this Article; for instance, I have documented in previous work the prominence of non-financial regulators in event-driven lawsuits, ²⁵⁷ and this extends to event-driven lawsuits involving climate change. However, media reports on the lawsuits examined in this Article largely seem to follow the filings, 258 and fraud detection by

^{253.} Dyck et al., Who Blows the Whistle on Corporate Fraud?, 65(6) J. Fin. 2214, 2251 (2010).

^{254.} Id. at 2225.

^{255.} *Id*.

^{256.} Id.

^{257.} Strauss, supra note 41.

^{258.} Other scholars have noted that "as a profit-minded newspaper owner, it pays to avoid investing in the risky venture of investigating opaque corporate

employees appears completely absent. For emerging firms, one might also speculate that VC investors and the like could play a role in detecting climate-related fraud (this seems particularly plausible for small, just-public firms producing purportedly climate-friendly products). The climate-related lawsuits in the sample do not suggest this, however, and recent scholarship has also suggested that VCs are increasingly rejecting a monitoring role for their portfolio companies. 259 Finally, while consumers are almost certainly among the intended, if unspoken, beneficiaries of climate disclosures and may act on them through boycotts and the like to influence corporate behavior, it is not clear that they are more likely than other constituents to take on a meaningful role in investigating their accuracy, and my cases so far show no signs of consumer involvement. None of this is to say that these other constituencies—or those yet unthought of—will emerge as meaningful reporters of climate disclosure fraud. But they have not surfaced yet, and the incentives created by shareholder litigation do not obviously lend themselves to detection by such parties.

IV. Looking Forward

Thus far, I have assessed the patterns in the climate-related shareholder litigation to date, and investigated the logic informing these patterns. In this section, I first turn to the implications of my findings for a world where climate disclosures seem likely to proliferate. If the SEC draft rules are ultimately implemented, these disclosures could become mandatory. But even if they do not, voluntary disclosures in response to investor demand are likely here to stay. How will the claims in my typology change or stay the same as such disclosures multiply? Second, I examine how my findings could be deployed in the debates surrounding climate disclosures generally. My findings

shenanigans, focusing instead on rebroadcasting publicly available information." Roy Shapira, *Reputation Through Litigation: How the Legal System Shapes Behavior by Producing Information*, 91 Wash. L. Rev. 1193, 1205 (2016); *see also* Alexander Dyck & Luigi Zingales, *The Corporate Governance Role of the Media, in* The Right To Tell: The Role of Mass Media in Economic Development 119–20 (World Bank Inst. ed., 2002).

^{259.} See Brian Broughman & Matthew Wansley, Risk-Seeking Governance, Feb. 1, 2023, (Eur. Corp. Governance Inst., Working Paper, Paper No. 720, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4344939.

help inform whether mandatory climate disclosures are necessary or desirable, and what kinds of safe harbors, if any, should protect issuers who make climate disclosures.

A. The Typology Revisited: What to Expect as Climate Disclosures Proliferate

I have argued that climate-related misstatements that affect the firm's fundamental business strategy will likely be of interest to outside analysts, such as short-sellers, who compile reports that serve as a basis for shareholder litigation. Thus, in the absence of government intervention, most climate-related shareholder litigation is likely to emerge in response to statements that directly implicate the firm's business model. An increased volume of climate disclosures, or enhanced climate disclosures, such as those proposed by the SEC, are unlikely to affect this basic dynamic. However, some of the disclosures proposed by the draft SEC rules may create increased fodder for such analysts, and accordingly, may give rise to greater—and perhaps, too much—liability exposure for certain companies. Below, I evaluate the likely trajectory of the lawsuits in my typology.

1. Greenwashing: Climate-Friendly Products and Event-Driven Lawsuits

The incidence of these cases may not be greatly affected by an increase in climate disclosures, or the introduction of mandatory disclosures such as those outlined by the SEC's proposed rules. A faulty flagship product is a faulty flagship product, and those interested in the fundamental success of the business will be motivated to investigate such issues whether or not they relate to climate. However, if disclosures like those the SEC has proposed are mandatory, they may create more alleged misstatements and omissions for plaintiffs to include in complaints that would have been brought anyway. A short-seller motivated and equipped to investigate, for example, whether a company's fuel cell produces the emissions that the company claims²⁶⁰

^{260.} See Hunt v. Bloom, No. 19-cv-02935-HSG, 2021 WL 4461171 (N.D. Cal. Sept. 29, 2021).

might also be equipped to assess whether the company was misstating its Scope 1 greenhouse gas emissions.²⁶¹

Increased climate disclosures may also increase claims of misstatements—and perhaps the odds of success—in eventdriven lawsuits. These cases are usually filed not because someone suspected foul play against shareholders, but because a public company was responsible for a newsworthy disaster. In previous work, I find that the majority of event-driven lawsuits involve a government inquiry, usually by a regulator other than the SEC. 262 The climate-related event-driven cases examined in this Article fit this pattern (as does the Volkswagen litigation, which might also be characterized as event-driven case). One hurdle to allegations that these events trigger claims under the securities laws is that in many instances, defendants are not obligated to disclose anything about the risks that ultimately materialize, causing these disasters.²⁶³ Disclosures such as those proposed by the SEC would change this; if a disaster arises from a climate risk that previously did not require disclosure (or was susceptible to disclosure in very vague terms), the new rules could now require enough specificity to make claims based on such misstatements more successful.

Moreover, in the corporate realm under recently evolving precedent,²⁶⁴ the proposed disclosures involving the internal processes firms put in place to address climate risk invite *Caremark* claims in the aftermath of disasters based on such risks. *Caremark* claims allege that a board utterly failed to impose any oversight system to inform itself about important risks, or that, having put such a system in place, the board consciously

^{261.} With the notable exception of the Volkswagen cases, the lawsuits involving misstatements about the climate-friendliness of a product tend to involve defendant firms that bill themselves as environmentally friendly and are not the main targets of climate activists (as are firms in the fossil fuel, utility, and automotive areas). These defendants therefore might be less affected by increased climate or emissions regulation. Thus, to the extent that climate risk disclosures require discussions of the effects of regulation on the firm's business, they may not trigger further claims in these cases. However, they may trigger further claims in cases where, as with many food or agricultural products, inputs are climate-sensitive, as this would certainly affect the underlying business.

^{262.} See Strauss, supra note 41, at 1354.

^{263.} See Donald Langevoort, Disasters and Disclosures, 107 Geo. L.J. 967 (2019); Strauss, supra note 41.

^{264.} Wenske v. Blue Bell Creameries, Inc., No. 2017-0699-JRS 2018 WL 3337531 (Del. Ch. July 6, 2018).

ignored the information coming from that system.²⁶⁵ Recent developments in Delaware case law appear to have expanded these criteria²⁶⁶, particularly where the risk at issue is central to the firm's main business (as, for example, power line safety would be for an electric company). The specificity of the proposed disclosures for climate risk oversight might make it easier for plaintiffs to allege that the members of the board responsible for climate risk oversight were insufficiently expert, or that the process for relaying climate risk information to the board was so flawed as to undermine its effectiveness. Perhaps most importantly, the proposed rules, which require disclosure of the frequency with which the board discusses climate risks, ²⁶⁷ would open the door for plaintiffs to allege that the frequency of discussions is insufficient and supports an inference that the board was disregarding the information relayed by the climate-related oversight system.

Accordingly, mandatory disclosures seem likely to increase the number of claims brought in connection with "greenwashing" lawsuits, and the specificity of the required disclosures may increase the odds that such lawsuits will be successful. However, it is not clear that the proposed disclosures will necessarily increase the frequency of such lawsuits. This is because the underlying facts of these lawsuits—either that the firm lied about aspects of its main product, or the firm was somehow responsible for a major disaster—already to prompt investigations by outsiders, such as short-sellers or regulators, and shareholder plaintiffs are already capitalizing on these investigations. One exception might be a proliferation in *Caremark* claims following event-driven lawsuits.

2. Misstatements or Omissions Regarding the Effects of Climate Change on the Firm's Business

The only case I encounter involving misstatements about the effects of climate change on a firm's business and the measures to deal with those effects arise from the voluntary disclosures made by ExxonMobil. Imposing mandatory

^{265.} Stone *ex rel*. AmSouth Bancorporation v. Ritter, 911 A.2d 362, 370 (Del. 2006).

^{266.} *In re* Clovis Oncology, Inc. Derivative Litigation, C.A. No. 2017-0222-JRS, 2019 WL 4850188, at *13 (Del. Ch. Oct. 1, 2019); Hughes v. Hu, C.A. No. 2019-0112-JTL, 2020 WL 1987029 (Del. Ch. Apr. 27, 2020).

^{267.} *See supra* notes 62–63.

disclosures of climate risk on a business is likely to increase the number of these kinds of lawsuits. However, this increase may primarily affect large firms that are more acutely exposed to climate risk.

Although the alleged misstatements in the ExxonMobil cases were exposed by the New York Attorney General, there are reasons to think that other market players can play a role in exposing similar misstatements. The effects of climate on a business may be profound. Therefore, it seems highly likely that the mandated disclosure of such risks, particularly with the specificity required by the proposed rules, will pique the interest of those with a stake in such firms, who may be highly motivated to investigate if those disclosures are false. As climate risk disclosures proliferate, investor and analyst interest in them is likely to increase, likely leading to more reports and thus more shareholder lawsuits in this area.

Some companies already make climate risk disclosures, ²⁶⁸ raising the question of why there are not more lawsuits currently challenging their accuracy. However, in 2019, only 19% of public firms already made such disclosures, and an additional 34% stated that while they were examining such risks, they were at least a year away from making them, meaning that in many cases, such disclosures are not available for shareholders to examine or challenge. ²⁶⁹ Moreover, existing climate risk disclosures often have not contained sufficient or sufficiently clear information on the financial impact of climate issues on the firm; ²⁷⁰ without specificity as to financial impact, investors and analysts have nothing to investigate. More detailed disclosures would alleviate this problem, leading to an increase in litigation.

There are reasons to think that the quality of such litigation would be mixed. First and most charitably, assessing the impact of climate change on a firm's financial position can be

^{268.} And indeed, where climate risks are material, firms are already required to disclose them under the existing principles-based approach. See Comm'r Hester M. Pierce, We Are Not the Securities and Environment Commission—At Least, Not Yet, SEC, https://www.sec.gov/news/statement/peirce-climate-disclosure-20220321 (March 21, 2022).

^{269.} See Richard Mahoney & Diane Gargiulo, The State of Climate Risk Disclosure: A Survey of US Companies, DFIN SOLUTIONS at 6, https://www.dfinsolutions.com/sites/default/files/documents/2019-10/TCFD_II_Climate_Disclosure_V10_revisedFINAL.pdf (2019).

^{270.} Id. at 2.

an extremely complicated business. The NYAG enforcement action against ExxonMobil illustrates the complexity of such a task. The crux of the accusations was that Exxon had disclosed one proxy cost of carbon to its investors, while internally using a lower proxy cost that made its financial situation look less precarious than it really was.²⁷¹ But the court ultimately found that Exxon had materially disclosed the methods it used to arrive at its internal proxy carbon costs.²⁷² If the NYAG had difficulty following those processes to ascertain whether the disclosed proxy costs were accurate, it seems likely that other market actors might have similar difficulties in parsing similar disclosures. Short-seller reports, in particular, may prove unreliable as a basis for challenging climate risk disclosures; such reports may be anonymous or pseudonymous, and their authors may deliberately disseminate questionable information in order to depress the firm's stock price.²⁷³ Even in the absence of such motives, short-sellers lack the subpoena power of regulators and may not have easy access to information necessary to ascertain the truth of climate risk disclosures, some of which may be proprietary. These difficulties in evaluating falsity may ameliorate over time, as such disclosures become more common and comparable, and as investors, analysts, and prosecutors develop greater expertise in assessing them. However, it is still possible that shareholders will bring lawsuits based on analysis that is simply, in good faith, wrong in concluding that the firm's disclosures of climate risk were false or misleading.

More cynically, as with other types of shareholder lawsuits, such disclosures may be over-litigated for some firms and under-litigated for others. Interest in these disclosures is likely to increase in sectors where climate risk may have a substantial impact on a firm's business. Of this subset of possible defendants, lawsuits claiming that these disclosures are false are more likely to be brought against large firms, where plaintiffs' lawyers are likely to procure more lucrative settlements.²⁷⁴ Accordingly, mandating such disclosures is likely to produce more private enforcement against the largest firms in sectors where climate risk poses substantial threats to the firm's business (and thus, there are plenty of analyst reports). While we might, as a policy

^{271.} *See supra* notes 150–151.

^{272.} See supra note 155.

^{273.} See Joshua Mitts, Short and Distort, 49 J. LEGAL STUD.287 (2020).

^{274.} Choi et al., supra note 10.

matter, be less concerned about the accuracy of these disclosures where the success of a firm's business is less reliant on climate, this litigation pattern nonetheless leaves open the possibility of underenforcement against smaller firms, even if their misstatements are more severe. This litigation pattern could result not only in underenforcement against smaller firms, but higher litigation costs paid by large firms that are in fact making accurate disclosures.

3. Shareholder Lawsuits Derivative of Where the Money Is

Two other types of lawsuits are likely to increase in tandem with those described in the previous sections: lawsuits to enforce corporate books and records demands and claims against firms as employee stock option administrators for breach of fiduciary duty.

As other commentators have noted, plaintiffs may increasingly use corporate books and records demands under DGCL 220 and comparable state laws to satisfy the demand futility necessary to plead a derivative claim.²⁷⁶ As other types of lawsuits proliferate—those based on climate risk disclosures, or Caremark claims for event-driven lawsuits, as discussed above—plaintiffs will likely seek evidence for their complaints through books and records demands. I note, however, that even books and records requests require a "credible basis" for suspected wrongdoing. Among my cases at least, this requirement has been met with short-seller reports,²⁷⁷ but has failed in the New Jersey Court of Chancery when based on less detailed evidence, such as press reports.²⁷⁸ Accordingly, the success of these lawsuits is still likely to rely, at least to some degree, on the existence of a detailed outside investigation, and thus might still be characterized as follow-on litigation.

Lawsuits against firms as ESOP fiduciaries would also proliferate with enhanced climate disclosures. In perusing these disclosures and the analyst reports discussing them, employees could conclude that holding the stock of the issuing firm is no

^{275.} See id.

^{276.} See Shapira, supra note 178.

^{277.} See Jacob v. Bloom Energy Corp., No. 2020-0023-JRS, 2021 WL 733438 (Del. Ch. Feb. 25, 2021).

^{278.} City of Birmingham Relief & Ret. Sys. v. ExxonMobil Corp., No. A-4279-17T3, 2019 WL 1986543, at *2, *6 (N.J. Super. Ct. App. Div. May 6, 2019).

longer in the beneficiaries' interest because the business risks resulting from climate are overwhelming. Such lawsuits would be analogous to those in my sample involving coal companies on the brink of insolvency. Alternatively, ERISA lawsuits could be brought in the aftermath of litigation alleging climate-related fraud on the basis that it was imprudent for the fiduciary to continue to hold the defendant firm's stock as the news of the fraud became public and the stock price crashed. In either circumstance, such lawsuits are likely to increase if more detailed climate-related disclosures become mandatory. However, though they may become more common, they are unlikely to become more successful because of the difficulty of the standard plaintiffs must meet in such cases. ²⁸¹

4. Lawsuits Challenging Greenhouse Gas Disclosures

Might lawsuits challenging the accuracy of greenhouse gas disclosures increase if greenhouse gas disclosures continue to proliferate or are made mandatory?²⁸² Perhaps. Certainly, fears of greater liability exposure have motivated the conversation against mandatory greenhouse gas disclosures, particularly

^{279.} Class Action Complaint at 3–5, Roe v. Arch Coal, Inc., 2015 U.S. Dist. LEXIS 148057 (E.D. Mo. Nov. 2, 2015) (No. 15-cv-00910); Class Action Complaint at 5, Lynn v. Peabody Energy Corp., 250 F. Supp. 3d 372 (E.D. Mo. 2017) (No. 15-cv-00916).

^{280.} See, e.g., Fentress v. Exxon Mobil Corp., 304 F. Supp. 3d 569, 575 (S.D. Tex. 2018).

^{281.} See Fentress v. Exxon Mobil Corp., supra note 169, at 5.

^{282.} I note here that there is a possibility that the codification of greenhouse gas emissions as line item disclosures could actually foreclose the possibility altogether that shareholders would be permitted to enforce them under some circumstances. Under the Leidos line of cases, Ind. Pub. Ret. Sys. v. SAIC, Inc., 818 F.3d 85 (2d Cir. 2016), cert. granted sub nom. Leidos, Inc. v. Ind. Pub. Ret. Sys., 580 U.S. 1216 (2017) (No. 16-581), which arrived at the Supreme Court in 2017, the Second and Ninth Circuits clashed over whether failure to disclose line items under Regulation S-K—specifically, Item 303, the MD&A—gives rise to a private right of action under Rule 10b-5. See Stratte-McClure v. Morgan Stanley, 776 F.3d 94 (2d Cir. 2015); In re NVIDIA Corp. Sec. Litig., 768 F.3d 1046 (9th Cir. 2014). The case settled on the eve of oral argument, but gives rise to the possibility that material omissions in SEC-mandated line item disclosures may not be actionable under 10b-5 at all. For discussion of these issues, see Donald C. Langevoort & G. Mitu Gulati, The Muddled Duty to Disclose Under Rule 10b-5, 57 Vand. L. Rev. 1639 (2004); Matthew C. Turk & Karen E. Woody, The Leidos Mixup and the Misunderstood Duty to Disclose in Securities Law, 75 Wash. & Lee L. Rev. 957 (2018).

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Scope 3 disclosures.²⁸³ If the SEC undertakes its own investigations of false greenhouse gas disclosures, investors and their lawyers will surely follow suit. And if there is a large stock price drop,²⁸⁴ or a separate, business-related reason to dig up dirt on the firm, faulty greenhouse gas disclosures could certainly provide fodder for additional claims. But based on the current litigation landscape, reporting of greenhouse gas emissions may go the way of previous SEC efforts at environmental disclosures,²⁸⁵ and indeed, other social issues that may not directly implicate a firms' finances:²⁸⁶ Although firms are required to disclose the information, the accuracy of that information may often go untested.

B. Implications for Policy Debates

There is fierce debate over whether the underlying problem that climate activist shareholders seek to fix—overproduction of greenhouse gases—can or should be remedied by investor disclosure. Though I do not weigh in on whether climate risk disclosures are permissible or desirable, I have argued that

^{283.} See, e.g., Jim Tyson, SEC Chair Gensler says Scope 3 emissions flap delays final climate risk rule, Utility Dive, Sept. 14, 2023, https://www.utility-drive.com/news/gensler-says-final-climate-risk-rule-slowed-scope-3-emissions-flap-ESG-sustainability-carbon-climate/693661/ ("The SEC has received more than 16,000 public comment letters about the climate risk disclosure rule that it proposed in March 2022, with many asserting that Scope 3 reporting will prove onerous for small businesses[.]").

^{284.} See Michael Klausner et al., Guest Post: "Stock Drop" Lawsuits, The D&O DIARY, June 28, 2020, https://www.dandodiary.com/2020/06/articles/securities-litigation/guest-post-stock-drop-lawsuits/ (finding that overall, greater drops in stock price tend to lead to more lawsuits, but that this phenomenon is more acute for large companies).

^{285.} See supra notes 216–219

^{286.} For instance, my search for shareholder lawsuits involving conflict mineral disclosures over the years that such disclosures were required by the SEC turned up no lawsuits.

^{287.} Recent scholarship has found that the greenhouse gas emissions disclosure requirements promulgated by the EPA were followed by a 7.9% decrease in emissions. See Sorabh Tomar, Greenhouse Gas Disclosure and Emissions Benchmarking (Eur. Corp. Governance Inst., Working Paper No. 818/2022, 2023). On the other hand, it also appears that private markets reliably misprice climate risk for a variety of reasons, and will continue to do so in the absence of direct regulation, even if disclosure requirements are enhanced. See Condon, supra note 212, at 123; PATRICK BOLTON ET AL., THE GREEN SWAN: CENTRAL BANKING AND FINANCIAL STABILITY IN THE AGE OF CLIMATE CHANGE (2020); Martin L. Weitzman, On Modeling and Interpreting the Economics of Catastrophic Climate Change, 91 REV. Econ. & STAT. 1 (2009); Martin L. Weitzman, Fat-Tailed

some features of the securities and corporate law and lawyering make them a particularly difficult fit for privately enforcing the accuracy of climate disclosures.

My findings may be interpreted as ammunition by those on both sides of the debate on whether the SEC should mandate climate disclosures. Proponents of the SEC's proposed rules may argue that the relative dearth of private enforcement of climate disclosures and the total absence of such enforcement with respect to greenhouse gas disclosures indicate that private ordering in this space has been demonstrably inadequate. Therefore, the argument might go, increased SEC action consisting both of rulemaking and active enforcement of those rules—is necessary. But detractors of the proposed rules may argue that my findings cut the other way. Such an argument might be that the relative scarcity of climate-related shareholder litigation is evidence that most shareholders do not care about such disclosures. If they did, the argument might go, we would see greater investigatory efforts fueled by stock price drops when misstatements are discovered. The lack of such activity (and price impact, particularly with respect to greenhouse gas disclosures) suggests that aside from a noisy minority, most investors are uninterested in climate disclosures, and do not support SEC action in this area.

My findings also have mixed implications for the narrower but, pragmatically speaking, equally important debate over the safe harbors that should apply to climate disclosures. The current SEC draft rules provide for a nominal safe harbor for Scope 3 greenhouse disclosures, which protects issuers from liability for such disclosures unless they are made "without a reasonable basis" or "other than in good faith." However, commentators have pointed out that this "does little beyond defining the standard necessary to establish scienter for fraud-based claims." Other commentators have expressed concern with the lack of safe harbor provided for historic Scope 1 and 2 emissions,

Uncertainty in the Economics of Catastrophic Climate Change, 5 REV. ENVTL. ECON. & Pol'y 275 (2011).

^{288.} The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21334 (proposed Mar. 11, 2022) (to be codified at 17 C.F.R. pt. 210, 229, 232, 239 & 249), at 21391.

^{289.} Summary of and Considerations Regarding the SEC's Proposed Rules on Climate Change Disclosure, Gibson Dunn & Crutcher LLP (Apr. 15, 2022), https://www.gibsondunn.com/summary-of-and-considerations-regarding-the-sec-proposed-rules-on-climate-change-disclosure/.

since these data are "often based on estimates, assumptions and methodologies that may be revised in the future." There is no express safe harbor for the other climate risk disclosures outlined by the rule, although the SEC made clear that to the extent any of the required disclosures are forward-looking, they are eligible for protection from liability under the PSLRA safe harbor for forward-looking statements. However, this safe harbor does not apply to information in financial statement notes or to IPOs. Some commentators, in view of concerns over private liability, have called for a "deep litigation safe harbor" to protect even voluntary disclosures, thus potentially incentivizing more companies to make them even in the absence of a mandatory regime such as that proposed by the SEC. 1993

My findings could be marshalled to support both sides of this debate. On one hand, they suggest that litigation risk is not high for greenhouse gas emissions disclosures generally, and therefore, further protections are unnecessary. On the other hand, proponents of such safe harbors might argue that in view of the low litigation risk, protections would be virtually costless, and that in any case, the risk of fraud is lower for greenhouse gas disclosures because these disclosures include attestation requirements. My findings suggest that the higher-stakes question may, in fact, be one that has not drawn much attention so far, which is whether and what additional safe harbors should be available for other kinds of climate disclosures, particularly those detailing firms' current or historic climate risks that would not fall within the PSLRA safe harbor. My findings suggest that these disclosures may constitute the most likely basis of any increase in litigation risk, particularly for large firms. Opponents of such a safe harbor however might argue that there is no reason for exceptional safe harbors for these disclosures, as

^{290.} Michael Littenberg et al., *Ten Thoughts on the SEC's Proposed Climate Disclosure Rules*, Harv. L. Sch. F. on Corp. Governance (Apr. 30, 2022), https://corpgov.law.harvard.edu/2022/04/30/ten-thoughts-on-the-secs-proposed-climate-disclosure-rules/.

^{291.} The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21334 (proposed Mar. 11, 2022) (to be codified at 17 C.F.R. pt. 210, 229, 232, 239 & 249), at 21407.

^{292.} See Gibson Dunn & Crutcher LLP, supra note 289.

^{293.} Joseph A. Grundfest, Comment Letter on Proposed Rule on The Enhancement and Standardization of Climate-Related Disclosures for Investors (June 15, 2022), https://www.sec.gov/comments/s7-10-22/s71022-20131386-301537.pdf.

those generating the most uncertainty could likely benefit from the PSLRA safe harbor for forward-looking statements in any case.

Conclusion

The push for big businesses to account for climate and disclose their calculations to their shareholders has been years in the making and is likely to continue. Questions about enforcing the accuracy of these disclosures, however, have been seldom discussed and under-theorized. Based on the climate-related shareholder litigation that has appeared to date, I have argued that private enforcement of these disclosures is likely to be overzealous in areas where alleged misrepresentations relate to the firm's bottom line but that other disclosures, such as those relating to greenhouse gas emissions, may be underenforced. While these findings may be marshalled as support for both camps in the debate on mandatory climate risk disclosures, the structural features of securities litigation that may make it a suboptimal enforcement mechanism in the climate context are likely here to stay.