COMMENTS

INVESTING IN THE FUTURE: WHY THE SEC SHOULD REQUIRE A UNIFORM CLIMATE CHANGE DISCLOSURE FRAMEWORK TO PROTECT INVESTORS AND MITIGATE U.S. FINANCIAL INSTABILITY

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Climate change is one of the most complex issues facing the United States and global economies today. International reduction of greenhouse gas emissions demonstrates a move away from fossil fuel energy and other related industries, and a transition to a lower carbon economy may disrupt economic sectors and cause sudden losses in global economic value. Over the past several years, many securities regulators and stock markets have begun to recognize that climate risks may be material to investors and financial markets. This shift sparked the creation of alternative disclosure frameworks, such as the Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-Related Financial Disclosure (TCFD). This Comment recommends that the Securities & Exchange Commission require a uniform climate change disclosure framework, like SASB or TCFD, to protect investors and mitigate United States financial instability. This Comment begins by exploring the impacts of climate change on the economy, then provides a summary of the current SEC regulations. Next, it details both SASB and TCFD, and it concludes by addressing the benefits and challenges of the federal government adopting a third-

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party framework and the implications of imposing a more stringent system, using federal and local government adoption of Leadership in Energy and Environmental Design (LEED) green building standards as an example.

INT	RODUCTION	.493
CLI	MATE CHANGE WILL AFFECT THE U.S. ECONOMY AND A WIDE	
VAF	RIETY OF INDUSTRIES IN MATERIAL WAYS	.497
In (ORDER TO MITIGATE THE ECONOMIC IMPACTS OF CLIMATE	
Сна	ANGE, THE CURRENT SEC CLIMATE RISK DISCLOSURE	
STA	NDARDIZED FRAMEWORK SUCH AS SASB OR TCFD	.499
A.	Two Major Problems Exist with the SEC's Current	
	· ·	
	That Can Be Resolved with a Uniform Disclosure	
	Framework	.500
В.		
		.502
C.		
		.503
D.		
		.504
E.		
	-	
	· · · · · · · · · · · · · · · · · · ·	
		.505
Тні	· · · · · · · · · · · · · · · · · · ·	
	· · · · · · · · · · · · · · · · · · ·	
		.506
A.		
	•	
		.507
В.		
	- ·	
	v - /	.508
C.		.000
	•	
		.511
A C		
		514
	CLI VAN IN C CHARGE STA A. B. C. D. E. THI FRA THE REI A. B. C. A C.	Approach—Lack of Enforcement and Lack of Uniformity— That Can Be Resolved with a Uniform Disclosure Framework

	A.	Key Similarities Between LEED and SASB/TCFD Include	
		Their Motivations for Formation and Their Industry-Backed,	
		Research-Based Standards, Which Make Them Suitable for	
		Federal Government Adoption	516
	В.	Government Adoption Models of LEED Standards Provide	
		Several "Lessons Learned," Suggesting that SASB/TCFD	
		Must Be Implemented at a Federal, Mandatory Level	518
VI.	Cor	NCLUSION	519

I. INTRODUCTION

Climate change is one of the most profound and complex issues facing United States and global economies today. In 2014, Intergovernmental Panel on Climate Change noted that "[e]ach of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850." The long-term, global scale of the issue makes it uniquely challenging, especially for businesses and economies trying to predict their economic futures.² In particular, international reduction of greenhouse gas emissions shows a movement away from fossil fuel energy and other related industries.³ This transition to a lower carbon economy requires significant changes, which may disrupt economic sectors and industries, leading to financial shocks and sudden losses in global economic value. Both public corporations and the investment and financial community must face the realization that climate change risks will impact the economy. First, companies use information about risks to price assets, allocate capital, and prepare for abrupt changes in stock markets. In turn, investors rely on companies reporting accurate information across industries to make important short- and long-term investment decisions, contributing not only to the health and prosperity of the stock market, but also providing funding for public companies. Thus, in order to protect investors, promote financial stability, and help mitigate the impacts of climate change, U.S. securities regulators must find an effective way to communicate accurate, decision-useful climate risk information.

Over the past several years, many securities regulators and stock exchanges have recognized that information on the "environmental, social, and governance" (ESG) performance and risk of companies may be material

¹ Intergovernmental Panel on Climate Change, *Climate Change 2014 Summary for Policymakers, in* CLIMATE CHANGE 2014 SYNTHESIS REPORT 2, 2 (Rajenra K. Pachauri et al. eds., 2015), https://perma.cc/8QUT-QNUG.

 $^{^2}$ Task Force on Climate-Related Fin. Disclosures, Recommendations of the Task Force on Climate-Related Financial Disclosures, at ii (2016) [hereinafter Recommendations].

³ Id.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.* at 2.

to investors and financial markets and may include climate change risks. ESG reporting, sometimes referred to as "sustainability reporting," extends beyond the three listed dimensions to a range of nonfinancial information that indicates strategic and business risk, effects on key stakeholders, and sources of capital. Nonfinancial reporting seeks to tell a company's "whole story" through intangibles including "brand, talent, customer base," regulatory hurdles, and many other factors potentially important to investment decisions. While ESG concerns span more broadly than climate change, an increased sensitivity to the potential implications of climate change on investment decisions have led many organizations to attempt to improve communication of this information to investors. In Investors receive risk information, both financial and nonfinancial, via annual reports filed by public companies with the United States Securities and Exchange Commission (SEC).

In the United States, the SEC regulates investment and corporate disclosures. 11 Successful investing depends on an investor's ability to recognize factors that influence the market's valuation of a company and then allow the investor to evaluate the accuracy of that valuation. 12 SEC corporate disclosure regulations require companies that sell securities in the stock market to register with the commission, the purpose of which is to disclose important financial and nonfinancial information that enables investors to make a decision about whether to invest (purchase securities) in a company. 13

The SEC plays a significant role in regulating public companies by mandating certain financial and nonfinancial information be disclosed to investors in annual 10-K reports. The mission of the SEC is to "protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation." A 10-K report contains an annual snapshot of a company and requires the company to disclose material information and risks to investors. As defined by the United States Supreme Court, "material" means a "substantial likelihood" that omission of particular information would be

 $^{^7\,}$ Centre for Fin. Mkt. Integrity, Environmental, Social, and Governance Factors at Listed Companies: A Manual for Investors 1 (2008), https://perma.cc/7ER4-JMEW [hereinafter Manual for Investors].

⁸ *Id.* at 2, 9; *see About Sustainability Reporting*, GLOBAL REPORTING INITIATIVE, https://perma.cc/KF29-32XD (last visited July 14, 2018).

 $^{^9}$ PRICEWATERHOUSE COOPERS, SUSTAINABILITY REPORTING AND DISCLOSURE: WHAT DOES THE FUTURE LOOK LIKE? 1 (2016), https://perma.cc/AM3Q-94BX. .

¹⁰ Manual for Investors, *supra* note 7, at 1.

 $^{^{11}}$ See What We Do, Sec. & Exchange Commission, https://perma.cc/N27K-FWAW (last modified June 10, 2013).

 $^{^{12}}$ $\,$ Manual for Investors, supra note 7, at 1.

¹³ What We Do, supra note 11.

¹⁴ *Id.* 10-K reports provide an annual snapshot of a public company to potential investors and shareholders. *See* Business and Financial Disclosure Required by Regulation S-K, 81 Fed. Reg. 23, 916 (proposed Apr. 22, 2016) (to be codified at 17 C.F.R. pts. 210, 229, 230, 232, 239 & 249)

¹⁵ What We Do. supra note 11.

¹⁶ See id.

viewed by a "reasonable investor as having significantly altered the 'total mix' of information made available." In particular, the SEC's Regulation S-K contains guidelines that ensure public companies make appropriate disclosures. The SEC issued an update to Regulation S-K in 2010, stating that material disclosures could include climate risk. This was an important first step in that it recognized the potential impact of climate change on public company performance, but fell short of actually implementing an adequate and consistent set of requirements.

In 2014, global agreement related to the risks of climate change among business and financial institutions culminated when a group of 409 investors representing more than \$24 trillion in assets called for political leadership and policies to address climate change risks to investments.²⁰ Over sixty countries worldwide, including the United States, now require or encourage companies to disclose climate-related risks through corporate regulation.²¹ However, many of the existing standards focus on disclosure of climaterelated information, including greenhouse gas emissions and sustainability metrics, but fail to communicate this information with the accuracy, consistency, and ability to project impacts over the medium- to long-term.² In the United States, users of climate-related disclosures commonly cite noncomparable reporting, use of boilerplate language, and failure to report financial implications of climate-related issues as key gaps in current climate risk reporting.²³ Plus, evidence suggests that in the United States, 93% of companies face some degree of climate risk, but only 12% have disclosed it.²⁴ Investors need consistent, accurate information in order to make informed decisions. The current lack of consistent and accurate climate-related information severely hinders investors and raises concerns about financial stability because markets may be vulnerable to abrupt corrections.²⁵ The investment community both domestically and globally recognizes a need for improved disclosure; however, in the United States, climate risk reporting remains largely unregulated due to the lack of SEC enforcement and the lack of a uniform disclosure system.26

¹⁷ TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976).

¹⁸ See generally 17 C.F.R. §§ 229.10–1208 (2017).

¹⁹ Business and Financial Disclosure Required by Regulation S-K, *supra* note 14.

²⁰ Institutional Inv'rs Grp. on Climate Change et al., Global Investor Statement on Climate Change (2014), https://perma.cc/T4CL-EK94.

²¹ See Wim Bartels et al., Carrots & Sticks: Global Trends in Sustainability Reporting Regulation and Policy 9–10, 12 (2016), https://perma.cc/3CQQ-43N8 (noting that two thirds of the nearly 400 sustainability guidelines or instruments globally are mandatory, and one-third have been introduced by financial regulators or stock exchanges).

 $^{^{22}\,}$ Recommendations, supra note 2, at 2, 36–37.

²³ *Id.* at 2.

²⁴ Jeff McMahon, 93 Percent of Public Companies Face Climate Risk; Only 12 Percent Have Disclosed It, FORBES (July 13, 2016), https://perma.cc/P38F-NMFJ.

 $^{^{25}\;}$ Recommendations, supra note 2, at 2.

 $^{^{26}}$ See Sustainability Accounting Standards Bd., The State of Disclosure 2017: An Analysis of the Effectiveness of Sustainability Disclosure in SEC Filings 2 (2017), https://perma.cc/3RLM-FT2Z; Benjamin Hulac, Inside the Mirage of Good Climate Info at the

The SEC's lax enforcement of its 2010 update to Regulation S-K and the demands made by the global investment community illustrate the need for a more comprehensive, uniform standard. Each year, the SEC sends thousands of "comment letters" for a variety of deficiencies in filings, but over the past few years it has largely ignored climate-related risks.²⁸ Recently, the SEC has made efforts to increase awareness of climate risks in the form of investigating major corporations like Exxon Mobile over how it factors climate risk into pricing its projects and accounting practices, and by requesting public comments on the sufficiency of the Regulation S-K Guidance.²⁹ While both the investigation of Exxon and the SEC's request for comments indicate at least some heightened level of interest on the part of the agency, widespread controversy continues to grow among investors and financial institutions.³⁰ The proponents of more stringent disclosure standards include mostly investors and nonprofit groups who favor the establishment of accounting guidelines that quantify environmental risks due to climate change and inform investors.31 This Comment advocates for the adoption of a uniform climate disclosure framework, exploring two of the most prominent guidelines in the United States: the Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-Related Financial Disclosures (TCFD). Opponents include a number of business groups, such as the United States Chamber of Commerce, the American Petroleum Institute, and the National Association of Manufacturers, that disfavor additional regulation as burdens on business.³² While these objections are predictable, in order to truly meet the demands of the investment community and help stabilize the future of the economy, the SEC must require uniform climate risk disclosures.

This Comment begins by exploring climate change's economic impacts and how climate change affects the economic well-being of a variety of industries. Next, it will provide a synopsis of the current SEC disclosure

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SEC, E&E NEWS (Aug. 11, 2016), https://perma.cc/R5YC-445S (discussing the SEC's lax disclosure requirements and inconsistent treatment of climate disclosures).

²⁷ "Comment letters" provide feedback to public companies making their filings with the SEC either annually in their 10-K or initially and may probe for further explanation on how climate change affected or is expected to affect their operations. *See Comment Letters*, SEC. & EXCHANGE COMMISSION, https://perma.cc/6XQP-YSGG (last modified Apr. 18, 2011).

²⁸ See Hulac, supra note 26 ("[T]he SEC... has done little to extract information about climate change from the companies it oversees.").

²⁹ See id.; see also SEC Concept Release No. 33-10064, 34-77599, S7-06-16 at 154, 206-07, 215 (Apr. 13, 2016), https://perma.cc/H624-X5QM [hereinafter Concept Release]; Bradley Olson & Aruna Viswanatha, SEC Probes Exxon Over Accounting for Climate Change, WALL STREET J. (Sept. 20, 2016), https://perma.cc/D3H3-JLEV.

³⁰ See, e.g., Ben Walsh & Alexander C. Kaufman, Why Banks Need to Be More Upfront About Climate Risk, HUFFINGTON POST (Dec. 4, 2015), https://perma.cc/YWY4-YUAG (describing efforts by "business and finance communities" to "take a more active role in combating the worst effects of climate change," due to the SEC's failure to expand corporate disclosure requirements).

³¹ See, e.g., Sustainability Accounting Standards Board, Comment Letter on Concept Release on Business and Financial Disclosure Required by Regulation S–K (Jul. 1, 2016), https://perma.cc/KAE9-FQKN; Hulac, *supra* note 26.

³² Hulac, *supra* note 26.

requirements, the climate risk-related aspects of Regulation S-K, and the SEC's response to investor demands for a comprehensive climate risk disclosure regulation. It will then analyze the adequacy and potential benefits of adopting a third-party standardized disclosure framework, highlighting two such programs that show viability: SASB and TCFD. Both programs strive to help companies better understand the demands of the investment community, quantifying the investment industry's movement towards consistent measurement and response to climate risk. This Comment concludes by addressing the benefits and challenges of the federal government adopting a third-party framework and the implications of imposing a more stringent system, using federal and local government adoption of Leadership in Energy and Environmental Design (LEED) green building standards as an example. Ultimately, implementing a uniform climate risk disclosure framework will help mitigate financial instability by encouraging investors to make climate-informed decisions.

II. CLIMATE CHANGE WILL AFFECT THE U.S. ECONOMY AND A WIDE VARIETY OF INDUSTRIES IN MATERIAL WAYS

The predictable impacts of climate change include not only the traditional notions of environmental harms and extreme weather, but also economic impacts. These economic impacts include shifts to more sustainable industries (i.e., fossil fuels to renewables), leading to changes in the future value of a company's assets and changes in production for industries like agriculture.³³ Such impacts could mean financial instability or prosperity, depending on the industry. Sectors expected to experience financial instability stemming from climate change include banking, insurance, and fossil fuel production.³⁴ Financial instability may arise both from failure to "contain climate change and a sudden collapse in the value of fossil fuel" and related industries. 35 Alternatively, some sectors expect to experience financial benefits, including arctic shipping, agricultural biotech, construction, energy-efficient products, desalination, and industrial snow makers.³⁶ Climate change's varied effects on the economy demonstrate the need for a disclosure framework that conveys accurate, comprehensive, and decision-useful climate risk information.

As a result of growing concerns, global financial institutions are examining how global economies and specific industries would cope if

³³ Gabriele Steinhauser, Regulators Examine Financial Risk of Climate Change; Exploring Disclosure Rules and Stress Tests Based on Different Climate Scenarios, WALL STREET J. (Mar. 31, 2016), https://perma.cc/CF6N-6ZNM; see generally Wolfram Schlenker & Michael J. Roberts, Nonlinear Temperature Effects Indicate Severe Damages to U.S. Crop Yields Under Climate Change, 106 PROC. NAT'L ACAD. SCI. U.S. AM. 37, 15,594 (Sept. 15, 2009).

³⁴ Steinhauser, *supra* note 33; Walsh & Kaufman, *supra* note 30.

³⁵ Steinhauser, supra note 33.

³⁶ Jose Pagliery, 6 'Hot' Businesses That Benefit From Global Warming, CNN (January 16, 2015), https://perma.cc/6HB5-7H4Z.

climate change policies, such as those in the Paris Climate Agreement,³⁷ led to a severe drop in the share price of fossil fuel companies.³⁸ Over the next twenty-five years, the fossil fuel industry risks losing \$33 trillion in revenue as a result of climate change, which may cause companies to leave oil, gas, and coal in the ground.³⁹ Due to heavy reliance on fossil fuels globally, any change in the market could ripple across industries with investments or ties to oil, coal, and gas.⁴⁰ However, measuring this risk and the extent of carbon-reliant assets across particular industries remains difficult without a uniform disclosure framework.

Insurance companies also provide valuable insight into some of the potential economic challenges, illustrating what happens when the burden of increased prices shifts to the consumer. A 2014 survey of insurers conducted by Ceres⁴¹ found that most insurance companies responding to the survey reported a "profound lack of preparedness in addressing climaterelated risks and opportunities."42 The impacts on insurance include an inability to insure increasingly risky areas due to the increasing occurrence of extreme weather events and other factors, and a reduction in available capital due to devaluation of investments in fossil fuel companies. 43 Thus, many insurance companies either continue to hike prices, refuse to insure certain risky activities, or start to shift the burden to the federal government, for example, by forcing individuals to seek subsidies for flood insurance from the National Flood Insurance Program in areas that increasingly experience natural disasters. 44 Neither shifting the burden nor hiking prices benefits the consumer; rather, each creates an unsustainable approach to helping communities recover from catastrophic weather in the future. Climate risk disclosure not only informs investors but can also help inform consumers and companies of potential future economic uncertainties, allowing for mitigation of catastrophic financial losses and causing a marketshift in consumer demand.

In short, climate change will impact companies in material ways. Whether material means financial prosperity for renewables and ag-biotech

 $^{^{37}}$ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, 27 U.N.T.S. 7.d.

³⁸ Steinhauser, *supra* note 33.

³⁹ Joe Ryan, *Fossil Fuel Industry Risks Losing \$33 Trillion to Climate Change*, Bloomberg (July 11, 2016), https://perma.cc/8VSH-YQ56.

⁴⁰ Cf. Pacific Life Fund Advisors, The Ripple Effect of the Oil Plunge, PAC. FUNDS 2 (Jan. 2015), https://perma.cc/X9B9-PW5M (stating that energy firms and industries that rely on oil or one of its derivatives stand to benefit from lower oil prices).

⁴¹ See About Us, CERES, https://perma.cc/KZ3S-H9B5 (last visited July. 14, 2018) ("Ceres is a sustainability nonprofit organization working with the most influential investors and companies to build leadership and drive solutions throughout the economy. Through powerful networks and advocacy, Ceres tackles the world's biggest sustainability challenges.... Ceres is transforming the economy to build a sustainable future for people and the planet.").

 $^{^{42}\,}$ Ceres Ins. Program, Insurer Climate Risk Disclosure Survey Report & Scorecard: 2014 Findings & Recommendations 6 (2014), https://perma.cc/Z5F9-HSKG.

⁴³ Steinhauser, supra note 33.

⁴⁴ Eugene Linden, How the Insurance Industry Sees Climate Change, L.A. TIMES (June 16, 2014), https://perma.cc/HV92-LF4Q.

or financial instability for fossil fuels and insurance, a clear informational gap exists for investors. ⁴⁵ Climate risk disclosure encourages companies to provide more information on how climate change will affect their business so investors may make their own financial assessment. ⁴⁶ A uniform disclosure system would help companies realize potential for future benefits or future losses, improve accounting forecasting internally, and promote financial stability in the stock market by providing accurate, future-looking information to investors. In turn, investors could use this information to divest in climate-risky ventures, invest in sustainable industries, and maximize future profits and prosperity of the economy at-large.

III. IN ORDER TO MITIGATE THE ECONOMIC IMPACTS OF CLIMATE CHANGE, THE CURRENT SEC CLIMATE RISK DISCLOSURE REQUIREMENTS SHOULD BE SUPPLEMENTED BY A MORE STRINGENT STANDARDIZED FRAMEWORK SUCH AS SASB OR TCFD

The SEC and climate risk disclosure have experienced a problematic past, illustrating the need for a uniform disclosure framework. In 2010, in response to heightened concerns of climate risk and its connection to financial stability, the SEC released guidance on the materiality of climaterelated risk in an update to Regulation S-K.⁴⁷ Following this release, the SEC began issuing comment letters to companies not in compliance, although this initiative has since come to a halt. 48 In 2016, following heightened debate, industry support, and a global push for the SEC to tighten its requirements, 49 the SEC published a new Regulation S-K Concept Release, requesting public comment on "modernizing certain business and financial disclosure requirements."50 Since the Concept Release, the SEC has not made any major changes, but has received over 276 non-form comment letters, with 80% of sustainability-related letters calling for improved disclosure, and only 10% of letters opposing the SEC action.⁵¹ In order to effectively inform the investment community, the SEC should supplement its current standards with a uniform disclosure framework such as SASB or TCFD. This Part provides an analysis of the underlying issues with the

 $^{^{45}~}$ See Christa Clapp et al., CICERO Ctr. for Int'l Climate Research, Shades of Climate Risk: Categorizing Climate Risk for Investors 43–44 (2017).

 $^{^{46}}$ See Task Force on Climate-Related Fin. Disclosures, Final Report: Recommendations of the Task Force on Climate-Related Financial Disclosures iii (2017) [hereinafter Final Report].

⁴⁷ SEC Staff Interpretation No. 33-9106, 34-61469, FR-82, at 21–22 (Feb. 8, 2010), https://perma.cc/P3SR-VHPP [hereinafter Interpretation].

⁴⁸ Hulac, *supra* note 26.

⁴⁹ See, e.g., Robert Herz, The U.S. Financial Reporting System, Circa 2015: Are We OK?, Compliance Wk. (Oct. 27, 2015), https://perma.cc/X7E5-DJUK.

 $^{^{50}\,}$ Concept Release, supra note 29.

⁵¹ Sustainability Accounting Standards Bd., Business and Financial Disclosure Required by Regulation S-K – The SEC's Concept Release and Its Implications 1, 3–4, https://perma.cc/AE5E-7LMQ (last visited July, 14, 2018).

current SEC approach, gives a brief overview of existing SEC regulations, and concludes with a discussion on SASB and TCFD.

A. Two Major Problems Exist with the SEC's Current Approach—Lack of Enforcement and Lack of Uniformity—That Can Be Resolved with a Uniform Disclosure Framework

The SEC's current climate risk disclosure requirement lacks adequate enforcement and uniformity. At the time of the 2010 update to Regulation S-K, SEC officials wrote thirty-eight comment letters requesting more detailed information on climate change, but since then tapered to eleven in 2011 and only three in 2012.⁵² Many investors speculate that the SEC's recent investigations of Exxon and the New York Attorney General's past investigation of Peabody Energy respond to industry pressures to tighten up enforcement of the SEC's 2010 Guidance.⁵³ Skeptics believe these investigations act simply as a one-off attempt for the SEC and other regulators to flex their muscles in regard to enforcement.⁵⁴ The Exxon investigation examines whether the company has misled investors.⁵⁵ For years, Exxon has kept the value of its oil and gas reserves steady in the face of slumping energy prices, failing to disclose the reasoning behind this apparent discrepancy to investors.⁵⁶ The Peabody Energy investigation looked at financial risks the company faces from future government policies and regulations related to climate change and other environmental issues that could reduce demand for its product.⁵⁷ As a result, Peabody has agreed to a fuller disclosure, but the outcome of the Exxon investigation remains pending.⁵⁸ Both investigations arise out of a need for public companies to provide accurate, consistent information to investors and consumers, an area clearly within the jurisdiction of the SEC.

Lack of uniformity poses another major barrier to effective conveyance of relevant disclosure information. Currently, the majority of climate-related information comes from voluntary reporting rather than annual reports filed with the SEC. ⁵⁹ Several voluntary reporting regimes exist, but this Comment focuses on two of the most prominently accepted systems in the United

⁵² Hulac, supra note 26.

⁵³ Clifford Krauss, *Peabody Energy Agrees to Greater Disclosures of Financial Risks*, N.Y. Times (Nov. 8, 2015), https://perma.cc/L8AM-LD9E; *see* Olson & Viswanatha, *supra* note 29.

⁵⁴ See David McCann, Battles Brew Over Climate Risk Disclosure, CFO (Apr. 8, 2016), https://perma.cc/UPM7-WMJ9 (arguing that Exxon and Peabody investigations are one-offs and that outside of New York these investigations would be ineffective).

⁵⁵ See Olson & Viswanatha, supra note 29; Emily Flitter, New York Prosecutor Says Exxon Misled Investors on Climate Change, REUTERS, June 2, 2017, https://perma.cc/P4P7-775W.

 $^{^{56}}$ Id.

 $^{^{57}~}$ $See~{\rm Krauss},$ $supra~{\rm note}~53.$

⁵⁸ *Id.*; see Olson & Viswanatha, supra note 29.

 $^{^{59}\,}$ Jim Coburn & Jackie Cook, Ceres, Cool Response: The SEC & Corporate Climate Change Reporting 5, 7, 14–15 (2014), https://perma.cc/WT7E-Z9PL ("Sophisticated systems for voluntarily reporting corporate climate change information have become widely used in recent years.").

States: SASB and TCFD.⁶⁰ Without a uniform standard, companies determine the scope and content of their own climate risk disclosures, leading to inconsistent and incomplete information.⁶¹ Furthermore, companies that currently do elect to adopt a uniform framework may only be highlighting positive sustainability initiatives rather than negative climate risk indicators, creating a skewed picture for the investment community and the company itself. According to a 2014 report from Ceres, 41% of S&P 500 companies did not address climate change in their securities filing at all.⁶²

Moreover, under the current system, the companies that do address climate change do so with varied attention to detail. For example, many companies that do have significant exposure to climate change, like oil and gas companies, currently include a boilerplate disclosure recognizing climate change as a risk, but say nothing about its impacts on a particular business. 63 Most boilerplate disclosures include generic statements about how greenhouse gas emissions can "reduce demand for fossil energy derived products" and "increase the demand for less carbon-intensive energy sources" without making any specific reference to how those statements might affect the company itself or the value of its assets. 4 Thus, integrating a uniform climate disclosure system promises to help provide investors with the most consistent, comparable information possible. Using SASB, the boilerplate language mentioned above for an oil and gas company would transform to include "material sustainability topics" such as greenhouse gas emissions, air quality, water management, biodiversity impacts, security, human rights, rights of indigenous people, and community relations, to name a few. 65 In addition, SASB provides a table of "Material Sustainability Topics & Accounting Metrics" specifying the appropriate accounting metric, category of disclosure (quantitative vs. discussion and analysis), and the unit of measure. 66 Enumerated metrics, consistent frameworks, and identification of potentially material topics on an industry-by-industry basis would be

⁶⁰ Other comprehensive standards include the Global Reporting Initiative (GRI) and the Climate Change Reporting Framework (CCRP). Both GRI and CCRP are more widely adopted globally, whereas SASB and TCFD were specifically created in accordance with SEC standards. The American Institute of CPAs has also developed assurance guidelines that would apply to sustainability audits conducted by accountants. See GRI Standards, Global Reporting Initiative, https://perma.cc/JAU3-8P6L (last visited July 14, 2018); see also Climate Change, Climate Disclosure Standards Board, https://perma.cc/RA6P-QT6F (last visited July 14, 2018); Task Force on Climate-Related Fin. Disclosures, Phase I Report of the Task Force on Climate-Related Financial Disclosures 18–21 (2016), https://perma.cc/X27G-Y6ZA [hereinafter Phase I Report]; Legal FAQs, Sustainability Accounting, Am. Inst. Certified Pub. Accts., https://perma.cc/443P-SDD9 (last visited July 14, 2018).

⁶¹ Robert Repetto, *It's Time the SEC Enforced Its Climate Disclosure Rules*, INT'L INST. FOR SUSTAINABLE DEV. (Mar. 23, 2016), https://perma.cc/YSJ5-RBWS.

⁶² COBURN & COOK, supra note 59, at 12.

⁶³ Katie Wagner, Companies' Climate Change Disclosure Could Be Better, AGENDA WK. (Sept. 24, 2012), https://perma.cc/CDY9-TE8T.

⁶⁴ Ia

⁶⁵ Sustainability Accounting Standards Bd., Oil & Gas Exploration & Production: Sustainability Accounting Standard 8–9 (2014), https://derma.cc/XRQ4-K45H.

⁶⁶ *Id.* at 8–10.

major steps forward for climate risk disclosures, providing a much clearer picture of an industry's predicted economic future.

B. SEC Disclosure Requirements and Regulation S-K: An Overview

Regulation S-K broadly sets forth the SEC's disclosure requirements, and the 2010 Interpretation and 2016 Concept Release focus in greater detail on climate risk disclosure. 67 Regulation S-K includes "[p]otential impacts of climate change related matters on public companies," such as "regulatory, legislative, and other developments . . . [that] could have a significant effect on operating and financial decisions[;]" "physical effects... [that] can include the impact of changes in weather patterns[;]" and "financial risks . . . [that] may arise from physical risks to entities other than the registrant itself."68 Three specific sections of Regulation S-K potentially concern climate risk disclosure: Items 101, 103, and 503(c).69 Item 101 includes descriptions of the business and expressly requires disclosure of the costs of complying with environmental laws, which could include material variances in operations resulting from climate risk or advantages.⁷⁰ Item 103 requires companies to "briefly describe any material pending legal proceeding[s]."⁷¹ Item 503(c) requires disclosure of "how the particular risk affects the particular registrant."72 Further, Item 303, Management's Discussion and Analysis (MD&A), also mandates disclosure of "known [future] trends... and uncertainties that are reasonably likely" to result in a material impact on financial condition or operating performance. 73 As evidenced by the various sections of the 2010 Guidance, climate risks may arise in many aspects of the mandated disclosures, and as such, these requirements also may prompt a company to make SASB or TCFD-like disclosures. However, without the imposition of a uniform disclosure framework, companies will continue to provide inconsistent and frequently boilerplate information in each of the relevant sections.

⁶⁷ SUSTAINABILITY ACCOUNTING STANDARDS BD., *supra* note 51, at 1 ("The Concept Release covers a broad range of topics, from general to very specific. Sustainability is by no means a major consideration; out of the Concept Release's 92 pages . . . only 4 pages discuss issues relating to disclosure of public policy and sustainability matters.").

⁶⁸ Interpretation, *supra* note 47, at 5–7.

 $^{^{69}}$ 17 C.F.R. \S 229.101(c)(xii), (h)(xi) (2017); id. \S 229.103 (2017); id. \S 229.503(c) (2017); see also Legal FAQs, supra note 60.

⁷⁰ Interpretation, *supra* note 47, at 12–13.

 $^{^{71}}$ *Id.* at 13.

⁷² *Id.* at 15.

⁷³ *Id.* at 16–18 (providing that there is no specific future time frame for assessing the impact of a known trend, or uncertainty, but it "will depend at any given time upon a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity").

C. Sustainability Accounting Standards Board (SASB): An Overview

SASB's mission "is to maintain sustainability accounting standards that help public corporations disclose material, decision-useful information to investors."⁷⁴ In-depth research and stakeholder participation help to accomplish this mission. 75 SASB's standards align with an investment world shifting from assessments based on pure financial capital to one that factors in nonfinancial capital such as sustainability. ⁷⁶ In March 2016, SASB released a set of provisional climate risk disclosure standards and in and in June 2017, SASB's Task Force on Climate-Related Financial Disclosures released its final report recommending climate risk disclosure standards.77 Unlike some voluntary reporting frameworks, SASB's goal is not to broaden the SEC's definition of materiality, but rather to help companies determine climate-related risks that fall within the SEC's definition.⁷⁸ SASB's disclosures most likely appear in the MD&A and could potentially broaden to include description of "business, legal proceeding, or risk factors." 79

Furthermore, the advantages of SASB's framework reach both companies and investors. Advantages for companies include improved management of nonfinancial and financial factors, better and more efficient disclosures, industry-specific metrics to drive value, and alignment with investors. ⁸⁰ First, SASB recognizes that traditional accounting does not treat nonfinancial resources like human, social, or natural capital as assets; thus, SASB's standards help a company measure a focused set of nonfinancial resources and impacts in order to manage them more effectively.⁸¹ By evaluating impacts of both financial and nonfinancial assets, companies can achieve improved results in "return on sales, sales growth, return on assets, and return on equity."82 Second, SASB recognizes that since much of a company's value drivers now exist outside traditional financial statements, investors need streamlined information about the many other factors that affect long-term shareholder value.83 Thus, SASB does not advocate more disclosure, but better disclosure. Third, a single metric applied across the board simply cannot capture meaningful impacts of climate change on all industries; therefore, SASB standards on average include five topics and

2018]

⁷⁴ Vision and Mission, Sustainability Acct. Standards Board, https://perma.cc/7XH2-7HNF (last visited July 14, 2018).

⁷⁶ See SustAcctStdBrd, Markets Make the World Go Round, YouTube (Sept. 9, 2012), https://perma.cc/69J5-LRZM.

⁷⁷ RECOMMENDATIONS, supra note 2; FINAL REPORT, supra note 46, at i.

⁷⁸ Our Process, Sustainability Acct. Standards Board, https://perma.cc/A5KV-78ZY (last visited July 14, 2018).

⁷⁹ Legal FAQs, supra note 60.

⁸⁰ For Companies: WhySASB?, SUSTAINABILITY ACCT. BOARD. https://perma.cc/C6K5-ZT6E (last visited July 14, 2018).

⁸² Id. (citing Mozaffar Khan et al., Corporate Sustainability: First Evidence on Materiality (Harvard Bus. Sch., Working Paper No. 15-073, 2015)).

fourteen metrics per industry, the majority of which are quantitative.⁸⁴ Fourth, companies can achieve alignment between internal management and investors by creating "a shared understanding of the factors that have, or are anticipated to have, a material effect on business."⁸⁵

Advantages for investors include the ability to factor in climate-related impacts, consistent assessment of climate-related risks across a portfolio, and the ability to help companies progress toward improved corporate responsibility. 66 First, SASB debunks the idea that climate change remains impossible to measure by identifying an issue's industry-specific impacts and drawing direct links to a company's financial statements.⁸⁷ Identification and measurement of climate issues over time will enable investors to perform peer-to-peer comparisons on critical factors and establish industry benchmarks. Second, while sustainability issues impact different industries in different ways, by adapting traditional industry classification systems to reflect the unique sustainability profiles of sectors and industries, SASB provides the "building blocks" to determine the correlation between industries to allow investors to adjust a portfolio's exposure accordingly. Investors can also use SASB's standards and research to actively engage companies on important issues and encourage improved disclosure, tying back to comparisons with peer companies. 90 Overall, SASB's highly tailored approach for seventy-nine industries, 91 its alignment with SEC regulations, and its continued engagement with both investors and corporations creates an opportune approach to improved climate risk disclosures.

D. Task Force on Climate-Related Financial Disclosure (TCFD): An Overview

In December 2015, the Financial Stability Board (FSB)⁹² created the TCFD to direct an assessment of effective climate-related disclosure and to promulgate a set of voluntary recommendations "responsive to the needs of lenders, insurers, investors, and other users of disclosures." TCFD's mission is "to promote more effective climate-related disclosures that 1) will support informed investment, credit, and insurance underwriting decisions

⁸⁴ *Id.*

⁸⁵ *Id.* (emphasis omitted).

 $^{^{86}}$ See For Investors: Why SASB?, Sustainability Acct. Standards Board, https://perma.cc/YH64-FL56 (last visited July 14, 2018).

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ Id

⁹¹ See For Companies: Why SASB?, supra note 80.

 $^{^{92}}$ About the FSB, FIN. STABILITY BOARD, https://perma.cc/4VNU-W2MD (last visited July 14, 2018) ("The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system.... The FSB promotes international financial stability; it does so by coordinating national financial authorities and international standard-setting bodies as they work toward developing strong regulatory, supervisory and other financial sector policies.").

⁹³ Phase I Report, *supra* note 60, at 3.

about reporting companies, and 2) will enable a variety of stakeholders to understand the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risk." The TCFD's plan includes two phases of reports. The Phase I Report, released March 31, 2016, assesses the current state of disclosure schemes and establishes fundamental principles of disclosure. 95 The Phase II Report, released December 2016, targets climate-related financial disclosures, building on existing frameworks to develop its own. 96 The Phase II standards focus on alignment across industries and financial risks from physical and nonphysical climate-related issues.97 TCFD has also identified seven fundamental principles it deems critical to its system: "1) Present relevant information; 2) Be specific and complete; 3) Be clear, balanced, and understandable; 4) Be consistent over time; 5) Be comparable among companies within a sector, industry or portfolio; 6) Be reliable, verifiable, and objective; [and] 7) Be provided on a timely basis." TCFD recognizes the efforts and successes of many schemes, but points out that some reporting regimes look only at nonfinancial risks such as brand, talent, and sustainability initiatives, and lack consistency and comparability. 99 TCFD proposes to look at financial risks related to these nonfinancial aspects as well, such as financial implications for organizations dependent on extracting coal, oil, and natural gas. 100 Thus, by integrating these aspects and goals into its program, TCFD believes it can make great strides with its standards, allowing unprecedented widespread implementation.¹⁰¹ addition to promulgating standards based on other current programs, TCFD welcomes public comment from industries, investors, consumers, and any other interested parties, recognizing that needs across industries and parties vary greatly.102

E. Implementing a Uniform Climate Disclosure Framework, Such As SASB or TCFD, Offers Significant Benefits to Investors and Eliminates the Current Lack of Enforcement and Uniformity

The business and financial communities increasingly agree that the effects of climate change are inevitable, and that its impacts may present

⁹⁴ *Id.*

⁹⁵ *Id.* at 3–4.

⁹⁶ *Id.*

⁹⁷ *Id.* at 4, 9.

⁹⁸ *Id.* at 4.

⁹⁹ Id. at 13; see Deloitte, Seek and You May Find: How CFOs Can Manage Sustainability Risks and Find Long-Term Value in Unexpected Places 3–4 (2017), https://perma.cc/375R-2CBN; David A. Lubin & Daniel C. Esty, The Sustainability Imperative, Harv. Bus. Rev., https://perma.cc/US2K-5G7Q (last visited July 14, 2018).

¹⁰⁰ RECOMMENDATIONS, *supra* note 2, at ii (discussing the effect of sustainability initiatives on "organizations dependent on extracting, producing, and using coal, oil, and natural gas").

¹⁰¹ Id. at v, 41-42.

¹⁰² See Phase I Report, supra note 60, at 11 ("The Task Force has been and will continue to conduct extensive outreach to parties with an interest in climate-related financial disclosures.").

material risks and opportunities that will require businesses to adapt to and mitigate these physical and nonphysical changes. 103 SASB and TCFD offer significant benefits to investors. Both eliminate the concerns of enforcement and lack of uniformity presented by the current SEC regulations. While nearly 400 climate or sustainability disclosure regimes exist worldwide, 104 SASB and TCFD are two of the most prominent, widely accepted, and supported systems in the United States. Also, importantly, both SASB and TCFD align with the SEC regulations efficiently and effectively. The FSB's proactive creation of the industry-led TCFD and its inclusion of members across industries and regions suggest a bright future for climate-related financial reporting. TCFD includes a number of principles originally set out in SASB in an even more comprehensive way. However, either system could drastically improve the current system, which lacks consistency, accuracy, and comparability. 105 Both TCFD and SASB could provide better accountability, consistency, and collaboration among the users and preparers of financial reports. This Comment advocates for and analyzes the adoption of either framework.

IV. THE BENEFITS OF ADOPTING A THIRD-PARTY DISCLOSURE FRAMEWORK OUTWEIGH THE POTENTIAL CHALLENGES, PROVING IT IS THE BEST OPTION FOR IMPROVING THE FUTURE OF CLIMATE RISK REPORTING IN THE UNITED STATES

The federal government should rely on third-party guidelines (SASB or TCFD) to enhance the achievement of regulatory objectives. The SEC expressed a clear objective to improve climate-related disclosures when it released the Regulation S-K Guidance, its Interpretation, and most recently, its Concept Release in April 2016. Also, a clear movement towards a low-carbon economy exists both in the United States and worldwide, evidenced by the Paris Climate Agreement and increasing climate-related legislation. Historically, various aspects of the federal government have incorporated private standardized frameworks or guidelines into their regulatory systems, including safety of commercial products and services, and more recently

¹⁰³ *Id.* at 7.

¹⁰⁴ Id. (citing Org. for Econ. Co-operation & Dev. & Climate Disclosure Standards Bd., Climate Change Disclosure in G20 Countries (2015), https://perma.cc/E6CJ-UZ2L); Mark Carney, Governor, Bank of Eng., Breaking the Tragedy of the Horizon—Climate Change and Financial Stability at the Lloyd's of London 10 (Sept. 29, 2015), https://perma.cc/M79W-PGRS. Included in this list are advocacy campaigns, platforms for registering sustainability commitments, guidance, policies, ratings schemes, laws, and measurement tools.

¹⁰⁵ See Recommendations, supra note 2, at 2–3; see also Phase I Report, supra note 60, at 3–4; PricewaterhouseCoopers, supra note 9.

¹⁰⁶ See Concept Release, supra note 29, at 1, 38, 209–210.

¹⁰⁷ See Interpretation, supra note 47, at 1-2 ("International accords, federal regulations, and state and local laws and regulations in the U.S. address concerns about the effects of greenhouse gas emissions on our environment, and international efforts to address the concerns on a global basis continue." (footnote omitted)).

¹⁰⁸ Ross E. Cheit, Setting Safety Standards: Regulation in the Public and Private Sectors 5–6, 12, 21–28 (1990).

Conflict Minerals disclosures, ¹⁰⁹ LEED green building certification, ¹¹⁰ and the United States Department of Agriculture (USDA) National Organic Program. ¹¹¹ Many regulatory agencies use third parties due to lack of resources, resulting in an inability to provide adequate monitoring and to effectively police noncompliance. ¹¹² Adoption of a third-party framework offers significant benefits including improved efficiency, increased access to industry expertise, and increased compliance. ¹¹³ Of course, downsides exist to incorporating a third-party framework as well, including fear of politicization, accountability and objective evaluation, and potentially high costs. ¹¹⁴ All things considered, however, in an exceedingly complex regulatory area such as climate change, a third-party framework best suits the needs of both the SEC and the financial community.

A. A Mandatory Disclosure Framework Would Ensure the Best, Most Comprehensive Information Reaches Investors and Would Greatly Increase Compliance

The SEC should adopt a mandatory climate risk disclosure framework for annual reports and require that the reporting standard meet the advanced criteria of either SASB or TCFD. This type of system would still allow the SEC to enforce compliance and could potentially come in two forms for the companies preparing annual 10-Ks. In one form, the companies could use the SASB or TCFD standardized framework to formulate their own reports to the SEC, as companies are already doing with annual 10-Ks. This option would be less objective but also less expensive for companies, as companies would not be required to hire a third party to prepare the reports. Alternatively, the SEC could require reports to be prepared by third parties. This option would be more objective but would be more expensive and likely more time consuming for companies. This Comment proposes the former as a starting point, with the potential to tighten the requirements as needed.

Adoption of a third-party standardized framework could be either voluntary or mandatory. In order to facilitate a smooth transition from virtually no regulation to a mandatory standard, a phase-in voluntary period could be introduced during which the SEC advocates usage of SASB or TCFD without requiring it. However, a voluntary system would not fully address the current issues of lack of enforcement and uniformity. Therefore, in the long run, the voluntary "solution" would offer little additional benefit

¹⁰⁹ Fact Sheet: Disclosing the Use of Conflict Minerals, Sec. & Exchange Commission, https://perma.cc/UYC7-Z2W4 (last modified July 14, 2018).

¹¹⁰ See Better Buildings Are Our Legacy, U.S. Green Building Council, https://perma.cc/G3CH-DWBJ (last visited July 14, 2018).

¹¹¹ National Organic Program, U.S. DEP'T AGRIC., https://perma.cc/WM8L-F7DD (last visited July 14, 2018).

¹¹² Lesley K. McAllister, Regulation by Third-Party Verification, 53 B.C. L. Rev. 1, 1–2 (2012).

 $^{^{113}}$ Id. at 4, 15–16, 20.

¹¹⁴ Id. at 5, 30-31, 37.

than the system currently in place. Investors need uniform, consistent, and comparable information in order to make informed decisions. Thus, a program mandating full compliance with SASB or TCFD's methodology more completely addresses the problem. In a mandatory program, the SEC would release another regulation or update to Regulation S-K to state that companies must comply with the standardized framework developed by SASB or TCFD as part of their annual or initial 10-K. Therefore, if companies do not comply, they directly contravene SEC rules and regulations.

B. Key Reasons to Endorse Adoption of a Third-Party Disclosure Framework Include Increased Efficiency, Access and Attention to Industry Expertise, and Improved Compliance

Reasons to endorse adoption of a third-party framework include increased efficiency, access and attention to industry expertise, and improved compliance. Adoption of a third-party framework bolsters cooperation between the federal government and private parties, encouraging regulated entities to work with the regulator, rather than feeling threatened by looming enforcement. This does not mean enforcement mechanisms are unavailable; however, enforcement may be less necessary when a clear, consistent standardized framework exists. This peer-to-peer environment cultivates greater information sharing and innovative problem solving, which is particularly appropriate due to the uncertainties surrounding climate change.

Three distinct advantages exist with the SEC's adoption of SASB or TCFD's standardized frameworks. First, adoption will likely result in increased efficiency. Underfunding or understaffing often causes resources to be spread thinly within federal government agencies, which can lead to an inability to enforce lower priority tasks. While there is at least some indication that the SEC considers a lack of climate disclosures a serious issue, no evidence indicates that resources within the agency are shifting to address this issue. In 2014, SEC Chairman, Mary Jo White, said at an agency conference, "[SEC] funding falls significantly short of the level we

¹¹⁵ See id. at 14-15.

¹¹⁶ *Id.*

¹¹⁷ See Paul R. Kleindorfer, Market-Based Environmental Audits and Environmental Risks: Implementing ISO 14000, 22 GENEVA PAPERS ON RISK & INS. 194, 194, 203 (1997) (discussing "the costs and benefits of new market-based approaches to the regulation of environmental risks" and stating "the use of third parties, together with an informed public, has the potential to increase the efficiency and service quality of monitoring and inspection services as compared to the more bureaucratic procedures within the government").

¹¹⁸ See, e.g., Chuck Marr & Cecile Murray, IRS Funding Cuts Compromise Taxpayer Service and Weaken Enforcement, Ctr. on Budget & Pol'y Priorities (Apr. 4, 2016), https://perma.cc/4E7Z-77X4.

¹¹⁹ See Business and Financial Disclosure Required by Regulation S-K, supra note 14 (the S-K Concept Release and request for comments asks "whether additional disclosures in these areas are necessary or appropriate to facilitate investor protection, to maintain fair, orderly, and efficient markets, and/or to facilitate capital formation."); Olson & Viswanatha, supra note 29.

need to fulfill our mission to investors, companies, and the markets." ¹²⁰ In early 2016, President Barack Obama sought to double the SEC's funding over the next five years; 121 however, with Donald Trump's election this proposal is far from a future reality.¹²² Trump proposes to eliminate part of the SEC budget called the "Reserve Fund," which was created in the Dodd-Frank Act of 2010. The Reserve Fund functions independently of the federal budget and has been used for mostly technological updates within the SEC, including modernizing corporate filings and case management systems; without it, the SEC's efficiency and growth will likely be stunted.¹²⁴ And, even if the SEC received increased funding, whether agency dollars and staff would shift to climate-related issues remains unclear. 125 The adoption of a third-party framework would allow the SEC to enforce its regulations while shifting the costs to industry. Because the federal government would be minimally funding the SEC directly for this initiative, part of the cost of compliance would shift to the regulated companies. 126 The SEC would still provide oversight, requiring some governmental resources, but the extent would likely be considerably less than if the SEC promulgated its own standards. The SEC could collaborate with SASB or TCFD in establishing the appropriate guidelines yet retain enforcement power. This structure would ensure efficient allocation of SEC resources.

Second, implementing a third-party disclosure framework would unlock access to an area of expertise not widely available within the SEC. Both SASB and TCFD are run by groups of industry leaders; in fact, Michael Bloomberg is the Chair of the Board for both organizations. The TCFD membership includes private providers of capital, major issuers, accounting firms, and rating agencies, thereby spanning both the users and the

 $^{^{120}\,}$ Rob Garver, SEC Chief Says Agency Is Badly Underfunded, Fiscal Times (Feb. 21, 2014), https://perma.cc/NLE3-URYY.

¹²¹ Mark Schoeff Jr., Obama Aims to Double SEC Funding to Target Adviser Oversight, INV. NEWS (Feb. 9, 2016), https://perma.cc/C72E-L2JG.

¹²² See generally Reuters, Here Are 5 SEC Policy Areas Likely to Change Post-Trump, FORTUNE (Nov. 16, 2016), https://perma.cc/QKV2-DMEU (Climate-risk disclosure is not included in the article's list, but speculation exists that disclosures generally would be less strict and inclusive.).

¹²³ Kara Scannell, *Trump Budget Threatens SEC's Technology Spending*, Fin. Times (May 29, 2017), https://perma.cc/9UNY-LKCB.

¹²⁴ Id.

¹²⁵ Compare To Direct the Securities and Exchange Commission to Withdraw Guidance Regarding Disclosure Related to Climate Change, H.R. 3502, 115th Cong. (2017) (seeking to force the SEC to withdraw the 2010 guidance), with The Nomination of Jay Clayton, of New York, to be a Member of the Securities and Exchange Commission: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs, 115th Cong. 36 (2017) (the current SEC chair appearing to support the 2010 guidance).

¹²⁶ See McAllister, supra note 112, at 27–28.

¹²⁷ See Standards Board, Sustainability Acct. Standards Board, https://perma.cc/JR2Y-JCGS (last visited July 14, 2018); see also About the Task Force, Task Force on Climate-Related Fin. Disclosures, https://perma.cc/5NS3-7LFL (last visited July, 2018); The SASB Foundation Board of Directors, Sustainability Acct. Standards Board, https://perma.cc/K5KH-UC6Y (last visited July 14, 2018).

preparers of financial reports. 128 SASB's Standards Board, Staff, and Investor Advisory Group also follow a similar dynamic, with a focus on diverse perspectives, including asset managers and owners committed to providing comprehensive sustainability disclosures. ¹²⁹ As part of their missions, SASB and TCFD undertake the daunting task of deeply understanding what climate change means to investors and public companies. For example, in 2014, SASB found 27% of companies said they face no climate risk, and "[o]f the approximately 70% that did, only 15% used metrics, and approximately 40% used boilerplate language." Clearly, companies need guidance in this area. The SEC discourages boilerplate language, and many companies remain unsure about what information to include, if they are subject to any risk at all, or simply do not wish to disclose climate risk at all. 131 SASB and TCFD hold the resources, data, and connections to truly effect positive change. Arguably, the SEC's resources should be limited in the area of climate risk research because its responsibility is regulating securities, not researching climate change.

Third, implementing a third-party disclosure framework would likely increase compliance. By providing an alternative to traditional regulatory strategies, adoption of a third-party framework could move regulated entities towards full compliance. Traditionally, regulators deter behaviors by imposing a cost of noncompliance, such as civil or criminal penalties. However, when sanctions or deterrence mechanisms lack sufficiently harsh punishment or entities do not fear detection of noncompliance, extreme weakening of enforcement mechanisms occurs. Lack of resources and infrequent inspection or compliance checks often cause this issue. In addition to lack of resources, regulated entities may also fail to comply because they do not understand the requirements. Lack of understanding remains a major issue with many types of SEC regulations, as evidenced by the SEC's attempts to simplify yet strengthen its regulations over the years.

¹²⁸ See Press Release, Fin. Stability Bd., FSB Announces Membership of Task Force on Climate-Related Financial Disclosures 3–5 (Jan. 21, 2016), https://perma.cc/N4JN-E8PL.

¹²⁹ See Investor Advisory Group, Sustainability Acct. Standards Board, https://perma.cc/2BNC-B8SK (last visited July 14, 2018); Standards Board, Sustainability Acct. Standards Board, https://perma.cc/4VJB-5YLY (last visited July 14, 2018); The SASB Staff, Sustainability Acct. Standards Board, https://perma.cc/R5CU-SLDM (last visited July 14, 2018).

¹³⁰ Phase I Report, supra note 60, at 17.

 $^{^{131}}$ Concept Release, supra note 29, at 21; see Sustainability Accounting Standards Bd., supra note 51, at 4, 13; see also Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6,290, 6,296 (Feb. 8, 2010) (to be codified at 17 C.F.R. pts. 211, 231 & 241).

¹³² Timothy F. Malloy, Regulation, Compliance and the Firm, 76 TEMP. L. REV. 451, 462 (2003).

¹³³ See Elena Fagotto, Governing a Global Food Supply: How the 2010 FDA Food Safety Modernization Act Promises to Strengthen Import Safety in the US, 3 Erasmus L. Rev. 257, 261–62, 269–70 (2010).

¹³⁴ See id. at 266 (noting that, for example, the United States Food and Drug Administration inspects on average only 24% of regulated facilities per year).

¹³⁵ See, e.g., PRICEWATERHOUSECOOPERS, SEC PROPOSES AMENDMENTS TO UPDATE AND SIMPLIFY DISCLOSURE REQUIREMENTS (2016), https://perma.cc/DA3G-EG2H (describing the SEC's proposed amendments to climate disclosure regulations from July 2016).

The SEC's failure to sufficiently deter incorrect and insufficient climate disclosures contributes significantly to lower compliance rates. ¹³⁶ Thus, the mere presence of a third-party could drastically change the behavior of regulated entities. By imposing a third-party framework, companies would likely adapt, make an effort to understand the regulations, and feel greater pressure to comply. Throughout this process, opportunities would arise for SASB and TCFD to encourage education and cooperation, persuading more and more entities to comply. Better education and cooperation also supplies better data to continually improve the system, distinguishes good and bad actors, and provides stakeholders with accurate information allowing them to make better market-driven decisions.

C. Opponents May Argue Against Adoption of a Third-Party Disclosure Framework Because of Potential Politicization, Lack of Accountability and Objective Evaluation by Third Parties, and Potentially High Costs for Regulated Entities

Opponents may argue that the SEC should be the only promulgator and enforcer of disclosure-related regulations. This Comment proposes public companies follow the standardized frameworks developed by either SASB or TCFD, while the SEC retains ultimate enforcement power. Three distinct disadvantages to adoption of a third-party framework apply to this scenario: fear of politicization, accountability and objective evaluation, and potentially high costs for regulated entities.¹³⁷ This Comment's proposed solution addresses and resolves all three disadvantages.

First, many nonpartisan issues in the United States, including climate change, become increasingly subject to politicization. Many politically divisive issues cause a fear that nonpartisan agencies, like the SEC, will become highly politicized and volatile, in turn favoring certain industries or policies. Climate change remains truly a nonpartisan issue that was thrown into the fire of U.S. politics. President Obama recently "noted that '99.5% of scientists and experts [and] 99% of world leaders' agree human-caused climate change needs to be reckoned with," but some Republican leaders continue to call climate change a "hoax." In addition, the fact that Democrat Michael Bloomberg chairs the Board of both SASB and TCFD may cause concern across conservative communities that implementation of either system may be biased towards more liberal companies and causes. On the other hand, Republican Congressman Bill Posey continues to vehemently fight SEC guidance on climate disclosure, but he has yet to

¹³⁶ See David Gelles, S.E.C. Is Criticized for Lax Enforcement of Climate Risk Disclosure, N.Y. Times (Jan. 23, 2016), https://perma.cc/6MT3-NMHQ (expressing concern that the SEC's lack of enforcement dissuades full disclosure).

¹³⁷ See McAllister, supra note 112, at 5, 30–31, 37.

¹³⁸ Brian Mastroianni, *How Climate Change Became So Politicized*, CBS NEWS (Dec. 3, 2015), https://perma.cc/R7KH-PQZX.

¹³⁹ See id.

¹⁴⁰ Id.

succeed with his proposal to Congress.¹⁴¹ Despite these tensions, several indicators point to a decrease in partisanship around climate change. According to one study, 47% of Republicans now say the climate is changing, and 75% of Republicans support funding for renewable energy sources. 142 The length and structure of SEC Commissioner terms further illustrate the nonpartisanship of climate risk disclosure. 143 The President designates one of the Commissioners as Chairman, but the four other Commissioners are appointed in staggered five-year terms.¹⁴⁴ In addition, no more than three Commissioners may belong to the same political party. 145 In light of the nonpartisan safeguards within the SEC, biased regulations due to political turmoil remain unlikely to occur. However, some companies may still be concerned about the objectivity of the required reporting methodology since SASB or TCFD would be the entities writing the methodology, not the SEC. These concerns, while foreseeable, harken back to the SEC's ability to choose a framework that most aligns with the mission of the agency and the push for greater transparency and accountability on all disclosure regulations, including climate-related issues.

Second, the third-party creators of the framework must be held accountable and ensure objective evaluation. According to some scholars, accountability is defined as "the extent to which actors are 'answerable' and 'sanctionable." Thus, any third-party partner must be able to effectively respond to difficult questions and be subject to punishment for inadequate behavior. Traditionally, the judiciary, democratic elections, recourse accountable.147 administrative hold regulatory agencies Conceivably, the SEC could sue the third party for breaching an agreed upon system (likely as a last resort) or develop an administrative recourse system, but the election process would provide no further assurances. Thus, thirdparty partnerships should be carefully crafted to address these issues and maintain the goals of the federal governmental agency.

Oversight and transparency ensure objective evaluation by third parties. ¹⁴⁸ Oversight consists of the SEC putting in place mechanisms to evaluate how SASB and TCFD develop and evolve their frameworks, while working closely with them to achieve these goals. Transparency means the public should be able to oversee the partnership between the agency and

¹⁴¹ See Mindy Lubber, SEC Climate Risk Disclosure Effort Under Serious Attack from Congress, FORBES (July 18, 2016), https://perma.cc/9HWW-TBHH.

¹⁴² Evan Lehmann, *Many More Republicans Now Believe in Climate Change*, Sci. Am. (Apr. 27, 2016), https://perma.cc/7T85-XTYB.

¹⁴³ See Current SEC Commissioners, Sec. & Exchange Commission, https://perma.cc/BGU2-JJ7Q (last visited July 14, 2018).

¹⁴⁴ Id.

¹⁴⁵ Id.

¹⁴⁶ See McAllister, supra note 112, at 31 (citing Andreas Schedler, Conceptualizing Accountability, in The Self-Restraining State: Power and Accountability in New Democracies 13, 14 (Andreas Schedler et al. eds., 1999)).

¹⁴⁷ See Susan E. Dudley, Improving Regulatory Accountability: Lessons from the Past and Prospects for the Future. 65 CASE W. RES. L. REV. 1027, 1031, 1042, 1054 (2015).

¹⁴⁸ McAllister, *supra* note 112, at 32.

SASB or TCFD, and provide input for more effective regulation and communication.

Both SASB and TCFD advocate transparency through collaboration with the public via leadership and memberships. 149 Due to the technically challenging and broad span of climate risk disclosure research, when developing its framework, TCFD turned to experts in the field of climate change, drew on publications and research conducted by governments, NGOs, and industry participants, and looked to other existing climate risk disclosure regimes. 150 TCFD also conducted four types of industry engagement to bolster its efforts: public consultation to solicit additional research on the Phase I Report, industry interviews with organizations likely to be impacted and from areas of geographical diversity, outreach events in twelve countries comprised of panel discussions and keynote speeches, and webinars to educate and increase awareness of TCFD's efforts and to collect additional feedback.¹⁵¹ SASB conducted similar research, has issued provisional sustainability accounting standards for seventy-nine industries, and has now entered a period of "deep consultation" to gather input regarding the materiality of topics and usefulness of metrics. 152 Following consultation, SASB will create a proposed Agenda for Change for each industry, which, after public comment and revisions, will be put before the Standards Council (a voting body comprised of independent experts) along with provisional standards for approval. The SEC's recent Concept Release, which includes a comment period, also evidences this type of collaboration and accountability and shows the agency's commitment to effecting change in the realm of climate disclosures.¹⁵⁴ The federal government and the public maintain a strong interest in sustaining commitment to transparency and oversight, and SASB and TCFD will need to be open to sharing many aspects of their systems. To date, SASB and TCFD have thrived on transparency; in fact, improved transparency is built into their mission of improving climate-related disclosures.

Third, the imposition of any new program comes with costs. As previously mentioned, when the federal government adopts a third-party framework, much of the cost shifts from the regulator to the regulated entities. Whether third-party frameworks can be more cost-effective than government promulgation of a similar framework should be taken into account. The federal government can audit its third-party partners in several ways, including periodic inspection of the third-party's practices and independent audits of regulated entities. This type of auditing would require an investment from the federal government agency to ensure the

 $^{^{149}~}$ $S\!e\!e$ discussion supra Parts III.B, III.D.

 $^{^{150}}$ Recommendations, supra note 2, at 46.

¹⁵¹ *Id.* at 47–50.

¹⁵² Consultation Guide, SUSTAINABILITY ACCT. STANDARDS BOARD, https://perma.cc/TQW9-YKUV (last visited July 14, 2018).

¹⁵³ Id

¹⁵⁴ See Concept Release, supra note 29, at 1, 205–06, 211–12.

¹⁵⁵ See discussion supra Part IV.B.

¹⁵⁶ McAllister, *supra* note 112, at 44.

framework functions properly and efficiently. However, this added cost likely remains minimal in proportion to what it would cost the SEC to come up with its own framework.

In order for the third-party to be successful, the government agency must also consider how much shifting the financial burden to industry will truly cost and make sure the regulation is not cost prohibitive. Cost-effective means the benefits of the regulation outweigh the costs. ¹⁵⁷ Some companies may not agree that the costs imposed for a climate risk disclosure regulation are narrowly tailored to improving financial stability. However, cost-benefit analysis is a key aspect in developing SASB and TCFD standards. ¹⁵⁸ SASB specifically recognizes the need to align with the "basic elements of good regulatory economic analysis" outlined in the SEC's Current Guidance on Economic Analysis in SEC Rulemakings. ¹⁵⁹ On the cost-side, SASB considers issues including "costs to companies for gathering, reporting and auditing information, and its inclusion in Form 10-K and other SEC filings; and the costs of associated internal controls and training." On the benefit-side, SASB considers issues including "cost savings to companies of more streamlined industry-specific disclosure and more effective communication with investors on material issues, as well as performance improvements on ESG issues." Thus, regulated entities have access to cost-benefit information and can rest assured their economic viability has been taken into account. Even though all companies may not agree with SASB or TCFD's cost-benefit calculations, transparency and accountability remain the key components of any disclosure regulation. Even the current SEC disclosure requirements likely cause most companies to disclose risks or other information that the companies would rather not tell the public. However, while some opposition may remain, SASB and TCFD's widespread industry support shows that many companies are prepared to take on this additional cost for the aforementioned benefits and strength of the economy.

V. A COMPARATIVE CASE STUDY OF LEED GREEN BUILDING STANDARDS FURTHER REVEALS THE ADVANTAGES OF ADOPTING A UNIFORM DISCLOSURE FRAMEWORK

Federal government regulations often use private standards, broadening expertise and utilizing existing systems with success stories. For example, USDA organic standards, ¹⁶² LEED green building standards, ¹⁶³ International

 $^{^{157}}$ See Cost-Effective, Merriam-Webster Dictionary, https://perma.cc/3H42-594C (last visited July 14, 2018).

¹⁵⁸ SUSTAINABILITY ACCOUNTING STANDARDS BD., CONCEPTUAL FRAMEWORK OF THE SUSTAINABILITY ACCOUNTING STANDARDS BOARD 10–11 (2013), https://perma.cc/B4GP-MG2J [hereinafter Conceptual Framework]; see also Phase I Report, supra note 60, at 9.

SUSTAINABILITY ACCOUNTING STANDARDS BD., supra note 158 at 9; Memorandum from Div. of Risk, Strategy & Fin. Innovation & Office on Current Guidance on Economic Analysis in SEC Rulemakings 4 (Mar. 16, 2012), https://perma.cc/N8AT-AP4Z.

¹⁶⁰ Sustainability Accounting Standards Bd., *supra* note 158, at 11.

¹⁶¹ Id.

 $^{^{162}}$ The USDA organic program standards were set by the National Organic Standards Board (NOSB). The NOSB considers and makes recommendations on a wide range of issues involving

Organization for Standardization (ISO) safety regulations,¹⁶⁴ and Conflict Minerals disclosure¹⁶⁵ all incorporate third-party systems into governmental programs. In many respects, the adoption of SASB or TFCD standards parallels federal and municipal adoption of LEED green building standards.

Like SASB and TCFD, LEED standards were devised to fill a void expressed by its respective industry. The United States Green Building Council (USGBC) was founded by a group of industry leaders interested in sustainable building development, ¹⁶⁶ much like the industry-leading founders of SASB and TCFD were industry leaders in climate-risk disclosure. ¹⁶⁷ The result of this collaboration was the creation of a third-party certification program: LEED. ¹⁶⁸ Since its creation, LEED standards have been widely adopted across state and federal government agencies ¹⁶⁹ and have grown to

the production, handling, and processing of organic products. The NOSB functions much like SASB or TFCD in that it is comprised by industry-leaders and promulgates standards that must be complied with to become USDA Certified Organic. The NOSB also encourages public participation and involvement. See U.S. DEP'T OF AGRIC., NATIONAL ORGANIC STANDARDS BOARD (2015), https://perma.cc/532S-4ZT7.

163 See Better Buildings Are Our Legacy, supra note 110.

164 The International Organization for Standardization (ISO) is a non-governmental association comprised of experts across various industries that come together to develop international standards for health, safety, technology, and other industries that are often adopted by governments worldwide. For example, all steel containers that arrive in the United States must be sealed to comply with ISO standards, avoiding the need for the government to create its own seal. See About ISO, INT'L ORG. FOR STANDARDIZATION, https://perma.cc/ASM8-6L6P (last visited July 14, 2018); see ISO 17712:2013: Freight Containers—Mechanical Seals, INT'L ORG. FOR STANDARDIZATION, https://perma.cc/G6JW-6FF2 (last visited July 14, 2018).

165 Under the 2010 Dodd-Frank Act, Pub. L. No. 111-203, 124 Stat. 1376 (codified in scattered sections of 7, 12, 15, 18, 22, 31, and 42 U.S.C.), the SEC issued "rules requiring certain companies to disclose their use of conflict minerals if those minerals are 'necessary to the functionality or production of a product' manufactured by those companies." Fact Sheet: Disclosing the Use of Conflict Minerals, supra note 109. While this model does not advocate a specific third-party standard, it does require an independent private sector audit of its Conflict Minerals Report. See id.

166 See About USGBC, U.S. GREEN BUILDING COUNCIL, https://perma.cc/5F2K-BF6M (last visited July 14, 2018).

167 See, e.g., Standards Board, Sustainability Acct. Standards Board, https://perma.cc/Z425-VHZP (last visited July 14, 2018) (describing Jean Rogers' leadership throughout the evolution of the SASB); TCFD – About, Task Force On Climate-Related Fin. Disclosures, https://perma.cc/AW6L-DPUB (last visited July 14, 2018) (select "Michael R. Bloomberg, Founder") (describing Bloomberg's leadership role in the financial community).

168 See About USGBC, supra note 166.

169 Federal government regulations mandating or incentivizing LEED include fourteen federal agencies or departments. For example, USDA requires "new construction or major renovation of covered facilities to earn a minimum of LEED Silver certification" and the United States Department of Energy requires "all new Department buildings of \$5 [million] or greater to earn LEED Gold certification." U.S. GREEN BLDG. COUNCIL, LEED PUBLIC POLICIES 2 (2009), https://perma.cc/2AAP-NJGY. Mandates, incentives, or other programs for LEED also exist in 45 states, including 206 localities. *Id.* at 1. For example, San Rafael, California passed an ordinance in 2010 requiring "new residential dwelling units and new non-residential building[s] exceeding 2,000 [square feet], as well as the remodeling of existing residential and non-residential buildings . . . to meet the equivalent of Build It Green and . . . LEED certified, as verified by a LEED AP." *Id.* at 2.

become the world's most widely used "green" building system. ¹⁷⁰ In evaluating whether SASB or TCFD could be successfully embraced by the SEC, this Part will analyze some key similarities and differences with LEED, along with addressing significant challenges LEED encountered along the way.

A. Key Similarities Between LEED and SASB/TCFD Include Their Motivations for Formation and Their Industry-Backed, Research-Based Standards, Which Make Them Suitable for Federal Government Adoption

First, LEED, SASB, and TCFD share motivations for formation. As previously mentioned, the motivations behind SASB and TCFD include improved assessment of long-term financial and nonfinancial risks in relation to climate change. 171 In similar fashion, the motivations behind LEED include facilitating a movement in the building industry towards sustainability and awareness of climate-related issues. 172 LEED, SASB, and TCFD all share the goal of institutionalizing sustainability through market signals and effecting change through industry collaboration, uniformity, and unique expertise. 173 However, a significant difference exists in structure; LEED establishes standards for buildings to achieve varying degrees of sustainability, whereas SASB and TCFD formulate accounting methodologies that allow more accurate and comparable reporting of climate risks.¹⁷⁴ With that difference in mind, all three systems originally operated as market-based mechanisms. ¹⁷⁵ Although not necessarily the intent of the SASB and LEED programs, many early adopters were motivated by the ability to market a "green" message to consumers. 176 When the USGBC

¹⁷⁰ Cecilia Shutters & Robb Tufts, *LEED by the Numbers: 16 Years of Steady Growth*, U.S. GREEN BUILDING COUNCIL (May 27, 2016), https://perma.cc/Y22Q-PRDV (describing the growth of the green building movement between 2007 and 2008).

¹⁷¹ Sustainability Accounting Standards Bd., *supra* note 51, at 2–3; *see also* Phase I Report, *supra* note 60, at 3–4.

¹⁷² Brendan Owens et al., U.S. Green Bldg. Council, LEED v4: Impact Category and Point Allocation Development Process 2 (2013), https://perma.cc/RSQ6-FDCS.

¹⁷³ See About LEED, U.S. GREEN BUILDING COUNCIL (July 1, 2016), https://perma.cc/JDS5-EJTS; SASB Guidance Helps Create Common Language, Sustainability Acct. Standards Board (Nov. 30, 2015), https://perma.cc/8NCY-K8TN; see also About the Task Force, supra note 127.

¹⁷⁴ See About LEED, supra note 173; see also Sustainability Accounting Standards Bd., Converging on Climate Risk: CDSB, the SASB, and the TCFD 8 (2017).

¹⁷⁵ See About LEED, supra note 173; see also Sustainability Accounting Standards Bd., supra note 174, at iii.

¹⁷⁶ See, e.g., Heather Clancy, Why 2018 Could Be a Breakthrough Year for SASB, GREEN BIZ (Dec. 14, 2017), https://perma.cc/P3NM-5CFU (noting that JetBlue and Host Hotels & Resorts were early adopters of the SASB standards); Sustainability: Environmental Social Governance Reporting, JETBLUE, https://perma.cc/TNY9-32CA (last visited July 14, 2018) (discussing JetBlue's intention of encouraging "a stable, green, transparent marketplace"); Environmental Stewardship, Host Hotels & Resorts, https://perma.cc/2MJJ-DN77 (last visited July 14, 2018) (expressing commitment to "improving the environmental footprint of our properties"); Two Years After Paris Agreement, Support for Climate Disclosure Is Surging, ZIZZO STRATEGY (Dec. 21, 2017), https://perma.cc/AZ95-64RH (discussing organizations' early support

created LEED, a company wishing to portray its project as "green" could register with the agency to pursue the level of certification it deemed appropriate. Similarly, SASB and TFCD could also be used as a marketing tool much like a sustainability report; a company wishing to portray itself as "climate conscious" could properly disclose the information in its annual 10-K available to the public, making clear that the company followed the accounting methodology of either SASB or TCFD. In either case, this marketing appeal enables the company or building to sell that brand, making a difference in the behavior of consumers and hopefully encouraging those consumers to "go green," as it applies to either scenario. The consumer in the LEED context is the property purchaser, and in the SASB and TCFD context the consumer is the investor. In addition, all three mechanisms also provide an opportunity for developers or companies who are interested in the particular goals of the programs to join the underlying associations and have a voice in the decision-making process. 178

Second, research-backed standards comprise both LEED, SASB, and TCFD, driving credibility and transparency. All three frameworks mirror existing industry trends and intend to improve on the information already circulating in their respective markets. Becoming LEED certified involves a complex point system that evaluates the life cycle of a building on the basis of several factors. ¹⁷⁹ While this method differs slightly from SASB and TFCD, LEED strives for the same uniformity, metrics, and sustainable future. ¹⁸⁰ SASB, TCFD, and LEED apply highly tailored, industry-specific methodologies on a case-by-case, building-by-building, company-by-company basis. ¹⁸¹ Research-backed standards provide the backbone for the

and implementation of TCFD recommendations); see also Fatima Maria Ahmad, Ctr. for Climate & Energy Sols., Beyond the Horizon: Corporate Reporting on Climate 2, 17–18 (indicating that multiple banking institutions have taken apparent steps to implement the recommendations).

¹⁷⁷ Sarah B. Schindler, *Following Industry's LEED: Municipal Adoption of Private Green Building Standards*, 62 Fl.A. L. Rev. 285, 310 (2010).

¹⁷⁸ See Sustainability Accounting Standards Bd., supra note 51, at 8 (encouraging investors to become involved in SASB's process); About LEED, supra note 173 (noting the Advisory Council is made up of member company employees that make policy and initiative recommendations to the LEED board); About the Task Force, supra note 127 (stating "TCFD engages extensively with key stakeholders").

179 See Vanessa Quirk, Where Is LEED Leading Us?. . And Should We Follow?, ARCH DAILY (Apr. 23, 2012), https://perma.cc/UYT8-PC45. Four levels of LEED certification exist: Certified, Silver, Gold, and Platinum. The rating is organized into six credit categories: location and transport, sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. OWENS ET AL., supra note 172, at 3.

¹⁸⁰ See Alignment, Sustainability Acct. Standards Board, https://perma.cc/8ZSY-5BMQ (last visited July 14, 2018); see also Jaclyn Jaeger, Sustainability Reporting Gets Standard, ComplianceWeek, Oct. 2013, at 37; Better Buildings are Our Legacy, supra note 110; Leed O+M and Corporate Sustainability Reporting: A Symbiotic Relationship, U.S. Green Building Council, https://perma.cc/6JGP-EMA6 (last visited July 14, 2018).

¹⁸¹ See Conceptual Framework, supra note 158, at 18–19; LEED, U.S. Green Building Council, https://perma.cc/488F-GM7W (last visited July 14, 2018); see generally Task Force on Climate-Related Fin. Disclosures, Implementing the Recommendations of the Task Force on Climate-Related Financial Disclosures (Dec. 14, 2016), https://perma.cc/J9WU-MCQ5.

programs' highly specialized analyses and allow for continual improvement. Federal government programs rarely achieve this level of expertise because they tend to take a more generalist approach to solving problems and often have difficulty adapting over time. The dynamic nature of SASB, TCFD, and LEED makes them uniquely adaptable and able to effectuate change.

The underlying motivations and research-backed standards of LEED, SASB, and TCFD provide solid frameworks for federal government adoption. As this Comment explores, federal government adoption of a third-party framework involves many complex issues. However, high quality standards, transparency, and legitimate motivations provide a strong basis for a successful program. LEED, SASB, and TCFD all exhibit the highest commitment to maintaining their standards and missions, which allows for ease in federal government adoption.

B. Government Adoption Models of LEED Standards Provide Several "Lessons Learned," Suggesting that SASB/TCFD Must Be Implemented at a Federal, Mandatory Level

Once put in place, dynamic frameworks like LEED, SASB, and TCFD face a new set of challenges associated with implementation. LEED provides some good "lessons learned" in this respect. These lessons make clear that SASB and TCFD should be implemented as mandatory requirements, rather than the other regulatory models attempted by LEED.

Several adoption models exist for the implementation of LEED standards at various levels of government that would be inadequate for implementation of SASB and TCFD. Since buildings contribute significantly to environmental issues and widespread concerns including climate change, it makes sense that a number of government entities have focused attention on encouraging, mandating, or incentivizing LEED green building standards. Adoption mechanisms have included "lead by example" government-building requirements, incentives, and mandatory requirements for private developers.¹⁸² For SASB and TCFD, attention should be focused entirely on SEC mandates. Mandates promise a greater chance of success in this case because climate risk disclosures would not be effective in the "lead by example" government adoption scenario or the incentive-only scenario. For example, it seems unlikely that the United States Department of Defense (or other federal government entity) voluntarily disclosing its climate risks would encourage anybody else to do so. In the same vein, offering an incentive for adopting the standards may cause varying increases in compliance, depending on the incentive. The very basis for climate risk disclosure remains the need for companies to disclose the good, the bad, and the ugly information, not incentivizing solely good behavior. If the SEC's core values truly put investor interests first and require public companies to tell the whole truth, then mandatory adoption of a uniform framework is necessary. While the motivations behind the LEED requirements strike at

¹⁸² Schindler, *supra* note 177, at 311–12.

important issues, those motivations simply do not reach the level of U.S. financial markets and the future of the economy. Thus, to achieve the SEC's mission requires the imposition of a mandatory climate risk disclosure framework.

VI. CONCLUSION

Overall, the current global demand for improved climate risk disclosure and the projected economic impacts illustrate the need for SEC adoption of a uniform disclosure framework. The imposition of a mandatory uniform disclosure framework will most effectively mitigate the impacts of climate change on U.S. financial stability and satisfy the needs of the investment community at-large. The advantages of adopting a third-party expert's framework outweigh the potential concerns, promising to increase compliance and achieve uniformity. Most importantly, the SEC must ensure that investors receive accurate information that can be compared across diverse portfolios in order to make informed, economically smart decisions. Only SEC action can raise the bar for climate reporting to sufficiently protect investors and the financial community.