

Sustainability Gains through Enhanced Reporting Requirements

Gregory S. Kordecki^a, Dustin M. Grant^b

*^a Department of Accounting, Clayton State University
gregkordecki@clayton.edu*

*^b Department of Accounting & Finance, University of West Florida
mgrant@uwf.edu*

ABSTRACT

The United States lags behind other developed countries in sustainability reporting by individual companies. Based upon the premise that the best way to report on sustainability is to have holistic data including appropriate disclosure and assurance presented in a report integrated with financial information, the research suggests the prime location for this integration is in the annual financial statements and attested to by independent Certified Public Accountants. This paper describes problems that impede the United States and its capital markets from developing useful integrated reports. The research further examines the evidential trends in increased stockholder activism and proposed regulatory mandates for climate sustainability disclosure and assurance packaged with the financial information critical to the economic performance and going concerns of commercial entities. Society as a whole will achieve healthier progress with the full disclosure of sustainability integrated with financial statements and the rendering of professional assurance.

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I. INTRODUCTION

Sustainability reporting is typically compartmentalized into disclosure of corporate performance on environmental, social, and governance (ESG) issues. The ESG concerns that face the parties in United States (U.S.) commerce in the 21st century are many and complex. Documented policies and procedures for company managements, assurance providers, regulators, investors, and other stakeholders will continue to evolve. This paper focuses on the first of the three compartments, the environmental, and specifically climate change, and the implications in what constitutes full reporting to stakeholders. On the one hand, the environmental reporting might appear easiest of the three sustainability compartments to disclose in view of the ability to gather measurable change over time. On the other hand, inclusion of reporting the effects of environmental climate change leads to conflicting views given the economic and cultural nuances in the U.S., surrounding denials and causing delays in moving forward with a workable standard-setting structure. The paper reviews the relevant literature on climate-related standards and frameworks, assesses the current conditions in the U.S. affecting reporting to stockholders, and evaluates the drive for future integrated reporting. The paper suggests that stockholder activism will be a major force, and that along with advances by regulators in disclosure and assurance, stakeholders throughout society benefit from a useful integration of financial and sustainability information.

II. SUSTAINABILITY AND CLIMATE ACCOUNTING

A. Sustainability

Since the inception of the World Economic Forum (WEF) in 1971, through the creation of the International Sustainability Standards Board (ISSB) in November 2021, addressing environmental issues and environmental accounting has become progressively fundamental to corporations and its constituents. The increased publicity on carbon footprints, global warming, pollution, and biodiversity loss have resulted in companies publishing ESG reports and communicating their sustainability efforts.

Sustainability accounting has significantly progressed since its origins. Prior to the concept of sustainability accounting, social accounting was preeminent. Social accounting refers to an organization's responsibilities and the environmental impacts it has on society. Berle and Mean's (1932) work has been labeled as the first social responsibility source according to Kaya and Yayla (2007). Hicks (1942) has also been credited with coining the term social accounting. The corporate social accounting movement emerged in the 1960s, with most of the research developing in the early 1970s. Hopwood (1978), Hopwood and Burchell (1980), and Burchell et. al. (1980) played an important role in further developing social accounting. Gray (2002) credits *Accounting, Organizations, and Society* as the first scholarly journal to endorse social accounting research as valuable.

The concepts of environmental and sustainability accounting are offsprings of social accounting and especially gained steam in the early 1990s. The works of Gray (1992, 1993, 1994, 1998 and 2002) had a notable impression on the progression of sustainability reporting. Lambertson (2005) describes the early history and evolution of sustainability accounting and also credits Elkington (1993) as an "impressionist" for

environmental and sustainability accounting. Elkington also coined the term “triple-bottom-line,” capturing people, profits, and planet.

The early research helped develop the framework for sustainability accounting, and now governing bodies have further developed standards for sustainability reporting. The 2021 United Nations Climate Change Conference (COP26) in Glasgow was a historic landmark meeting regarding sustainability measures across the globe. At COP26, the formation of the ISSB was announced by the International Financial Reporting Standards (IFRS) Foundation Trustees on November 3, 2021. The vision of the ISSB is to establish a thorough, international benchmark of disclosure standards in regard to sustainability matters. The ISSB encompasses the efforts of the Climate Disclosures Standards Board (CDSB), International Integrated Reporting Council (IIRC), and Sustainability Accounting Standards Board (SASB), as well as support from the International Organization of Securities Commissions (IOSCO), Task Force on Climate-Related Financial Disclosures (TCFD), and WEF.

Exhibit 1 in the Appendix to this paper displays a timeline of environmental and sustainability organizations which have led up to the formation of the ISSB. The timeline lists some of the more critical drivers. While some researchers emphasize the distinction between those organizations which have provided “frameworks” and those which have provided “standards,” the authors of this paper prefer to view both the framework conceptualizers like the IIRC and TCFD and the standard-setters like SASB and Global Reporting Initiative (GRI) as fundamental to the successful advancement of sustainability reporting in the U.S. The consolidation and confluence of the best thinking and practices has allowed for a pragmatic development, even though the pace in the U.S. has been slow to date.

Under the proposed guidance provided by the ISSB, public companies disclose ESG matters to accompany their financial performance, based on the principle that such disclosure allows investors and creditors to view both qualitative and quantitative measures about a company so they can make informed decisions. The disclosure placement of non-financial data magnifies the importance of corporate conveyance and highlights their competence of such disclosures (Doni et al., 2020). Environmental reporting likely increases the visibility into corporate behavior on such issues (Hopwood, 2009) and is anticipated to coincide with other governing bodies (Hopwood, 1978).

The pivotal evolvement of a sustainable environment involves corporate responsibility (Perkiss et al., 2021) and the correlation of ESG disclosure and company performance should be accentuated (Buallay, 2020). Advocates of sustainability reporting conclude that firms and stakeholders both prosper from genuine sustainability reporting efforts (Buallay and Al-Ajmi, 2020). Stakeholders working in conjunction with organizations can determine the sustainable issues that need to be addressed (Amanpreet and Sumit, 2018). The menacing threats to the environment have escalated the importance of sustainability efforts (Millar and Searcy, 2020) and sustainability reporting efforts are essential for attaining ESG objectives (Christensen et al., 2021).

ESG reporting is not without its critics. Kaplan and Ramanna (2021) view ESG as more jargon than a meaningful movement. Other researchers find that as ESG disclosures are implemented, sustainability measures differ due to its interpretations and disparate forms of measurement (Searcy and Buslovich, 2014). Recent efforts of sustainability reporting have been heavily criticized (Habib et al., 2021), with some perceiving sustainability reports as chicanery, lacking credibility, creating a false pretense, and

masquerading insincere actions (Ackers, 2009; Perego, 2009; Cho et al., 2015; Barone et al., 2013; Maroun, 2018; Maroun et al., 2018). Sustainability matters were previously shirked under traditional accounting (Burritt and Schaltegger, 2010). However, with ESG issues gaining publicity, companies are under scrutiny and feel the need to respond appropriately to address the ESG concerns to stakeholders and maintain transparency in their reporting (Seuring and Mueller, 2008; Kolk and van Tulder, 2010; Velte and Stawinoga, 2017).

B. Climate Change and Biodiversity Issues

General sustainability accounting looks to the entirety of an organization's efforts to improve ESG measures. More specifically, climate change accounting refers to the actions of companies that contribute to climate change, focusing on the environmental function of ESG. The main culprit of climate change has resulted from human interference. The burning of fossil fuels, deforestation, transportation, and overconsumption are instances in which mankind has affected climate change. The release of carbon into the atmosphere tends to be the driving force behind climate change, increasing greenhouse gas emissions. Accounting for climate change mainly centers around reducing carbon footprints and utilizing renewable energy sources. Amazon has disclosed its plans to be carbon neutral by 2040 (Amazon, 2022). "Net Zero" has become a target of many large firms.

While the formation of the ISSB is a paramount achievement toward sustainability standard-setting efforts, COP26 also forged a pact to address climate issues on four key areas: mitigation, adaptation, finance, and collaboration. Mitigation efforts focus on reducing coal dependency, ceasing deforestation, minimizing emissions, and pivoting to electric vehicles (Ukcp26.org, COP26 The Glasgow Climate Pact, 2021). World leaders have agreed to accelerate sustainability efforts to reduce global warming. The pact warns that minimizing emissions is necessary by 2030, else global warming may exceed threatening levels. Calls are heard for China and the U.S. to demonstrate a greater commitment to the cause, as they are the top carbon dioxide emitters worldwide. However, China emits more carbon dioxide (CO₂) levels than the U.S., European Union (EU), and India combined, and was the only country to have an increase in emissions in 2020 (Crippa et al., 2021). The EU and U.S. have declared they will reduce emissions by 50% of 2005 levels, while China has not agreed to advance its reduction of CO₂ levels. While most countries around the globe have committed to address climate issues, these pledges are soft and not normally legally binding.

Biodiversity loss occurs naturally and also due to human interference, and typically refers to changes that are permanent. Natural biodiversity loss occurs during seasonal changes and natural disasters. However, those are considered more temporary due to species and ecosystems that can adapt to those types of changes. Biodiversity loss due to human interference tends to have more consequence and is more permanent. Examples of human-related biodiversity loss includes habitat loss, introduction of invasive species, depletion of species, pollution, and climate change. Companies, along with the government and its citizens, cannot ignore the threats to biodiversity (Raar et al., 2020). Jones (1996) mentions that companies should produce details on how they manage society's resources.

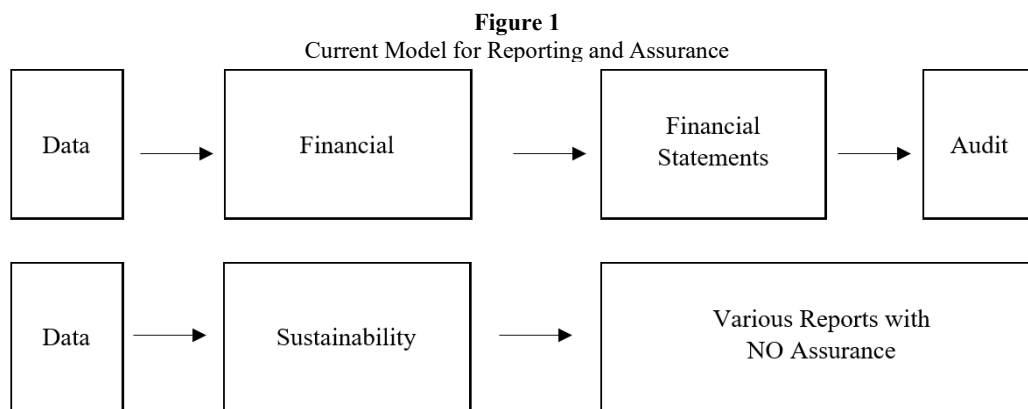
Reporting on such issues will cause companies to be cognizant of the impact they

have on biodiversity (Jones and Solomon, 2013). Many company sustainability reports exaggerate their commitment toward biodiversity, act as a façade, and is bombast (Boiral, 2016). Rimmel and Jonall's (2013) study showed that biodiversity reporting was insignificant in relation to the increasing number of pages in ESG reports. Transparent reporting of biodiversity efforts should be disclosed by companies. Biodiversity disclosures are important for management and external constituents, and are now an essential part of an organization's ethical climate (Boiral and Heras-saizarbitoria, 2017). Clemencon (2021) remarked that in order to combat biodiversity loss, an ethical approach may need to override the economics. Accordingly, many company efforts focus on more clearly measurable greenhouse gas (GHG) emissions in its various scope disclosures.

III. PROBLEMS

The U.S. lagging behind other developed economies is attributable to multiple factors. Climate change deniers abound in decision making organizations. Political issues are another frequent charge for the slow reaction of the U.S. to disclose effects of carbon emissions, deforestation, and fossil fuel use. Resistance to the global stage also appears to be an obstacle. Regulators, including those in the accounting profession, seem to adhere to traditional separation of pure historical financial accounting data in accordance with generally accepted accounting principles other than the forward-looking sustainability metrics and the risks associated with company performance. Financial data and sustainability data are typically bifurcated leading to separate reporting, disclosure and assurance flows, or lack thereof, as viewed in Figure 1.

Financial statements and supplementary information including footnotes are subject to independent audits providing reasonable assurance, while the various types of statements and outputs for sustainability data not being regulated provide no assurance. Sustainability data may find various different forms as reported by various companies, ranging from supplementary information in annual meeting materials, to stand-alone sustainability reports, to corporate website promotions, and other materials. Accordingly, the current model is disruptive by not providing adequate assurance to the stakeholders.



The traditional financial data set leads to financial statements and supplementary information including the accompanying notes which are “an integral part thereof.” The audit of this information by independent Certified Public Accountants (CPAs) subject to standards established by the Public Company Accounting Oversight Board (PCAOB) for public companies and the American Institute of Certified Public Accountant’s (AICPA) Auditing Standards Board (ASB) for private companies provides for reasonable assurance. As shown in Figure 1, companies elect one or more types of reports describing their involvement with sustainability issues, but sadly these efforts are not governed by any reporting standards and result in no assurance to the stakeholders.

Ideally, an improved model for reporting and assurance, would close these gaps. This paper further describes efforts toward a normative model that with integration will provide appropriate sustainability disclosure directly in the notes accompanying the historical financial statements.

A. Climate Change Denials

Wong-Parodi and Feygina (2019) believe that climate change denial and disengagement is exceptionally high in the U.S., and offer psychological insights into causes of the denial, but neglect economic and financial factors. The Paris Climate Agreement, approved in 2012 and subsequently ratified by 195 nations in 2015, specifically included economic effects, but strong nationalistic opinions voiced by then President Donald Trump, led to the withdrawal from the Paris Agreement primarily on the grounds of excessive benefit to other countries and increased costs to the U.S. Esparcia et al. (2021) analyzed 189 news articles broadcast by Fox News, Breitbart, CNN and the New York Times and found that media with a Republican political tendency were the only ones that broadcast denial news of climate change, and on the other hand, the Democratic political tendency media reported environmental initiatives and climate change consequences.

B. Politically Fraught Issues and Greenwashing

Australia provides an interesting example with an existential paradox. While many professionals seriously write about the need for ESG, the country itself is among the world’s largest exporters of coal and liquefied natural gas, and in terms of greenhouse gas emissions one of the highest emitters per capita (Gelineau, 2022). Companies operating in their own self-interest are open to charges of greenwashing—making public boiler plate statements about what they are doing to promote the health of the environment. Without specific metrics, such disclosures, wherever reported are simply bit nuances. Without a further system of assurance, the disclosures can be relatively meaningless.

C. Deficiency in Global Reporting Comparability

The U.S. lags behind other developed countries in regard to sustainability reporting (de Villiers et al., 2014; Pinkston and Fischer, 2021). Historically, U.S. companies are disinclined to disclose particulars regarding the future, which is essential for integrated reporting (de Villiers et al., 2014). Reporting sustainability measures in U.S. companies poses more of a challenge (Dumay et al., 2017). Sustainability efforts have become more

of a political stance and the actions taken to mitigate environmental issues have been minimal (Hopwood, 2009). The Paris deal in 2015, an initial global treaty to combat climate change, brought forth a charge for countries to limit global warming. The U.S. was an initial member of the treaty, but announced their withdrawal from the Paris agreement in 2017 under President Donald Trump, which took effect in 2020. However, the U.S. did rejoin in 2021 under President Biden. According to the following studies, the U.S. has a long way to go to catch up to the rest of the world in sustainability efforts and reporting.

The Global Sustainable Competitiveness Index (GSCI) ranks countries using 131 different metrics categorized into five subtopics: Intellectual Capital, Natural Capital, Social Capital, Resource Efficiency, and Governance Efficiency (solability.com, GSCI, 2021). European countries host 18 of the top 20 spots, with Japan (13th) and New Zealand (14th) as the only non-European countries to join the top 20. The Scandinavian countries dominate the rankings, as Sweden, Finland, Switzerland, Denmark, Norway, and Iceland round out the top 6. According to the index, the U.S. ranks 30th, lagging well behind the leaders. According to the 2021 GSCI report, the U.S. ranks low in social capital and resource efficiency.

KPMG conducted a survey (The KPMG Survey of Sustainability Reporting 2020) concerning global efforts in sustainability, biodiversity loss, climate risk, and integrated reporting. According to the report, the Americas (Latin and North America) lead in regional sustainability reporting. However, North American companies rank near the bottom in reporting biodiversity loss. The U.S. lags behind the world leaders in Sustainable Development Goals (SDG). Japan leads the way at 96% while the U.S. is at 54%. The U.S. also lags behind (and most others to date) in integrated reporting. U.S. companies may agree with the concept of integrative reporting, but disagree with the implementation of the framework (Dumay et. al., 2017). South Africa leads the way in integrated reporting followed by Japan and Sri Lanka. Those three countries are the only ones where the majority of companies (over 50%) practice integrated reporting. The U.S. is one of ten countries where the majority of companies acknowledge climate risk. Accordingly, this note of optimism may extend to appropriate reporting and disclosure.

D. Weakness in Clarity and Transparency

Even though countries have engaged in sustainability reporting efforts, such reporting may lack clarity and leads to insufficient comparability, confusion, and different interpretations. While there are guidelines of what should be included, companies can omit information stating that it is confidential, unavailable, or not applicable. Cherry-picking what to include diminishes the value and credibility of the reports. The lack of transparency stems from companies reporting they participate in programs or remediation efforts, even though they may not be effective. Just checking a box does not necessarily solidify the legitimacy or genuineness of the programs or efforts.

The accounting industry is slow to change, and complacency is common. Many companies are slow to make changes because it is easier to proceed with the status quo. Some companies will have more sustainability measures to report than others (depending on the industry), so sustainability efforts are not universal.

IV. INTEGRATION ACTIONS

Financial statements in themselves will not likely be the end-all of climate-reporting information and expansion of details in them does not remove the need to consider other reports. On the other hand, disclosures in the financial statements are necessary for investors and other users to evaluate the overall enterprise. Climate-related risks emerge from various changes in assets and liabilities such as through impairment, useful life, or valuation.

An important extension of the argument for climate-related risks in the notes to the financial statements is that a company is expected to disclose and discuss the risk, even if the company is not exposed to the risk, yet investors would otherwise reasonably expect that the company was under such exposure. Anderson (2019) insists that disclosures in other documents of management commentary is a necessary, but not a sufficient, condition for complete disclosure. Disclosure in other documents should not be expected to compensate for what is truly needed in the audited financial statements.

A. Integrated Reporting

Integrated reporting is a concept of disclosing both financial and non-financial information on ESG measures (Eccles and Saltzman, 2011). The King Report on Governance for South Africa 2009 (King III – under the tutelage of Dr. Merwyn King) was the driving force behind integrated reporting (Institute of Directors in Southern Africa, 2009). Cheng et al. (2014) explain the core concepts of integrated reporting. Integrated reporting divulges the impact of a company's sustainability efforts to stakeholders (Humphrey et al., 2017; O'Dwyer and Unerman, 2020).

Integrated reporting and disclosures of ESG measures to accompany financial performance have experienced recent advances (Eccles and Krzus, 2010; Adams, 2015; de Villiers and Maroun, 2017; Beck et al., 2017). Integrated reporting of both financial and non-financial information anticipates enhancements of corporate accountability (IIRC, 2013; Hoang, et al., 2020) and is a pivotal advancement toward sustainable communities (Eccles and Saltzman, 2011). Integrated reporting can help minimize the denunciation of a company's environmental harm (Kilic et al., 2021). The IIRC 2013 framework urges companies to disclose material details in regard to their operations within the context of social and environmental issues (Green and Cheng, 2019).

In an interview conducted by Kiron (2012), Eccles covered three challenges to integrated reporting: the speed of creating standards, how to make those standards valid, and how to relate and implement them. Eccles holds that it is difficult to create a single set of standards, as sustainability issues vary by sector. Carbon footprints for transportation companies will be vastly different than a tech company. The top accounting firms, professional organizations, and authoritative standard organizations are advocates for integrative reporting (Barth et al., 2017). Dumay et al. (2017) also discusses several barriers in implementing the integrated reporting framework.

Briem and Wald's (2018) findings identify a potential issue for auditors of integrated reports, as the attest reports are limited to reasonable or limited assurance. Since integrated reports look ahead, auditors may not be able to provide reasonable assurance due to unforeseen situations in the future (Briem and Wald, 2018). However, a challenge is posed for auditors to provide an independent attestation on the disclosures

to increase the credibility of the reports (O'Dwyer, 2011; Brown-Liburd and Zamora, 2015; Casey and Grenier, 2015; Cohen and Simnett, 2015). External assurance increases the credibility, quality, and reliability (Hodge et al., 2009; Sheldon and Jenkins, 2020; Prinsloo and Warren, 2021), but it is difficult to attest sustainability reports, as they are inconsistent and lack defined requirements (Cohen et. al., 2012; Radin, 2019). Diouf and Olivier (2017) call for reports to be measurable over time and comparable to other companies within the same industry, along with other GRI initiatives.

The disclosure location of the sustainability reports may dictate how users perceive the sustainability reports. Hassan (2019) reported that verbal tones can have an effect on sustainability assurance statements, and that sustainability assurance reports (SAR) may be examined more closely in stand-alone reports compared to those integrated into annual financial reports. Managing impressions allows management to disguise information by distorting facts (Solomon et al., 2013). Cho et al. (2010) found that companies with lower environmental performances attempt to manage impressions by using biased verbiage and tones in their disclosures, and may be guilty of greenwashing. Al-Tuwaijri et al. (2004) found a positive correlation between environmental and economic performance, and companies with higher environmental practices disclose more information.

B. ISSB Prototype Approach

Climate-related disclosures is one of the first two prototype documents the ISSB is pursuing. Using the framework of the TCFD, possible requirements in general-purpose financial reporting would be providing information for users to assess governance, strategy, risk management, metrics, and targets in relation to climate-related risks and opportunities over time. Aligning with the recommendations of the TCFD and other integrated reporting bodies, the prototype also incorporates content from International Accounting Standards (IAS) 1, Presentation of Financial Statements (Tysiac, 2021).

V. FINDINGS AND DISCUSSION

Many of the suggested U.S. improvements in sustainability for integration into financial reporting have been attributable to pundits in other countries, and the U.S. progress has been minimal to date. However, two important phenomena promising to accelerate the integration are the demand pull in stockholder proxy votes and the Securities and Exchange Commission's (SEC) exposure draft requirement for climate-related disclosure in the notes to the financial statements along with an independent audit by external accountants (SEC, 2022). While the stockholder proposals typically do not go so far as to call for an audit by CPAs, they do suggest strong involvement by the respective companies in producing reports that contain cost information and other accountability factors.

A. Shareholder Proposal Activity—A Quasi-Experiment Investigation

Increased shareholder activism in the U.S. is a changing force as public entities must respond to the votes of the ownership. Proposals can be drafted by any stockholder, including individuals and group owners, and number of shares owned by the proponent

is not a necessary condition for the proxy to be included for a vote. Religious orders of sisters and not-for-profit organizations frequently present proposals.

Shareholder proposals monitoring climate change may prove beneficial in multiple ways. A shareholder proposal scheduled for the Annual 3M (2022) meeting specifically charges that disclosure is needed beyond what affects profits, and suggests that costs to the global environment should be reported upon, including the enterprise risks that are likely to be encountered for the long run.

Even with increased public scrutiny surrounding the damaging effects of climate change, Valero (2022) stockholders presented a proposal at the Company's annual meeting calling for a report on near- and long-term greenhouse gas emissions targets. The Valero board's opposing statement to the proposal includes the company's commitment to expanding its existing disclosures in ESG best-practice frameworks and update regularly such ESG reporting. While not included with the financial statement data, the directors claim all critical climate change information will be included in their annual Stewardship and Responsibility Report, ESG Overview, Carbon Disclosure Project (CDP) Climate Questionnaire, SASB Report, and TCFD reports—a series of documents separate from the financial statements and related assurance.

Company management and directors not only tend to become defensive in response to stockholder proposals, but also take proactive measures to counter criticisms of their strategies. In the discussion of risk factors in Valero's 2021 form 10-K, the Company states that climate-related litigation could arise in its operations or products, and even as a result of disclosures. Additional risks emerge as governments and private parties file lawsuits or other actions based on ESG-related practices. "Greenwashing" violating consumer protection statutes and over hyped statements of achievement of Net-Zero or carbon neutrality are part of this risk. Valero states that they are not a party to any such litigation, the increased risk remains for liability attributable to information on climate change and other ESG disclosures (Valero, 2022).

Proxymonitor.org is a website providing proxy information on publicly held companies from 2006 to 2022. Exhibit 2 in the Appendix displays the number of climate-related environmental proposals and the total number of proposals for these years. The trend demonstrates a relatively stable percentage of climate to total proxies for these years ranging from 3.77% to 11.76%. Following reductions in the pandemic years of 2020 and 2021 of 3.77% and 4.53%, 2022 evidenced a rebound to 9.29% as 51 of the 549 proposals are climate-related. Of particular interest is not only the increase in the volume of proposals of a specific type, but the actual success vote. Table 1 shows the success rate of climate related proxies measured by votes of 50% or greater for six most recent years. A column is also presented for votes on proxy proposals that failed, but did achieve at least 25% of the stockholders voting.

The trend is noticeable in that votes "for" have dramatically flipped from 2016 where 35 of 58 proposals garnered less than 25%, while 0 of the 58 captured a win with 50% or greater. This is contrasted with the most recent year, 2021, where only 4 of the proposals received a vote less than 25% but 10 of total 23 votes received a winning voted with greater than 50%. Exhibit 3 provides a more detailed analysis of the "for" votes, demonstrating the total percentage of the winning votes, the individual Company name, its industry, and a brief description of the proxy item. Practically all (14) of these winners call for a "report" which is consistent with the call for an overall improved model of an integrated financial and sustainability model. While the remaining four proposals did not

specifically indicate the need for a formal “report,” they did state the need for quantitative assessment, targets, reductions—information that a user would expect to be disclosed in some kind of a report to the stakeholders of the entity.

Table 1
Trend In Success Rate of Climate-Related Proxies (Stockholder Votes “For”)

Year	Success Counts			Total
	0 - 24.99%	25.00-49.99%	50.00-100.00%	
2016	35	23	0	58
2017	24	23	3	50
2018	12	12	2	26
2019	13	11	0	24
2020	8	9	3	20
2021	4	9	10	23
Totals	96	87	18	201

Source: Drawn from Proxymonitor.org

In looking forward to the results of 2022 proxy proposals Exhibit 4 displays the proxy offerings of the thirty companies comprising the Dow Jones Industrial Average. The Dow was selected in view of the large size of each company in terms of capitalization and the vetting that these companies endure to be listed in this index. The exhibit shows each Company’s name, symbol, the most recent year end for meeting and annual report availability, the total number of proxies, and the total number that are climate-related. The total number of proxies is shown separated for those proposed by management or the board of directors, indicated by C for “Company.” The “Stockholder” proposal counts are indicated by the letter S.

While 19 of the 30 Dow companies had no climate-related proposals for 2022, the conclusion should not follow that these companies fail to have stockholder interest in climate, as some companies already have a fairly significant reporting regimen for sustainability, and some may have had a successful climate proxy vote in prior years. Scanning annual proxy proposals for Apple, Caterpillar, and Chevron (SEC EDGAR, 2022) reveals the continued interest in climate issues. Apple (AAPL) prides itself being a leader with its sustainability metrics). Proposal momentum can increase each year. Caterpillar’s (CAT) 2022 stockholder proxy on climate is a straight repetition of the 2021 proposal where it failed with a strong vote of 47.44%. Similarly, Chevron’s (CVX) 2022 proposal for audited Directors’ report on Net Zero effect underlying the financial statements barely missed passing in the prior year at 47.80%. Table 2 shows the specific climate-related proxy calls for the 2022 annual company meetings.

The results of Walmart and Chevron (SEC EDGAR, 2022) demonstrate the variation and persistence in voting. Walmart’s (WMT) 2022 stockholder proxy on proposal for report by the Company to limit impact on climate change through increased scale of refrigerant reduction that is released during company operations is a duplicate of the 2021 proposal where it received a vote of only 5.51%. Chevron (CVX) is the only Company in the Dow for 2022 proposals where the Directors actually state that they recommend a vote “for” at least one of the stockholder proposals. Typically, the Directors of a company recommend votes against all stockholder proposals. Overall, the volume of climate-related proposals and the increasing favorable acceptance of these proposals is a promising development toward an improved model of integrated financial and sustainability reporting.

Table 2
2022 Climate-Related Issues for Stockholder Vote

Symbol/ Name	Dow 30 Evidence Implications for Policies, Reports, and Disclosures
BA Boeing	Report issuance on Company's criteria of meeting Net Zero Indicator, including Scope 3 emissions and any policy revisions to be responsive to the Indicator.
CAT Caterpillar	Report issuance disclosing the Company's climate policies, preferences, and improvement targets, responsive to Net Zero Benchmark Indicators.
CVX Chevron	1. Set and publish medium and long-term targets to reduce Green House Gas Scope 1, 2, and 3 emissions. 2. Audited Directors' report on IEA Net Zero underlying financial statements. 3. Disclosure of Scope 1 changes.
GS Goldman Sachs	Policy adoption to ensure that Company's lending and underwriting do not contribute to new fossil fuel development.
HD Home Depot	Report issuance assessing how Company could increase scale, pace, and rigor of efforts to eliminate deforestation.
HON Honeywell	1. Report issuance on lobbying activities to mitigate risks on any misalignment with Paris Agreement goals. 2. Directors' environmental and social report on emissions and spills impact on human health.
JPM JP Morgan	1. Policy adoption to ensure financing not contribute to new fossil fuel supplies. 2. Report by Directors setting GHG emissions to G-20.
MCD McDonalds	Report issuance on plastic use with respect to Pew Report and effects on ocean pollution.
MMM 3M	Report publication on links between environmental costs and political activities and their impact on market returns.
TRV Travelers	1. Report issuance on GHG emissions--measurement, disclosure, plans to reduce relative to underwriting, insuring, and investment activities in line with metrics of Paris Agreement. 2. Policy adoption and disclosure to help ensure underwriting practices not support new fossil fuel supplies in line with IEA's Net Zero Emissions by 2050 Scenario.
WMT Walmart	Report issuance on how Company plans to limit impact on climate change by increased scale to reduce refrigerants released from operations.

Source: Developed by the authors from the individual companies

B. Benefits of Accounting Disclosure and Assurance

McKinsey and Company (Bernow et al., 2019) conducted surveys on the extent of sustainability reports being audited, finding that 97 % of investors believed that there should be some kind of audit, and that 67% believed that the audit should be full, similar to a financial audit. The corresponding percentages for executives were high at 88% and 36%.

Assurance can assume multiple dimensions and vary in scope and depth, including where the information to be assured is displayed, what is assured, level of assurance, the assurance provider, the standards used and the follow through controls. The location of the information is critical because free-standing sustainability reports suggests much less weight than information proffered in annual reports, 10-Ks, and other regulatory filings. Climate change measurement may cover greenhouse gas emissions, but may also include energy and water data, and glacial melts, soil erosions, and fire damages. Management as well as regulators need to agree on issues of materiality, what items constitute disclosure inclusion, and specifically the number of years in short-term, intermediate, and long-term measures.

The credentials of the assurance provider are also key along with the level of

assurance. If the climate change disclosures are associated with financial statement reporting under accounting principles generally accepted in the U.S., the expectation would likely follow that the assurance is rendered by a CPA. How strong should the assurance be? Would the information be partitioned off and attested to under “limited assurance” similar to standards for a review engagement, or would there be call for audit standards “reasonable assurance” on some or all of the information? In terms of standards to apply, should there be strict adherence to AICPA Statements on Standards for Attestation Engagements, or International Standards on Assurance Engagements, or something else? Just as the merger and consolidating of standard-setting organizations and frameworks seems to be driving toward a more practical approach to reporting on sustainability, then there may be reason for development of a separate set of standards on the assurance.

Tysiack (2019) reports that a survey conducted by The Conference Board revealed that 37 of 57 large U.S. and European companies obtain assurance on at least part of their publicly reported sustainability information, and that 73% of the respondents indicated that the most significant benefit that the reporting enterprise derives is the gains in credibility and trust with the entity’s stakeholders.

With the new ISSB operating under the IFRS Foundation, closer affinity of climate change information and company performance financial information should be realized. Risk management will have an expanded focus, and internal standards in setting key performance metrics will emerge for individual companies. Spencer (2021) reports that the AICPA suggests companies create the appropriate process, systems, and internal controls for enhanced reporting on ESG data collection and processing. This could even further lead to independent assurance.

In 2021, the SEC created the Climate and ESG Task Force within its Division of Enforcement. The task force is charged with identifying material gaps or misstatements in a corporate issuers’ disclosure of climate risks. It is not clear what the full roll of the task force will be as it seems to be housed in the SEC to coordinate the work of the Division of Enforcement, Office of the Whistleblower, and other compliance units of the agency. However, the creation of the task force demonstrates support of the SEC vision toward integrated reporting and disclosure.

A joint publication by the International Federation of Accountants (IFAC), AICPA/Chartered Institute of Management Accountants (CIMA), and Audit Analytics (2021) demonstrated in its global study the need for climate-related risk analysis for investor assessment of financial stability. The report reveals that 90% of U.S. companies seeking assurance on their ESG disclosures elect to have their disclosures assured by non-CPAs. Concerns arise as many of these practitioners lack the overall understanding of integrated reports, as they are not covered by the experiences, ethics, and quality requirements of the independent CPA.

Should the CPA profession hold the exclusive ticket to performing assurance on their ESG information? Since it is generally agreed investors and other stakeholders rely on information outside of audited financial statements to determine capital allocation and investment decisions, it may make sense to incorporate appropriate metrics of ESG into the arena of the audited financials. The Center for Audit Quality (CAQ) published a document (2019) assessing the role of auditors in company-prepared information. The CAQ view, consistent with its other positions as an AICPA affiliate, holds that auditors are particularly well-positioned to fill gaps in the overall process of evaluating

information useful to the stakeholders.

Climate change information when presented in accordance with an established standard or framework can be extremely beneficial to a financial statement user—both in terms of comparability to other enterprises, and to the company itself over multiple time periods. The addition of independent auditor reasonable assurance is a plus for all stakeholders.

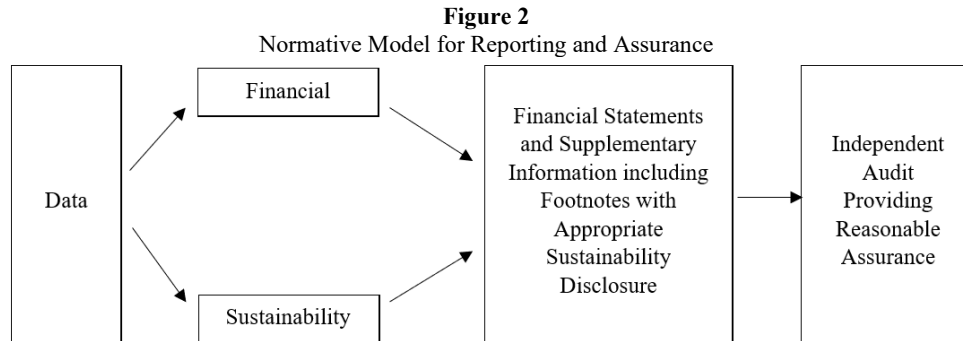
SEC Rule 10b-5 prohibits the untrue statements and misleading information even if outside of an SEC filing, such as on a company website or separate sustainability report. The SEC guidance extended in 2020 to disclosure of key performance indicators and metrics in management commentary, including the management discussion and analysis requirement in form 10-K (CAQ, 2020).

The SEC's 2022 proposal for climate mandates is intended to provide more consistent, comparable, and reliable information for financial statement users (SEC, 2022). Under the mandate, GHG emissions disclosures would include Scope 1 and 2 levels with limited assurance for the large, accelerated filers, with a move to reasonable assurance after two years, and inclusion of Scope 3 level if material or part of goals or targets. The SEC is using the tail winds of the ISSB initial prototype documents with inclusion of key climate data and for appropriate documents to carry the information. Under the SEC proposal, financial statements would include financial impact line-item metrics, disaggregated expenditure metrics, and financial estimates and assumptions (SEC, 2022). The metrics and related disclosures are to be displayed in a note to a company's audited financial statements.

Advantages of an independent public auditor providing assurance on climate change and other ESG information are compelling:

- Traditional experience in evaluating capital allocation data and business-related information;
- Expertise on methods for collecting and analyzing information on various industries and over multiple account types;
- Strong knowledge of compliance with professional frameworks and standards;
- Adherence to independence, ethics, continuing professional education and quality control, incorporating qualified specialists where needed;
- Broad knowledge of business processes and risk assessment;
- Specific credentialing through the AICPA Sustainability Assurance and Advisory Task force and publications on sustainability attestation including greenhouse gases.

Open for the auditor report is the level of assurance provided. Pundits would generally agree that negative assurance is an extremely low level. Of greater strength is the limited assurance based on review procedures. An even greater level is the reasonable assurance based on examination or full audit procedures. The external, independent, accountant's report would ideally specify the highest level of assurance, "reasonable assurance," obtained under the engagement. This is consistent with an improved normative model as prescribed in Figure 2, and greatly improves the current structure presented earlier in Figure 1.



VI. CONCLUSIONS

A. Greenwashing Vanishes

Pundits for detailed disclosure likely found satisfaction with the United Nations' COP26 2021 Glasgow, Scotland climate change conference. With the emergence of the new ISSB, sustainability disclosure standards could follow for a comprehensive global baseline that goes beyond greenwashing (PwC, 2020). The SEC soon followed in early 2022 with announcements for anti-greenwashing and forthcoming disclosure standards on ESG reports with detailed climate change information to be included in the notes accompanying audited financial statements of publicly held companies. Rules for GHG emissions, based on the existing standards of TCFD and the Greenhouse Gas Protocol may provide the key to risk assessment and comparability, features sought in traditional financial reporting (Tyson, 2022).

The ISSB's initial focus toward climate disclosure draws upon the industry-based requirements where a foundation has already been laid by the U.S.-centered SASB. With the new structure under the IFRS, the various detail layers and scope of numerous sustainability reporting frameworks are centralized, and as standards are written, coordination with financial accounting can be more easily controlled.

An advantage of SEC enforcement is that partisan elements and positions can be minimized as there is investor emphasis on pricing risk, and climate concerns are a large player in the arena of efficient capital allocation. The general trend in elimination of select older financial data and tabular disclosure of contractual obligations in favor of inclusion of sustainability information based on reliable metrics is consistent with the drive toward useful supplementary information for the financial statement user (PwC, 2020). Accordingly, more accounting firms and company managements are moving toward realization that reliable, relevant, useful sustainability information should be part of Generally Accepted Accounting Principles (GAAP).

B. Gains for Investors and Other Direct Stakeholders

While much of the proponent literature on moving toward ESG friendly strategies focuses on the general society, investors may benefit in specific ways. The management of climate risk and monitoring the emission of greenhouse gases could have a direct effect on companies' financial performance. The 2022 SEC guidance for publicly traded

companies helps close the gap between the issuing corporation and the investing public on progress toward mitigating risk. Investors will now have more access to information to evaluate how the physical climate impacts their portfolios. Rising sea levels and wildfires may be better factored as influencers on the future prognosis of a company's overall sustainability.

With supply chains increasingly green, and the expanded disclosure of Scope 3 emissions, contract competition among suppliers should benefit multiple players. Investors are becoming more aware of long-term impacts and the need for carbon offsets or projects that ensure natural resource resilience. The exaggerated boiler plate do-goodisms of greenwashing should vanish. With appropriate regulation, investors would be better able to compare Scope 1, 2 and 3 emissions of competing enterprises. Harmonization and convergence of standards and frameworks will be beneficial.

Sustainable and impact investing has become an increasingly popular investment for U.S.-managed assets. Based on new ESG fund launches in the U.S., the one-year growth rate is 80% for those that contain ESG characteristics (Taylor and Collins, 2022). The Forum for Sustainable and Responsible Investment (US SIF) (2020) states that one-third of all professionally managed assets in the U.S. are managed with sustainable investing strategies, and Taylor and Collins (2022) predict that all professionally-managed assets worldwide will consist of 50% of ESG-mandated assets by 2024. The Global Sustainable Investment Review (2020) shows that the U.S. holds 48% of global sustainable investment assets, followed by Europe with 34%, Japan with 8%, and Canada with 7%. ESG ratings can benefit the value of a company as they attempt to mitigate risk using sustainable practices, attracting investors. Sustainable investments, more non-financial in nature, tend to be more stable limiting the volatility. Impact investing looks more at the financial returns of environmental investments. Investors are attracted to sustainable and impact investments because they feel their capital investment is going to a good cause that has a positive impact on society, and may more closely align with their beliefs.

C. Gains to Other Stakeholders and Society as a Whole

The benefits to sustainability reach well beyond the shareholders. Transparency in reporting and disclosure improves trust and can be viewed as having strong leadership. Corporate reputations will improve, opening the door for increased consumer trust. Once trust is established, customer loyalty and retention will improve in the process.

Improving on sustainability could potentially lead to cost saving efforts. The benefits of reducing the reliance on carbon and utilizing alternative methods are twofold. There are numerous environmental benefits, and it can be cheaper in the long run. For example, solar panels are cheaper than using coal or gas. The International Energy Agency (IEA) (2020) states that solar is the least expensive electricity in history. The up-front cost of the panels will be justified due to the long-term cost saving benefits in the future. Renewable energy sources are more economical in the long-run, therefore companies making the switch have healthier future bottom lines as a result.

Companies may also gain a competitive advantage in the process. If they are implementing sustainable efforts while their counterparts are not, then they will reap the benefits of having that head start on their competitors. Jumping on board and setting the industry standard can be very rewarding in both quantitative and qualitative measures.

Sustainable efforts will also benefit organizations with their current and future work-force. Current employees feel a sense of pride when their company makes a concerted effort toward sustainability, and the actions seem to improve the lines of communication within an organization. Such positive decisions by top management helps increase employee motivation and commitment. Organizational efforts will also attract talented employees who share the same values. The younger generations are cognizant of a company's culture and climate, and tend to gravitate toward businesses who share the same values. When companies make a genuine, concerted effort toward sustainability, they will be able to attract and retain quality employees.

Finally, making the world a better place for future generations is of utmost importance. Sustainability efforts can create a healthier environment in which to live. Once organizations view and measure their impacts, they can develop mitigation efforts to rectify the detriments they provide on society and the environment.

REFERENCES

- 3M Company, 2022, *2022 Notice of Annual Meeting & Proxy Statement*. Retrieved 2022-05-10 from <https://east.virtualshareholdermeeting.com/vsm/web?pvskey=MMM2022>
- Ackers, B., 2009, "Corporate Social Responsibility Assurance: How Do South African Publicly Listed Companies Compare?", *Meditari Accountancy Research*, 17, 1-17. <http://dx.doi.org/10.1108/10222529200900009>
- Adams, C.A., 2015, "The International Integrated Reporting Council: A Call to Action", *Critical Perspectives on Accounting*, 27, 23-28. <http://dx.doi.org/10.1016/j.cpa.2014.07.001>
- Al-Tuwaijri, S.A., Christensen, T.E., and Hughes, K.E., 2004, "The Relations among Environmental Disclosure, Environmental Performance, and Economic Performance: A Simultaneous Equations Approach", *Accounting, Organizations and Society*, 29, 447-471. [https://doi.org/10.1016/S0361-3682\(03\)00032-1](https://doi.org/10.1016/S0361-3682(03)00032-1)
- Amanpreet, K., and Sumit, L., 2018, "Stakeholder Engagement in Sustainability Accounting and Reporting", *Accounting, Auditing & Accountability Journal*, 31, 338-368. <http://dx.doi.org/10.1108/AAAJ-12-2014-1901>
- Amazon, 2022, *Amazon Sustainability: Further and Faster, Together*. Retrieved 2022-05-23 from <https://sustainability.aboutamazon.com/>
- Anderson, N., 2019, *IFRS Standards and Climate-related Disclosures*. Retrieved 2022-05-23 from <https://www.ifrs.org/content/dam/ifrs/news/2019/november/in-brief-climate-change-nick-anderson.pdf>
- Barone, E., Ranamagar, N. and Solomon, J., 2013, "A Habermasian Model of Stakeholder (non)Engagement and Corporate (ir)Responsibility Reporting", *Accounting Forum*, 37, 163-181. <https://doi.org.ezproxy.lib.uwf.edu/10.1016/j.accfor.2012.12.001>
- Barth, M.E., Cahan, S.F., Chen, L., and Venter, E.R., 2017, "The Economic Consequences Associated with Integrated Report Quality: Capital Market and Real Effects", *Accounting, Organizations and Society*, 62, 43-64. <https://doi.org/10.1016/j.aos.2017.08.005>
- Beck, C., Dumay, J., and Frost, G., 2017, "In Pursuit of a 'Single Source of Truth': From Threatened Legitimacy to Integrated Reporting", *Journal of Business Ethics*, 141,

- 191-205. <http://dx.doi.org/10.1007/s10551-014-2423-1>
- Berle, A., and Means, G., 1932, *The Modern Corporation and Private Property. Commerce Clearing House*, 19th Edition, McMillan, New York.
- Bernow, S., Merten, C., Godsall, J., and Klempner, B., 2019, “More than Values: The Value-based Sustainability Reporting that Investors Want”, *McKinsey Insights*, <https://www.proquest.com/magazines/more-than-values-value-based-sustainability/docview/2375486701/se-2?accountid=14787>
- Boiral, O., 2016, “Accounting for the Unaccountable: Biodiversity Reporting and Impression Management”, *Journal of Business Ethics*, 135, 751-768. <http://dx.doi.org/10.1007/s10551-014-2497-9>
- Boiral, O., and Heras-saizarbitoria, I., 2017, “Managing Biodiversity Through Stakeholder Involvement: Why, Who, and for What Initiatives?”, *Journal of Business Ethics*, 140, 403-421. <http://dx.doi.org/10.1007/s10551-015-2668-3>
- Briem, C.R., and Wald, A., 2018, “Implementing Third-party Assurance in Integrated Reporting: Companies’ Motivation and Auditors’ Role”, *Accounting, Auditing & Accountability Journal*, 31, 1461-1485. <http://dx.doi.org/10.1108/AAAJ-03-2016-2447>
- Brown-Liburd, H., and Zamora V., 2015, “The Role of Corporate Social Responsibility (CSR) Assurance in Investors’ Judgments When Managerial Pay is Explicitly Tied to CSR Performance”, *Auditing: A Journal of Practice & Theory*, 34, 75-96. <https://doi.org/10.2308/ajpt-50813>
- Buallay, A., 2020, “Sustainability Reporting and Firm’s Performance: Comparative Study between Manufacturing and Banking Sectors”, *International Journal of Productivity and Performance Management*, 69, 431-445. <http://dx.doi.org/10.1108/IJPPM-10-2018-0371>
- Buallay, A., and Al-Ajmi, J., 2020, “The Role of Audit Committee Attributes in Corporate Sustainability Reporting: Evidence from Banks in the Gulf Cooperation Council”, *Journal of Applied Accounting Research*, 21, 249-264. <http://dx.doi.org/10.1108/JAAR-06-2018-0085>
- Burchell S., Clubb C., Hopwood, A., Hughes, J., and Nahapiet, J., 1980, “The Roles of Accounting in Organizations and Society”, *Accounting, Organizations and Society*, 5, 5-27. [https://doi-org.ezproxy.lib.uwf.edu/10.1016/0361-3682\(80\)90017-3](https://doi-org.ezproxy.lib.uwf.edu/10.1016/0361-3682(80)90017-3)
- Burritt, R.L., and Schaltegger, S., 2010, Sustainability Accounting and Reporting: Fad or Trend?”, *Accounting, Auditing & Accountability Journal*, 23, 829-846. <http://dx.doi.org/10.1108/09513571011080144>
- CAQ, 2020, *The Role of Auditors in Company-prepared ESG Information: Present and Future*. Retrieved 2022-05-20 from https://www.thecaq.org/wp-content/uploads/2020/06/caq_role-of-the-auditor-in-company-prepared-esg-information_2020-06.pdf
- CAQ, 2019, *The Role of Auditors in Company-prepared Information: Present and Future*. Retrieved 2022-05-20 from https://4chrg8q086f2nb81x49f2761-wpengine.netdna-ssl.com/wp-content/uploads/2020/01/caq_role_of_auditors_present_future_2019-12.pdf
- Casey, R.J., and Grenier, J.H., 2015, “Understanding and Contributing to the Enigma of Corporate Social Responsibility (CSR) Assurance in the United States”, *Auditing: A Journal of Practice & Theory*, 34, 97-130. <https://doi.org/10.2308/ajpt-50736>
- Cheng, M., Green, W., Conradie, P., Konishi, N., and Romi, A., 2014, “The International

- Integrated Reporting Framework: Key Issues and Future Research Opportunities”, *Journal of International Financial Management & Accounting*, 25, 90-119. <http://dx.doi.org/10.1111/jifm.12015>
- Cho, C.H., Laine, M., Roberts, R.W., and Rodrigue, M., 2015, “Organized Hypocrisy, Organizational Façades, and Sustainability Reporting”, *Accounting, Organizations and Society*, 40, 78-94. <https://doi.org/10.1016/j.aos.2014.12.003>
- Cho, C.H., Roberts, R.W., and Patten, D.M., 2010, “The Language of US Corporate Environmental Disclosure”, *Accounting, Organizations and Society*, 35, 431-443. <https://doi.org/10.1016/j.aos.2009.10.002>
- Christensen, H.B., Luzi, H., and Leuz, C., 2021, “Mandatory CSR and Sustainability Reporting: Economic Analysis and Literature Review”, *Review of Accounting Studies*, 26, 1176-1248. <http://dx.doi.org/10.1007/s11142-021-09609-5>
- Clémençon, R., 2021, “Is Sustainable Development Bad for Global Biodiversity Conservation?”, *Global Sustainability*, 4. <http://dx.doi.org/10.1017/sus.2021.14>
- Cohen, J.R., and Simnett, R., 2015, “CSR and Assurance Services: A Research Agenda”, *Auditing: A Journal of Practice & Theory*, 34, 59-74. <https://doi.org/10.2308/ajpt-50876>
- Cohen, J.R., Holder-Webb, L., Nath, L., and Wood, D., 2012, “Corporate Reporting of Nonfinancial Leading Indicators of Economic Performance and Sustainability”, *Accounting Horizons*, 26, 65-90. <https://www-proquest-com.ezproxy.lib.uwf.edu/scholarly-journals/corporate-reporting-nonfinancial-leading/docview/963358829/se-2?accountid=14787>
- Crippa, M., Guizzardi, D., Solazzo, E., Muntean, M., Schaaf, E., Monforti-Ferrario, F., Banja, M., Olivier, J.G.J., Grassi, G., Rossi, S., Vignati, E., 2021, GHG emissions of all world countries - 2021 Report. EUR 30831 EN, Publications Office of the European Union, Luxembourg. <https://doi.org/10.2760/173513, JRC126363>
- de Villiers, C. and Maroun, W., 2017, “Introduction to Sustainability Accounting and Integrated Reporting”, *Sustainability Accounting and Integrated Reporting*, Routledge, Oxford, 13-24.
- de Villiers C., Rinaldi, L., and Unerman, J., 2014, “Integrated Reporting: Insights, Gaps and an Agenda for Future Research”, *Accounting, Auditing & Accountability Journal*, 27, 1042-1067. <http://dx.doi.org/10.1108/AAAJ-06-2014-1736>
- Diouf, D., and Olivier, B., 2017, “The Quality of Sustainability Reports and Impression Management”, *Accounting, Auditing & Accountability Journal*, 30, 643-667. <http://dx.doi.org/10.1108/AAAJ-04-2015-2044>
- Doni, F., Silvio, B.M., Corvino, A., and Mazzoni, M., 2020 “Voluntary versus Mandatory Non-financial Disclosure: EU Directive 95/2014 and Sustainability Reporting Practices Based on Empirical Evidence from Italy”, *Meditari Accountancy Research*, 28, 781-802. <http://dx.doi.org/10.1108/MEDAR-12-2018-0423>
- Dumay, J., Bernardi, C., Guthrie, J., and La Torre, M., 2017, “Barriers to Implementing the International Integrated Reporting Framework: A Contemporary Academic Perspective”, *Meditari Accountancy Research*, 25, 461-480. <http://dx.doi.org/10.1108/MEDAR-05-2017-0150>
- Eccles, R.G. and Krzus, M.P. 2010. *One Report: Integrated Reporting for a Sustainable Strategy*. John Wiley and Sons, Hoboken, NJ.
- Eccles, R.G., and Saltzman, D. 2011. “Achieving Sustainability Through Integrated Reporting”, *Stanford Social Innovation Review*, 9, 56-61.

- <https://www.proquest.com/magazines/achieving-sustainability-through-integrated/docview/870639018/se-2?accountid=14787>
- Elkington J. 1993. "Coming Clean: The Rise and Rise of the Corporate Environmental Report", *Business Strategy and the Environment*, 2, 42-44. <https://doi.org/10.1002/bse.3280020204>
- Esparcia, A.C. and Gómez, S.L., 2021, "Public Opinion about Climate Change in United States, Partisan View and Media Coverage of the 2019 United Nations Climate Change Conference (COP 25) in Madrid", *Sustainability*, 13, 3926. <https://doi.org/10.3390/su13073926>
- Gelineau, K., 2022, "U.N. Sounds Alarm on Great Barrier Reef. Associated Press, *Atlanta Journal Constitution*, 7. Retrieved 2022-05-20 from <https://www.pressreader.com/usa/the-atlanta-journal-constitution/20220307/281745567849421>
- Global Sustainable Investment Alliance, 2020, Global Sustainable Investment Review 2020. Retrieved 2022-04-29 from <http://www.gsi-alliance.org/wp-content/uploads/2021/08/GSIR-20201.pdf>
- Gray, R., 1992, "Accounting and Environmentalism: An Exploration of the Challenge of Gently Accounting for Accountability, Transparency and Sustainability", *Accounting, Organizations and Society*, 17, 399-425. [https://doi.org.ezproxy.lib.uwf.edu/10.1016/0361-3682\(92\)90038-T](https://doi.org.ezproxy.lib.uwf.edu/10.1016/0361-3682(92)90038-T)
- Gray, R., 1993, *Accounting for the Environment*. Paul Chapman Publishing, London.
- Gray, R., 1994, "Corporate Reporting for Sustainable Development: Accounting for Sustainability in 2000 AD", *Environmental Values*, 3, 17-45. <http://dx.doi.org/10.3197/096327194776679782>
- Gray, R., 1998, "Imagination, A Bowl of Petunias and Social Accounting", *Critical Perspectives on Accounting*, 9, 205-216.
- Gray, R., 2002, "The Social Accounting Project and Accounting Organizations and Society. Privileging Engagement, Imaginings, New Accountings and Pragmatism over Critique?", *Accounting, Organizations and Society*, 27, 687-708. [https://doi.org.ezproxy.lib.uwf.edu/10.1016/S0361-3682\(00\)00003-9](https://doi.org.ezproxy.lib.uwf.edu/10.1016/S0361-3682(00)00003-9)
- Green, W. and Cheng, M., 2019, "Materiality Judgments in an Integrated Reporting Setting: The Effect of Strategic Relevance and Strategy Map", *Accounting, Organizations and Society*, 73, 1-14. <https://doi.org/10.1016/j.aos.2018.07.001>
- Habib, Z.K., Bose, S., Abu, T.M., and Harun, H., 2021, "'Green Washing' or 'Authentic Effort'? An Empirical Investigation of the Quality of Sustainability Reporting by Banks", *Accounting, Auditing & Accountability Journal*, 34, 338-369. <http://dx.doi.org/10.1108/AAAJ-01-2018-3330>
- Hassan, A., 2019, "Verbal Tones in Sustainability Assurance Statements: An Empirical Exploration of Explanatory Factors", *Sustainability Accounting, Management and Policy Journal*, 10, 427-450. <http://dx.doi.org/10.1108/SAMPJ-06-2017-0051>
- Hicks, J.R., 1942, *The Social Framework: An Introduction to Economics*. Oxford, Clarendon Press.
- Hoang, T.G., Trang, K.V., Nguyen, H.T., and Luu, H.N., 2020, "Mandatory Integrated Reporting Disclosure and Corporate Misreporting", *Journal of Applied Accounting Research*, 21, 363-382. <http://dx.doi.org/10.1108/JAAR-02-2019-0025>
- Hodge, K., Subramaniam, N., and Stewart, J., 2009, "Assurance of Sustainability Reports: Impact on Report Users' Confidence and Perceptions of Information Credibility",

- Australian Accounting Review*, 19, 178-194. <https://www.proquest.com/scholarly-journals/assurance-sustainability-reports-impact-on-report/docview/217561999/se-2?accountid=14787>
- Hopwood, A.G., 1978, "Social Accounting-The Way Ahead?", *Social accounting*, 53-64.
- Hopwood, A.G., 2009, "Accounting and the Environment", *Accounting, Organizations and Society*, 34, 433-439. <https://doi.org/10.1016/j.aos.2009.03.002>
- Hopwood, A., and Burchell, S., 1980, "Social Accounting: The Idea of Social Accounting Remains an Illusive One", *Public Finance and Accountancy*, 7, 12-15.
- Humphrey, C., O'Dwyer, B., and Unerman, J., 2017, "Re-Theorizing the Configuration of Organizational Fields: The IIRC and the Pursuit of 'Enlightened' Corporate Reporting", *Accounting and Business Research*, 47, 30-63. <http://dx.doi.org/10.1080/00014788.2016.1198683>
- IFAC, AICPA/CIMA, and Audit Analytics, 2021, "The State of Play in Sustainability Assurance: Benchmarking Global Practice", Retrieved 2022-05-20 from <https://www.ifac.org/system/files/publications/files/IFAC-Benchmarking-Global-Practice-Sustainability-Assurance.pdf>
- IIRC, 2013, "The International Framework", Retrieved 2022-03-16 from <https://www.integratedreporting.org/resource/international-ir-framework/>
- Institute of Directors in Southern Africa, 2009, *King Report on Corporate Governance for South Africa 2009 (King III)*. Institute of Directors in Southern Africa, Johannesburg. https://cdn.ymaws.com/www.iodsa.co.za/resource/resmgr/king_iii/King_Report_on_Governance_fo.pdf
- International Energy Agency, 2020, World Energy Outlook 2020. Retrieved 2022-04-29 from <https://iea.blob.core.windows.net/assets/a72d8abf-de08-4385-8711-b8a062d6124a/WEO2020.pdf>
- Jones, M.J., 1996, "Accounting for Biodiversity: A Pilot Study", *The British Accounting Review*, 28, 281-303. <https://doi.org/10.1006/bare.1996.0019>
- Jones, M.J., and Solomon, J.F., 2013, "Problematising Accounting for Biodiversity", *Accounting, Auditing & Accountability Journal*, 26, 668-687. <http://dx.doi.org/10.1108/AAAJ-03-2013-1255>
- Kaplan, R.S., and Ramanna, K., 2021, "Accounting for Climate Change", *Harvard Business Review*, <https://www.proquest.com/magazines/accounting-climate-change/docview/2596070648/se-2?accountid=14787>
- Kaya, U., and Yayla, H.E., 2007, "Remembering Thirty-five Years of Social Accounting: A Review of the Literature and the Practice. 1st International Conference on Accounting and Auditing. Edirne-Turkey, March 8-9.
- Kılıç, M., Uyar, A., Kuzey, C., and Karaman, A.S., 2021, "Does Institutional Theory Explain Integrated Reporting Adoption of Fortune 500 Companies?", *Journal of Applied Accounting Research*, 22, 114-137. <http://dx.doi.org/10.1108/JAAR-04-2020-0068>
- Kiron, D., 2012, "Get Ready: Mandated Integrated Reporting Is the Future of Corporate Reporting", *MIT Sloan Management Review*, 53, 1-3. <https://www.proquest.com/scholarly-journals/get-ready-mandated-integrated-reporting-is-future/docview/963965382/se-2?accountid=14787>
- Kolk, A., and van Tulder, R., 2010, "International Business, Corporate Social Responsibility and Sustainable Development", *International Business Review*, 19,

- 119-125.
- KPMG, 2020, “The Time Has Come: The KPMG Survey of Sustainability Reporting 2020”, Retrieved 2022-03-31 from https://assets.kpmg/content/dam/kpmg/be/pdf/2020/12/The_Time_Has_Come_KP MG_Survey_of_Sustainability_Reporting_2020.pdf
- Lamberton, G., 2005, “Sustainability Accounting—A Brief History and Conceptual Framework”, *Accounting Forum*, 29, 7-26. <https://doi.org/10.1016/j.accfor.2004.11.001>
- Maroun, W. 2018. “Accounting for Strike Action: An Illustration of Organised Hypocrisy”, *Social and Environmental Accountability Journal*, 38, 167-196. <https://doi.org/10.1080/0969160X.2018.1527708>
- Maroun, W., Usher, K., and Mansoor, H., 2018, “Biodiversity Reporting and Organised Hypocrisy: The Case of the South African Food and Retail Industry”, *Qualitative Research in Accounting and Management*, 15, 437-464. <http://dx.doi.org/10.1108/QRAM-07-2017-0066>
- Millar, E., and Searcy, C., 2020, “The Presence of Citizen Science in Sustainability Reporting. *Sustainability Accounting, Management and Policy Journal*, 11, 31-64. <http://dx.doi.org/10.1108/SAMPJ-01-2019-0006>
- O’Dwyer, B., 2011, “The Case of Sustainability Assurance: Constructing a New Assurance Service”, *Contemporary Accounting Research*, 28, 1230-1266. <https://doi.org/10.1111/j.1911-3846.2011.01108.x>
- O’Dwyer, B., and Unerman, J., 2020, “Shifting the Focus of Sustainability Accounting from Impacts to Risks and Dependencies: Researching the Transformative Potential of TCFD Reporting”, *Accounting, Auditing & Accountability Journal*, 33, 1113-1141. <http://dx.doi.org/10.1108/AAAJ-02-2020-4445>
- Perego, P., 2009, “Causes and Consequences of Choosing Different Assurance Providers: An International Study of Sustainability Reporting”, *International Journal of Management*, 26, 412-425, 487. <https://www.proquest.com/scholarly-journals/causes-consequences-choosing-different-assurance/docview/233228736/se-2?accountid=14787>
- Perkiss, S., Bayerlein, L., and Dean, B.A., 2021, “Facilitating Accountability in Corporate Sustainability Reporting through Spotlight Accounting”, *Accounting, Auditing & Accountability Journal*, 34, 397-420. <http://dx.doi.org/10.1108/AAAJ-08-2019-4142>
- Pinkston, P., and Fischer, M., 2021, “Sustainability Accounting: Pros, Cons and Accounting Guidance”, *The Journal of Applied Business and Economics*, 23, 88-99. <https://www.proquest.com/scholarly-journals/sustainability-accounting-pros-cons-guidance/docview/2531367970/se-2?accountid=14787>
- Prinsloo, A., and Warren, M., 2021, “An Exploratory Study on the Components and Quality of Combined Assurance in an Integrated or a Sustainability Reporting Setting. *Sustainability Accounting, Management and Policy Journal*, 12, 1-29. <http://dx.doi.org/10.1108/SAMPJ-05-2019-0205>
- Proxymonitor.org. Shedding Light on the Influence of Shareholder Proposals on Corporations. Sponsored by the Manhattan Institute, Retrieved 2022-05-06 from <https://www.proxymonitor.org/Default.aspx>
- PwC, 2020, “SEC Amends MD&A and Eliminates Selected Financial Data”, PWC Viewpoint, Retrieved 2022-05-20 from

https://viewpoint.pwc.com/dt/us/en/pwc/in_depths/2020/us2020_09_sec_amends_mda_eliminate_selected_financial_data/US202009SEC_amends_MDA_eliminate_s_selected_financial_data/US202009_SEC_amends_MDA_eliminate_selected_financial_data.html

- Raar, J., Barut, M., and Azim, M.I., 2020, “The Challenge: Re-steering Accountability Concepts to Incorporate Biodiversity Management and Reporting”, *Sustainability Accounting, Management and Policy Journal*, 11, 1-30. <http://dx.doi.org/10.1108/SAMPJ-07-2018-0201>
- Radin, A.J., 2019, “Assurance Attestation Statements on Sustainability Reports: Certified Public Accountant”, *The CPA Journal*, 89, 6-8. <https://www.proquest.com/scholarly-journals/assurance-attestation-statements-on/docview/2256522199/se-2?accountid=14787>
- Rimmel, G., and Jonäll, K., 2013, “Biodiversity Reporting in Sweden: Corporate Disclosure and Preparers’ Views”, *Accounting, Auditing & Accountability Journal*, 26, 746-778. <http://dx.doi.org/10.1108/AAAJ-02-2013-1228>
- Searcy, C., and Buslovich, R., 2014, “Corporate Perspectives on the Development and Use of Sustainability Reports: JBE”, *Journal of Business Ethics*, 121, 149-169. <http://dx.doi.org/10.1007/s10551-013-1701-7>
- SEC, 2022, “Fact Sheet, Enhancement and Standardization of Climate-Related Disclosures”, Retrieved 2022-05-20 from <https://www.sec.gov/files/33-11042-fact-sheet.pdf>
- SEC EDGAR, 2022, “Company Filings” Retrieved from <https://www.sec.gov/edgar/searchedgar/companysearch.html>
- Seuring, S., and Mueller, M., 2008, “Core Issues in Sustainable Supply Chain Management—A Delphi Study”, *Business Strategy and the Environment*, 17, 455-466. <https://doi.org/10.1002/bse.607>
- Sheldon, M.D., and Jenkins, J.G., 2020, “The Influence of Firm Performance and (level of) Assurance on the Believability of Management’s Environmental Report”, *Accounting, Auditing & Accountability Journal*, 33, 501-528. <http://dx.doi.org/10.1108/AAAJ-11-2018-3726>
- Solability, 2021, Global Sustainable Competitiveness Index 2021. Retrieved 2022-03-31 from <https://solability.com/the-global-sustainable-competitiveness-index/the-index>
- Solomon, J.F., Solomon, A., Joseph, N.L., and Norton, S.D., 2013, “Impression Management, Myth Creation and Fabrication in Private Social and Environmental Reporting: Insights from Erving Goffman”, *Accounting, Organizations and Society*, 38, 195-213. <https://doi.org/10.1016/j.aos.2013.01.001>
- Spencer, G., 2021, “5 Steps for Reliable ESG Reporting Amid Growing Demand”, *Journal of Accountancy*, Retrieved 2022-05-20 from <https://www.journalofaccountancy.com/news/2021/feb/reliable-esg-reporting-amid-growing-demand.html>
- Taylor, T.L., and Collins, S., 2022, “Ingraining Sustainability in the Next Era of ESG Investing”, Deloitte Insights. Retrieved 2022-04-29 from <https://www2.deloitte.com/us/en/insights/industry/financial-services/esg-investing-and-sustainability.html>
- The Forum for Sustainable and Responsible Investment, 2020, Report on U.S. Sustainable and Impact Investing Trends. Retrieved 2022-04-29 from <https://www.ussif.org/files/US%20SIF%20Trends%20Report%202020%20Execut>

- ive%20Summary.pdf
- Tysiac, K., 2021, "Prototypes Provide Clues on Future Sustainability Disclosure Requirements", *Financial Management*, Retrieved 2022-05-20 from <https://www.fm-magazine.com/news/2021/nov/international-sustainability-standards-board-disclosure-prototypes.html>
- Tysiac, K., 2019, "Demand for Sustainability Assurance is Growing", *Journal of Accountancy*, Retrieved 2022-05-20 from <https://www.journalofaccountancy.com/news/2019/nov/demand-sustainability-assurance-growing-201922207.html>
- Tyson, J., 2022, SEC to Take Hard Stand Against Corporate 'Greenwashing'. Cfdive.com, Retrieved 2022-05-20 from <https://www.cfdive.com/news/sec-take-hard-stand-against-corporate-greenwashing-lee/619397/>
- Ukcp26, 2021, "COP26 The Glasgow Climate Pact 2021" Retrieved 2022-03-18 from <https://ukcp26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf>
- Valero Energy Corporation, 2022, "2022 Notice of Annual Meeting of Stockholders: Proxy Statement & Annual Report on form 10-K", https://s23.q4cdn.com/587626645/files/doc_financials/2022/ar/Valero-2022-Proxy-and-10-K-Combo-Book.pdf
- Velte, P. and Stawinoga M., 2017, "Integrated Reporting: The Current State of Empirical Research, Limitations and Future Research Implications", *Journal of Management Control*, 28, 275-320. <https://doi.org/10.1007/s00187-016-0235-4>
- Wong-Parodi, G. and Feygina, I., 2020, "Understanding and Countering the Motivated Roots of Climate Change Denial", *Current Opinion in Environmental Sustainability*, 42, 60-64. <https://doi.org/10.1016/j.cosust.2019.11.008>

APPENDIX

Exhibit 1 – Timeline of Select Environmental and Sustainability Organizations

Year Established	Organization
1971	World Economic Forum (WEF)
1983	International Organization of Securities Commissions (IOSCO)
1997	Global Reporting Initiative (GRI)
1999	Dow Jones Sustainability Indices (DJSI)
2000	Carbon Disclosure Project (CDP)
2007	Climate Disclosures Standards Board (CDSB)
2010	International Integrated Reporting Council (IIRC)
2011	Global Initiative for Sustainability Ratings (GISR)
2011	Sustainability Accounting Standards Board (SASB)
2015	Task Force on Climate-Related Financial Disclosures (TCFD)
2021	Value Reporting Foundation (VRF)
2021	International Sustainability Standards Board (ISSB)

Source: Developed by the authors from their research gatherings

Exhibit 2 – Trend in Stockholder Proposals

Year	Number of Proposals	Climate-Related / Environmental (CRE)	% of CRE in Relation to Total
2006	385	28	7.27
2007	393	41	10.43
2008	357	42	11.76
2009	382	25	6.54
2010	380	44	11.58
2011	840	43	5.12
2012	580	30	5.17
2013	576	36	6.25
2014	589	52	8.83
2015	593	60	10.12
2016	581	58	9.99
2017	805	50	6.21
2018	515	26	5.05
2019	504	24	4.44
2020	531	20	3.77
2021	508	24	4.53
2022	549	51	9.29
TOTALS	9,068	654	7.21

Source: Drawn from Proxymonitor.org

Exhibit 3 – Growth in Success of Climate-Related Proposals

Year	“For” Votes	Company	Industry	Item
2017	62.10%	Exxon Mobil (XOM)	Petroleum Refining	Report on policies to limit global warming.
2017	65.70%	Occidental Petroleum (OXY)	Crude Petro & Nat Gas	Report on policies to limit global warming.
2017	56.80%	PPL Corp (PPL)	Electric Services	Report on policies to limit global warming.
2018	52.47%	Anadarko Petroleum (APC)	Crude Petro & Nat Gas	Report on climate change risk analysis.
2018	59.66%	Kinder Morgan (KMI)	Nat Gas Distribution	Assess long-term impacts of scenarios of climate change policies.
2020	53.50%	Chevron Corp (CVX)	Petroleum Refining	Report on climate lobbying.
2020	53.90%	Phillips 66 (PSX)	Petroleum Refining	Report health risks petrochemical operations.

2020	67.68%	Procter & Gamble (PG)	Soap & Cleaning Preps	Report efforts to eliminate deforestation.
2021	60.70%	Chevron Corp (CVX)	Petroleum Refining	Substantially reduce GHG emissions.
2021	58.63%	ConocoPhillips (COP)	Petroleum Refining	Set emission reduction targets for GHG.
2021	62.66%	Delta Air Lines (DAL)	Air Transportation	Report on climate lobbying.
2021	63.80%	Exxon Mobil (XOM)	Petroleum Refining	Report on climate lobbying.
2021	76.44%	Norfolk Southern (NSC)	Railroads, Line-Haul	Report on climate lobbying.
2021	79.37%	Phillips 66 (PSX)	Petroleum Refining	GHG emissions reduction targets.
2021	62.01%	Phillips 66 (PSX)	Petroleum Refining	Report on climate lobbying.
2021	65.04%	United Airlines (UAL)	Air Transportation	Report on climate lobbying.
2021	81.21%	DuPontdeNemours (DD)	Plastics, Resin, Rubber	Annual report on plastic pollution.
2021	97.97%	General Electric (GE)	Electronics & Equip.	Report on Net Zero Indicator.

Source: Drawn from Proxymonitor.org

Exhibit 4 – 2022 Proxy Proposals for Stockholder Vote

Symbol	Name	Dow 30 Evidence		
		Year End	Number Proxies	Climate-Related
AAPL	Apple	9/25/21	3C, 6S	0
AMGN	Amgen	12/31/21	3C, 0S	0
AXP	American Express	12/31/21	3C, 1S	0
BA	Boeing	12/31/21	4C, 4S	1
CAT	Caterpillar	12/31/21	3C, 4S	1
CRM	Sales Force	1/31/21	4C, 1S	0
CSCO	Cisco	7/31/21	4C, 1S	0
CVX	Chevron	12/31/21	4C, 6S	3
DIS	Disney	10/2/21	3C, 5S	0
DOW	Dow	12/31/21	3C, 1S	0
GS	Goldman Sachs	12/31/21	4C, 4S	1
HD	Home Depot	1/30/22	5C, 6S	1
HON	Honeywell	12/31/21	3C, 3S	2
IBM	IBM	12/31/21	3C, 3S	0
INTC	Intel	12/25/21	4C, 2S	0
JNJ	Johnson & Johnson	1/2/22	4C, 10S	0
JPM	JP Morgan	12/31/21	4C, 6S	2
KO	Coca-Cola	12/31/21	3C, 3S	0
MCD	McDonalds	12/31/21	3C, 7S	1
MMM	3M	12/31/21	3C, 2S	1
MRK	Merck	12/31/21	3C, 3S	0
MSFT	Microsoft	12/31/21	4C, 5S	0
NKE	Nike	5/31/21	3C, 3S	0
PG	Procter & Gamble	6/30/21	3C, 1S	0
TRV	Travelers	12/31/21	3C, 5S	2
UNH	UnitedHealth Group	12/31/21	3C, 2S	0
V	Visa	9/30/21	3C, 0S	0
VZ	Verizon	12/31/21	4C, 4S	0
WBA	Walgreens	8/31/21	3C, 3S	0
WMT	Walmart	1/31/22	3C, 5S	1

Source: Developed by the authors from the individual companies