



U.S. Climate Change Activism by Corporations, Socially Responsible Investors, and Non-Profits: Is this Enough?

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**Accepted September 2019*

ABSTRACT

With an urgent need to reduce global carbon emissions to keep temperatures from rising more than 2° C to avoid drastic climate change effects, the U.N. Paris Climate Accord seeks cooperation among nations to dramatically reduce their carbon emissions. The U.S., as one of the world's largest carbon emitters, entered the UN agreement in 2016, but the Trump administration, with an anti-climate action, stance withdrew from the agreement on June 1, 2017 (permitted in November 2020). In response institutional investors, socially responsible investment funds, corporations, city and state governments, and non-profits are engaging in climate activism, that includes support of grass root movements to confront climate change. This paper provides an overview of these actions, and discusses their sufficiency versus having a U.S. federal climate change action plan.

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Keywords: Climate Change, Corporate Governance, Climate Activists, Socially Responsible Investors, Social Responsibility

JEL classification: G30, M14, Q54, Q58

1. Introduction

“We need bold action now if we are to mitigate the worst impacts of climate change and build a better future for generations to come.”

Patrick Flynn, Vice President of Sustainability, Salesforce

In response to the U.S. Trump Administration taking on a pro-coal, anti-climate change action agenda, including leaving the UN Paris Climate Change Accord in 2017 (permitted in 2020), many companies, states, cities, non-profit organizations, and institutional investors are acting as climate activists by taking actions on important climate change issues. The U.S. Climate Change Alliance (2019a) whose members remain in the U.N Paris Climate Accord includes over 1,650 large corporations and investors, 25 state governors and over 407 U.S. climate mayors working to meet the previous U.S.’s previous Accord commitments. This group represents about 55 percent of the U.S. population and an \$11.7 trillion economy.

Despite failed attempts in the U.S. to adopt a national carbon pricing policy or national emissions cap and trade system, hundreds of corporations are continuing to keep to their previous goals and targets for reducing carbon emissions, with 510 U.S. corporations disclosing their carbon emissions in 2018 to the CDP, a non-profit platform for green house gas emission reporting that assists corporations globally in reducing and tracking these. By the beginning of 2018, over 1,300 companies worldwide used or planned to use internal carbon pricing in the next two years (including 96 U.S. companies currently using internal carbon pricing and 142 planning to do so by 2019). Internal carbon pricing gives preference to capital investments that have a positive environmental impact (CDP 2019b).

Non-profits, such as the Citizen’s Climate Lobby’s Business Climate Leaders (BCL) and CO2 Logic, Ceres, and the American Business Council, among others, are engaging corporations across industries to support a national carbon fee and dividend (Gable, 2018; Klein, 2018). In May 2019, 75 businesses (representing over \$2.5 trillion in assets and over 2.8 million employees globally) lobbied on Capitol Hill to push for a federal price on carbon. Also, a group of 13 U.S. Global Fortune 500 corporations, launched a CEO Climate Dialogue, calling on the President and Congress to move forward on a set of principles for a market-based policy to address climate change (Green, 2019).

R. Paul Herman (2018), CEO and founder of HIP (Human Impact Profit Investor, Inc.) points out that under Newton’s third law of motion, *“for every action, there is an equal and opposite reaction,”* with the Trump administration’s anti-climate stance encouraging investors and companies to fight back. Herman suggests this pro-environment stance contributed to a 38% rise in sustainable and responsible investments (SRI) in the U.S., with about \$12 trillion in 2018 invested in 180 sustainable mutual funds and dozens of exchange traded funds (ETFs), representing about 25% of U.S. professionally managed assets (USSIF, 2019).

By investing in SRI funds, he notes that following President Trump’s action in August 2018 to weaken the Affordable Clean Energy Act, SRI investors avoided a drop in coal stocks by 18 percent, and earned high returns. Such was the case for investors for the ETHO Climate Leadership Index ETF (a diversified non-fossil fuel portfolio of companies with lower greenhouse gas emissions) that earned a 44 percent return since its launch in 2015. Individual investors now have access to environmentally responsible companies and mutual funds, with non-profits, such as FossilFreeFunds.org, Ceres, and As You Sow, and Morningstar providing tools/ratings for the sustainability of investors’ mutual funds and 401(k) plans (USSIF 2019; Herman, 2019).

Institutional investors are also actively engaged in letter writing campaigns and shareholder resolutions (with the assistance of non-profits, Ceres and As You Sow) targeting the world’s largest

carbon emitting companies. Similarly, fossil fuel company stock divestment campaigns encourage reinvestment in alternative energy stocks, under the auspices of non-profit organizations, such as Go Fossil Free, Divest-Invest Philanthropy, the Wallace Global Fund, and the UN Divest-Invest Catalyst Plan. As of October 22, 2019, Go Fossil Free (2019) lists 1,118 institutions and 58,000 individual holdings representing over \$11.5 trillion of investments committed to divesting their fossil fuel stocks.

Institutional investors are targeting companies for not reporting their carbon emissions, water security, and de-forestation to the CDP. For example, a group of 88 institutional investors (market capitalization about US \$10 trillion in assets) began a campaign in June of 2019 to engage with 707 companies (market capitalization US \$15.3 trillion) to reduce their high negative environmental impacts and to be more transparent in measuring and reducing these (CDP, 2019a).

Businesses also often support grass roots movements, such as hundreds of businesses giving employees paid time off or closing so their employees could participate in the Global Climate Change Strike on September 20, 2019, prior to the New York UN Climate Change Summit. Over 7,000 companies helped to draw attention to the protest by donating ad space and/or putting banners on their sites (Ivanova, 2019). Many corporations also pledged to reduce their carbon emissions and use more renewable energy in association with the summit. Amazon, for example, pledged to have net zero emissions by 2040, and Google to make large investments in wind and solar energy, and be carbon neutral by 2040 (Ghaffary, 2019; Hook, 2019; Singh, et al., 2019).

This paper examines climate activism undertaken by groups of institutional investors, SRIs, corporations, non-profit organizations, and state and city governments. Section two illustrates how socially responsible investment (SRI) companies engage in activism. Section three provides an overview of institutional investor efforts to get corporations to improve their environmental performance through shareholder resolutions, an over view of non-profit facilitators, and actions taken by large state public pension funds and insurance companies. Section four discusses efforts for climate change action made directly by corporations in alliance with non-profits, and state and city governments. In section five, the movement for a larger corporate purpose that includes social value creation is discussed, and limitations for corporate and investors social activism versus having a U.S. national climate action plan to tackle climate change, followed by a conclusion.

2. The Role of SRIs as Climate Activists

Connaker and Madsbjerg (C&M, 2019) in a recent *Harvard Business Review* (HBR) article point out that as a result of adverse actions by large financial institutions and corporations, in the aftermath of the U.S. Subprime Crisis, investors have more aggressively demanded that corporations integrate environmental, social, and governance (ESG) criteria in their investment decisions. Consequently, socially responsible investment (SRI) funds grew dramatically, representing 25 percent (\$11.6 trillion in assets) of U.S. professionally managed assets. Investors today have greater access to information about the financial impact of climate change and its risks. Moody's and other rating agencies factor in climate change risk for their bond ratings, and Morningstar publishes mutual fund sustainability scores. Public and corporate green bonds issues with proceeds used for energy efficiency and renewable energy projects) rose to \$167.6 billion in 2018 (C&M, 2019; Climate Bonds Initiative, 2019). In response to investor demand, C&M note that financial services companies now offer new environment-related innovations including:

- (1) **Environmental impact bonds** providing a transfer of a portion of the risk for implementing climate adaptation or mitigation projects from a public agency to a bondholder for a return for taking on this

risk;

- (2) ***Financially passive, socially active funds*** including ETFs linked to activism on key social and environmental issues, with more than \$11 billion in assets across 120 ESG funds globally. An example is Impact Shares' Social Impact ETF that provides a large part of its management fees to the NAACP for Minority Empowerment to engage with companies. This ETF portfolio selects only companies that have top scores on social activism, equal opportunity, and workplace diversity. The fund is modeled to produce returns and risks similar to Morningstar's US Large Mid Cap Index;
- (3) ***Impact securitization for environmental and social investments*** providing large amounts of expensive capital. An example is Sixup that has a U.S. student loan finance education platform that allows financing for low income, high achieving students, together with tutoring, job-matching, and counseling, with Goldman Sachs, as the largest lender (C&M, 2019).

SRI funds are instrumental in providing capital for environmental and social purposes and innovations to meet these climate action needs. Some SRI funds, such as the Wallace Global Fund are part of a growing "*asset activism*" movement to ensure that the funds' investments align with a mission for companies to act sustainably allowing social justice and respect for human rights. The Wallace Fund has investments that are 100 percent fossil free, with 15 percent invested in climate solutions, and 5 percent invested in high impact investments focused on *energy justice, community regeneration, and women's rights and empowerment*. The fund in 2013 launched a *Divest-Invest Philanthropy* to encourage and support foundations, donors, and families in divesting from fossil fuels and reinvesting in solutions to combat climate change, with over 110 foundations (with greater than \$10 billion in assets) joining this initiative (Wallace Global Fund, 2019).

Many SRI mutual funds, large institutional investors and non-profits act as social and environmental activists by issuing shareholder resolutions to corporations requesting progress on different climate change or environmental health issues, among others. Green Century, as an SRI, for instance invests a small amount of management's funds in companies that are engaged in harmful environmental policies. This allows Green Century to file shareholder resolutions to push these companies to change their negative practices. Calvert, as an ESG mutual fund, similarly calls on and works with companies to improve on particular negative, environmental, social, and governance practices. In cases where direct dialogue and other efforts go unheeded, shareholder resolutions are filed to encourage and influence progress including issues of GHG reduction targets, increased sustainability disclosure, clean water stewardship, and greater board diversity (Calvert 2019; Byrd and Cooperman, 2014).

3. Institutional Investors as Activists for ESG Issues

3.1 Overview of Environmental and Social Shareholder Resolutions

The U.S. Security Exchange Commission (SEC) process for submitting shareholder resolutions for a vote at a company's annual meeting requires that shares have been held continuously for one year with a value of at least \$2,000 or an ownership share of 1% of firm value. Shareholders often join coalitions for resolutions with groups of investors (i.e., SRI mutual funds, equity managers, religious groups, pension funds, philanthropic trusts). In response, corporations have the choice of seeking an SEC exclusion for a proposal; taking the resolutions to an annual shareholder meeting for a vote; or a negotiated withdrawal.

Negotiated withdrawals are generally preferable, since even majority votes by shareholders at an annual meeting are not binding on a corporation, and taking a resolution to an annual meeting can create

bad publicity for a corporation that can have a negative valuation effect. Byrd and Cooperman (2014), for instance, examining environmental health shareholder resolutions filed by shareholder activists at 70 different companies over 2006 to 2011, find negative stock price reactions surrounding meeting dates for consumer/retail companies when resolutions were taken to annual meetings, versus an insignificant reaction for negotiated withdrawals. Similarly, studies by Tkac (2006) and Ertimur, Ferri, and Stubben (2010) find a relatively low percentage of proposals receiving a majority vote, and very few with a majority vote implemented by managers.

However, Renneboog and Szilagyi (2009) studying a large sample of proxy proposal announcements issued by social activist between 1996 and 2005 find these associated with a mean positive stock market reaction. Dimson, et al. (2015) also find positive abnormal returns associated with successful ESG shareholder proposals. Diaz-Rainey, et al. (2019) examining a sample of U.S. climate-change resolutions on the CERES database also find a small positive market reactions for climate-change shareholder proposals on the proxy filing date, with a larger positive abnormal return of 1.057% for a (-10,0) window, suggesting information leakages. In the post Paris Agreement period, shareholder proposals were more likely to receive a higher percentage vote, especially for proposals led by a UNPRI signatory.

For the first three quarters of 2019, Ceres reported 23 climate action shareholder resolutions (one for coal and 22 for climate change issues), with ten resolutions negotiated and withdrawn and five taken for a vote. A resolution asking BP to report information on its climate action strategy consistent with the goals of the UN Paris Climate Accord was taken to a vote on May 21, 2019, and received an unprecedented 99.14% vote from its shareholders (As You Sow, 2019).

Another example of a recent joint resolution by 230 institutional investors (\$16.2 trillion in managed assets) associated with the devastating fires and deforestation for the Amazon jungle in Brazil and Bolivia, requested companies to take urgent action to tackle deforestation risks in their operations and global supply chains, and to develop transparent, commodity-specific *no deforestation* policies, as well as monitoring, reporting, and verification systems for supplier compliance implementation (CERES, 2019a)

Under the Investor Agenda, 515 institutional Investors (managing \$35 trillion in assets) issued a Global Investor Statement on Climate Change, requesting that governments step up and be more ambitious in their climate change action plans, including phasing out thermal coal power use globally, putting a price on carbon, ending government subsidies for fossil fuels, and strengthening their contributions to the UN Paris Agreement. The Investor Agenda in its first year encouraged 1,200 investors to take action on climate change. An even larger climate action investor group, the Global Investor Coalition on Climate Change, (including the Asia Investor Group on Climate Change, Ceres, Investor Group on Climate Change, and Institutional Investors Group on Climate Change together with other partners, launched the Climate Action 100+ Initiative in 2017 as a five-year plan to ensure that the world's largest corporate GHG emitters take necessary action on climate change (CERES 2019b; The Investor Agenda, 2019; Global Investor Coalition on Climate Change, 2019).

3.2 Non-Profit Organizations Empowering Shareholders

There are many non-profit firms serving as advocacy groups to assist shareholders in their social and environmental activism. Two key non-profits performing this role are *As You Sow* and *Ceres*. *As You Sow*, has the goal of empowering shareholders to move corporations towards good, and facilitates the engagement of investors in shareholder resolutions including tracking, and publicizing the results and assisting in the design and promotion for different types of SRI funds. *As You Sow* promotes particular shareholder initiatives including the elimination of ocean plastics, climate change actions,

corporate responsibility in the fossil fuel sector, among many others (As You Sow, 2019ab).

Ceres, as a sustainability advocacy nonprofit organization, works with influential investors and companies, and influencers in capital markets to tackle major sustainability challenges with several networks:

- (1) **Ceres Investor Network** with over 170 institutional investors (over \$26 trillion in managed assets) focusing on advancing leading investment practices, corporate engagement, key policy and regulatory solutions. These include the *Global Investor Coalition on Climate Change*, *Climate Action 100+*, and *The Investor Agenda*;
- (2) **Ceres Company Network** with over 50 major sustainability leading companies, and collaborating with coalitions, such as *We Mean Business*, encourages companies to take on more ambitious and robust goals for sustainability for their operations and supply chains;
- (3) **Ceres Policy Network** includes over 50 major companies, as major consumer brands for advancing strong climate, clean energy and water policies at the state and federal levels. This network includes *We Are Still*, a collation of over 3,500 investors, companies, mayor, governors, and college presidents, among other leaders committed to continue to meet the previous goals for the UN Paris Climate Accord;
- (4) **Ceres Nonprofit Network** includes 90+ environmental, labor, religious, and investor nonprofit organizations as an advocacy group encouraging business leadership on climate-change risks and sustainability opportunities (Ceres, 2019d).

Ceres and As You Sow, along with the U.S. Climate Action Network work for climate action, including educating corporations on climate change risks, management, and opportunities. Other environmental non-profit advocacy groups include the Sierra Club, the World Wildlife Fund (WWF), Greenpeace, the League of Conservation Voters, the Natural Resources Defense Council, Earth First! Worldwide, the National Wildlife Federation, the World Business Council for Sustainable Development, Green America, the Nature Conservancy, the Rainforest Action Network and, the Environmental Defense Fund, that also publish research, and engage with companies to change negative environmental practices.

3.3 Pension Funds and Environmental and Social Activism

Many government state and city pension and sovereign funds are taking on climate change and social actions including investing in environmentally and socially responsible investments. Japan's Government Pension Investment Fund (GPIF) takes a passive investment approach investing in stock indexes for 90 percent of its equity portfolio, but has a strong stewardship role. In September 2019, GPIF announced that it planned to increase the range of sustainable indices it allocates money to as a way to hold companies accountable for their environmental, social, and government responsibilities, with an agreement with Fidelity and Asset Management One for carrying out this stewardship. GPIF considers itself as a *universal owner* with the responsibility of raising sustainability standards across the entire market, and engaging with index providers to be more critical (Riding, 2019).

Taking a more aggressive view, Norway's \$1 trillion sovereign wealth fund in June of 2019 was given permission by the Norway's legislature to divest its shares in coal and energy companies, despite Norway being one of Europe's largest petroleum producers. The fund is retaining investments in integrated energy companies, including Shell and BP as large future investors in renewable energy (Plender, 2019).

In the U.S. many state and city pension funds engage in sustainable investment approaches for their portfolios, as well as utilizing shareholder resolutions and even lawsuits to target corporations for poor environmental, social, or governance behavior. The New York State Pension Fund (NYSPF), for

example, under the leadership of Comptroller, Thomas P. DiNapoli, has been particularly active on the sustainability front, initiating a Sustainable Investment-Climate Solutions Program including efforts to assess and combat climate change related risk. The Fund has more than \$10 billion committed to sustainable investments, including \$4 billion invested in a Low Emissions Index to shift funds away from the worst greenhouse gas emitters, and \$6 Billion invested in sustainable investments across asset classes, LEED Gold real estate investments, green bonds, and private equity investments. This is part of NYSPF's Climate Action Plan that plans to double these investments to \$20 billion over the next decade. The Fund also conducts a comprehensive ESG assessment for all new investments and measures annual the carbon footprint of its public equity portfolio (DiNapoli, 2019).

NYSPF has also taken a climate-activist role to urge corporations to reduce and report their greenhouse emissions and to develop climate change risk management strategies with the move to a low carbon economy. NYSPF has filed over 140 climate change-related shareholder resolutions, with 55 of these as negotiated withdrawal agreements where companies agreed to analyze their climate risk and set GHG emission reduction targets, increase their use of renewable energy, and energy efficiency, prevent deforestation, and put directors on their boards with environmental expertise.

The fund also helped to dramatically increase shareholder support for resolutions targeting major fossil fuel companies and utilities, including those for ExxonMobil and Duke Energy to examine how they will meet the goals of the Paris Agreement and to report their climate action plans. The fund called on over 300 companies in its Low Emissions index to publicly disclose emissions data, with 100 agreeing to disclose this information. NYSPF works with coalitions including PRI, CDP's Carbon Action, Climate Action 100+, CERES, and fellow state comptrollers and treasurers, in opposing efforts to weaken federal emissions standards for cars and trucks, and the EPA's roll back of the federal Clean Power Plan (DiNapoli, 2019).

Beyond this, the State of New York's attorney general initiated a lawsuit against Exxon Mobil for defrauding the NYSPF and other investors by underestimating known climate change risks, and applying a lower carbon price for these decisions than that presented to investors, that more fully factored the risk of stricter regulations in its business decisions, which the lawsuit states underestimated greenhouse gas related costs over the lifetime of the company's oil-sands projects in Alberta Canada by as much as \$36 billion (Pierce, 2019; Linnane, 2018).

The California Public Employees' Retirement System (CalPERs) also exemplifies active engagement and advocacy efforts by a government pension fund to minimize its portfolio's absolute risk of climate change for its portfolio by:

(1) mapping its global equity portfolio's carbon risk and global fixed income portfolio for transition risks; (2) public advocacy for greater climate-related financial risk disclosure, reduction of fossil fuel subsidies, carbon pricing, and remaining in the UN Paris agreement; and (3) working with climate change advocacy organizations, such as the Principles for Responsible Investment (PRI), Ceres, Institutional Investors Group on Climate Change (IIGCC) to launch Climate Action 100+). CalPERs also engages with companies in advocacy looking at the drivers of deforestation as well as climate change action, and corporate governance issues, working with the CDP, the Council of Institutional Investors, the International Corporate Governance Network, the G7 Investor Leadership Network, and the Sustainable Accounting Standards Board (CalPERs, 2019).

3.4 Insurance Companies as Climate Change Activists and as Targets

Insurance Companies with great financial exposure to catastrophic climate change risk have often made strides to make the public aware of these risks. Former California Insurance Commissioner, Dave Jones, in 2016 called upon Insurance companies to voluntarily divest thermal coal investments from

their portfolios. He also set requirements that insurers with greater than \$100 million in annual premiums must publicly disclose their investments in fossil fuels, with a Climate Risk Carbon Initiative for insurers to provide information on the amount of fossil fuel investments (coal, oil, gas, and utilities) in their portfolios and to report their divestments and future commitments to divest from thermal coal. A new petition in 2019 by several climate change and consumer activist groups urges the insurance industry to do more, calling for the new California Insurance Commissioner, Ricardo Lara, to require insurers doing business in California to make disclosures of their investments in fossil fuels and report on the fossil fuel projects that they are insuring (Jergler, 2019).

Many large global insurers have been divesting from fossil fuels and reducing their underwriting of fossil fuel companies and projects, including AXA, SCOR, Zurich, Allianz, Swiss Re, Munich Re, Generali, and VIG, and more recently Mapfre, an insurer in Spain and Latin America, and Uniqa, an Austrian Insurer, that announced they will be no longer insuring new coal mines and power plants (Jergler, 2019).

At the UN Climate Summit in New York on September 23 2019, under the new Net Zero Asset Owner Alliance organized by the UN Environment Finance Initiative and Mission 2020 to spur faster climate action, many insurers and pension funds (managing \$2.3 trillion) pledged to shift their portfolios away from carbon-heavy industries, hoping that this would trigger *snowballing climate commitments* from other large investors, with a pledge to rebalance their portfolios to ensure they would be carbon neutral by 2050, with intermediate targets set for 2025, 2030, and 2040, also pledging regular reports on their progress. At the summit U.N. Secretary-General Antonio Guterres pointed out that insurers and pension funds provide an important lever to transition the global economy away from fossil fuels, with pension funds, the primary holders of retirement savings, and insurance companies, representing some of the world's largest portfolios of capital (Green, 2019).

4. Corporations Taking a Lead on Climate Change

4.1 Corporations as Climate Change Action Advocates

In September 2019, in association with the UN Climate Summit more than 20 multinational corporations made new commitments to use renewable energy for 100 percent of their electricity, which the Climate Group announced brings 300 to the total number of renewable commitments from companies totaling \$5.5 trillion in revenue. This includes AT&T announcing that it would more than double its renewable energy purchases to more than 1.5 gigawatts of wind and solar power. Genetech pledged to electrify its vehicle fleet, with Amazon stating it will purchase 100,000 electric vehicles for its fleet, and pharmaceutical maker Novo Nordisk, that it would seek zero emissions from its operations and transportation by 2030, and ten companies committed to accelerate their energy efficiency by three percent a year. Over 50 financial institutions (\$2.9 trillion in assets) announced as well that they would measure and disclose carbon emissions of projects they lend to and invest in (Mufson, 2019).

Ahead of the UN Climate Summit in New York, a group of multinational corporations pledged to drastically cut greenhouse gas emissions including Swiss Re, Danone, Ikea, Salesforce, and L'Oreal. The UN Global Compact also announced 59 new companies as signatories, which now includes 87 companies, with a combined market capitalization of \$2.3 trillion, committed to keep global warming below 1.5 degrees centigrade, and to set independently verified *science-based* targets and create decarbonization plans within two years, with an option to publicly commit to target net-zero emissions by no later than 2050. With great environmental damage occurring as the result of climate change from destructive wild fires in California and the Amazon jungle, Midwestern floods, numerous damaging

hurricanes and tornados, and global heat waves and droughts, climate change has emerged as a policy priority among voters, with climate-science denial and fossil fuel promotion becoming less feasible positions. Corporations have been evolving in their positions from both a risk management position and in response to pressure from institutional investors, other shareholders, customers, communities, and employees as stakeholders (Nauman, 2019).

In response to actions to roll back environment protection regulation by the Trump Administration, the U.S. Climate Change Alliance has also taken strong stances against anti-environmental policies. The U.S. Climate Alliance issued a strong statement on September 18, 2019 opposing the administration's attempt to revoke the rights that U.S. states held under the Clean Air Act to protect communities from harmful pollution, urging alliance members and non-members including car makers to stand up for the continued development of cleaner cars with economic, environmental, and public health benefits. The Alliance also supports a Nation's Clean Car Promise for a strong, science-based national carbon emissions standard that will contribute to a reduction in carbon emissions, providing greater certainty for automakers and consumers, and preserving good jobs in the auto sector (U.S. Climate Alliance, 2019b,c,d).

Twenty-three states as a group filed lawsuits over the Trump administration's auto emissions rules as well. Four of the world's largest automakers (Ford Motor, Volkswagen of America, Honda, and BMW), representing 30 percent of the U.S. automobile market, rebelled against this policy, by making deals with the state of California to reduce auto emissions, supporting their right to make lower carbon emission vehicles. Under this contract, these firms were given slightly less stringent rules than the original Obama rule, whereby cars would reach an average of 51 miles per gallon by 2026 (Davenport and Tabuchi, 2019).

Automakers, major energy companies, electric utilities, and other large industrial firms have also spoken out against the Trump administration's plan to cut back on the regulation of methane emission under an EPA proposed rule that would eliminate the federal requirement that oil and gas companies install technology to detect and fix methane leaks from wells, pipelines, and storage facilities (Friedman and Davenport, 2019).

Another example of climate activism by companies includes the Lawmaker Education & Advocacy Day (LEAD) on Carbon Pricing that occurred on May 22, 2019 where over 75 corporations called on Congress for the passage of climate action legislation, including putting a federal price on carbon, the largest business gathering in Washington D.C. advocating for climate legislation over the past decade. Participating corporations include 21 companies on the Fortune 500, trade association, and medium and small businesses across 50 states, with annual revenues of over \$25 trillion with over one million employees (Ceres, 2019).

CEOs of corporations have also taken a lead by providing a platform for approving or disapproving particular public policies in the U.S. as a means to encourage the U.S. Congress to take positive action. This includes counter actions to reduce carbon emissions, following the Trump Administration's decision to leave the U.S. Paris Climate Accord. JP Morgan Chase, for instance increased its sustainability efforts, including targeting a dramatic reduction in energy use for its offices and branches by 2020 and pledging \$200 billion for wind farms and other renewable projects for the next eight years (Cooperman, 2018).

The strong actions by corporations reflects strong public pressure by U.S. citizens, including employees, customers, and other stakeholders for greater and faster federal government and corporation actions for taking on climate actions and reducing carbon emissions. A Washington Post-Kaiser Family Foundation poll found 72 percent of its respondents to believe that corporations are doing too little to reduce greenhouse gas emissions (Mufson, 2019). Similarly, a September 2019 Gallop Poll found 62

percent of those polled wanted the federal government to do more for the environment, and 75 percent strong supported curbing emissions and having the U.S. government spend more money on solar and wind power and to initiate higher emissions and pollution standards for industries. Only 9 percent thought the government was doing too much to protect the environment, and 28% that efforts were about right (Newport, 2018). For a similar poll in March of 2019, for each region polled, a majority (61% or higher) of those polled stated they worried about global warming, and 66 percent of those surveyed stated that they believed global warming was caused by human activity (a high for the poll), with 65% perceiving that most scientists agreed that global warming is occurring now (Saad, 2019; McCarthy, 2019).

Despite a consensus of concern for climate action in the U.S., it is surprising that the U.S. does not have a strong national plan to reduce carbon emissions. The U.S. House of Representatives legislation passed a bill in May 2019 to prevent the U.S.'s withdrawal from the 2016 Paris Climate Accord, with a mandate that the U.S. develop a strategy for achieving the commitments it made under the agreement, but the Republican majority in the Senate did not back this bill, under the argument that it put the U.S. at a disadvantage relative to other countries. Duke (2019), however, points out that the UN Paris Climate Accord agreement provides advantages for all countries worldwide including a containment of climate impacts globally and a sharing and gain from economies of scale that can reduce the cost of carbon-free technologies, as well as sharing learning experiences across countries.

5. The Case for Environmental and Social Value and Need for a Climate Action Plan in the U.S.

5.1 Can Investors and Corporations Do It All as Climate Activists?

Andrew Steer, on the Board of the Science Based Targets Initiative points out that despite over 600 companies pledging to do their part to reduce carbon emissions to limit global warming, only 15 percent of the world's largest 500 companies may be on track for their targets. Patrick Flynn, the vice president of sustainability for Salesforce also observes that companies can only do so much by themselves, with those fighting climate change trying to use all their available options including their influence on the public, but that this is likely insufficient, with the need for bold ideas and ambitious actions across the society, as well as stronger federal actions and regulations (Nauman, 2019).

Oil companies executives, such as Claudio Descalzi, CEO of Eni, a major global multinational oil and gas company headquarter in Rome) point out that major oil companies can not alone stop the global carbon emissions crisis, despite being under great public pressure to reduce investments in new projects, noting that if major oil companies don't produce, other less efficient companies will, resulting in with lower research and development for solutions for CO2 emission reductions. He observes that that all segments in society from governments to consumers to other industries that pollute need to unite to address climate change in a global unified way versus the initiation of piece by piece regulations for particular industries or regions. Eni, although it is a major oil and gas company has committed to carbon neutrality by 2030, by investing in green refineries and renewable energies, and forest conservation projects, but also has been diversifying its operations geographically with new exploration in the Middle East (Raval, 2019).

Landell-Mills (2019) similarly argues that asset managers need to do more to help to address the climate crisis with recent shareholder elections supporting the boards of directors of corporations that are continuing to increase their carbon emissions, such as 97% votes for the current directors of ExxonMobil, Chevron, BP, Shell, and Total, companies that are continuing to invest billions of dollars

into future fossil fuel extraction projects, which as predicted by Carbon Tracker will exceed the carbon emission reductions necessary to avoid global temperatures rising to a level associated with catastrophic climate change. Similarly other heavy industries have invested in new equipment and infrastructure without regarding their carbon emission effects versus shifting to low carbon emission alternatives. She notes asset managers need to do more and to vote for change and for decarbonizing actions, with half way measures no longer sufficient to avoid the climate crisis (Landell-Mills, 2019).

Reports, such as a recent *Mind the Science* report in 2019 from the CDP, conclude that corporations have lagged behind, with 81 percent of the world's 500 largest companies setting targets to reduce their carbon footprints, but most companies not doing enough including 70 of the most energy-intensive companies (aluminum, cement, chemicals, and electric utility sectors), with 22 of companies not publicly declaring an emission reduction target, and nine companies not monitoring or reporting their CO2 emissions. Also, of the companies setting long-term targets, few have targets in place extending beyond 2030. The report also urges companies to align their greenhouse gas emissions targets with climate science (Moodie, 2015). Winston (2018) similarly notes that CO2 emissions need to be cut by 45 percent from 2010 levels by 2030 according to an Intergovernmental Panel on Climate Change in 2018. Thus, corporations need to do more including using carbon pricing to incentivize reduction and influence investment decision to move towards using more renewable energy, reducing energy use, lowering the emissions in operations, and setting science-based carbon reduction targets, with 500 companies signing on to set emission reductions in line with science in 2018. Winston notes that a first priority that the Intergovernmental Panel on Climate Change (IPCC) makes clear is to put a price on carbon, with companies needing to lobby and advocate for higher prices placed on carbon and for stronger carbon emission standards. Also regulatory pressure is needed to move industry sectors forward, with support by corporations for climate scientists, and the use of all available platforms to engage consumers to reduce their carbon footprints as well.

5.2 New Debate on The Purpose of a Corporation Including a Broader Commitment to All Stakeholders

There has been much debate recently over the purpose of business and what it brings to society. America's Business Roundtable (BRT) representing 181 of the largest and most influential companies globally at its meeting on September 2019 removed the *shareholder first mantra* as a corporation's sole goal, urging companies to consider the environment and the well being of workers as complementary goals, with a broader commitment to all a corporation's stakeholders.

In October 2019, an editorial board opinion article for the *Financial Times* in points out that many signatories to the BRT's new statement felt that the statement was catching up with progress they had already made in their own companies. Yet, greater action is needed, with the cost on inaction significantly greater than it has ever been before. The article points out three important areas of action to encourage long-term sustainable growth include:

- (1) Aligning asset managers' and owners' long-term goals with purpose-led company goals;
- (2) Accelerating the impact firms have on society and the environment by rapidly improving, and gaining consensus on non-financial measures as benchmarks for progress that can be used by regulators, investors, and staff to hold executives to account; and
- (3) Supporting structural and regulatory solutions allowing companies to engage in long-term strategy making (FT, 2019).

Accordingly as an example of changes towards this goal, in October 2019, BHP, announced that it was adding a social value assessment to its business plans of all its assets to ensure local interests are included in its decision-making processes, noting that financial value and social value are intertwined.

The chief external affairs office, Geoff Healy stated that by having a social value assessment to its five-year business plans for all of its assets and linking this to a company-wide scorecard for the determination of employee bonuses, this would embed *social value* into its business model. In July of 2019, Andrew Mackenzie, the CDO of BHP announced that BHP would set public goals on reducing green house gas emissions from its products even after they were sold, and the company plans to operate the world's biggest copper mine in Chile, Escondida, entirely on renewable power (Hume, 2019).

At a recent (September 2019) *New York Times* DealBook/DC Strategy Forum, prominent business and civic leaders discussed solutions for the U.S.'s most challenging problems, with disagreement over whether it was a good role for corporations to go beyond focusing on profits to focus on public interests. Most panel members agreed that the federal government needs to institute carbon pricing and to place a limit on green house gases, with a goal of net zero emissions by no later than 2050, and that a portion of the revenues from carbon pricing. There was disagreement on how carbon pricing could be made acceptable to businesses and whether this would be an important element to consider (Sorkin, 2019).

Whether corporations should have a public social purpose was also addressed at a Columbia Business School roundtable, including a session on Corporate Purpose and Governance, summarized in an article in the *Journal of Applied Corporate Finance*. Kristin Bresnahan, Executive Director of the Millstein Center for Global Markets and Corporate Ownership, observed a sense of urgency concerning corporation's role in society with a souring on capitalism by younger generations, with the need to repair trust growing forward, with organizations including the Coalition for Inclusive Capitalism and the World Economic Forum, attempting to address these issues.

Ira Millstein, the founding chair of the Ira M. Millstein Center for Global Markets and Corporate Ownership at Columbia Law School also pointed out that there have been increasing proxy demands that will not go away for companies to take on a larger purpose with more and more resolution demands for governance change, gender equality, gun safety, climate and environmental change, and the opioid crisis. Colin Mayer, the Peter Moores Professor of Management Studies at the Said Business School at the University of Oxford observed that the competitiveness of nations depends on the trustworthiness of its corporations, not just for the prosperity of the few, but for the many. Thus, long-term engaged institutional investors may serve to address corporations' deficiencies in terms of pushing corporations to be responsible not only to their employees and customers and local community, but also more generally to society and the environment (Millstein, Gordon, Gilson, Mayer, Bresnahan, and Lipton, 2019).

Ansel Adams once stated, "*It is horrifying that we have to fight our own government to save the environment.*" With the Trump Administration taking a pro-fossil fuel position, including rolling back Clean Air Act regulations, and other environmental regulations, weakening the Endangered Species Rules, and going after over 88 environmental protection rules, states have filed lawsuits to prevent this from happening. This includes attorneys in 17 states in September 2019 making a promise to sue the Trump administration over rules that substantially weakened how Endangered Species Act protection are considered and enforced. This was in addition to a second coalition challenging the administration by environmental and animal rights groups (Fears, 2019).

Legal challenges have helped get some regulations reinstated, and many mired in court; however 24 were completed. In a recent report prepared by New York University's Law School's State Energy and Environmental Impact Center, the Trump administration's rollbacks could significantly increase green house gas emissions resulting in thousands of additional deaths from poor air quality each year (Popovich, Albeck-Ripka, and Pierre-Louis, 2019).

Although there has been strong climate actions on the part of hundreds of businesses to fill this void and counter these actions, it is unlikely that this. this will be sufficient to reduce carbon emission

in the U.S., with carbon emissions in 2018, not declining, but rising by 3.4 percent in 2018 according to the research firm Rhodium Group (Plumer, 2019).

With the upcoming U.S. federal elections, Green (2019) points out that many businesses are open-minded to federal policy approaches for carbon prices, offering support for the bipartisan Energy Innovation and Carbon Dividend Act that was introduced in the House in 2018 that would be revenue neutral, with revenue collected from carbon fees returned to consumers in the form of rebates, resulting in no expansion of government or increased cost to consumers, while generating funds for needed infrastructure and R&D investments. In 2019 alone, 16 states introduced carbon-pricing bills, indicating they are taking the lead in the absence of meaningful federal climate action. Many oil and gas companies are also in favor of revenue neutral carbon pricing. Since reducing carbon emissions becomes urgent, he notes that federal action is needed and more likely to be supported in the future. Rather than having piece meal legislation, it will be crucial to have a national climate action policy in the U.S. to have a major effect on reducing carbon emissions that will be necessary to avoid negative environmental effects, including irreversible climate change effects (Green, 2019).

6. Conclusion

Countering the Trump Administration's pro-coal, anti-climate change policies including leaving the UN Paris Accord, the U.S. Climate Change Alliance including 1,650 large corporations and investors, 25 state governors and over 407 U.S. climate mayors have kept a large part of the U.S. economy (about 55% of the U.S. population) has been working to meet the previous U.S. climate action goals for reducing carbon emissions, representing a \$11.7 trillion economy. SRI funds, major corporations, institutional investors and pension funds are also fighting for climate change actions. Although progress as been made, with environmental protections being dismantled at a rapid pace, this is a difficult path, with U.S. carbon dioxide emissions rising an estimated 3.4 percent in 2018, despite these efforts. This is a very disturbing trend, with climate scientists stating that the world needs to aggressively cut its emissions to avoid the devastation associated with dramatic climate change if temperatures continue to rise. Having a U.S. federal climate action plan is imperative for future progress (such as a national price for carbon and/or a carbon cap and trading system) to provide incentives for large-scale carbon emission reductions and greater use of renewable sources of energy.

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