Defending ESG Fiduciary Duty

by Katherine Held

This paper defends the validity of ESG Investing (Environmental, Social, Governance Investing) as an advisor's fiduciary responsibility. The financial industry is increasingly including ESG considerations when calculating the intrinsic value of a stock. In opposition to this valuation trend, nineteen state attorney generals (the Nineteen) have attacked ESG, challenging its legality by claiming that it violates state and federal law and the fiduciary responsibilities that hold investment advisors accountable to their clients. After identifying key elements of fiduciary responsibility that are being ignored by the Nineteen's position, several key and relevant United States statutes are reviewed and applied to their argument. In doing so, it becomes evident that the Nineteen do not have the best interest of investors in mind not only because they violate key fiduciary elements but also because their position would prevent investors the opportunity to benefit from higher yielding Return on Equity portfolios.

1. Introduction

Environmental, Social, Governance (ESG) investing is a method of investment screening that factors in sustainability and the societal impacts of a business. The "E" captures factors of natural resources; "S" includes management of human capital, treatment of non-human animals, and the impact on external stakeholders; and "G" pertains to stakeholder well-being and how well a business follows local, national, and international laws. Although the term "ESG" is relatively new, valuing how a company impacts stakeholders traces back several centuries ago. Starting with religious groups to now influencing mass audiences, this buildup of ethical investing has carved ESG into what it is today. Despite this build, nineteen Attorney Generals are arguing against ESG. In 2022, these "Nineteen"[1]have argued that ESG hinders the best possible return and is acting against a client's best interests. Through evaluating the Investment Advisers Act of 1940, the Employee Retirement Income Securities Act (ERISA) of 1974, and the Dodd Frank Wall Street Reform and Securities Act, these laws specify who an investment adviser is and how an investor fulfills fiduciary duty.

[1] Alabama, Arizona, Arkansas, Georgia, Idaho, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, Ohio, Oklahoma, South Carolina, Texas, Utah, and West Virginia

Many other papers have focused on the environmental, social, governance impacts of a business. ESG has the potential to mitigate several staggering outlooks. The World Economic Forum anticipates that the top 5 risks to the global community are 1) climate action failure, 2) weapons of mass destruction, 3) biodiversity loss, 4) extreme weather, and 5) water crises.[2] The "E" in ESG reduces 1,3,4, and 5. For the "S," ESG can incentivize companies to humanely source their labor. Globally, there are an estimated 168 million people involved in child labor, and over half of the 168 billion are engaged in hazardous work that puts their health and safety at risk. Through global supply chains, these business risks are attributed to 12 million deaths every year.[3] For "G," the McKinsey & Company found that large portions of Earnings (EBITDA) are at risk for the following sectors: banks (50%), automotive, aerospace and defense, tech (50%), transport, logistics, infrastructure (45%), telecom and media (40%), energy and materials (35%),

[2] World Economic Forum, "The Global Risks Report 2020,"www.weforum.org/reports/the-global-risks-report-2020.

[3] Charter for Compassion, "Human Rights in Supply Chains (Human Rights Watch)," 2022, charterforcompassion.org/human-rights-in-supply-chains-human-rights-watch-cci.

resources (30%), and consumer goods (25%).[4] Other papers have dived deeper and have demonstrated the environmental, societal, and governmental necessity for ESG.

Nevertheless, this paper does not revisit a more comprehensive rationale for pursuing ESG investments but focuses on rebutting the claims of the Nineteen. Specifically, ESG aids investors by mitigating risk and diversifying investment portfolios. The discussion of ESG with clients does not conflict with the fiduciary duties of investment advisers. Most importantly, by analyzing data from the S&P 500 index, this paper shows how ESG not only bolsters a portfolio for long-term success but does not produce lower returns than a standard[5] portfolio. Rather, a portfolio that includes ESG criteria has the potential to earn higher returns.

The rest of the paper is organized as follows. Section 2 discusses the Anti-ESG coalition and the actions of the Nineteen in greater detail. Section 3 discusses how ESG coheres with an investment adviser's fiduciary duty. Section 4 then examines how stocks scoring highly on an 'ESG' index perform in terms of their Returns on Equity, showing that they generally do not perform worse and often perform better. A conclusion follows.

2. Anti-ESG Coalition

In 2022, the Nineteen publicly criticized ESG Investing on multiple occasions. In May 2022, Kentucky Attorney General Daniel Cameron's office published the *Opinion of the Attorney General OAG-22-05*. The document states, "There is an increasing trend (ESG Investing) among some investment management firms to use money in public and state employee pension plans— that is, other people's money—to push their own political agendas and force social change."[6] The article then questions if ESG is consistent with Kentucky and federal law. Referring to ESG mitigating climate change, Kentucky speculates that it could violate the law.

Kentucky then joined forces with the other Attorney Generals to form a coalition against ESG. In August 2022, the Nineteen sent a letter to Larry Fink, the CEO of BlackRock Inc. This was in response to a letter that BlackRock sent to various chief executives. BlackRock is the world's largest investment management company overseeing $10 trillion in assets. In the letter sent to executives, Fink stated that BlackRock will increase ESG considerations when evaluating and recommending investments. This increase in ESG aligns with BlackRock's goal to operate under the targets of the Paris Agreement. One of the targets is to limit global warming to less than two degrees Celsius.[7] In the Nineteen's letter, they articulate, "Based on the facts currently available to us, BlackRock appears to use the hard-earned money of our states' citizens to circumvent the best possible return on investment, as well as their vote."[8] They voice that BlackRock is exploiting citizens' assets to pressure companies to comply with international agreements like the Paris Agreement. The Nineteen write that they believe the Paris Agreement will phase out fossil fuels, increase energy prices, drive inflations, and weaken the United States' national security. The Nineteen believe that by aiming for the targets set by the Paris Agreement, investment firms breach neutrality, their duty of loyalty, and their duty of care. The Nineteen speculate that fiduciary duty is not satisfied since BlackRock is circumventing the best possible return on investment and not discharging their duties in the interests of the beneficiaries.

In the same month, the Nineteen started legal proceeding against ESG by serving a Civil Investigate Demand against seven banks.[9] They subpoenaed information speculating a breach of fiduciary duty through ESG implementation. The Missouri Attorney General states, "We are leading a coalition

[4] Witold Henisz, et al., "Five Ways That ESG Creates Value," McKinsey & Company, June 23, 2021, www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/five-ways-that-esg-creates-value?cid=soc-web.

[5] Standard indicates that ESG criteria is not included

[6] Kentucky Attorney General Office, OAG, and Daniel Cameron, "Opinion of the Attorney General," accessed June 23, 2022, www.ag.ky.gov/Resources/Opinions/Opinions/OAG%2022-05.pdf.

[7] CFA Society United Kingdom, *ESG Investing*, 2022, pp. 1–312.

[8] Ken Paxton, "BlackRock Letter," received by Laurence Fink CEO, Aug. 4, 2022.

[9] Bank of America, Citigroup, Goldman Sachs, JP Morgan Chase, Morgan Stanley, and Wells Fargo

investigating banks for ceding authority to the U.N., which will only result in the killing of American companies that don't subscribe to the woke, climate agenda."[10] The seven banks are members of the *Net-Zero Banking Alliance*. The initiative accelerates and supports the implementation of decarbonizing strategies. Each of the seven banks signed a Commitment Statement agreeing to "transition all operational and attributable GHG (greenhouse gases) from our lending and investment portfolios to align with pathways to net-zero."[11] The Nineteen are citing a breach of fiduciary duty for implementing ESG. This coalition believes that ESG can only earn lower returns and that ESG investing violates fiduciary duty.

3. ESG, Risk, and Fiduciary Duty

A. ESG and Risk

Investors utilize ESG to correctly identify, evaluate, and price companies. For example, if an investor determines that two companies have roughly the same expected return, the investor could turn to ESG to determine the risk of a company. If a company heavily pollutes, has high employee turnover, or does not follow regulations, the risk of that company increases. Since the investor is anticipated to earn the same return with a lower risk, they would opt for the less risky, more ESG stock. The higher the risk, the more likely the stock will encounter large dips in stock price. Larger dips require more return to make it back to the "initial stock price." In a case where a client cares solely about return, and not about the environment or the impact on people, they would still benefit from the less-risky, more ESG stock.

Asset managers attempt to mitigate risk and build their clients' portfolio for long-term success. ESG has revolutionized the landscape of the investment world. ESG recognizes the direct relationship that adequate natural resources, healthy human capital, and law designed for the betterment of communities have on the viability of business. Before this recognition, many investors only considered direct and short-term financial results. Now, however, investors are still looking at financial returns (short and long-term) while also evaluating how a business builds itself to be sustainable and viable for the long-run. In 2019, the Global Impact Investing Network (GIIN) published "Sizing the Impact Investing Market." Their report estimated that there is $502 billion in the global impact investing market. In the annual GIIN survey, they discovered that 66% of investment firms are pursuing ESG while simultaneously earning competitive, market rate returns.[12] From ESG's roots to a multi-billion-dollar industry, ESG is anticipated to expand even more because of increased demands of clients. It is essential for an investor to understand how committing to the laws governing fiduciary duty interplay with ESG.

B. Fiduciary Duty

Fiduciary duty is defined as "a person or organization that acts on behalf of another person, putting their clients' interests ahead of their own."[13] Their duty preserves good faith and trust. A person in the role of a fiduciary is bound legally and ethically to serve in the best interest of their client.

Of the many elements encompassed in fiduciary duty, the following three are particularly relevant to this paper's analysis:

> 1) Recognition that every investor is different, with their own set of goals, values, and desired outcomes. Investment should be done in concert with the client's goals, not despite them.
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> 2) Investment should be done in good faith with the hope that the businesses or industries invested in will be on-going concerns in one year, five years, ten years, and fifty years. If this is not factored into the investment decision, it

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[10] Yudi Sherman, "19 Attorneys General Launch Investigation into Banks Pushing ESG," *America's Frontline News*, Oct. 2022, americasfrontlinenews.com/post/19-attorneys-general-launch-investigation-into-banks-pushing-esg.

[11] United Nations Environment Programme Finance Initiative, "Net-Zero Banking," www.unepfi.org/wordpress/wp-content/uploads/2021/04/UNEP-FI-NZBA-Commitment-Statement.pdf.

[12] Global Impact Investing Network, "Annual Impact Investor Survey 2019," US AID, thegiin.org/assets/GIIN_2019%20Annual%20Impact%20Investor%20Survey_ExecSumm_webfile.pdf.

[13] Julia Kagan, "Fiduciary Definition: Examples and Why They Are Important," Investopedia, accessed Jan. 17, 2023, https://www.investopedia.com/terms/f/fiduciary.asp.

> puts into question the abilities of the businesses' management and their ability to think long-term for the good of the company and its shareholders.
>
> 3) It is critical to use the most accurate data for investment decision. Once the goals of the client are understood, the most accurate data for investment decision should be utilized. If the data does not include a full cost accounting of doing business, it over-inflates all Net Revenue and Equity calculations thereby falsely raising an investment's return.

Leading the financial investment world is the Chartered Financial Analyst (CFA) Institute. The CFA is the most highly respected designation in the field. Standard III.A. of the CFA Institute *Code of Ethics* requires that "Members and Candidates must act for the benefit of their clients and place their clients' interests before their employer's or their own interests."[14] Albeit broad, the CFA Institute alludes to three US laws that investors must follow. These laws include the Investment Advisers Act of 1940, the Employee Retirement Income Security Act of 1974 (ERISA), and the Dodd-Frank Wall Street Reform and Consumer Protection Act.

The Investment Advisers Act of 1940 defined who an investor is and their required standard of conduct. Under the act, "'Investment adviser' means any person who, for compensation, engages in the business of advising others, either directly or through publications or writings, as to the value of securities or as to the advisability of investing in, purchasing, or selling securities, or who, for compensation and as part of a regular business, issues or promulgates analyses or reports concerning securities."[15] The Investment Advisers Act elaborates the role of an adviser by defining the Standard of Conduct: "The Commission may promulgate rules to provide that the standard of conduct for all brokers, dealers, and investment advisers, when providing personalized investment advice about securities to retail customers (and such other customers as the Commission may by rule provide), shall be to act in the best interest of the customer without regard to the financial or other interest of the broker, dealer, or investment adviser providing the advice."[16] The act further specifies that client consent is needed on all financial transactions. The Investment Advisers Act defines an investment adviser as one who manages the assets of their client. Their role is to provide the best level of care possible. The client must be made aware of all actions within their portfolio.

The second law that the CFA refers to is the Employee Retirement Income Security Act (ERISA) of 1974 housed under the Department of Labor (DOL). Under ERISA, a fiduciary investor must "act prudently and must diversify the plan's investments in order to minimize the risk of large losses."[17] The DOL states that fiduciaries that do not follow these principles of conduct are personally liable to recover any of the clients' losses. Under ERISA, investors must plan into the future for a successful portfolio while simultaneously diversifying the portfolio and mitigating risks.

Another law created in the wake of a financial crisis is the Dodd-Frank Wall Street Reform and Consumer Protection Act. The act seeks to ensure the financial safety of Americans by increasing the financial stability of major firms, establishing the Consumer Financial Protection Bureau, and integrating credit ratings. Dodd-Frank built upon the Investment Advisers Act by making more stringent requirements on financial disclosures. While Dodd-Frank radically changed the financial sector, the subcategory, "Study and Rulemaking Regarding Obligations of Brokers, Dealers, and Investment Advisers," is under review. In this section, Dodd-Frank states, "Nothing in this section shall require a broker or dealer or registered representative to have a continuing duty of care or loyalty to the customer after providing personalized investment advice

[14] CFA Institute, "Fiduciary Duty: Fiduciary Standard & Regulations," www.cfainstitute.org/en/advocacy/issues/fiduciary-duty#sort=%40pubbrowsedate%20descending.

[15] US Government Publishing Office, "Investment Advisers Act of 1940," Gov Info, www.govinfo.gov/content/pkg/COMPS-1878/pdf/COMPS-1878.pdf.

[16] US Government Publishing Office, "Investment Advisers Act of 1940."

[17] United States Department of Labor, "Fiduciary Responsibilities," www.dol.gov/general/topic/health-plans/fiduciaryresp.

about securities."[18] The CFA rebuts that this ruling is unworkable, and that the SEC would revise the extent of fiduciary duty in the summer of 2017. Since the summer of 2017, advocates for "full-term" fiduciary duty have been met with persistent opposition. Debates about the role of a fiduciary after the initial transaction is still ongoing. The CFA states that they had hoped the situation would have been resolved but support the underlying objective of the DOL which is to serve the client in their best interest.[19]

The Nineteen fail the Investment Advisers Act of 1940 and ERISA if investors are no longer allowed to implement ESG. Under the Advisers Act, a client must be made aware of all actions in the portfolio and must give their consent to investment advisers to make any decisions in the portfolio. Investment advisers are therefore required to disclose if ESG is part of their valuation. Clients, with their own money, should have the right to decide whether their portfolio should include ESG. By taking away that choice, the Nineteen are grossly overreaching their governmental authority. It is not the investment adviser who makes the final decision in absence of their client, but rather, it should be a joint decision made in concert with the clients' goals and values.

ERISA states that an investor must act prudently and diversify their client's portfolio. To act prudently means to show thought for the future. To diversify a portfolio means to mitigate risk and protect the assets in the portfolio. ESG measures a company by their risk potential. Companies with a lower ESG score have higher risk for the client's assets. By investing in ESG companies, investors are mitigating the risks their clients could encounter if they do not include ESG considerations. Avoidance of these risks diminish the likelihood of various crises from happening to the client.

4. ESG Returns

The largest component of the Nineteen's points of contention is that ESG Portfolios have lower returns than a standard portfolio. In this section, a company's ESG score is compared to its Return on Equity (ROE). If the claims of the Nineteen ring true, then companies with higher ESG scores should have had lower ROEs. Instead, results will show that ESG portfolios do not underperform standard portfolios. Rather, ESG portfolios can experience higher returns than a standard portfolio.

To come to this conclusion, S&P 500 companies' annual Return on Equity (ROE) ratios are compared to their respective Bloomberg ESG Score from 2009 to 2021. The S&P 500 was chosen because it is the most watched sector filled with many recognizable company names. The ROE ratio was selected because this ratio measures how profitable a company is and how efficiently the company makes those profits. Essentially it measures the amount of profit per each dollar of shareholder's stock. Bloomberg ESG Scores were chosen because this ESG score represents how transparent a company is regarding ESG criteria. While Bloomberg scores are not a true reflection of how eco-friendly, socially responsible, or law abiding a corporation is, the sectors that typically are known for pollution and human rights violations in supply chains do not have high ESG scores because they are more resistant to share their disclosure scores. There are also many third-party, independent ESG rating companies. Since there is not one universal standard for ESG currently, Bloomberg ESG scores represent the most standardized of the rating systems. Bloomberg arrives to their final score through metric measurements and a yes/no system. "E," "S," and "G" are weighted equally. For example, for every "yes," the company receives a point. Under Environmental, a company's air disclosure score includes Nitrogen Oxide Emissions, VOC Emissions, Carbon Monoxide Emissions, Particulate Emissions, and Sulphur Dioxide/Sulphur Oxide Emissions (see the appendix for a complete scoring list). Based on emissions metrics, the company receives a score. The Air Quality score represents 4.78% of the overall ESG Score amongst the other 95.22% weighting. We also collect data on ROE scores when reported.[20]After excluding companies without a ROE ratio and/or a Bloomberg ESG Score, 5,968 points of data were analyzed.

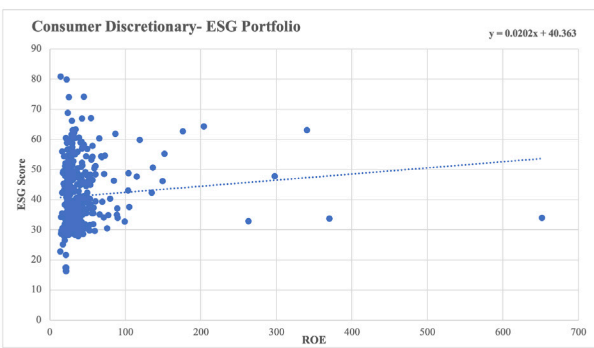
Next, the S&P 500 was subdivided into eleven sectors to account for industry differences in ROEs

[18] US Government Publishing Office, "Dodd-Frank Wall Street Reform and Consumer Protection Act," Gov Info, https://www.govinfo.gov/content/pkg/COMPS-9515/uslm/COMPS-9515.xml

[19] CFA Institute, "Fiduciary Duty: Fiduciary Standard & Regulations."

[20] Some companies within the S&P 500 companies did not have reportable ROE scores, such as McDonalds in 2016, as its shareholder's equity is a negative number due to share buybacks (McDonalds 2016 10K Report), thereby creating a negative ROE.

following MSCI's Global Industry Classification System (GICS).[21] Table 1 shows the relationship between ROE on the ESG score for a particular sector. The coefficient estimates show when the regression between ESG and ROE is positive or negative. Most entries show a positive, albeit weak, association between the ESG score of a stock and its ROE. An example is the Consumer Discretionary sector as seen below. The only sectors with negative slopes are communication services, energy, and materials. No negative correlation generally arises. Moreover, many observations lie well off the regression line, showing that other factors besides ESG meaningfully contribute to the stock's ROE. In summary, no general evidence arises that stocks with high ESG scores underperform. While the Nineteen claim that incorporating ESG into a client's portfolio hurts the return, ESG does not lower returns but could increase returns.



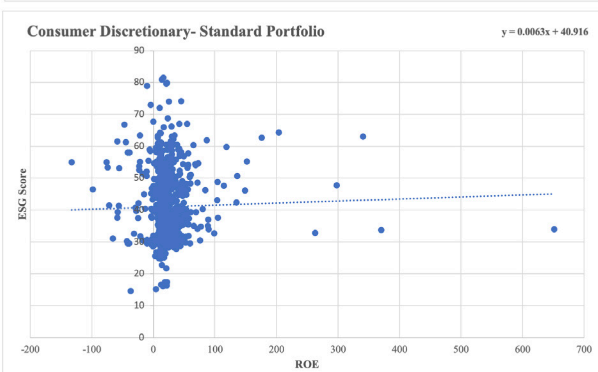


Figure 1 and 2[22]

Table 1			
Sector	ESG Portfolio	Standard Portfolio	Difference
Communication Services	-0.01099	-0.006	-0.00499
Consumer Discretionary	0.0201	0.0064	0.0137
Consumer Staples	0.0172	0.0343	-0.0171
Energy	-0.1655	-0.0721	-0.0934
Financials	0.0404	0.04	0.0004
Healthcare	0.0735	0.0747	-0.0012
Industrials	0.0236	0.0201	0.0035
Info Tech	0.0471	0.0455	0.0016
Materials	-0.0458	-0.0119	-0.0339
Real Estate	0.1035	0.0342	0.0693
Utilities	0.0069	-0.0777	0.0846

Table 1[23]

Conclusion

The Nineteen's position that ESG is against the fiduciary duties of an investment advisor is built on false premises. It makes several key assumptions that fly in the face of fiduciary duties and sound advice. First, it assumes that all investors are the same and that it is the advisor's money to invest, not the investor's money. Second, if they are successful in making it illegal to invest in higher ESG companies, it is a gross over-reach of government interfering with that should be a free-market system that would allow choice. Third, if their definition of fiduciary duty is simply to get the highest return for the client, their calculations are based on incomplete information since the financial ratios do not consider a full accounting of the costs of doing business. ESG plans for long-term success, mitigates risk, and outperforms portfolios without ESG considerations. For an investor to fulfill fiduciary duty, an investor must consider ESG. ESG guidelines are in the best interest of a client and therefore should play an active role in fiduciary duty. ESG benefits the environment, stakeholders within the supply chain, employees, the clients and yes, even the Nineteen.

[21] Communication Services, Consumer Discretionary, Consumer Staples, Energy, Financials, Industrials, Info Tech, Health Care, Materials, Real Estate, and Utilities

[22] Bloomberg, "Annualized Return on Equity and Bloomberg ESG Disclosure Score for S&P 500 December 31, 2009-December 31, 2021," accessed October 2022.

[23] Bloomberg, "Annualized Return on Equity and Bloomberg ESG Disclosure Score for S&P 500 December 31, 2009-December 31, 2021."

Appendix
Bibliography

Bloomberg. "Annualized Return on Equity and Bloomberg ESG Disclosure Score for S&P 500 December 31, 2009-December 31, 2021." Bloomberg LP. Accessed October 2022.

CFA Institute. "Fiduciary Duty: Fiduciary Standard & Regulations." www.cfainstitute.org/en/advocacy/issues/fiduciary-duty#sort=%40pubbrowsedate%20descending.

CFA Society United Kingdom. *ESG Investing*. 2022, pp. 1–312.

Charter for Compassion. "Human Rights in Supply Chains (Human Rights Watch)." 2022. charterforcompassion.org/human-rights-in-supply-chains-human-rights-watch-cci.

Global Impact Investing Network. "Annual Impact Investor Survey 2019." US AID. thegiin.org/assets/GIIN_2019%20Annual%20Impact%20Investor%20Survey_ExecSumm_webfile.pdf.

Henisz, Witold, et al. "Five Ways That ESG Creates Value." McKinsey & Company. June 23, 2021. www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/five-ways-that-esg-creates-value?cid=soc-web.

Kagan, Julia. "Fiduciary Definition: Examples and Why They Are Important." Investopedia. Accessed Jan. 17, 2023. https://www.investopedia.com/terms/f/fiduciary.asp.

Kentucky Attorney General Office, OAG, and Daniel Cameron. "Opinion of the Attorney General." Accessed June 23, 2022. www.ag.ky.gov/Resources/Opinions/Opinions/OAG%2022-05.pdf.

Paxton, Ken. "BlackRock Letter." Received by Laurence Fink CEO, 4 Aug. 2022.

Sherman, Yudi. "19 Attorneys General Launch Investigation into Banks Pushing ESG." *America's Frontline News*, Oct. 2022. americasfrontlinenews.com/post/19-attorneys-general-launch-investigation-into-banks-pushing-esg.

United Nations Environment Programme Finance Initiative. "Net-Zero Banking." www.unepfi.org/wordpress/wp-content/uploads/2021/04/UNEP-FI-NZBA-Commitment-Statement.pdf.

United States Department of Labor. "Fiduciary Responsibilities." www.dol.gov/general/topic/health-plans/fiduciaryresp.

US Government Publishing Office. "Dodd-Frank Wall Street Reform and Consumer Protection Act." Gov Info. https://www.govinfo.gov/content/pkg/COMPS-9515/uslm/COMPS-9515.xml

US Government Publishing Office. "Investment Advisers Act of 1940." Gov Info. www.govinfo.gov/content/pkg/COMPS-1878/pdf/COMPS-1878.pdf.

World Economic Forum. "The Global Risks Report 2020." www.weforum.org/reports/the-global-risks-report-2020.

Bloomberg ESG Scoring Criteria

Pillar (Weight)	Topic	Field ID	Field Description	Units	Disclosure Frequency	In Old Disclosure Score?	Weight (% of Overall Score Weight)
Environmental (33%)	**Air Quality**		**Air Quality Disclosure Score**	**Percentage**			**4.78%**
		ES007	Nitrogen Oxide Emissions	Thousand Metric Tonnes	Annual	Y	0.96%
		ES009	VOC Emissions	Thousand Metric Tonnes	Annual	Y	0.96%
		ES010	Carbon Monoxide Emissions	Thousand Metric Tonnes	Annual	Y	0.96%
		ES013	Particulate Emissions	Thousand Metric Tonnes	Annual	Y	0.96%
		F0949	Sulphur Dioxide / Sulphur Oxide Emissions	Thousand Metric Tonnes	Annual	N	0.96%
	Climate Change		**Climate Change Disclosure Score**	**Percentage**			**4.70%**
		ES036	Emissions Reduction Initiatives	Y/N	Annual	Y	0.11%
		ES071	Climate Change Policy	Y/N	Annual	Y	0.11%
		ES105	Climate Change Opportunities Discussed	Y/N	Annual	Y	0.11%
		ES106	Risks of Climate Change Discussed	Y/N	Annual	Y	0.11%
		ES001	Direct CO2 Emissions	Thousand Metric Tonnes	Annual	Y	0.47%
		ES002	Indirect CO2 Emissions	Thousand Metric Tonnes	Annual	Y	0.47%
		ES012	ODS Emissions	Thousand Metric Tonnes	Annual	Y	0.47%
		ES076	GHG Scope 1	Thousand Metric Tonnes CO2e	Annual	Y	0.47%
		ES077	GHG Scope 2	Thousand Metric Tonnes CO2e	Annual	Y	0.47%
		ES078	GHG Scope 3	Thousand Metric Tonnes CO2e	Annual	Y	0.47%
		ES255	Scope 2 Market Based GHG Emissions	Thousand Metric Tonnes CO2e	Annual	N	0.47%
		ES262	Scope of Disclosure	Nominal (1-3)	Annual	N	0.47%
		ES399	Carbon per Unit of Production	Metric Tonnes/Unit of Production	Annual	N	0.47%
	Ecological & Biodiversity Impacts		**Ecological & Biodiversity Impacts Disclosure Scoı**	**Percentage**			**4.79%**
		ES088	Biodiversity Policy	Y/N	Annual	Y	0.28%
		ES032	Number of Environmental Fines	Count	Annual	Y	1.13%
		ES033	Environmental Fines (Amount)	Million Reporting Currency	Annual	Y	1.13%
		SA231	Number of Significant Environmental Fines	Count	Annual	N	1.13%
		SA359	Amount of Significant Environmental Fines	Million Reporting Currency	Annual	N	1.13%
	Energy		**Energy Disclosure Score**	**Percentage**			**4.73%**
		ES035	Energy Efficiency Policy	Y/N	Annual	Y	0.14%
		ES014	Total Energy Consumption	Thousand Megawatt Hours	Annual	Y	0.57%
		ES015	Renewable Energy Use	Thousand Megawatt Hours	Annual	Y	0.57%
		ES080	Electricity Used	Thousand Megawatt Hours	Annual	Y	0.57%
		ES107	Fuel Used - Coal/Lignite	Thousand Metric Tonnes	Annual	Y	0.57%
		ES108	Fuel Used - Natural Gas	Thousand Cubic Meters	Annual	Y	0.57%
		ES109	Fuel Used - Crude Oil/Diesel	Thousand Cubic Meters	Annual	Y	0.57%
		ES384	Self Generated Renewable Electricity	Thousand Megawatt Hours	Annual	N	0.57%
		ES494	Energy Per Unit of Production	Megawatt Hours/Unit of Productio	Annual	N	0.57%
	Materials & Waste		**Materials & Waste Disclosure Score**	**Percentage**			**4.74%**
		ES039	Waste Reduction Policy	Y/N	Annual	Y	0.16%
		ES019	Hazardous Waste	Thousand Metric Tonnes	Annual	Y	0.65%
		ES020	Total Waste	Thousand Metric Tonnes	Annual	Y	0.65%
		ES021	Waste Recycled	Thousand Metric Tonnes	Annual	Y	0.65%
		ES025	Raw Materials Used	Thousand Metric Tonnes	Annual	Y	0.65%
		ES026	% Recycled Materials	Percentage	Annual	Y	0.65%
		ES104	Waste Sent to Landfills	Thousand Metric Tonnes	Annual	Y	0.65%
		ES498	Percentage Raw Material from Sustainable S	Percentage	Annual	N	0.65%
	Supply Chain		**Supply Chain Disclosure Score**	**Percentage**			**4.79%**
		ES037	Environmental Supply Chain Management	Y/N	Annual	Y	4.79%
	Water		**Water Disclosure Score**	**Percentage**			**4.79%**
		ES247	Water Policy	Y/N	Annual	N	0.28%
		ES081	Total Water Discharged	Thousand Cubic Meters	Annual	Y	1.13%
		ES082	Water per Unit of Production	Liters/Unit of Production	Annual	Y	1.13%
		ES269	Total Water Withdrawal	Thousand Cubic Meters	Annual	N	1.13%
		SA484	Water Consumption	Thousand Cubic Meters	Annual	N	1.13%
Social (33%)	**Community & Customers**		**Community & Customers Disclosure Score**	**Percentage**			**5.53%**
		ES059	Human Rights Policy	Y/N	Annual	Y	0.34%
		ES332	Policy Against Child Labor	Y/N	Annual	N	0.34%
		ES369	Quality Assurance and Recall Policy	Y/N	Annual	N	0.34%
		ES370	Consumer Data Protection Policy	Y/N	Annual	N	0.34%
		ES055	Community Spending	Million Reporting Currency	Annual	Y	1.39%
		ES120	Number of Customer Complaints	Count	Annual	N	1.39%
		ES488	Total Corporate Foundation and Other Givin	Million Reporting Currency	Annual	N	1.39%
	Diversity		**Diversity Disclosure Score**	**Percentage**			**5.49%**
		ES058	Equal Opportunity Policy	Y/N	Annual	Y	0.13%
		ES479	Gender Pay Gap Breakout	Y/N	Annual	N	0.13%
		ES046	% Women in Management	Percentage	Annual	Y	0.52%
		ES047	% Women in Workforce	Percentage	Annual	Y	0.52%
		ES048	% Minorities in Management	Percentage	Annual	Y	0.52%
		ES049	% Minorities in Workforce	Percentage	Annual	Y	0.52%
		ES091	% Disabled in Workforce	Percentage	Annual	Y	0.52%
		ES480	Percentage Gender Pay Gap for Senior Mana	Percentage	Annual	N	0.52%
		ES481	Percentage Gender Pay Gap Mid & Other Mar	Percentage	Annual	N	0.52%
		ES482	Percentage Gender Pay Gap Employees Ex M	Percentage	Annual	N	0.52%
		ES483	% Gender Pay Gap Tot Empl Including Manag	Percentage	Annual	N	0.52%
		ES484	% Women in Middle and or Other Managem	Percentage	Annual	N	0.52%
	Ethics & Compliance		**Ethics & Compliance Disclosure Score**	**Percentage**			**5.57%**
		ES069	Business Ethics Policy	Y/N	Annual	Y	0.93%
		ES197	Anti-Bribery Ethics Policy	Y/N	Annual	N	0.93%
		ES067	Political Donations	Million Reporting Currency	Annual	Y	3.72%

	Health & Safety		**Health & Safety Disclosure Score**	**Percentage**			**5.58%**
		ES057	Health and Safety Policy	Y/N	Annual	Y	0.15%
		ES052	Fatalities - Contractors	Count	Annual	Y	0.60%
		ES053	Fatalities - Employees	Count	Annual	Y	0.60%
		ES054	Fatalities - Total	Count	Annual	Y	0.60%
		ES092	Lost Time Incident Rate	Lost Time Incidents/200,000 Hours	Annual	Y	0.60%
		ES121	Total Recordable Incident Rate	Recordable Incidents/200,000 Hou	Annual	N	0.60%
		ES260	Lost Time Incident Rate - Contractors	Lost Time Incidents Contractors/20	Annual	N	0.60%
		ES261	Total Recordable Incident Rate - Contractors	Recordable Incidents Contractors/2	Annual	N	0.60%
		SA201	Total Recordable Incident Rate - Workforce	Recordable Incidents/200,000 Hou	Annual	N	0.60%
		SA202	Lost Time Incident Rate - Workforce	Lost Time Incidents/200,000 Hours	Annual	N	0.60%
	Human Capital		**Human Capital Disclosure Score**	**Percentage**			**5.55%**
		ES068	Training Policy	Y/N	Annual	Y	0.21%
		ES070	Fair Renumeration Policy	Y/N	Annual	Y	0.21%
		ES043	Number of Employees - CSR	Count	Annual	Y	0.86%
		ES044	Employee Turnover %	Percentage	Annual	Y	0.86%
		ES045	% Employees Unionized	Percentage	Annual	Y	0.86%
		ES094	Employee Training Cost	Million Reporting Currency	Annual	Y	0.86%
		ES199	Total Hours Spent by Firm - Employee Training	Hours	Annual	N	0.86%
		ES258	Number of Contractors	Count	Annual	N	0.86%
	Supply Chain		**Supply Chain Disclosure Score**	**Percentage**			**5.54%**
		ES118	Social Supply Chain Management	Y/N	Annual	N	0.26%
		ES116	Number of Suppliers Audited	Count	Annual	N	1.06%
		ES117	Number of Supplier Audits Conducted	Count	Annual	N	1.06%
		ES119	Number Supplier Facilities Audited	Count	Annual	N	1.06%
		ES250	Percentage of Suppliers in Non-Compliance	Percentage	Annual	N	1.06%
		ES499	Percentage Suppliers Audited	Percentage	Annual	N	1.06%
Governance (33%)	**Audit Risk & Oversight**		**Audit Risk & Oversight Disclosure Score**	**Percentage**			**4.17%**
		ES101	Audit Committee Meetings	Count	Annual	Y	0.83%
		ES182	Years Auditor Employed	Years	Annual	N	0.83%
		ES299	Size of Audit Committee	Count	Annual	N	0.83%
		ES300	Number of Independent Directors on Audit Co	Count	Annual	N	0.83%
		ES304	Audit Committee Meeting Attendance Percen	Percentage	Annual	N	0.83%
	Board Composition		**Board Composition Disclosure Score**	**Percentage**			**4.16%**
		SA198	Company Conducts Board Evaluations	Y/N	Annual	N	0.19%
		ES061	Size of the Board	Count	Annual	Y	0.79%
		ES065	Number of Board Meetings for the Year	Count	Annual	Y	0.79%
		ES066	Board Meeting Attendance %	Percentage	Annual	Y	0.79%
		ES194	Number of Executives / Company Managers	Count	Annual	N	0.79%
		ES284	Number of Non Executive Directors on Board	Count	Annual	N	0.79%
	Compensation		**Compensation Disclosure Score**	**Percentage**			**4.16%**
		SA193	Company Has Executive Share Ownership Gui	Y/N	Annual	N	0.23%
		SA213	Director Share Ownership Guidelines	Y/N	Annual	N	0.23%
		ES305	Size of Compensation Committee	Count	Annual	N	0.93%
		ES306	Num of Independent Directors on Compensat	Count	Annual	N	0.93%
		ES310	Number of Compensation Committee Meetin	Count	Annual	N	0.93%
		ES311	Compensation Committee Meeting Attendan	Percentage	Annual	N	0.93%
	Diversity		**Diversity Disclosure Score**	**Percentage**			**4.17%**
		ES098	Board Age Limit	Years	Annual	Y	0.83%
		ES290	Number of Female Executives	Count	Annual	N	0.83%
		ES292	Number of Women on Board	Count	Annual	N	0.83%
		ES294	Age of the Youngest Director	Years	Annual	N	0.83%
		ES295	Age of the Oldest Director	Years	Annual	N	0.83%
	Independence		**Independence Disclosure Score**	**Percentage**			**4.18%**
		ES062	Number of Independent Directors	Count	Annual	Y	4.18%
	Nominations & Governance Oversight		**Nominations & Governance Oversight Disclosu**	**Percentage**			**4.18%**
		ES312	Size of Nomination Committee	Count	Annual	N	1.05%
		ES313	Num of Independent Directors on Nomination	Count	Annual	N	1.05%
		ES317	Number of Nomination Committee Meetings	Count	Annual	N	1.05%
		ES318	Nomination Committee Meeting Attendance I	Percentage	Annual	N	1.05%
	Sustainability Governance		**Sustainability Governance Disclosure Score**	**Percentage**			**4.18%**
		ES073	Verification Type	Y/N	Annual	Y	2.09%
		ES093	Employee CSR Training	Y/N	Annual	Y	2.09%
	Tenure		**Tenure Disclosure Score**	**Percentage**			**4.18%**
		ES064	Board Duration (Years)	Years	Annual	Y	4.18%

Source: Bloomberg, "Annualized Return on Equity and Bloomberg ESG Disclosure Score for S&P 500 December 31, 2009-December 31, 2021," accessed October 2022.