OVERVIEW

ESG FUNDS & CLIMATE IMPACT

2021 | OCT.

www.givinggreen.earth

Giving Green's other work focuses on recommendations of where individuals can donate to effect positive change in the climate crisis. Yet, donations are not the only way that individuals can mobilize their money to combat climate change. Investment -- from retirement funds to venture capital -- has a role to play as well. In our "Investing for the Climate" series, we provide overviews of common "sustainable investment" strategies, including divestment, ESG investing, and pro-climate impact investing. This section covers sustainable investment strategies for the layperson, with a focus on "ESG" investment options.

***Note: This article is intended for research and information purposes only in order to review the potential positive climate impacts of available investment opportunities, not their financial performance**, and therefore should not be construed as investment, financial, or other advice, or construed as a recommendation to buy, sell, or otherwise transact in any investment. **We do not endorse any specific product that is referenced in this article.** This article is not a replacement for personal financial advice and it is strongly recommended that you review your own personal financial situation and seek professional investment and/or financial advice before engaging in any investing. Reading this article does not create a professional relationship and we are not in the business of providing investment or financial advice. The information provided in this article is as accurate as possible, however errors may occasionally occur and we are not responsible for any errors. We expressly disclaim any liability or loss incurred by any person who acts on the information, ideas, or strategies discussed in this report.*

Executive Summary

Is it possible to save for retirement, a home purchase, or college tuition while also pushing corporations to act on climate change? We think it might be. In this overview, we explore the ways Environmental, Social, and Governance (ESG) investing in mutual funds and exchange-traded funds might move the needle on corporate climate action and reduce GHG emissions.

Because ESG includes "environment" as one of its pillars, it is often the starting point for retail investors hoping to use their money to have an impact on climate change. But we find that ESG funds are often not designed to have an impact on any environmental, social or governance outcomes at all. The rise of these sustainable investment funds has been driven by three types of investor motivation: values alignment, financial performance and (less frequently) impact. Additionally, we find ESG scores for specific companies to be an unreliable shorthand for climate performance. This is because ESG scores for companies rely on voluntary disclosures, often contradict each other, and aggregate climate metrics with many other metrics. This allows companies to obscure their climate record with better performance on other metrics. We find ESG, in general, to be an unreliable shorthand for climate-forward investments.

There are some ESG funds that do claim to have an impact on the climate. Although investment managers use an array of terms to describe how their climate-focused funds deviate from conventional funds, we suggest it boils down to two main approaches: portfolio composition, or "what the fund holds"; and shareholder activism, or "what the fund does." Climate funds vary in the type of information they use to build their portfolio (e.g., ESG scores, sector or industry, specific practices) and the way they use that information (e.g., screening or weighting certain companies in their portfolio). The most common strategy portfolio composition strategy used by climate funds is fossil fuel divestment. Climate funds also vary in the degree of shareholder activism they engage in. These funds can pressure companies to change behavior by introducing shareholder resolutions, voting on proxy ballots, and other informal strategies. Many climate funds combine some type of portfolio composition approach with shareholder action.

But how likely is it for these two main strategies to lead to climate impacts? For that, we explore the theories of change and available empirical evidence, summarized in Table 1 below.

Table 1. Summary of theory and evidence for two investment strategies for climate impact

Strategy	Impact type & theory of change	Evidence
Portfolio composition	**Disable growth or incentivize change:** Exclude certain companies which drives down demand and therefore share prices, which raises the costs of capital for the company. This financial hardship can cause the company to cease operations, forego future operations, or change behaviors, which leads to reduced GHG emissions.	Evidence is available, but does not strongly support this theory of change
	Enable growth: Include certain companies in portfolio, improve their financing conditions, allowing them to grow in scale or scope. This displaces higher GHG emitters, thereby reducing GHG emissions	Evidence is available, but only supports part of this theory of change, and suggests it is most applicable for young companies funded by private capital.
	Affect public discourse: Highly visible exclusions (divestment) will lead to stigmatization of certain companies. This shifts investment norms, cultural attitudes, and ultimately policy, which in turn leads to reductions in GHG emissions	Evidence is limited for this theory
Shareholder engagement	**Incentivize change:** Widely supported direct requests from shareholders are hard to ignore. This leads to companies commit to changing behavior and reducing their GHG emissions	Evidence is available, and broadly supports links between shareholder engagement, greater corporate commitments on climate change, and actions that reduce GHG emissions
	Influence public discourse: Widely supported requests from shareholders also influence non-target companies to consider changing behavior. Non-target companies also implement changes to reduce GHG emissions	Evidence of spillover effects is limited, but suggests support for this theory

We find that the evidence on the impact of fossil fuel divestment is mixed. Based on our current research, we see the most potential for near-term impact on climate from funds that concentrate on shareholder engagement, either on its own or in coordination with divestment strategies. As such, we recommend climate-focused retail investors pay attention to a fund's track record of shareholder engagement, rather than just its portfolio composition strategy.

We close by describing three main categories of funds that are using shareholder activism to push for climate action. We did not consider the financial viability of these funds, beyond a basic observation of the fund fees, and the examples we provide do not constitute investment advice.

- Smaller, newer funds which appear to have transparent, sophisticated climate investment strategies and a stated intention to leverage shareholder engagement to induce climate action but are too new to have any track record of success (e.g., Engine No. 1's ETF, Carbon Collective, and others). These funds also claim to offer fees that are comparable to conventional funds.

- Older, medium-sized funds with proven track records of pushing companies to reduce GHG emissions through shareholder engagement (e.g., Green Century Funds, Trillium Asset Managers, Zevin Asset Management, and others). These types of funds often charge fees that are somewhat higher than fees charged by non-sustainable actively managed funds.

- Larger, often generic funds which have greater influence over proxy votes due to the size of their holdings and tend to outperform their peers in their support for climate resolution (e.g., Hartford Funds or Columbia Threadneedle). We also note that the two largest asset managers in the United States, Blackrock, and Vanguard, had some of the lowest rates of support for climate resolutions in 2020.

Investing for the climate is challenging. Individual retail investor choices are necessarily an indirect path to impact but investing in funds that use their influence as shareholders to drive climate action appears to be a promising strategy. Good signs include funds actively engaging their portfolio companies on climate issues, funds introducing and voting in favor of climate-forward resolutions, and funds that have sophisticated, climate-specific, transparent criteria for inclusion.

Table of Contents

This work is preliminary, and subject to change. Questions and comments are welcome at givinggreen@idinsight.org.

Investors are increasingly demanding options that are better for people and the planet, and investment managers are responding.[1] The number of "sustainable" mutual funds and exchange-traded funds (ETFs) has quadrupled in the last 10 years.[2] Since 2016, at least 30 new sustainable funds have been launched each year; more than 70 sustainable funds launched in 2020, more than in any previous year.[3] The amount of money flowing through sustainable funds has also increased considerably in the last decade. One estimate suggests that, in 2019, more than $17 trillion -- that's one in every three dollars under professional management in the United States -- was invested according to sustainable investment strategies.[4]

The abundance of such funds *should* make it easier than ever for the average person, or retail investor, who cares about the climate to ensure their investments are aligned with their values. However, sustainable funds are not uniformly climate-oriented or impactful.

First, funds are labeled as "sustainable" based on the inclusion of Environmental, Social, and Governance (ESG) criteria in the investment process. Later, we will discuss in detail the diverse ways in which investment managers apply ESG criteria. In general, however, by aggregating metrics on various issues, performance on climate (or any other issue of interest) may be given less importance and may even be outweighed by performance on other non-climate metrics.

Second, there is the risk of greenwashing. Demand from investors for ethical, sustainable investment opportunities, as well as the lack of regulation on the use of the term "ESG" in the United States, has created an opportunity for asset managers to rebrand conventional funds as sustainable or ESG-funds without making any fundamental changes. Asset managers often charge investors higher fees for these greenwashed funds.

Third, there is the question of actual impact: even if asset managers genuinely attempt to create sustainable or climate-oriented alternatives to conventional funds, to what extent does investing in these funds cause real-world change in GHG emissions or other climate-relevant practices? Evidence on this question is surprisingly limited, but some strategies do appear more promising than others.

ESG investing is rapidly growing, but it is still a relatively young space. ESG criteria are neither universal nor consistent, and it can be difficult for the average person to discern between greenwashing efforts, well-intentioned funds that don't create change, and the rare opportunity to mobilize their money against climate change. So how can a climate-conscious retail investor wade through the mess and understand where to put their money?

This article is meant to help. Below, we provide an overview of the ESG investment space in the United States and discuss implications for climate-focused retail investors. While Giving Green is focused on climate impact via greenhouse gas (GHG) reductions, we examine the whole of the ESG & sustainable investments

---

[1] Natixis Investment Managers report that 76% of individual investors said it was important to align investments with values and 60% of investment managers reported that investor demand is driving their adoption of ESG. Source: Goodsell, D. "2021 ESG Invest Insight Report." NATIXIS Investment Managers. https://www.im.natixis.com/us/research/esg-investing-survey-insight-report
[2] Morningstar. 2021. Sustainable Funds U.S. Landscape Report.
[3] Morningstar. 2021. Sustainable Funds U.S. Landscape Report.
[4] US SIF. https://www.ussif.org/trends

space. Because there is no climate investing standard, climate-conscious investors often turn to ESG, as climate is incorporated into ESG's 'environmental' metrics. For the time being, we also center our work on ESG in the United States as our team is located in the US and the regulatory environment for ESG differs from the regulatory environment in Europe or elsewhere. After discussing ESG, we then assess available theories and empirical evidence that link various investment approaches to reductions in GHG emissions. Finally, we discuss the investment strategies and fund practices we believe are the most promising to generate positive climate impacts. We also aim to answer the following questions:

- To what extent can investments result in real change in greenhouse gas emissions?
- Are fossil-free funds worth it?
- What should investors look for if they want evidence-based options for reducing GHG emissions?

Note: This article is intended to review the potential positive climate impacts of available investment opportunities and is not intended to be used as financial advice.

The acronym "ESG" refers to a set of environmental, social, and governance criteria. In that sense, ESG is more of a "how" than a "what." It is sometimes used interchangeably with "sustainable investing," as we do so in this article. Each of the three pillars of ESG refers to many subcategories where company performance can be evaluated:

- *Environmental criteria* are mainly concerned with the impact of the company or product on the environment. Variables such as emissions of pollutants and toxins, energy use and efficiency, and impact on biodiversity are usually considered. Additional factors such as compliance with environmental regulations and adequate environmental risk management can also be considered.

- *Social criteria* are generally concerned with the degree to which a company or financial product is likely to cause harm or benefits, to its employees, people living in its area of work, and its stakeholders. These generally include factors such as adherence to fair labor practices, engagement in corporate social responsibility, and insisting on ethical partners within a company's supply chain.

- Finally, *governance criteria* are mainly concerned with whether transparency, accountability, and legal compliance are maintained in managing a company.

While these three pillars generally capture the issues that might be considered in ESG investments, **the use of the term "ESG" and the way these criteria are applied are anything but consistent.**

2.1 Motivations for ESG investing

The growth in popularity of ESG-branded funds seems to be driven by investor and asset managers seeking at least one of the following: values alignment, excess financial returns, and/or real social or environmental impact.

- **Values:** Some investors seek out ESG or sustainable investment opportunities to align their investments with their values. They may seek to have a 'pure' portfolio, avoiding buying stocks in companies in "sin" sectors, such as tobacco producers, gun manufacturers, and the fossil fuel industry. This approach is grounded in ethical investment approaches first adopted by religious groups like Quakers, Methodists, and Muslims to ensure their portfolios aligned with their religious morals, and by the anti-war and anti-apartheid movements of the 1970s and 1980s, which led to the creation of funds divested from companies involved the Vietnam War or South African Apartheid.[5] Investors using this strategy generally prioritize values and ethics over financial performance.[6]

- **Financial performance:** Increasingly, investors and asset managers are shifting money towards ESG funds in order to minimize investment risk and to enhance financial performance. The ethos of this approach is that you don't have to sacrifice anything to invest responsibly; in fact, using ESG criteria is a crucial tool in generating excess financial returns. And there is some evidence to support this view: Morningstar reports that, on average, sustainable funds outperformed conventional funds and

[5] https://www.morningstar.in/posts/57694/history-sustainable-investing.aspx

[6] Riedl, A., & Smeets, P. 2017. Why Do Investors Hold Socially Responsible Mutual Funds? The Journal of Finance, 72(6): 2505-2550. https://doi.org/10.1111/jofi.12547

indexes over the last five years.[7] However, critics point out that it remains unclear "if the relationship between ESG and excess returns is causative or correlative."[8] MSCI also notes that the excess financial returns seen by ESG funds in recent years has largely been driven by the funds over-representing the information technology sector (e.g. Alphabet, Google's parent company), compared to non-ESG counterparts.[9]

- Impact: A handful of sustainable fund managers specifically focus on using their investments to improve social or environmental outcomes. Although there is often overlap with an ethics- or values-based approach, impact-based approaches to sustainable investing tend to focus more on strategies to influence company behavior through market or non-market signals. Measurement, management, and reporting of impact is also more likely to be a feature of impact-oriented funds.[10] Some of these fund or asset managers even eschew "ESG" as a label, such as Carbon Collective, a robo-adviser that makes climate considerations central to its portfolio construction process,[11] or Adasina Social Capital, which describes itself as a social justice investing strategy that offers "restorative and regenerative investment solutions."[12]

Why does it matter that investors and asset managers may have different reasons for shifting resources to sustainable funds? The rationale behind incorporating ESG criteria or a sustainable investing strategy influences what the fund looks like and what it does, if anything, to combat the climate crisis. Understanding which motivations an asset manager holds -- and who it is catering to -- can provide clues to how serious a fund or asset manager's commitment to climate action actually is.

2.2 ESG options for retail investors

Because ESG generally refers to a set of principles or criteria, rather than a specific product, many different types of financial products can be labeled as ESG. We have seen it used to describe investment products ranging from retirement funds13 to cryptocurrency.14 Entire funds or investment portfolios may be labelled as ESG or sustainable investment opportunities as well.

We have decided to focus on funds available for retail investors, particularly mutual (or open-ended) funds, exchange-traded funds (ETFs) and robo-adviser portfolios15 -- the types of investment options where you might put your money to save for retirement, college tuition, or other big expenses. These funds are often diversified, combining public equities (usually stocks) and fixed income instruments (usually bonds). High net-worth individuals and accredited investors can also invest in mutual funds and ETFs, but have additional

---

[7] Morningstar. 2021. Sustainable Funds U.S. Landscape Report.
[8] https://www.institutionalinvestor.com/article/b1tkr826880fy2/The-Trillion-Dollar-Fantasy
[9] https://www.msci.com/www/research-paper/research-insight-can-esg-add/0182813629
[10] https://www.ici.org/system/files/attachments/pdf/20_ppr_esg_integration.pdf
[11] https://www.carboncollective.co/faq
[12] https://adasina.com/investments/#strategy-faqs
[13] https://www.reuters.com/legal/legalindustry/erisa-challenges-using-esg-retirement-plan-investing-2021-09-20/
[14] https://www.msci.com/www/blog-posts/creeping-crypto-cryptocurrency/02793697305
[15] What is a robo-adviser? Typical financial advisers can help investors design custom portfolios, combining direct stock ownership with investments in mutual funds and ETFs, as well as investments in other asset classes. Robo-advisers do essentially the same thing but use algorithms and automated platforms. This generally results in less customization and lower fees, which renders robo-adviser portfolios more accessible to retail investors than conventional financial advisory services, but still provides a combination of direct stock ownership and investment in diversified funds. Source: https://www.investopedia.com/terms/r/roboadvisor-roboadviser.asp

options available as well, including creating tailored portfolios in separately managed accounts or private equity and venture capital.

Even narrowing our focus to ESG-branded open-ended funds and ETFs, the scale of the space is large. Morningstar estimates that there are a total of 392 such sustainable funds as of 2020, an increase of 30 percent from 2019 and a near quadrupling from 10 years ago.[16] The size of the market appears to be increasing as well: Morningstar estimates that sustainable funds attracted $51.1 billion in net flows in 2020, more than doubling the previous record set in 2019. Most of this growth appears to be driven by the growth of sustainable passive funds and ETFs.[17]

In the following sections, we primarily discuss how public equity investments via these mutual funds and ETFs can contribute to positive climate impacts.

---

[16] For Morningstar to consider a fund to be sustainable, "ESG concerns must be central to its investment process and the fund's intent should be apparent from a simple reading of its prospectus." *Source:* Morningstar. 2021. Sustainable Funds U.S. Landscape Report.

[17] Morningstar. 2021. Sustainable Funds U.S. Landscape Report.

[3] Approaches to sustainable investing

So, what are fund managers doing when they say they are using "ESG"? (What does sustainable investing look like in practice?)

It's no wonder that many investors are confused by available ESG offerings. One group found that firms are using almost 80 different terms to refer to various strategies of sustainable investing.[18] Sustainable funds differentiate themselves in two main dimensions: *what the fund holds* (i.e. portfolio composition) and *what the fund does* (i.e. shareholder engagement or other actions the fund or asset managers take to exert influence or manifest change).

3.1 Portfolio composition, or "what the fund holds"

Perhaps the most common way that sustainable funds differentiate themselves from "normal" funds is portfolio composition. Sustainable mutual funds and ETFs typically deviate from conventional alternatives based on which companies they hold shares in, how those companies or sectors are weighted, and the strategy used to determine the composition. Below, we describe some of the ways that asset managers may construct sustainable public equity portfolios.

First, sustainable funds vary in the types of information that they consider while deciding which securities to hold. Sustainable fund managers often rely on ESG scores provided by ratings agencies, such as MSCI or Sustainalytics, to assess ESG-related risks in certain companies or sectors. Some funds might intentionally include companies that have made substantial improvements on ESG metrics, even if they are still involved in the fossil fuel industry, as an attempt to reward change. Others look only at absolute performance on ESG metrics. Another important type of information that these funds might use is sector or industry filters. Funds might intentionally hold more securities in the renewable energy sector than the fossil fuel industry, or they might avoid holding any fossil fuel company shares altogether. Funds might also aim to own shares or avoid investment in companies based on specific practices, such as being Paris-compliant, aligning with UN SDGs, or having a GHG emissions reduction plan. Many funds opaquely claim to use "ESG integration," which broadly means that the investment managers consider ESG criteria as part of their investment decision making, but what information they use and how they integrate it remains unclear.[19]

Second, sustainable funds vary in the ways that they use that information to construct their portfolio, usually by screening or weighting. Asset managers may construct sustainable portfolios by specifically including or excluding shares from entire sets of firms, or they may choose to re-weight firms in the portfolio to over- or under-represent sets of firms. For example, sustainable funds often exclude any company that derives a significant portion of its revenue from the fossil fuel industry. The fund could also (or alternatively) screen

[18] Institute of International Finance. "The Case for Simplifying Sustainable Investment Terminology." (October 2019). https://www.ici.org/system/files/attachments/pdf/20_ppr_esg_integration.pdf

[19] The term "ESG integration" has been criticized for its opacity: Director of Sustainability Research at Morningstar, Hortense Bioy, said in an interview with Bloomberg News, "If you claim to do ESG integration, that means nothing. "You have to define it, because there is no common definition." Many asset managers in Europe ceased using the term following EU requirements that firms disclose how they use sustainability information. Source: https://www.bloomberg.com/news/articles/2021-09-29/fund-managers-start-axing-esg-buzzword-as-greenwash-rules-bite

out any company across industries with an ESG score below a given cut-off, potentially continuing to invest in fossil fuels, but only certain fossil fuel companies.

Regardless of the specific combination of strategies that a fund uses, the result is a portfolio composition that deviates from conventional funds, especially those that follow a market index, in a systematic way. This approach to sustainable investing remains the primary mode by which ESG funds differentiate themselves from other investment options. The Global Sustainable Investment Alliance (GSIA) estimates that 50 percent of assets are invested using screening approaches and another 32 percent rely on ESG integration.[20]

These portfolio approaches alter the way that capital is allocated in the financial sector. Later, we discuss capital allocation strategies as a pathway to impact on GHG emissions.

3.1.1 On the use of ESG scores in designing portfolios

Company-wise ESG scores are an unreliable shorthand for green investing.

One of the most common uses of the term ESG is by ratings agencies, such as Sustainalytics or MSCI, which score individual firms on performance on ESG metrics. For individual investors and fund managers, these scores are often used as a shorthand for green investing or socially responsible investing. They are intended to lower the cost of assessing relevant, non-financial characteristics of companies they may want to directly invest in through stock ownership. However, we have several concerns with relying on ESG scores from ratings agencies to make climate-focused public equity investments:

First, the creation of these ESG scores depends entirely on voluntary disclosures. Apart from the obvious incentive for firms to omit non-compliant behavior, such as high GHG emissions, from disclosures and/or to disclose false information, firms face additional incentives against disclosure in the form of disclosure costs. It costs firms resources to keep track of and report a large set of variables on their ESG compliance. Larger firms tend to be better able to absorb this cost and produce better reports. As such, large firms tend to have better ESG scores than smaller firms.[21] Firms also vary in the types of emissions they disclose (i.e., Scope 1, 2, 3) and vary in the disclosure of the methodology they used to estimate emissions, raising concerns about comparability between firms.[22]

Second, ESG scores are provided by many different actors, and there is no unifying methodology for generating such scores in the United States,[23] though the European Union has enacted disclosure requirements to regulate the use of the "ESG" label.[24] Each scoring agency creates their ESG scores based

---

[20] Kölbel, J.F., Heeb, F., Paetzold, F., & Busch, T. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact. Organization & Environment, 33(4), 554-574.
[21] Dorfleitner, G., Halbritter, G. & Nguyen, M., 2015. Measuring the level and risk of corporate responsibility - An empirical comparison of different ESG rating providers. Journal of Asset Management, 16(7), pp. 450-466.
[22] Monasterolo, I., Battiston, S., Janetos, A.C. et al. Vulnerable yet relevant: the two dimensions of climate-related financial disclosure. Climatic Change 145, 495–507 (2017). https://doi.org/10.1007/s10584-017-2095-9; Prado-Lorenzo, J. M., Rodríguez-Domínguez, L., Gallego-Álvarez, I., & García-Sánchez, I. M. (2009). Factors influencing the disclosure of greenhouse gas emissions in companies world-wide. Management Decision; Blanco, C., Caro, F., & Corbett, C. J. (2016). The state of supply chain carbon footprinting: Analysis of CDP disclosures by US firms. *Journal of Cleaner Production*, 135, 1189–1197. https://doi.org/10.1016/j.jclepro.2016.06.132.
[23] Avetisyan, E. & Hockerts, K., 2017. The Consolidation of the ESG Rating Industry as an Enactment of Institutional Retrogression. Business Strategy and the Environment, Volume 26, pp. 316-330
[24] Arons, S. & Schwartzkopff, F. (2021, Sept 28). "Fund Managers Start Axing ESG Buzzword as Greenwash Rules Bite." Bloomberg News.

on their own, often secret, methodology. For the investor, this creates additional costs of having to refer to multiple ESG scores for information on a particular firm. This problem is made worse by the incentive faced by the scoring agency to differentiate themselves from other scoring agencies. Research from MIT Sloan School's Aggregate Confusion Project finds notable divergence in ESG scores across six prominent ratings agencies, primarily driven by different scope of categories considered and different measurement of categories. The research also finds that ESG data is noisy and unreliable.[25] A study of four ratings agencies showed significant differences in the interpretation of environmental issues. Animal testing was considered by only one of the four firms whereas compliance with environmental regulations was considered only by two out of four firms.[26] It is challenging for climate-focused investors to know what topics are considered alongside climate and GHG emissions under "Environment," how performance on those categories are measured, and how that performance is weighted against metrics on other issue areas.

Third, by nature, ESG scores are aggregate measures of performance on various topics. This makes it difficult to discern performance on issue areas that are most relevant to the individual investor, and it also creates the risk of companies "gaming" the metrics to get a good score, by aiming to score highly on certain metrics (usually governance) to obscure poor performance on other metrics (usually social or environmental). In an interview with Top 1000 Funds, Director of the MIT Sloan Sustainability Initiative Jason Jay says, "Firms who are always going to do poorly on certain indicators such as tobacco companies have learned that if they are good at all the other factors then they can be top of the class on ESG. Or they've learnt that indicators are related to disclosure so they disclose everything to get a good rating."[27] Fossil fuel companies can easily do the same. And some already do, as pointed out in this October 2021 article: "MSCI, one of the main ESG raters, currently gives Moderna a 'BB' rating, which equates to 'between average and high average.' It gives ExxonMobil—an actual oil company—a 'BBB,' which is 'high average.'"[28]

Until there are standardized metrics and transparent rating methodologies, we are not convinced that relying on ESG scores for direct investment in publicly traded companies is likely to lead to positive climate impacts. Our concerns with ESG scoring systems are relevant to investors looking to directly purchase shares in publicly traded companies, but they also apply to the strategies that asset managers use to construct ESG-branded open-ended funds or ETFs, since use of ESG scores is one of the primary ESG portfolio construction strategies.

3.2 Shareholder engagement or, "what the fund does"

Another critical dimension in which sustainable funds may differentiate themselves from conventional funds is by what they do; particularly; how they use their rights as shareholders to influence companies to improve climate outcomes.

Owning shares in a company provides a channel through which to command attention related to environmental, social or governance issues. Large mutual funds and ETFs often own substantial shares of a company's stock and have power to influence other shareholders and voice their concerns about ESG topics

---

[25] Berg, F., Kölbel, J., Rigobon, R. 2020. Aggregate Confusion: The Divergence of ESG Ratings. MIT Sloan School Working Paper 5822-19. http://dx.doi.org/10.2139/ssrn.3438533
[26] Stubbs, W. & Rogers, P., 2013. Lifting the veil on environment-social-governance rating methods. Social Responsibility Journal, 9(4), pp. 622-640.
[27] https://www.top1000funds.com/2021/01/mit-consortium-builds-esg-tools/
[28] https://newrepublic.com/article/163865/climate-change-investment-funds-scam-esg-wall-street

to corporate leadership. Shareholder activities which are intended to change a companies' ESG practices are referred to as "shareholder engagement," "shareholder activism," or "active ownership." The Global Sustainable Investment Alliance (GSIA) estimates that only 10 percent of ESG or sustainable funds use shareholder engagement.[29]

The primary strategies for shareholder engagement are **filing shareholder resolutions** and **proxy voting.**[30] Shareholder resolutions are brief, publicly written proposals to corporate management that are voted on in the company's annual meeting. Resolutions may pertain to company policies or procedures or issues of social and environmental concern.[31] In the 2021 proxy season, **the majority of shareholder resolutions on climate focused on "carbon asset risks"** (56),[32] which includes resolutions on emissions reporting, emission reduction goals, climate transition planning, and investor feedback ("say-on-climate"). A smaller number of resolutions were concerned with clean energy and electrification (6), deforestation (4), climate-related lobbying (13), and linking ESG metrics to executive compensation (12).[33]

After proposals are filed, companies may submit challenges to the Securities and Exchange Commission (SEC). If the SEC grants the company's request, the company may omit the shareholder proposal from the proxy voting ballot. Between 2017 and 2020, the SEC broadened its interpretation of certain rules for shareholder proposals to allow companies to omit most requests for reports on Paris-compliant GHG emissions reductions targets. However, in 2021, 18 shareholder proposals requesting reports of GHG emissions reductions targets passed the SEC's scrutiny.[34]

In many cases, shareholder proposals can be effective without even coming to a vote. By garnering public attention, the proposals often incentivize corporate management to meet and negotiate with the filers of the proposal.[35] If the two parties reach an agreement on concessions or commitments from corporate management, the proposal is withdrawn by the proponents. In 2021, 20 of the 56 shareholder proposals on carbon asset risks were withdrawn.[36] **As You Sow**, a non-profit that works with investors to launch shareholder advocacy efforts on their behalf, reports reaching agreements with companies and withdrawing 13 of the 19 climate-related resolutions it introduced in 2021.[37]

If the shareholder proposal is neither omitted by SEC ruling nor withdrawn by proponents after successful negotiation, it is voted on at the company's annual shareholder meeting. This stage is called "**proxy voting**," because few shareholders attend the meeting in person; instead, they submit voting instructions in advance,

---

[29] Kölbel, J. F., Heeb, F., Paetzold, F., & Busch, T. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact. Organization & Environment, 33(4), 554-574.
[30] Horster, M. (2021). Failed Theories of Change: Misperceptions About ESG Investment and Investment Efforts to Combat Climate Change. Theories of Change: Change Leadership Tools, Models and Applications for Investing in Sustainable Development, 51-62.
[31] https://www.ussif.org/resolutions
[32] As You Sow, a shareholder advocacy non-profit, defines carbon asset risks as "fossil fuel reserves that cannot be burned under the assumption that global governments will act to keep global warming well below two degrees Celsius. The potential that such reserves and associated infrastructure will become stranded, i.e., substantially devalued or non-saleable, implies that they are likely being overvalued, which creates risk for investors." Source: https://www.asyousow.org/our/work/energy/carbon-asset-risk
[33] Proxy Preview Report. 2021
[34] Proxy Preview Report. 2021.
[35] https://www.ussif.org/sribasics
[36] Proxy Preview report 2021.
[37] https://www.asyousow.org/resolutions-tracker

thereby voting by proxy.[38] At the annual meeting, shareholders vote for or against proposals and their votes are weighted relative to their holding of shares in the company. For example, a smaller fund holding 0.2% of the company's shares would have a vote that counts as 0.2% of the total, whereas a fund holding 10 percent of shares would have a much larger sway.

Most shareholder proposals are advisory in nature, and they do not legally bind corporate management to make changes.[39] Crucially though, **shareholder resolutions often do not need a majority of votes to succeed in persuading the company to adopt changes**.[40] The shareholder advocacy non-profit As You Sow asserts that votes with more than 10 percent of the vote are often enough to convince companies to engage in further discussion with shareholders, and that resolutions garnering 20% or more "send a clear message to corporate management that the current company policy is too risky or not beneficial to shareholder interests. Only the least responsive company would ignore one in five of its shareholders."[41] **Table 2** lists all climate-focused shareholder resolutions that were voted on by Fortune 250 corporations in the 2021 proxy voting season, as compiled by the Manhattan Institute's Proxy Monitor.

In addition to filing shareholder resolutions and proxy voting, sustainable funds can exert influence on companies in other ways:

- Meeting and communicating directly with company executives[42]
- Publishing research reports or industry analyses[43]
- Participating in public policy initiatives[44]
- Publicly criticizing company practices, in news outlets/media[45]
- Activist pressure and taking board seats

These shareholder engagement activities may have important indirect effects as well. The United States Sustainable Investment Forum (US SIF) notes that through active ownership, "investors urge a few companies to take action on an issue, and other companies take note and adopt more sustainable policies to avoid becoming the targets of similar shareholder action, or being conspicuous for not having industry-leading policies."[46]

Engine No. 1 is an example of a climate fund that primarily uses shareholder engagement to induce climate action. The tiny hedge fund made headlines in June 2021 when it captured board seats at ExxonMobil, by convincing Blackrock, Vanguard, and State Street to vote against Exxon's nominees.[47] Just a few weeks after the Exxon vote, Engine No. 1 launched its **Transform 500 ETF** (ticker: VOTE). VOTE aims to invest in 500 of the largest US public stocks, including fossil fuel companies, and then apply pressure through proxy voting,

[38] https://www.morningstar.com/articles/986937/what-is-proxy-voting-and-why-you-should-care
[39] Exceptions include board member elections and requests for bylaw amendments. Source: https://www.ussif.org/files/Publications/USSIF_ImpactofSRI_FINAL.pdf
[40] https://www.ussif.org/files/Publications/USSIF_ImpactofSRI_FINAL.pdf
[41] https://www.asyousow.org/shareholder-advocacy
[42] https://www.ussif.org/files/Publications/USSIF_ImpactofSRI_FINAL.pdf
[43] https://www.ussif.org/files/Publications/USSIF_ImpactofSRI_FINAL.pdf
[44] https://www.ussif.org/resolutions
[45] Kölbel, J. F., Heeb, F., Paetzold, F., & Busch, T. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact. Organization & Environment, 33(4), 554-574.
[46] https://www.ussif.org/files/Publications/USSIF_ImpactofSRI_FINAL.pdf
[47] https://www.nytimes.com/2021/06/09/business/exxon-mobil-engine-no1-activist.html

campaigns to directly engage with companies, and engaging with other investors. As Engine No. 1 states on their website: "Rather than excluding companies that need to change, VOTE works to change them."[48]

3.3 Combining approaches

It is helpful to differentiate between "what the fund holds" and "what the fund does" as distinct strategies, but many climate-focused funds combine portfolio composition and active ownership in different ways.

For example, **Green Century** claims that in 2014, it became "the first family of fossil fuel free, responsible, and diversified mutual funds in the U.S."[49] They also screen out producers of nuclear weapons or nuclear energy, guns or civilian weapons, military weapons, tobacco, or GMOs. In addition to their portfolio composition strategy and financial support of the public sector, Green Century engages in shareholder activism. They claim to have filed more climate-focused shareholder proposals than any other investment firm in 2021 and engaged with more than 100 companies on a variety of environmental issues.[50] According to the Proxy Preview 2021 report, Green Century filed seven resolutions on carbon asset risk reporting, one resolution on reporting of clean energy goals, and all four of the resolutions related to deforestation.[51]

In a similar vein, **Carbon Collective,** a robo-adviser which offers low-fee climate-focused investment portfolios, differentiates itself both by its portfolio composition and by its shareholder engagement strategy. It divests from fossil fuel companies but actively engages with other companies to improve their practices, such as Coca-Cola, Walmart, Johnson & Johnson, Nike, Starbucks. These companies may have poor track records on climate or environment, but do not fundamentally depend on fossil fuels. Carbon Collective also plans to introduce and vote on proposals that pressure these companies to decarbonize faster.[52]

Climate funds use shareholder engagement to differentiate themselves from conventional funds by applying direct pressure on companies in which they hold shares to do better for the climate. Indirectly, this may encourage other companies to improve their climate-related practices as well.

---

48 https://etf.engine1.com/

49 https://www.greencentury.com/sustainable-investment-strategy/

50 https://www.greencentury.com/wp-content/uploads/2021/07/Shareholder-Advocacy-2-pager-6.30.21.pdf

51 Green Century also submitted two resolutions on plastic waste, two on pesticide use, and one on board oversight of climate change issues. Source: Proxy Preview Report. 2021. https://www.proxypreview.org/

52 Additional note: Carbon Collective does not currently offer an ETF but has plans to launch one in the future. Source: https://www.carboncollective.co/impact

Table 2. Results of Shareholder Voting on Climate Proposals in 2021 among Fortune 250 Companies

Company Name	Shareholder Proposal Title	Proponent	Proponent Type	Votes For % (*)
Berkshire Hathaway Inc.	Report on Climate-related Risks & Opportunities	CalPERS	State/City Specific Public Employee Pension Funds	28*
Caterpillar Inc.	Report on Climate Policy	Thornhill Company	Social - Other	47.44*
Chevron Corp	Request Company to Substantially Reduce GHG Emissions	Follow This	Socially Responsible Investing Funds	60.7
Chevron Corp	Report on Impacts of Net Zero 2050 Scenario	As You Sow	Socially Responsible Investing Funds	47.8
ConocoPhillips	Set Emission Reduction Targets Covering GHG	Follow This	Socially Responsible Investing Funds	58.63*
Delta Air Lines, Inc.	Report on Climate Lobbying	BNP Paribas Asset Mgmt.	Hedge Fund	62.66*
Exxon Mobil Corp	Report on Climate Lobbying	BNP Paribas Asset Mgmt.	Hedge Fund	63.8
Exxon Mobil Corp	Report on Impact of Fossil Fuel Demand Reduction on Financial Position	Christian Bros. Investment Svcs.	Religious Institutions	48.9
General Electric Co	Report on Net Zero Indicator	As You Sow	Socially Responsible Investing Funds	97.97
General Motors Co	Report on GHG Reduction Targets link to Exec Comp	As You Sow	Socially Responsible Investing Funds	15.7*
Norfolk Southern Corp	Report on Climate Lobbying	Friends Fiduciary Corp.	Socially Responsible Investing Funds	76.44
Phillips 66	GHG Emissions Reduction Targets	Follow This	Socially Responsible Investing Funds	79.37*
Phillips 66	Report on Climate Lobbying	CalSTRS	State/City Specific Public Employee Pension Funds	62.01*
Sempra Energy	Report on Climate Lobbying	Putney School Inc. Endowment	Public Policy Interest Groups	37.47
Sysco Corp	Report on GHG Targets Aligned with Paris Agreement	As You Sow	Socially Responsible Investing Funds	TBD
Union Pacific Corp	Annual Emissions Reduction Plan & Advisory Vote on Emissions Reduction Plan	TCI Fund Management Ltd.	Socially Responsible Investing Funds	31.64
United Airlines Holdings, Inc.	Report on Climate Lobbying	Presbyterian Church (USA)	Religious Institutions	65.04*
United Parcel Service, Inc.	Report on Reducing Contribution to Climate Change & Align with Paris Agreement	Trillium Asset Management	Socially Responsible Investing Funds	35.98*
Wal-Mart Stores, Inc.	Report on Refrigerants Released & Effect on Climate Change	Rhode Island Employees Retirement System	State/City Specific Public Employee Pension Funds	5.51*
Xcel Energy Inc.	Report on Voluntary Climate-Related Activities	Steven Milloy	Individual	3.47*

Source: Manhattan Institute's Proxy Monitor tool. Available at https://www.proxymonitor.org/

Notes: An asterisk (*) means abstention votes are counted as "no" votes. Sysco Corp is marked as "TBD," as the annual shareholder meeting has not yet occurred at the time of writing. Additionally, this list is not comprehensive, as it only includes resolutions voted on for the 250 largest public companies in the United States (the "Fortune 250").

[4] What's the best option for the climate? A look at theory and evidence

So, what's the best option for investors who want to use their money to push for real climate action? While many of these options can help investors feel good, are there better bets for actually doing good?

The ESG and sustainable investing space is young and extremely varied. Numerous studies attempt to determine if ESG investment offers the same or better financial returns compared to traditional options. Relatively few studies examine the degree to which ESG investments actually generate real-world change in company GHG emissions. Which strategies and fund characteristics are the most promising for having a real effect on climate change?

Investment is an indirect path towards change. As individual investors in mutual funds or ETFs, our influence is mediated first by the approach of the fund that we choose and second by the effect that the collective investment of the fund has on the companies it chooses to invest in and on the market as a whole. We think about investor impact manifesting in four ways: enabling or disabling company growth, encouraging or incentivizing company improvements, and influencing public discourse.[53]

- **Hindering growth** - Hindering the growth of net-negative companies (e.g., high GHG emitters, fossil fuel companies) and forcing them to cease current or future operations
- **Enabling growth** - Enabling net-positive companies (e.g., renewable energy, energy efficiency technology, net-zero or net-negative GHG emitters) to grow and expand their positive impact in scale and scope
- **Encouraging improvement** - Directly encouraging companies to change or improve the quality of the services that they offer, or indirectly incentivizing these companies to change or improve by depriving them of investment; for instance, encouraging corporations to set climate targets and report on progress; switch from fossil fuels to renewable energy; or cease lobbying against climate regulations.
- **Influencing public discourse** - Shifting societal norms of acceptable behavior; stigmatizing the use of fossil fuels and endorsing green solutions, making a company's climate impacts a critical component of investment decisions.

Different climate-focused investing strategies can be linked theoretically to one or more of the above types of investment impact, though the directness of the path to impact varies notably by strategy. In this section, we assess the theories and empirical evidence that link approaches to sustainable investing to reductions in GHG emissions.

4.1 Climate-focused portfolio approaches: theory & evidence

For climate funds that differentiate themselves based on the companies held in their portfolio, such as clean energy funds or fossil-free funds, the theory of change is broadly the same: investment in these funds will incentivize the "bad" companies to change their practices, by limiting or disabling their growth, and enable

[53] This framework is designed by Florian Heeb and Julian Kolbel of the Center for Sustainable Finance and Private Wealth. It was referenced from both the "Investor's Guide to Impact" and the peer-reviewed "Can Sustainable Investing Save the World?".

the "good" companies to grow, expanding their positive impact. Climate funds differ in which companies they consider to be "good" or "bad," but there are similar themes. Commonly, climate funds make the distinction between "good" and "bad" companies based on sector or industry, aiming to stymie the fossil fuel industry by disinvesting and to accelerate the growth of companies working on climate solutions by providing additional financing.[54] When funds publicly invest or disinvest in certain companies, this also affects the public discourse and indirectly affects other investors' behavior. In **Table 3**, we summarize the theories and evidence that support the link between funds' portfolio composition strategies and reductions in GHG emissions.

Table 3. Portfolio composition of mutual funds/ETFs and pathways to impact on climate: summary of the theories and evidence

Impact type	Theory of Change	Empirical Evidence
(1) Hindering company growth	**Raising costs of capital:** Exclusion of "bad" companies (generally, the fossil fuel industry) will reduce demand for shares and availability of debt. This financial hardship may render companies unable to continue operations or finance new capital expenditures.[55]	**Raising costs of capital:** Research on the movement to divest from U.S. companies with operations in South Africa during Apartheid found no discernible change in share prices of these companies, suggesting that divestment had no direct effect on the companies' ability to raise capital.[56] There is some evidence that divestment may have a greater effect on coal share prices, as compared to oil or gas share prices (as coal stocks are less liquid), but research suggests that the overall effect is likely to be minimal.[57] There is also some evidence that divestment may have the reverse of the intended effect, as neutral or unethical investors may buy a cheap stock as soon as the ethical investor sells it, taking advantage of the "discount" produced by lower demand.[58] Several private equity firms seem to be filling in financing gaps in the fossil fuel industry, allowing oil and gas producers to continue operations and moving them further from the public eye.[59]

[54] Examples of climate solutions are those compiled by Project Drawdown: https://www.drawdown.org/solutions
[55] Ansar, A., Caldecott, B. L., & Tilbury, J. (2013). Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?. University of Oxford, Smith School of Enterprise and the Environment.
[56] Teoh, S. H., Welch, I., & Wazzan, C. P. (1999). The effect of socially activist investment policies on the financial markets: Evidence from the South African boycott. The Journal of Business, 72(1), 35-89.
[57] Ansar, A., Caldecott, B. L., & Tilbury, J. (2013). Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?. University of Oxford, Smith School of Enterprise and the Environment.
[58] MacAskill, W. (2015, Oct 20). "Does Divestment Work?" In: *The New Yorker.*
[59] Tabuchi, H. (2021, Oct 13). "Private Equity Funds, Sensing Profit in Tumult, Are Propping Up Oil" In: *The New York Times.*

(2) Enabling company growth	**Improved financing:** Capital is redirected towards "good" companies (low carbon, net-zero GHG, impact-oriented companies), improving their financing conditions, especially if they are small, new, or in immature markets. Improved financing can enable impactful companies to grow and expand the scale or scope of their impact.	**Improved financing:** Some evidence that inclusion of young, new, impact-oriented companies in diversified funds improves their financing conditions, but limited evidence connecting improved financing conditions to company growth and expanded impact.[60]
(3) Incentivizing company improvements	**Market signals**: Exclusion of "bad" companies (generally, the fossil fuel industry) will reduce demand for shares and availability of debt. This financial hardship will incentivize company managers to change behavior and reduce their emissions, in order to meet screening criteria.[61]	**Market signals**: As described above, some evidence disputes the effect of divestment on share prices. Other evidence supports the link between shifts in investor demand, capital allocation, and share prices, but does not support the link between share prices and changes in company behavior.[62] *Conditions for success:* Some evidence suggests that screening criteria is more likely to influence company behavior if the **criteria for inclusion is transparent** and the company can meet it at a **reasonable cost**.[63] Additionally, screening has a greater effect on asset prices when the **market share of investors applying the approach is larger**.[64]
(4) Influencing public discourse	**Stigmatization:** By divesting from "bad" companies, especially the fossil fuel industry and companies with high GHG emissions, funds send important public signals. These signals may affect other investors' behavior and, in the long-term, influence policymakers.	**Stigmatization:** One study suggests that divestment campaigns are likely to succeed in changing market norms, inducing other actors to divest as well, but that such stigmatization is unlikely to threaten the overall survival of the fossil fuel industry.[65] Divestment movements ultimately rely on political change or cultural change to impact fossil fuel companies. Such change is **slow to arrive and difficult to attribute**. As such, there is very limited empirical evidence to support the impact of portfolio composition on company behavior. *Conditions for success:* Any kind of non-market signal requires **high public visibility.** This is more likely to occur for larger, well-renowned investors (e.g., university endowments, public pension funds, or famous individuals).[66] Quiet and solo divestment does not send a signal.[67]

[60] Kölbel et al. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact.
[61] Ansar, A., Caldecott, B. L., & Tilbury, J. (2013). Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?. University of Oxford, Smith School of Enterprise and the Environment.
[62] Kölbel et al. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact.
[63] CSP. Investor guide to impact.
[64] Kölbel et al. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact.
[65] Ansar, A., Caldecott, B. L., & Tilbury, J. (2013). Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?. University of Oxford, Smith School of Enterprise and the Environment.
[66] Center for Sustainable Finance and Private Wealth. Investor guide to impact
[67] https://www.ussif.org/files/Publications/USSIF_individualinvestors_sustainableinvesting.pdf

4.1.1 Giving Green's assessment of portfolio composition approaches

At this point, we are not convinced that portfolio composition strategies alone are sufficient to change company behavior and reduce GHG emissions.

First, the available evidence suggests that divestment is not likely to threaten the existence of fossil fuel companies. The theory that divestment will deprive the fossil fuel industry of financing, forcing them to cease operations or forgo future growth, is not strongly supported by evidence. The exception, perhaps, is the coal industry, where divestment may have a stronger near-term effect.[68] More evidence on the impact of divestment from specific sub-sectors of the fossil fuel industry could help climate funds design more impactful portfolios.

We find evidence on the indirect effects of divestment to be more promising. Fossil fuel divestment can indeed influence the public discourse and lead to stigmatization of fossil fuel companies, but there's still a long way to go between stigmatizing an industry and either transforming its existence or eliminating it entirely. In the long term, divestment might ultimately achieve cultural and political change, but evidence to support this pathway to impact is limited, in large part due to how difficult it is to attribute causes of changes in cultural attitudes or policy. Similarly, we find the idea compelling that divestment may be the foil to shareholder engagement, pairing the threat of "exit" with the use of "voice" to raise concerns,[69] but we have yet to see evidence that is as compelling as the theory.

Second, almost all the empirical evidence we found on the real-world impact of portfolio composition concerned fossil fuel divestment. Other types of screening criteria are theoretically impactful, but lack supporting evidence. For instance, companies might have a greater incentive to change behavior if investors employ a "best-in-class" screening approach, in which the worst GHG emitters in each sector or industry are excluded and the lowest GHG emitters are included. We're eager to see evidence on the effectiveness of this type of strategy, but acknowledge its theoretical limitations as well, such as requiring that a large proportion of investors employ the same screening approach.

Alternatively, funds could potentially apply upstream pressure on the fossil fuel industry by divesting from banks, insurance agencies, and advertising agencies, all of which facilitate the development of fossil fuel projects. There is already a movement to hold banks accountable for their involvement in the fossil fuel industry, but it is young and primarily concerned with identifying bad actors, understanding the amount of money that is being supplied to fossil fuel companies,[70] and mobilizing individuals to move their money away from the worst-offenders.[71] Currently, few sustainable funds screen for banks on lists such as the Rainforest Action Network's Fossil Fuel Finance report,[72] so evidence of the impact of divestment from fossil fuel lenders is limited. This impact strategy might be limited as less scrupulous banks may step up to lend to fossil fuel companies, especially if they are able to charge higher interest rates because of the risk of these

---

[68] Ansar, A., Caldecott, B. L., & Tilbury, J. (2013). Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?. University of Oxford, Smith School of Enterprise and the Environment.
[69] Cundill, G. J., Smart, P., & Wilson, H. N. (2018). Non-financial shareholder activism: A process model for influencing corporate environmental and social performance. International Journal of Management Reviews, 20(2), 606-626.
[70] Rainforest Action Network and others, "Banking on Climate Change: Fossil Fuel Finance Report Card" (2019), available at https://www.ran.org/wp-content/uploads/2019/03/Banking_on_Climate_Change_2019_vFINAL1.pdf.
[71] Stop the Money Pipeline, stopthemoneypipeline.com/move-your-money/#
[72] Rainforest Action Network and others, "Banking on Climate Change: Fossil Fuel Finance Report Card" (2019), available at https://www.ran.org/wp-content/uploads/2019/03/Banking_on_Climate_Change_2019_vFINAL1.pdf.

investments. Insurance is another potential upstream lever: in order to operate projects, fossil fuel companies need complex insurance products with coverage for commercial property, general liability, auto liability, equipment or inland marine coverage, workers' compensation, commercial umbrella, employee practices liability, and pollution environmental liability insurance.[73] The refusal of the industry to move away from insuring fossil fuel projects is particularly perplexing, since insurers will disproportionately be responsible for bearing the costs of three key types of climate impacts: physical risks, legal liability, and investment risks due to energy transitions.[74] Climate-focused funds could theoretically increase the pressure on insurance companies to cease working with the fossil fuel industry, but few (if any) climate funds screen for fossil fuel insurers, so evidence of impact is not available. Similarly, there is a small movement to pressure advertising agencies to cease working with fossil fuels.[75] Climate-focused mutual funds and ETFs could theoretically use divestment to increase the pressure on these firms, either by affecting share prices or increasing stigmatization of involvement with the fossil fuel industry. More evidence is needed to determine if divestment from companies working with the fossil fuel industry is an effective lever for climate impacts.

Third, redirecting capital to companies with positive climate practices to expand their market share and growth is somewhat supported by evidence, but climate-focused mutual funds and ETFs may not be the best positioned actors to effect this type of change. Additional investment is most impactful when companies are smaller, younger, and in immature financial markets -- generally, companies which are not yet publicly traded -- making this strategy more suitable for private equity and venture capital.

The evidence for composition of fund portfolios leading to reductions in GHG emissions is not as strong as we had hoped it would be. We found the theories of change to be indirect, require specific conditions for success, or not especially suited for retail investors looking for climate-focused mutual funds or ETFs. More evidence is needed on how *specific* approaches to portfolio composition and screening criteria -- especially approaches other than fossil fuel divestment -- may change company behavior and lead to reductions in GHG emissions. In general, we are not confident that screening of fossil fuels is an impactful strategy. As such, we have decided not to focus on the portfolio composition or screening criteria when assessing the impact of investment funds on reducing GHG emission. Instead, we will concentrate on funds with more sophisticated impact strategies, some of which may include fossil fuels.

A note on fossil fuel divestment: *Although we are not confident that investing in fossil-free funds will result in reductions in GHG emissions, we recognize that some climate-focused retail investors may find the available evidence of impact more convincing than we do, may wish to avoid fossil fuels to minimize the risk of stranded assets, or may still prefer to invest in such funds to align with their values. If that is the case, we encourage these investors to verify funds' holdings as well as their shareholder engagement track record. In the course of our research we found that not all funds that claim to focus on climate -- or even claim to be fossil-free -- actually are. For example, State Street offers three ETFs with "Fossil Fuel Free'' in the name, but these funds still have fossil fuel exposure ranging from 1.68 percent to 4.76 percent.[76] While ESG funds tend to be less exposed to the fossil fuel industry than conventional funds, Morningstar found that only 20*

[73] Bell. "Coal Mining Insurance: Why It's Never Just Another Day on the Job." Byars Wright, 7 July 2020, www.byarswright.com/coal-mining-insurance-why-its-never-just-another-day-on-the-job/

[74] McHale, C. and Spivey, R. CERES report, "Assets or Liabilities: Fossil Fuel Investments of Leading U.S. Insurers." (2016) CERES.

[75] https://www.nytimes.com/2021/03/25/business/media/climate-ad-agencies-fossil-fuels.html ; Clean Creatives, www.cleancreatives.org/about

[76] https://fossilfreefunds.org/funds?q=FOSSIL&srt=ussif ; Additional information on definitions of fossil free: https://fossilfreefunds.org/how-it-works

percent of all sustainable funds had less than 1 percent average exposure to fossil fuel in 2020.[77] *For investors looking for fossil fuel divestment, we recommend checking the fund's prospectus. As You Sow's [Fossil Free Funds](#) search tool can also provide helpful information about the carbon footprint and fossil fuel exposure of different funds' holdings.*

4.2 Shareholder engagement for the climate: theory & evidence

For climate-focused funds that use shareholder engagement or active ownership, the theory of change is relatively straightforward and supported by empirical evidence. **Table 4** provides an overview of the theories of change and available evidence.

Table 4. Shareholder engagement by mutual funds/ETFs and pathways to impact on climate: summary of the theories and evidence

Impact type	Theory of Change	Empirical evidence
(1) Encouraging company improvements	Climate-focused investment funds use their rights as shareholders to **voice concerns and persuade companies to change** their behaviors in ways that are better for the climate. Companies tend to listen because shareholders are partial owners of the company. If enough shareholders raise similar concerns or if the threat of divestment is strong, companies will change or improve their practices. Some shareholder engagement strategies do this in more structured ways, such as through **shareholder resolutions and proxy voting**. Other shareholder engagement strategies could be more informal, including **publicly speaking against company behavior** or providing knowledge and expertise to **support the company making the relevant change**.	**Empirical evidence broadly supports the link between shareholder engagement and changes in company behavior.** Several studies demonstrated that shareholder activism increases firms' voluntary disclosure of climate change risks, and firms' future actions on climate.[78] Blackrock conducted a study on shareholder resolutions on environmental or social issues, and found that, of shareholder proposals that received 30-50%, 67% resulted in companies fully or partially meeting the ask of the proposal, and of proposals that received more than 50% support, 94% resulted in companies fully meeting the ask of the proposal.[79] *Conditions for success:* Engagement is more likely to yield changes in company behavior if the engaging shareholder is influential, which can come from size of holdings, reputation, cultural proximity, or coalition-building.[80] Additionally, companies are more likely to agree to requests which are low cost to adopt or implement.[81]

[77] Morningstar. 2021. Sustainable Funds U.S. Landscape Report; Morningstar defines fossil fuel involvement as "a portfolio's percentage exposure to companies that derive at least 5% of their revenue from thermal-coal extraction, thermal-coal power generation, oil and gas production, or oil and gas power generation, or 50% of their revenue from oil and gas products and services." Source: Morningstar. 2021. Sustainable Funds U.S. Landscape Report; Morningstar. Which Sustainable Funds Are Fossil-Fuel Free? .

[78] Flammer, C., Toffel, M. W., & Viswanathan, K. (2021). Shareholder activism and firms' voluntary disclosure of climate change risks. Strategic Management Journal, 42(10), 1850– 1879. https://doi.org/10.1002/smj.3313; Byrd, J., & Cooperman, E. (2012). Do Shareholder Proposals Affect Corporate Climate Change Reporting and Policies; Rindfleisch, E. (2008). Shareholder Proposals: A Catalyst for Climate Change-Related Disclosure, Analysis, and Action. https://lawcat.berkeley.edu/record/1121579; Kölbel, F., Heeb, F., Paetzold, F., & Busch, T. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact. Organization & Environment, 33(4), 554-574.

[79] Blackrock. https://www.blackrock.com/corporate/literature/publication/our-2021-stewardship-expectations.pdf

[80] CSP. Investor guide to impact. UZH Publikation A4

[81] Kölbel et al. (2020). Can sustainable investing save the world? Reviewing the mechanisms of investor impact.

(2) Influencing public discourse	When shareholders successfully use their voice to encourage companies to change behavior, it makes other companies consider making similar improvements.[82]	A handful of studies on shareholder activism found that non-targeted firms adopt similar changes as targeted firms.[83] Anecdotally, CalPERS reported spillover effects from pension fund activism since the 1990s.[84] More recently, hedge fund Engine No. 1's success in capturing board seats at ExxonMobil turned heads around corporate America.[85]

4.2.1 Giving Green's assessment of shareholder engagement

We are cautiously optimistic about the potential for climate funds to use shareholder engagement strategies to reduce GHGs. Shareholder resolutions have a proven track record of increasing company engagement on climate, particularly through emissions disclosures and target setting.[86] Evidence is mixed on whether such requirements actually lead to reduced emissions, but increased accountability appears to be, at minimum, a worthwhile first step. And, particularly compared to portfolio composition strategies, shareholder engagement is the most promising avenue for climate-focused funds to generate positive climate impacts.

Shareholders are constrained in the types of changes that they can request of companies through resolutions and proxy voting. In the United States, the Securities and Exchange Commission (SEC) regulates the content of these proposals, who can submit them, and how often. Proposals are required to address corporate behavior that is considered to be a significant public issue and must not interfere in the "ordinary business" of the company, such as employee benefits, personnel changes, sale of particular products.[87] In recent years, the SEC has broadened its interpretation of the "ordinary business rule" to allow many corporations to omit climate-related shareholder requests.[88] Likely as a result, most shareholder resolutions introduced in 2021 were phrased as requests for *reports* on progress on reducing GHG emissions, rather than requests for explicit requests for *actions* to reduce GHG emissions. The causal linkage between disclosure of emissions and action to reducing GHG emissions is not strongly supported by literature.[89] However, setting of clear long-term climate performance targets and goals is associated with companies implementing more carbon

[82] https://www.ussif.org/sribasics
[83] Gantchev, N., Gredil, O. R., & Jotikasthira, C. (2019). Governance under the gun: Spillover effects of hedge fund activism. Review of Finance, 23(6), 1031-1068; Goranova, M., & Ryan, L. V. (2014). Shareholder activism: A multidisciplinary review. Journal of Management, 40(5), 1230-1268.
[84] Del Guercio, D., & Hawkins, J. (1999). The motivation and impact of pension fund activism. Journal of financial economics, 52(3), 293-340
[85] https://www.nytimes.com/2021/06/23/magazine/exxon-mobil-engine-no-1-board.html
[86] Shekita, N. 2020. Interventions by Common Owners. http://dx.doi.org/10.2139/ssrn.3658726 ; Barko, T., Cremers, M. & Renneboog, L. Shareholder Engagement on Environmental, Social, and Governance Performance. J Bus Ethics (2021). https://doi.org/10.1007/s10551-021-04850-z ; Engine No. 1. "Total Value Framework." https://engine1.com/total-value
[87] https://www.ussif.org/resolutions
[88] Proxy Preview 2021 report.
[89] Doda, B., Gennaioli, C., Gouldson, A., Grover, D., and Sullivan, R. (2016) Are Corporate Carbon Management Practices Reducing Corporate Carbon Emissions?. Corp. Soc. Responsib. Environ. Mgmt. 23: 257-270. https://doi.org/10.1002/csr.1369 ; Hassan, OAG, Romilly, P. (2018). Relations between corporate economic performance, environmental disclosure and greenhouse gas emissions: New insights. Bus Strat Env. 2018; 27: 893-909. https://doi.org/10.1002/bse.2040 ; Doan, M.H., & Sassen, R. (2020). The Relationship between Environmental Performance and Environmental Disclosure: A Meta-Analysis. SRPN: Corporate Reporting (Topic).

emission management and reduction practices.[90] Another study found that targets were effective in inducing corporate environmental performance when the targets are ambitious, set in absolute terms, and extend over longer time periods.[91]

Despite some limitations in scope, shareholder engagement via introducing resolutions and proxy voting -- especially on requests for specific emissions reductions targets -- is linked to changes in company behavior on climate action. We find it a promising mechanism for influencing companies to reduce GHG emissions as well as a useful metric of how committed mutual funds' and ETFs are to climate action.

[90] Dietz, S., Fruitiere, C., Garcia-Manas, C., Irwin, W., Rauis, B., & Sullivan, R. (2018). An assessment of climate action by high-carbon global corporations. Nature Climate Change, 8, 1072-1075. https://doi.org/10.1038/s41558-018-0343-2

[91] Dahlmann, F., Branicki, L. & Brammer, S. Managing Carbon Aspirations: The Influence of Corporate Climate Change Targets on Environmental Performance. J Bus Ethics 158, 1–24 (2019). https://doi.org/10.1007/s10551-017-3731-z

[5] Advice from Giving Green: be skeptical and follow the votes

Investments in climate-focused mutual funds and ETFs can lead to reductions in GHG emissions, but the impact pathways are indirect. **So, how should climate-focused retail investors proceed?**

Climate-focused investors should **be skeptical of generic ESG funds.** Climate is generally not the main focus of such funds, and carbon emissions is usually one of many data points considered as part of the "E" of ESG. In many cases, investment managers use ESG criteria to minimize risk and increase financial performance, rather than induce improvement of environmental, social, or governance outcomes. And, there's always the risk of greenwashing, where conventional funds are rebranded as sustainable funds without any fundamental changes in the holdings or actions of the fund. Usually, these funds also charge much higher fees to retail investors than conventional funds do. **We recommend looking for climate-focused funds that have a well-articulated climate strategy.**

Most importantly, investors looking for climate impacts should **take a look at who is throwing their weight around for the climate.** At a minimum, climate funds should be voting in favor of climate-focused shareholder resolutions.[92] Ideally, they should be introducing and negotiating these resolutions as well, though this kind of engagement is typically more feasible for actively managed funds than passive funds or ETFs.[93] In the course of our work, three main types of funds using shareholder engagement for climate impact have caught our eye. We provide a description and a few illustrative examples of these funds below.

5.1 A categorization framework for impactful climate funds

First, there are the "new kids on the block." We were impressed by the transparent, climate-specific, sophisticated investment strategies that drive these funds. However, these funds are too new to have a proven track record of shareholder engagement. We look forward to reports from these funds on their engagements to push for climate action.

- **Engine No. 1's ETF** - Just a few weeks after successfully capturing board seats at ExxonMobil earlier this year, Engine No. 1 launched its Transform 500 ETF (ticker: VOTE). The Transform 500 ETF tracks a market-cap weighted index and aims to invest in the 500 largest public companies in the United States. This means, of course, that it does not divest from fossil fuels. Instead, Engine No. 1 claims that it will work to change its portfolio companies in three ways: proxy voting, "campaigns" with companies, and attracting investors.[94] We find it promising that Engine No. 1's fees are 0.05%,[95] which is below average for passively managed funds, though we do wonder if these lower fees will constrain the VOTE ETF's capacity to engage with companies or build coalitions among other funds

[92] For investors interested in the voting history of a specific mutual fund or ETF: All public funds which hold stocks are required to provide a public record of how they voted on shareholder resolutions. These records are called N-PX reports and searchable on the SEC's website.
[93] Actively managed funds have a larger dedicated staff, increasing capacity to work on engagement efforts, but these funds also typically charge higher fees than passive funds, which can make them less accessible to retail investors.
[94] https://etf.engine1.com/
[95] https://etf.engine1.com/wp-content/uploads/files/engine_no-1_transform-500_fact-sheet.pdf

to push for climate action. Because it was launched in June 2021, the VOTE ETF did not vote on any proxies this year, so we have no evidence of impact yet. We're eager to see reports on its engagements and impact on climate action over the next couple years.

- **Carbon Collective** - Carbon Collective is technically a robo-adviser, which means that it is an online platform that produces a variety of low-fee portfolios based on a series of inputs provided by the potential investor. The resulting portfolio is a combination of direct stock ownership, investments in mutual funds or ETFs, and fixed income instruments. We like the clarity of their theory of change for climate action: divest from fossil fuels, reinvest in companies working on climate solutions, and pressure companies in the middle to decarbonize.[96] Although we are not totally convinced of the necessity of divesting, Carbon Collective argues that engagement with fossil fuel companies is unlikely to bring the types of climate wins that we need. Instead, they intend to focus their shareholder engagement efforts on companies which don't depend on fossil fuels as their core business strategy, such as Coca-Cola, Walmart, Nike, or Starbucks. These companies, Carbon Collective argues, could feasibly run on 100% clean energy and should be pressured to do so as soon as possible.[97] We find this argument compelling, and we're eager to see what kind of impact Carbon Collective can have on its portfolio companies. We also like that Carbon Collective uses evidence to drive its reinvestment in climate solutions: it built a **Climate Index** to track every public company that is working on climate solutions described by **Project Drawdown**,[98] an evidence-based guide to climate solutions by sector.[99] Carbon Collective offers five types of investment fund: Brokerage, Trust, Traditional IRA, Roth IRA, and SEP IRA. It charges 0.25% in management fees and additional 0.10% in fees from the mutual funds and ETFs it invests in,[100] which is comparable to the market standard for robo-adviser fees.[101] We're optimistic about Carbon Collective, but it is still quite young, having launched in November 2020. We look forward to seeing reports on their engagement efforts and impact going forward.

Second, we came across "tried-and-true climate warrior" funds. These funds are older and larger than the investment options described above and have a proven track record of action on climate. But, we have also seen these funds criticized for charging much higher fees than conventional, non-green funds, which may make them less desirable to climate-focused retail investors.

- **Green Century Funds** - Green Century was launched in 1991 by a group of environmental and public health nonprofits. It claims to be the first investment manager to offer "fossil-free, responsible, and diversified mutual funds in the U.S."[102] They also screen out producers of guns or civilian weapons, military weapons, tobacco, GMOs, and nuclear weapons or nuclear energy (though at Giving Green, we maintain that nuclear energy may be necessary to transition to a carbon-free energy system). However, we're most impressed by Green Century for its track record of shareholder activism. They claim to have filed more climate-focused shareholder proposals than any other investment firm in

---

[96] https://www.carboncollective.co/impact; https://blog.carboncollective.co/divest-invest-why-it-matters/
[97] https://www.carboncollective.co/impact
[98] Sources (1) List of Green Stocks Solving Climate Change ; (2) Solving Climate Change with Your Investments | Carbon Collective
[99] https://drawdown.org/
[100] https://www.carboncollective.co/fees
[101] https://www.investopedia.com/terms/r/roboadvisor-roboadviser.asp
[102] https://www.greencentury.com/sustainable-investment-strategy/

2021 and engaged with more than 100 companies on a variety of environmental issues.[103] According to the Proxy Preview 2021 report, Green Century filed seven resolutions on carbon asset risk reporting, one resolution on reporting of clean energy goals, and all four of the resolutions filed that year related to deforestation.[104] Many of these resolutions were negotiated and ended in corporate commitments. For example, Hain Celestial drafted a Paris-compliant emissions reduction plan in July 2021, following engagement with Green Century.[105] In October 2021, JPMorgan Chase followed through on its agreement with Green Century Funds to adopt stronger deforestation policies; the new policies require JPMorgan Chase's clients in the palm oil industry to comply with 'No Deforestation, No Peat, No Exploitation' (NDPE) policies.[106] These are promising wins, but we have to acknowledge that Green Century's fees are relatively high. Green Century offers one actively managed fund, with an expense ratio of 1.47 percent, and two passively managed funds, with expense ratios of 1.25 percent and 1.28 percent.[107] These fees are substantially higher than the typical fees for passive funds.[108] Green Century does claim that one hundred percent of its profits earned from managing the funds goes back to the environmental and public health nonprofit owners.[109]

- **Trillium Asset Management -** Founded in 1982, Trillium Asset Management is a certified B-corp which describes itself as an "impact-driven ESG-focused firm."[110] The founder of Trillium, Joan Bavaria, went on to co-found the US Sustainable Investment Forum (US SIF) as well as Ceres, a non-profit working to mobilize business and investment leaders to take climate action.[111] Trillium also has a well-documented record of shareholder engagement. In 2020, Trillium claims to have engaged with 821 companies for a total of 1059 engagements and to have filed 28 resolutions, 16 of which were successfully negotiated and withdrawn and 8 of which received more than 20 percent of the votes.[112] In 2021, Trillium co-filed a resolution with **Zevin Asset Management** to request that the United Parcel Service (UPS) commit to reducing emissions from its air fleet; the proposal garnered 36.7 percent support.[113] Trillium also engages with public policy leaders. This year, Trillium testified to the California State Legislature in support of the California Climate Risk Disclosure bill and has met with U.S. Congressional leaders to discuss environmental justice and infrastructure bills.[114] We find the history and scale of Trillium's engagements promising but acknowledge that Trillium's efforts are

---

[103] https://www.greencentury.com/wp-content/uploads/2021/07/Shareholder-Advocacy-2-pager-6.30.21.pdf
[104] Green Century also submitted two resolutions on plastic waste, two on pesticide use, and one on board oversight of climate change issues. Source: Proxy Preview Report. 2021. https://www.proxypreview.org/
[105] Hain Celestial* Announces New Goals to Lessen its Greenhouse Gas Emissions, Following Engagement with Green Century and Clean Yield Asset Management
[106] STATEMENT: JPMorgan Chase* Follows Through on Pledge to Adopt Improved Deforestation Policy
[107] Green Century Funds: Balanced Fund, Equity Fund, International Index Fund
[108] https://www.morningstar.com/articles/1055229/how-low-can-fund-fees-go
[109] From Green Century's website: "The organizations which founded and own Green Century Capital Management are: California Public Interest Research Group (CALPIRG), Citizen Lobby of New Jersey (NJPIRG), Colorado Public Interest Research Group (COPIRG), ConnPIRG Citizen Lobby, Fund for the Public Interest, Massachusetts Public Interest Research Group (MASSPIRG), MOPIRG Citizen Organization, PIRGIM Public Interest Lobby, and Washington State Public Interest Research Group (WASHPIRG)." https://www.greencentury.com/about-us/
[110] https://www.trilliuminvest.com/about
[111] https://www.ceres.org/about-us
[112] "Engagements include dialogue, sign-on letters, proposals and collaborative and individual efforts, including Trillium-led efforts and other organizational-led efforts." https://www.trilliuminvest.com/documents/firm-overview
[113] Trillium Asset Management. Shareholder Advocacy Highlights
[114] Trillium Asset Management. Shareholder Advocacy Highlights

divided between several issues and not solely focused on climate. Like other funds in this category, we are somewhat concerned by the management fees: Trillium offers three mutual funds, charging around 1.3 percent for retail investors,[115] which is somewhat higher than conventional mutual fund fees.[116]

Third, there are funds that aren't specifically focused on climate, but that can be quite influential on climate resolutions due to the size of their holdings in the targeted company. When shareholders vote on resolutions, their votes are tallied in proportion to the share of holdings in the company. If a fund holds only 0.02 percent of the company's stock, its vote will count as only 0.02 percent of the total, and if a fund holds 10 percent of the company's stock, its vote will count as 10 percent of the total. Some votes truly do matter more, and some funds have better voting records than others. A Morningstar study found that one of the primary drivers of a given fund's voting record is the voting strategy of the fund provider.[117] This makes sense, as large asset managers with multiple funds are unlikely to spend resources developing separate voting strategies for each fund. This also means that a fund's voting record can generally be evaluated at the asset manager level. Morningstar released a report on how the 20 largest asset managers in the United States voted on climate resolutions. The two large asset managers with the greatest support of climate resolutions in 2020 are described below:

- **Hartford Funds (Wellington) -** Among the 20 largest asset managers in the United States, Hartford Funds (where equity strategies are largely run by Wellington Capital Management), had the highest rate of support for key climate-related shareholder resolutions in 2020. Morningstar compiled this list of 34 "key climate resolutions," which were voted on in 2020 and related to emissions disclosures, climate lobbying disclosures and independent board leadership at energy companies.[118] Hartford Funds participated in 27 of the 34 votes, and **voted in favor 90 percent** of the time.[119] Hartford lists 62 different funds on its website, with net fees ranging from 0.19 percent for its Multifactor US Equity ETF to 1.23 percent for its Schroders Securitized Income Fund.[120]

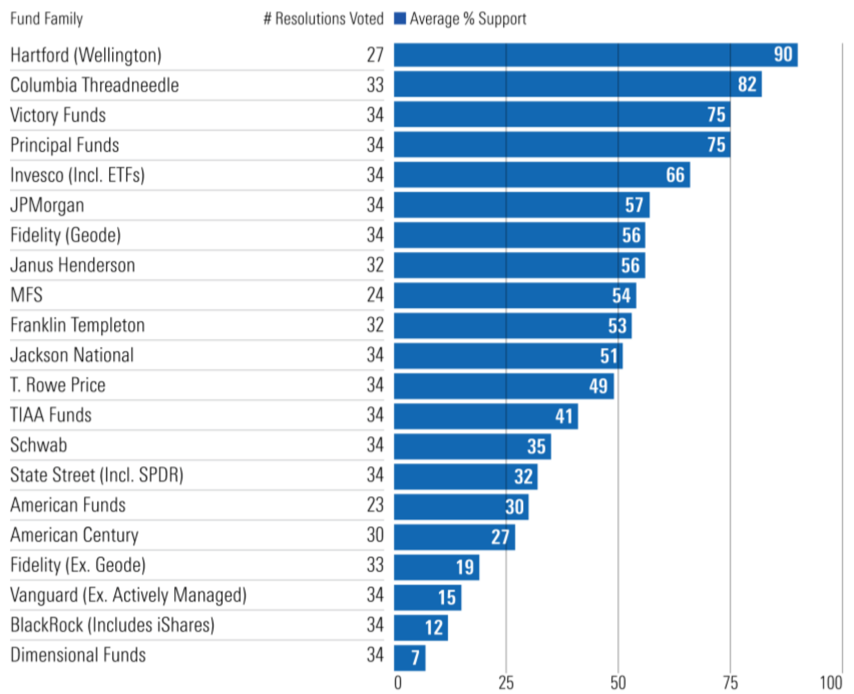
- **Columbia Threadneedle -** Columbia Threadneedle had the second highest rate of support for key climate resolutions in 2020, after Harford Funds (Wellington). Columbia Threadneedle participated in 33 of the 34 key climate resolution votes in 2020 and **voted in favor 82 percent** of the time.[121] Columbia Threadneedle lists roughly 100 mutual funds and 10 ETFs on its website, with net fees ranging from 0.15 percent for the Columbia Research Enhanced Core ETF (ticker: RECS) to 2.71 percent for its Multi-Manager Directional Alternative Strategies Fund.[122]

---

[115] Trillium Funds Prospectus 2020 (ESG); Trillium ESG SMID Cap 497K (10/2020); John Hancock ESG Large Cap Core Fund (JHJAX)
[116] https://www.morningstar.com/articles/1055229/how-low-can-fund-fees-go
[117] This is true for all large asset managers in the U.S. except for Fidelity, which develops separate strategies for its index funds through Geode. Source: Morningstar. U.S. Sustainable Funds Landscape 2021.
[118] "This set includes the 14 resolutions requesting climate-related disclosures, as well as 20 others filed out of concern for energy companies' broader climate governance--asking for lobbying disclosures and independent board leadership arrangements at large oil and gas and electric utilities companies." Source: https://www.morningstar.com/articles/1002749/how-big-fund-families-voted-on-climate-change-2020-edition
[119] Morningstar. 2020. Which Fund Companies Supported Climate Via Proxy Votes?
[120] https://www.hartfordfunds.com/funds.html#Performance
[121] Morningstar. 2020. Which Fund Companies Supported Climate Via Proxy Votes?
[122] https://www.columbiathreadneedleus.com/investment-products/exchange-traded-funds/#funds

Figure 1 illustrates the voting record of the 20 largest asset managers on climate resolutions in 2020. Morningstar found that many of these large asset managers continue to oppose shareholder resolutions requesting emissions disclosures and goal-setting.[123] In particular, the two largest stock fund managers in the U.S. -- **BlackRock** and **Vanguard** -- only voted in favor of climate resolutions 12% and 15% of time, respectively, compared to an average of 37% support from all shareholders across climate resolutions in the 2020 proxy voting season.[124] Blackrock and Vanguard often have the power to propel support for shareholder resolutions over the 50 percent mark. Both Blackrock and Vanguard's ESG funds voted against a 2020 resolution requesting JPMorgan Chase, one of the biggest fossil-fuel lenders globally, to examine how its lending activities contribute to climate change and to report on efforts to comply with the Paris Agreement's emissions goals. The resolution received 49.6 percent support (which is already substantial) but if Blackrock and Vanguard had supported the resolution, it would have passed with a resounding 64.2 percent support.[125] Similarly, in 2020, **Green Century** introduced a resolution at Bloomin Brands (owners of Outback Steakhouse) requesting a report to mitigate supply-chain GHG emissions, deforestation, and land use change. The resolution received 27 percent support. Both Blackrock and Vanguard -- which collectively hold 28 percent of shares in the company -- voted against the resolution.[126]

Figure 1*. Proxy Votes on Key Climate Resolutions in 2020 (Source: Morningstar)*



Source: Morningstar's Proxy Database. Data as of 11/18/20.

Voting records for the 2021 proxy voting season are still being released and analyzed. Some early analysis suggests that average support for climate-related resolutions increased from 37 percent in 2020 to 51

[123] Morningstar. 2020. "Sustainable Fund Proxy Votes Show a Range of Support for ESG Measures"; Morningstar. 2020. Which Fund Companies Supported Climate Via Proxy Votes?

[124] Morningstar. 2020. How Big Fund Families Voted on Climate Change: 2020 Edition

[125] Morningstar. (2020). Which Fund Companies Supported Climate Via Proxy Votes?; Morningstar. (2020). How Big Fund Families Voted on Climate Change: 2020 Edition

[126] https://www.morningstar.com/articles/1002749/how-big-fund-families-voted-on-climate-change-2020-edition

percent in 2021.[127] Notably, Blackrock, Vanguard, and State Street voted with Engine No. 1 -- and against management -- in the high-profile board member elections at Exxon earlier this year. Blackrock also claims to have supported two-thirds of the environmental shareholder resolutions that it voted on in 2021, which would be a prodigious increase from the previous year. We look forward to reviewing the voting records of large asset managers to understand who is truly throwing their weight around for the climate.

Overall, investing for the climate is a difficult task. It requires a critical eye to discern any mutual fund or ETF's level of commitment to climate action. Good signs include funds actively engaging their portfolio companies on climate issues, funds introducing and voting in favor of climate-forward resolutions, and funds that have sophisticated, climate-specific, transparent criteria for inclusion. And of course, **consider the fees and your individual investment goals** -- as well as your climate action goal -- before investing.

[127] Morningstar. 2021. The 2021 Proxy Voting Season in 7 Charts