



From Passive Owners to Planet Savers? Asset Managers, Carbon Majors and the Limits of Sustainable Finance

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Asset Managers, Carbon Majors and the Limits of Sustainable Finance

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Abstract

This article examines the role of the Big Three asset management firms – BlackRock, Vanguard and State Street – in corporate environmental governance. Specifically, it charts the Big Three's relationships with the publicly-owned Carbon Majors: a small group of fossil fuels, cement and mining companies responsible for the bulk of industrial greenhouse gas emissions. It finds that the Big Three much more often than not oppose rather than support shareholder resolutions aimed at improving environmental governance. Notably, this is even the case with the Big Three's environmental, social and governance funds. A more fine-gained analysis shows that the combined voting decisions of the Big Three are more likely to lead to the failure than to the success of environmental resolutions and that, whether they succeed or fail, these resolutions tend to be narrow in scope and piecemeal in nature. Based on these findings, the article raises serious doubts about the Big Three's credentials as environmental stewards.

Introduction

From a position of relative obscurity two decades ago, the "Big Three" asset management firms – BlackRock, Vanguard, and State Street – have become some of the most prominent players in global financial markets (Fichtner et al 2017). Together these three firms now manage over \$20 trillion in assets and control 80 percent of the market for exchange traded funds (ETFs) (Braun 2021). The Big Three own more than 20 percent of shares in the average S&P 500 company, a number that is predicted to double to over 40 percent in the next two decades (Bebchuk and Hirst 2019a) and have growing ownership stakes in corporations across the OECD (Fichtner and Heemskerk 2020).

With their spectacular growth the Big Three have been thrust into the spotlight, and a debate has emerged over whether they can or should leverage their massive ownership stakes to influence the companies in their portfolios (Wigglesworth 2021). This debate has taken on particular urgency in the context of the climate crisis, with regulators, environmental NGOs, think tanks and other advocacy groups calling on the Big Three to exert pressure on the companies they own to curb greenhouse gas emissions (GHG) and other forms of environmental damage (Cuvelier and Pinson 2021; Sorkin 2020). For their part, the Big Three have responded to these calls by vowing to become stewards of a more environmentally sustainable form of capitalism (Mooney and Temple-West 2020). As part of these efforts, the Big Three have pledged to introduce new Environment, Social and Governance (ESG) funds for investors, integrate more robust ESG criteria into their monitoring of and engagement with companies in their portfolio, and perhaps most importantly, become active in proxy voting at company annual general meetings (AGM) to support shareholder resolutions aimed at bringing business practices in line with environmental sustainability. In his most recent annual

letter to company executives, BlackRock CEO Larry Fink (2021) declared that on his clients' list of priorities "no issue ranks higher than climate change." Embracing the climate concerns of BlackRock's clientele, Fink celebrated the "tectonic shift" toward sustainable assets, called for an accelerated energy transition toward net zero emissions by 2050, one that is equitable for "vulnerable communities and developing nations," and called on companies in BlackRock's portfolio to improve disclosure by adopting the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the Sustainability Accounting Standards Board (SASB).

What are we to make of the Big Three's apparent embrace of climate advocacy? Is it an indispensable weapon in the fight against environmental breakdown or an elaborate form of "greenwashing"? In the growing academic literature on the giant asset management firms, opinion on these types of questions is deeply divided. Some claim that the Big Three are unlikely to wield much influence in corporate governance because they act as passive and permanent investors that track broad market indices and employ low-fee business models that are incompatible with high-cost monitoring and engagement. Others argue that their status as permanent capital means the Big Three have clear incentives to engage corporate managers and may adopt longer investment time-horizons needed to kickstart a low-carbon energy transition. According to this more sanguine view, the Big Three, as universal owners with a stake in nearly every corporation listed on the stock market, will also have an interest in the performance of the entire economy, and will therefore internalize the costs of "externalities," including environmental damage.

In this article, we aim to bring much-needed clarity to these debates by providing the most comprehensive study to date of the role of the giant asset management firms within corporate environmental governance. Specifically, we develop what is, as far as we are aware, the first analysis of the Big Three's relationships with 55 publicly-owned companies within the "Carbon Majors": a group of 90 fossil fuels, mining and cement companies responsible for over 70% of industry's cumulative GHG emissions since 1988 (Griffin 2017). The purpose of our study is twofold. First, we measure the prominence of the Big Three in the ownership of the Carbon Majors as it unfolds over time. Second, we examine, again over time, the proxy voting record of the Big Three on shareholder and management resolutions at Carbon Major AGMs directly and indirectly related to environmental governance. While step one of our research gives us a comprehensive picture of the *potential* influence of the Big Three in the governance of the Carbon Majors, step two allows us to assess systematically how that influence is wielded *in practice* and whether it is being used to champion environmental stewardship (Baines and Hager 2021).

Our study reveals the unparalleled prominence of giant asset managers as investors in the Carbon Majors. Since the global financial crisis, the equity stakes of the Big Three in the Carbon Majors have soared, with BlackRock and Vanguard in dominant positions and State Street the fourth largest investor. Even the ESG funds of the Big Three, we find, are heavily invested in the Carbon Majors. As a growing source of equity financing for the Carbon Majors,

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¹ Here we use the term prominence as a shorthand for what Kevin Young (2015, 448) calls "structural prominence," an "inherently positional concept" that measures distributive shares and centrality within a network of relationships. Though it is common to equate prominence with power, Young's distinction allows us to distinguish ownership from its hypothesized effect.

and with the Carbon Majors a shrinking component of their investment portfolios, we argue that the Big Three are in a strong position to exercise significant influence over corporate governance of the publicly-owned companies at the heart of climate change.

We go on to examine the proxy voting record of the Big Three on shareholder and management resolutions at Carbon Major AGMs across four key areas: environmental governance, buybacks and dividends, director elections and executive remuneration. Contrary to the expectations of some researchers, our analysis shows that the Big Three seldom defy management in supporting shareholder resolutions aimed at improving environmental governance. Astonishingly, we find that the voting behaviour of their ESG funds on environmental resolutions tabled at Carbon Major AGMs is almost identical to that of their non-ESG funds. Rather than promoting environmental stewardship, we claim that the Big Three are better characterized as stewards of the status quo of shareholder value maximization. Undertaking a more fine-gained analysis of environmental resolutions, we show that the combined voting decisions of the Big Three are more likely to lead to the failure than to the success of environmental resolutions, and that, whether they succeed or fail, the bulk of these resolutions tend to be narrow in scope and piecemeal in nature.

Overall, our research raises serious doubts about the efficacy of the Big Three's climate advocacy. At best, such efforts should be considered a minor complement to wider, more ambitious state-led strategies to bring about a low carbon energy transition. At worst, they represent, in the words of BlackRock's former chief investment officer for sustainable investing, a "deadly distraction" that delays such state-led efforts (Fancy 2021).

The remainder of the paper is organised as follows. In the first section, we review the existing literature on the role of the Big Three in corporate governance. In the second section, we map the centrality of the Big Three in the ownership network of the Carbon Majors and trace their rise to prominence over time. In the third section, we turn to an analysis of the proxy voting record of the Big Three. In the fourth section, we drill down into the data on proxy voting by examining marginal cases where the voting of the Big Three determined the success or failure of environmental resolutions. Finally, in the conclusion, we summarize our key findings and discuss the limits of shareholder climate advocacy.

Debating the Big Three

A growing body of literature has examined the implications of the Big Three's rise for corporate governance in general, and for ESG in particular. Building on Albert Hirschman's (1970) classic framework, studies of corporate governance have explored the influence of shareholders through the concepts of "exit" and "voice" (see Aguilera and Jackson 2003). Exit involves selling shares in a company as a way of registering dissatisfaction, and the threat of exit can be used by shareholders as a way of influencing corporate decision-making. Voice refers to direct shareholder engagements with management through such actions as public campaigns, private meetings, and proxy voting at company AGMs.

Exit and Voice

One of the key characteristics of the Big Three in corporate governance is that they do not tend to use exit; as "permanent capital" they have a reputation for passively following broad

market indices and therefore do not divest from the companies held in their portfolio (Bebchuk and Hirst 2019a: 2034; Jahnke 2019a). Companies may fall out of an index that is tracked by the passive investors, and the threat of falling out of a particular index may compel companies to act in certain ways (Grahl and Lysandrou 2006; Petry et al 2021). But this is different from the explicit threats to dump a company shares in order to influence outcomes. This is not to say that exit is entirely impossible for index investors. Patrick Jahnke (2019b) notes that passive asset managers can switch indices, they can discontinue funds, they can incentivize their investors to place money in certain funds by reducing fees on those funds, and they can lobby index providers to make amendments to the indices they track. However, such actions are cumbersome and costly relative to simply exiting from investment positions in the way that active shareholders do.

If exit is off the table then how do giant asset managers shape corporate governance? Do they instead use their voice to compensate for their lack of exit? On these questions the existing literature is sharply divided. Sceptics claim that, as passive investors, the Big Three are as unlikely to wield voice as they are to exit, making them deferential toward corporate managers (Bebchuk and Hirst 2019b). For example, the high costs of monitoring and engaging with management go against the Big Three's low fee business model, while serious challenges to corporate executives could mean a loss of lucrative pension services that they provide to large companies.² A growing body of literature, however, argues that the prospects for giant asset managers to use voice is considerable (Barzuza et al 2020; Fichtner et al 2017). Put simply, the idea is that because the Big Three lack the ability to exit and are stuck with large equity stakes in most listed corporations, they have clear incentives to engage directly with corporate managers, and, due to their large size, enjoy economies of scale in monitoring.

Ownership and Control

It is important to note that the efficacy of shareholder voice hinges on two factors: ownership and control. In the corporate governance literature, there is a protracted debate stretching back to Berle and Means (1932), whose landmark study boldly proclaimed that the diffusion of shareholding had separated ownership from the control of the company. The difficultly in this debate is to specify what percentage stake in a company is required to assert control over it. Formally, control requires majority ownership (50.1 percent) with voting rights, but with dispersed shareholding, effective control can be exercised with stakes as low as five percent (Davis 2008; Mizuno et al 2020). There is a clear consensus within the existing literature that the ownership shares of the Big Three are considerable both in terms of their breadth (diversification) and depth (concentration). Furthermore, these ownership stakes are expected to increase significantly in the coming years (Bebchuk and Hirst 2019a). What is disputed is

² Other deterrents include the free rider problem (because all investors benefit from the monitoring and engagement but only the activist shareholder incurs the cost), and potential coordination problems (because internal conflicts of interest between the hundreds of funds the Big Three manage make it difficult to come to a unified position) (Lund 2018; Morley 2018).

³ Berle and Means set the ownership threshold for control at 20 percent. In a devastating critique of the managerial thesis, Maurice Zeitlin (1974) provided systematic empirical evidence showing that control can be exercised effectively with as little as five to 10 percent ownership stakes (see also Nitzan and Bichler 2009, 272-273). Though Zeitlin effectively demonstrated that managerialism was a "pseudofact," and that those engaged in a debate about it were concerning themselves with a "pseudo-problem," the claims of Berle and Means continue to be a key reference point for studies of corporate governance to this day.

whether the giant asset managers will use these ownership stakes to exercise meaningful control over corporate governance. Perhaps unsurprisingly, the dividing line in the debate about the Big Three's capacity to control investee companies mirrors that concerning their use of voice.

Those sceptical about the Big Three's use of voice argue that they will also be reticent to exercise control. A formidable regulatory deterrent, sceptics point out, is Section 13 of the United State Securities and Exchange Act of 1934, which subjects shareholders with a five percent or more stake extensive disclosure requirements if they are found to have acquired their stake with the purpose of exerting control over the company (Bebchuk and Hirst 2019a; Lund 2018; Morley 2019). In portraying the Big Three as reluctant users of voice and control, sceptics do not place much stock in their prospects of acting as environmental stewards.

Meanwhile researchers stressing the amplified voice of the Big Three argue that their scope for control is significant, and that they in turn have both the capacity and willingness to engage in climate advocacy. According to this more optimistic view, two unique characteristics of the Big Three mean that they have clear incentives to use their amplified voice in ways that promote environmental stewardship (Fichtner and Heemskerk 2020; Jahnke 2019b). First, as permanent capital, giant asset managers have the potential to act as patient capital, adopting long-term investment horizons and eschewing a narrow focus on the short-term returns associated with the prevailing model of shareholder value maximization (Deeg and Hardie 2016; Fichtner and Heemskerk 2020). If major investors are patient, then it follows that corporate managers will be incentivized to engage, among other things, in the large-scale investments needed to decarbonize their business models. Second, the Big Three's position as universal owners is also conducive to environmental stewardship because it gives them a stake in the entire economy (Azar et al 2021; Braun 2016). Since universal ownership involves internalizing the costs of so-called externalities, the expectation is that giant asset managers will use their voice and exert control over companies to reduce environmental damage across their portfolios.

Thin Evidence: Toward a More Comprehensive Approach

Our contention in this study is that if we want to truly assess the Big Three's record on, and prospects for, environmental stewardship, then we need to focus on their relationships with companies most implicated in global warming. When it comes to the prominence of the giant asset managers in the ownership of companies responsible for the bulk of GHG emissions, the existing evidence is rather limited. A study by the think tank Influence Map (2018) gaged the carbon intensity of the portfolios of asset managers by estimating the CO2 emissions of the 300 fossil fuel companies that control more than 95 percent of all oil, gas and thermal coal reserves held by listed corporations. Of a sample of around 4,000 asset managers in 2017, Influence Map found that the portfolios of the Big Three have the highest CO₂ emissions from holdings in fossil fuel companies. When it comes to the use of voice and the exercise of control, empirical support for claims that the Big Three are "stewards" of long-term, patient, sustainable capitalism is also limited. In fact, the scant evidence collected thus far seems to point in the opposite direction: The Big Three's proxy voting record suggests that they tend to vote with management on short-term initiatives like stock buybacks and that they tend to vote against resolutions aimed at improvements in ESG (Briere et al 2019; Fichtner and Heemskerk 2020; Griffin 2020; Majority Action 2020).

In this study, we develop a more comprehensive approach to the study of the Big Three's role in environmental governance that builds on the conceptual and empirical contributions of the existing literature. Our analysis offers the first attempt to map the relationships between the giant asset managers and 55 publicly-owned companies within the "Carbon Majors": a group of 90 fossil fuels, mining and cement companies responsible for over 70% of industry's cumulative GHG emissions since 1988 (Griffin 2017). Thus far, efforts to map out the giant asset managers' ownership of fossil fuel companies have focused on snapshots over short periods, and we aim to extend this important research by charting how the giant asset managers' ownership of the Carbon Majors has evolved over time. We also contribute to the burgeoning literature on the Big Three's use of voice through proxy voting. Whereas existing studies tend to examine the Big Three's voting for supposedly short-term objectives separately from their voting on environmental and social resolutions, we adopt a more holistic approach, examining their proxy voting across a range of resolutions directly and indirectly related to environmental governance over time. It is only by considering the asset managers' use of voice in a more holistic and dynamic sense that we can adequately assess whether they do indeed swim against the tide, shunning short-term shareholder value maximization and embracing patient environmental stewardship.

Owning Emissions: Who Holds Carbon Major Equity?

With a more comprehensive approach, we aim to bring much needed clarity to the debates about the role of the Big Three asset managers in environmental governance. To explore this role, our study focuses on the Big Three's relationships with the Carbon Majors. The Carbon Majors database is one of the most comprehensive sources for company-level data on GHG emissions. It is based on the painstaking "carbon accounting" of Richard Heede (2014a, 2014b), who has developed a method for estimating carbon dioxide and methane emissions from the production records of the major fossil fuel, mining and cement companies.

Lessons From Carbon Accounting

For our purposes, the most important insights from the Carbon Majors project come from a study published in 2017, which focused on the period since 1988, the year that anthropogenic climate change was recognized with the establishment of the Intergovernmental Panel on Climate Change (IPCC) (Griffin 2017). The study found that just 100 extant entities were the source of more than 70 percent of GHG emissions from 1988 to 2015. These entities include 41 public investor-owned companies; 16 privately-held companies; 36 state-owned companies; and seven state producers. Within the Carbon Majors these emissions are heavily concentrated, with just 25 entities accounting for more than half of global industrial GHG emissions since 1988. The report also showed that since 1988 publicly-listed companies were responsible for 32 percent of emissions, privately-held companies for nine percent, and state-owned companies for 59 percent.

There are two main lessons to draw from these findings. The first, and this is a point we will return to later, is that enthusiasm for sustainable finance and its potential to solve the climate crisis needs to be tempered (see also Neville 2020). As the data reveal, state-owned and privately-held companies are responsible for roughly two-thirds of the Carbon Majors' cumulative emissions and are at the same time subject to little or no pressure from outside

investors. The need to temper enthusiasm for shareholder climate advocacy becomes even more acute once we acknowledge that state-owned companies and nation states within the Carbon Majors will be responsible for most potential future emissions since they hold about 90 percent of the proved recoverable reserves of fossil fuels (Heede and Oreskes 2016).

But tempering enthusiasm does not mean that we should entirely dismiss the role of the publicly-owned Carbon Majors in climate change. According to Heede and Oreskes (2016), the major climate risk of the publicly-owned Carbon Majors comes not from their proved reserves, but from their ability and willingness to explore and develop new reserves. If these companies follow through with plans to invest in further fossil fuel exploration and production, then on their own they will exceed the global carbon budget and push warming past the 2°C limit set by the 2015 Paris Agreement. Thus, despite the fact that most proved reserves are held by state-owned companies, shareholders still have a crucial role to play in dissuading publicly-owned Carbon Majors from investing in further development and exploration of fossil fuels (ibid.: 19). This brings us to the second lesson from the Carbon Majors data. If we want to assess the potential for the Big Three's climate advocacy, then it is clear that our attention should be focused on their relationships with the publicly-owned Carbon Majors that are responsible for the lion's share of the emissions of publicly-owned companies.

Measuring Prominence: Network Centrality, Equity Rankings, Assets Under Management

In Figure 1 we map the network of owners of the 53 publicly listed Carbon Majors for which comprehensive equity ownership data are available. This mapping is limited to ownership ties in excess of 0.01 percent of common shares outstanding. The size of each node for the Carbon Majors reflects its market capitalization, and the ten largest Carbon Majors by market capitalization are labelled in the figure. The size of every other node reflects the total market value of equity positions taken by owners of these firms, with the ownership position of the Big Three represented by the purple nodes. As we see, BlackRock and Vanguard occupy a central position in the ownership network of the Carbon Majors. Their position is much larger than any other investor. State Street, for its part, is less prominent than BlackRock and Vanguard, but is still the fourth largest investor in the network, behind Capital Group.

[insert Figure 1 here]

The equity network diagram offers a static view of the prominence of the Big Three in the ownership of the Carbon Majors in 2021. In the remainder of this section, we move to dynamic measures to assess how the prominence of the Big Three unfolds over time. Figure 2 offers data on BlackRock, Vanguard and State Street's position among owners of the Carbon Majors as ranked by size of equity holdings. The data are presented on a natural log scale to facilitate comparison and to draw attention to rates of change. Blackrock's median ranking increased steadily from the late 1990s to 2009. After its acquisition of Barclays Global Investors in 2009, BlackRock ascended to the uppermost echelons of the Carbon Major equity network with a median ranking of third largest owner. As we see, Vanguard's median position among the equity holders of the Carbon Majors has risen steadily over the last two decades and it now shares with BlackRock a median ranking of third largest owner. BlackRock's ownership positions are, however, more concentrated among the uppermost rankings of equity holders in the Carbon Majors as indicated in its narrower interquartile range. The ownership position

of State Street fell from the late 1990s to around 2010 but has since rebounded to give it a median ranking of ninth largest owner of the Carbon Majors.

[insert Figure 2 here]

Although Figure 2 offers a vivid depiction of the historical ascent of the Big Three's prominence in ownership of the Carbon Majors, there are other ways of presenting the data on their equity rankings. Figure 3 shows the percentage share of top 20, top 10, top 5 and largest equity holdings for each of the Big Three. Starting with BlackRock in the top left panel, we can see that it had relatively few equity positions in the investor-owned Carbon Majors in the late 1990s, and that its equity positions expanded significantly in the subsequent two decades. As of 2021, BlackRock is among the top 5 equity owners in 75 percent of the investor-owned Carbon Majors, and it is the largest equity holder of 19 percent of them. As in the previous chart, we can see a significant rise in BlackRock's equity position after the acquisition of Barclays Global Investors in 2009. The top right panel in the figure shows that Vanguard's ascent has been similarly dramatic. In the late 1990s Vanguard only had equity holdings in a few of the investorowned Carbon Majors. But by 2021 it was a top 5 owner in 77 percent of the Carbon Majors and the largest owner of 13 percent of them. State Street has also seen its equity stakes in the Carbon Majors increase over this period, though its share of top 20, top 10, top 5 and largest equity holdings is considerably lower than for BlackRock and Vanguard. The bottom right panel indicates that in 2021 the Big Three were all found in the top 5 equity holdings of 33 percent of the Carbon Majors and were the largest three equity holdings in 10 percent of them.

[insert Figure 3 here]

Figure 4 focuses on the Carbon Majors' share of assets under management (AUM) and market capitalization. The top left panel tracks the total AUM of the Big Three and showcases their dramatic growth. From a marginal position in the early 2000s, the AUM of BlackRock, Vanguard and State Street combined have grown to nearly \$22 trillion. The top right panel tracks the market value of the equity holdings that the Big Three have in the publicly-owned Carbon Majors. Again, we see a general increase in the size of holdings, but this appears to be heavily modulated by commodity price shifts and concomitant changes in the market value of the Carbon Majors. The role of commodity price shifts and changes in relative capitalization appear to be further underlined in the bottom left panel which presents the value of the Big Three's holdings in the Carbon Majors as a percentage of the overall market value of their holdings. Here we see that the total percentage of the Big Three's AUM represented by the Carbon Majors has fallen significantly in recent years. To be sure, this metric appears to peak when commodity prices, and in particular oil prices, were at elevated levels between 2006 and 2014. The bottom right panel shows that as a percentage of the Carbon Majors' market value, the Big Three's holdings have increased dramatically over the last two decades, and that together they hold nearly 14 percent of the Carbon Majors' equity.

[insert Figure 4 here]

What role do the Big Three's ESG funds play in relation to the Carbon Majors? There are two different approaches that ESG funds might take: they may either look to avoid "sin stocks" like fossil fuels, or they might seek to retain them with the aim of engaging management to stem environmentally destructive activities (Buller 2020: 3). In Figure 5, we collect data on the Big

Three's ESG and non-ESG funds holdings of Carbon Major equities. As we can see, the ESG funds of the Big Three have clearly a strategy of retention, rather than avoidance. There is very little to distinguish the ownership profiles of ESG and non-ESG funds. Of the 55 publicly-owned Carbon Majors analysed in the study, no fewer than 50 have been invested in by the Big Three's ESG funds from 2014 to 2021. The five which have not, comprise four coal companies: CONSOL Energy Inc, Arch Resources Inc, NACCO Industries Inc, Alpha Metallurgical Resources Inc; and one Albertan Tar Sands operator: Obsidian Energy.

[insert Figure 5 here]

The Big Three's Potential Influence

To briefly summarize, our network analysis reveals the centrality of the Big Three in the ownership of the Carbon Majors in 2021. Further, what we show is that the equity stakes of all three of the giant asset managers have climbed steadily over the past two decades. The global financial crisis marked a key turning point, as the Big Three's total AUM and their equity stakes in the Carbon Majors soared from 2009 onwards. Even the Big Three's ESG funds are heavily invested in the Carbon Majors. Our research thus reveals the unparalleled structural prominence of the Big Three in the Carbon Majors' financial networks.

What we also show is that, as a percentage of their total AUM, the Carbon Majors represent a shrinking component of the Big Three's overall investment portfolios. In short, what this means is that the Big Three are becoming more important to the Carbon Majors as a source of equity financing, while the Carbon Majors are becoming less important to the Big Three as a source of their overall returns. This puts the Big Three in a position to exercise significant influence over the Carbon Majors, as they can pressure the Carbon Majors to change their behaviour without major ramifications for their funds' own performance.

The Big Three's Voice: Shareholder Value or Environmental Stewardship?

The previous section documented the prominence of the Big Three in the ownership of the Carbon Majors. But to what extent does this prominence translate into actual influence over corporate governance? Are they using their position as universal and permanent owners of the Carbon Majors to champion environmental stewardship through long-term, patient capital? In this section, we assess the Big Three's use of voice by examining their proxy voting record on resolutions at the AGMs of the Carbon Majors.

Resolutions as a Baseline for Voice

It is important to note that even shareholder resolutions regarding ESG that obtain majority approval are normally "precatory." In other words, they are intended to advise management on the shareholders' preferred direction of company policy and strategy, but they are not legally binding (Neville et al 2019, 111). Though they are not sanctioned by law, we nonetheless choose to examine the Big Three's proxy voting record on resolutions as a facet of "voice" for two reasons.

The first reason is practical. BlackRock itself admits that behind-closed-door meetings may be more effective in steering corporate policy than votes against management (Fichtner et al

2017, 318; see also Azar et al 2021). But the problem with trying to systematically analyse this facet of voice is that it is often hidden from view. One of the advantages of examining proxy voting is that the data are publicly available and more amenable to precise numerical mapping. The second reason for focusing on proxy voting at AGMs is more substantive. While lacking legal status, shareholder resolutions can nonetheless play a vital role in raising awareness and shifting discourses and expectations on corporate governance (Neville et al 2019). At the same time, if shareholder resolutions are indeed meaningless, it should be costless to vote in support of them. We can therefore regard proxy voting as a minimum baseline for exercising voice. If the Big Three do not throw their weight behind non-legally binding ESG resolutions then we have little reason to think that they will support more robust forms of engagement.

The Big Three's Proxy Voting Record

With this in mind, Table 1 indicates the proxy voting record of the Big Three at the AGMs of the Carbon Majors from 2014 to 2021. Specifically, it focuses on four key areas directly and indirectly related to environmental governance: environmental resolutions, buybacks and dividends, director elections and executive remuneration.

[insert Table 1 here]

In the first part of the table we find the total number of recorded voting positions of the Big Three on environmental resolutions put forward by shareholders, as well as a breakdown of the number and percentage share of votes "for" and "against" them.⁴ What stands out in the table is the significant jump in support for, and corresponding decline in opposition to, environment resolutions from 2014-15 to 2016-17. Since that time, the Big Three's percentage of votes for environmental resolutions has remained steady at around 25 percent. When viewed over the entire period, we see that the Big Three are more than three times more likely to oppose than support environmental resolutions.

The second part of Table 1 shows the Big Three's proxy voting record on management resolutions concerning dividend payments and stock buybacks at the Carbon Majors. In the existing literature on financialization, dividend payments and stock buybacks are considered a proxy for short-termism (Lazonick 2014). By diverting resources to dividends and buybacks, companies prioritise short-term share returns, which may militate against the long-term investments required to decarbonize their business models. For example, money that flows to shareholders in the form of dividends and stock buybacks could instead be spent on investments in renewable energies (Kenner and Heede 2021, 6; see also Choquet 2019). As we see, the track record of BlackRock, Vanguard and State Street is clear: from 2014 to 2021, the Big Three never opposed a management resolution seeking approval for dividend payments and stock buybacks. The few instances where the giant asset managers did not support management resolutions were due to the fact that they did not vote at all.

⁴ These resolutions propose any of the following: adopt/amend climate change policy; adopt/amend energy policy; adopt/ament environmental policy; approve strategic resilience for 2035 and beyond; assess impact of a 2°C warming scenario; create climate change report; create energy report; create environment report; create fracking report; create industrial waste/pollution report; create sustainability report.

In parts three and four of Table 1 we show the proxy voting record of the Big Three on shareholder and management resolutions concerning the appointment of company directors at the Carbon Majors. Much like dividends and stock buybacks, resolutions on board appointments are indirectly related to environmental governance, and we include them here for two reasons. First, examining the balance of their votes for and against on these resolutions gives us a general sense of the degree to which the Big Three is willing to rebel against management. Part of the reason why giant asset managers are deemed passive is precisely because they tend to vote with management on crucial issues such as the appointment of directors (Fichtner et al 2017). Second, although not all proxy battles over company directorships at the Carbon Majors are tied to environment issues, some of the most highprofile ones are. For example, in May 2021 the Big Three made headlines at ExxonMobil's AGM for going against management and voting in support of the "climate friendly" candidates for the board put forward by a small hedge fund named Engine No. 1 (The Economist, May 29, 2021, 61-62). The Big Three's support for the shareholder rebellion at ExxonMobil was celebrated as a defining moment in their embrace of climate advocacy.⁵ Examining the voting record of the Big Three on shareholder and management resolutions of this type allows us to place episodes like the Engine No. 1 revolt at the ExxonMobil AGM in a broader context, to gage whether it is a "one-off" or part of a wider pattern.

In part three of Table 1 we see is that the Big Three have indeed become more supportive of shareholder resolutions on directors and less opposed over time. These data suggest that the Big Three's support for the Engine No. 1 revolt is not an isolated incident, as they are increasingly wielding their voice in ways that go against management. But to get a more accurate sense of the degree to which the Big Three are rebelling against the management of the Carbon Majors in the appointment of directors, we need to also consider their far more frequent proxy voting record on management resolutions. We see that the Big Three are much more likely to vote in favour of directors put forward by management than those put forward by shareholders. There has been a slight decline in support for directors put forward by management, but the Big Three still overwhelmingly support these management resolutions. Over the entire period, the Big Three vote in support of management resolutions on directors 91 percent of the time and only opposed them four percent of the time. Therefore, the proxy voting record on the appointment of directors reveals that the Big Three are still very much on the side of the Carbon Majors' management.

In parts five and six of Table 1 we find the proxy voting record of the Big Three on shareholder and management resolutions concerning executive remuneration at the Carbon Majors. Again, it is worth pointing out that resolutions on executive compensation need not be directly related to environmental concerns. Where their compensation is tied to performance-related financial metrics, then Carbon Major executives may have incentives to prioritise short-term objectives that conflict with the long-term decarbonisation of their business models (Plender 2021). And where their compensation is tied to production metrics such as oil and gas reserve replacement ratios, then Carbon Major executives have a direct set of incentives that stand against efforts to reduce emissions (Kenner and Heede 2021). But generally speaking, the

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⁵ In fact, May 26 2021, the date of the ExxonMobil AGM, is now being heralded as a "day of reckoning" for Big Oil (Mufson 2021). On the same day, a Dutch court ordered Royal Dutch Shell to reduce its CO2 emissions by 45 percent of 2019 levels by the end of 2030, and 61 percent of shareholders at Chevron's AGM voted against management in support of a resolution demanding substantial cuts to the company's Scope 3 emissions.

Big Three could side with shareholders and against management on remuneration for the simple reason that they consider it excessive. In this way, the proxy voting record of the Big Three on executive remuneration provides another indicator of their willingness to go against management.

There were very few shareholder resolutions on remuneration voted on by the Big Three. And the message here is clear: the Big Three have always voted against resolutions on remuneration put forward by their fellow shareholders. In contrast, the number of management resolutions on executive remuneration is considerably larger, and the Big Three almost always vote in favour of them.

Stewards of the Status Quo

Our analysis of the proxy voting record of the Big Three shows little evidence that they champion environmental stewardship, directly or indirectly, nor does it suggest that they are willing to consistently use their voice against management. But what about the proxy voting record of the Big Three's ESG funds? Recall from Figure 5 in the previous section that the Big Three's ESG funds are invested in many Carbon Majors, which may reflect a strategy of retaining their stocks in the hopes of engaging them on environmental issues.

According to our research, not only do the Big Three's ESG funds invest in many of the same Carbon Majors as their non-ESG funds, they tend to vote the same way at Carbon Major AGMs. Based on calculations from Proxy Insight data, we find that, from 2014 to 2021 there were only three occasions in which any Big Three ESG fund voted against the majority of non-ESG funds to support an environmental resolution. This suggests that the retention of Carbon Major stocks by the ESG funds of the Big Three has little to do with engagement and environmental stewardship. Taken together, there is not much evidence in our findings to support the claim that the Big Three are acting as environmental stewards. Instead, they appear to be little more than stewards of the status quo of shareholder value maximization.

At the Margins: Does Voice Matter?

Moving from voice to control, a remaining issue that cannot be resolved with the data in Table 1 is whether the success or failure of these environmental resolutions at Carbon Major AGMs hinges on the support or opposition of the giant asset managers. In other words, did the proxy voting of the Big Three make any difference to the outcomes? And in those cases where the combined votes of the Big Three did make a difference, was it because of their support or opposition? In this section, we tackle these questions by examining marginal cases where the proxy voting shares of the giant asset managers did indeed determine the success or failure of environmental resolutions.

Obstructing Environmental Governance

Of the 141 shareholder resolutions on environmental governance put forward at Carbon Major AGMs between 2014 and 2021, we identified 42 marginal cases where the votes of one or more of the Big Three were pivotal to the resolution outcome. Table 2 provides summary data of the Big Three's voting positions in these marginal cases (see appendix for more details on these votes). Taken together, we see that the voting decisions of the Big Three are more likely

to result in the failure than in the success of environmental resolutions. Over this period, the votes cast by one or more of the Big Three were decisive in the success of just 11 resolutions and swung the vote of 31 other resolutions toward failure in securing an absolute majority.

[insert Table 2 here]

When examined across time, we see that the obstructionist tendencies of the Big Three have waned somewhat, with the share of marginal votes to which the giant asset managers were pivotal in voting down declined. However, the fact that even for the latest period, the Big Three were decisive to the failure of more environmental governance resolutions in gaining a majority vote, than they were to the success of such resolutions, suggests that they are still lagging rather than leading general shareholder efforts to improve sustainability performance among the world's most polluting publicly-listed companies. Moreover, when comparing the Big Three, it is notable that BlackRock has been pivotal to the failure of more marginal votes (30 overall) than either Vanguard (25) and State Street (8) despite being the most prominent among the giant asset managers in trumpeting its putative credentials as an environmental steward.

The Nature of Environmental Resolutions: Narrow and Piecemeal

Looking closely at the description of the marginal resolutions in the appendix, we see that the vast majority are focused on the production of reports regarding certain types of emissions (e.g. methane), the impacts of climate-related financial risks, or lobbying activities. Pressuring the Carbon Majors to disclose this type of information is certainly important. But in our view such initiatives tend to be narrow in scope and piecemeal in nature. Beyond reports, only two of the eleven resolutions that the Big Three swung to successful outcomes involved commitments to reduce emissions (at Chevron and ConocoPhillips in 2021). And none of the environmental resolutions listed in the appendix deal with the most pressing concern of all: namely, the aforementioned necessity of stopping the publicly-owned Carbon Majors from exploring and developing new reserves.

Earlier we touched on how shareholder resolutions, while lacking legal status, can still play a crucial symbolic role in raising awareness, as well as in shifting discourses and expectations, about the behaviour of corporations. But to be effective in this role, symbols need to reflect the urgency of a given situation. Whether the Big Three determine their success or failure, the rather temperate signals sent out by these environmental resolutions are simply not in line with the drastic action needed to avert climate breakdown.

Conclusion: A "Deadly Distraction"

In this study, we analysed the relationships between the Big Three asset managers and the Carbon Majors. Our aim was to scrutinize the climate advocacy of the giant asset management firms by developing the most comprehensive study to date of their role in corporate environmental governance.

We documented the unparalleled rise to prominence of the Big Three in the ownership of the Carbon Majors since the crisis of 2007-2008. As a growing source of equity financing for the Carbon Majors, and with the Carbon Majors a shrinking component of their investment portfolios, we argued that the Big Three have the potential to exercise significant influence in

corporate governance. Moving from *potential* to *actual* influence, we examined the proxy voting record of the Big Three at Carbon Major AGMs. Contrary to the expectations of some researchers, our analysis uncovered little evidence that the Big Three are using their voice to defy management and support resolutions aimed at improving environmental governance. Notably, we found that the Big Three's ESG funds have equity holdings in all but five of the Carbon Majors, and that they tend to vote the same way as their non-ESG funds on environmental resolutions tabled at Carbon Majors' AGMs. Rather than promoting environmental stewardship, the Big Three are better characterized as stewards of the status quo of shareholder value maximization. Our more fine-gained analysis shows that despite an apparent embrace of some forms of shareholder advocacy in recent years, the combined voting decisions of the Big Three are more likely to lead to the failure than to the success of environmental resolutions tabled at Carbon Major AGMs. And regardless of whether they succeeded or failed, we argue that the bulk of these resolutions tend to be narrow in scope and piecemeal in nature.

To return to the questions posed in the introduction, our analysis suggest that the Big Three are indeed involved to a very large extent in greenwashing. Yet at the same time, judging from our findings, we question whether the term greenwashing is too benign to capture what is at stake. Instead, we are inclined to side with BlackRock's former chief investment officer for sustainable investing, Tariq Fancy (2021), who argues that the climate advocacy of the Big Three is best understood as a "deadly distraction," one that diverts attention from the system-level transformations that are urgently needed and that only governments have the power and resources to deliver.

At best, the climate advocacy of shareholders like the Big Three should be a very minor complement to a wider, more ambitious state-led strategy to bring about a low carbon energy transition. As a minor component, shareholder advocacy should be focused not on the production of reports, but on demands that the Carbon Majors reduce emissions and cease exploring and developing new fossil fuels reserves. Rather than wait and hope that the giant asset managers will apply the needed pressure to force the Carbon Majors to decarbonize, taxes and subsidies must be completely overhauled to encourage the swift dismantling of carbon-intensive energy systems and the rapid expansion of renewable energy infrastructures. With the looming threat of climate breakdown we simply cannot afford any more distractions.

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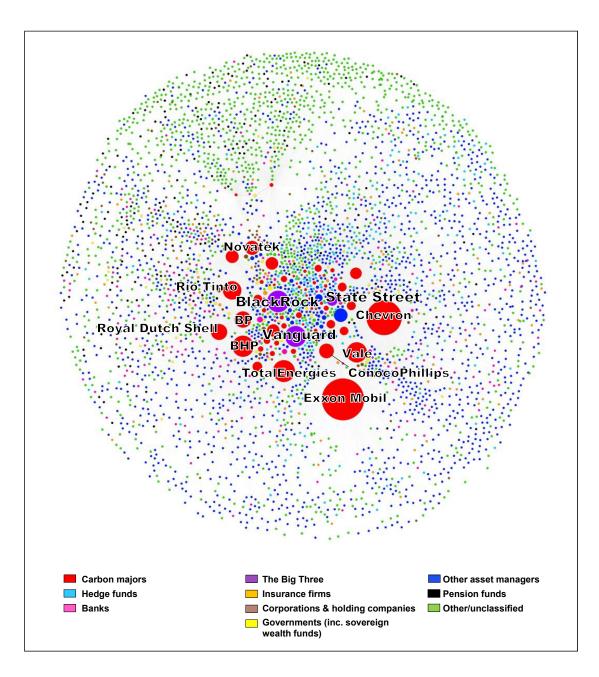


Figure 1. The Network of Equity Ownership in the Carbon Majors, 2021

Source: Bloomberg Professional

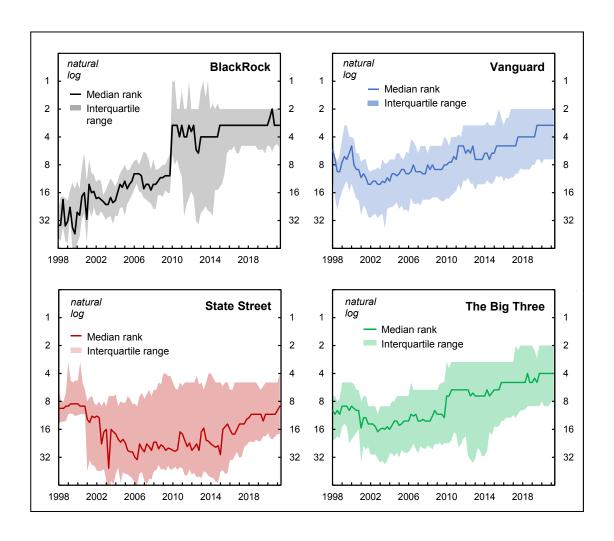


Figure 2. The Big Three's Rankings among Equity Holders of the Carbon Majors

Source: Bloomberg Professional

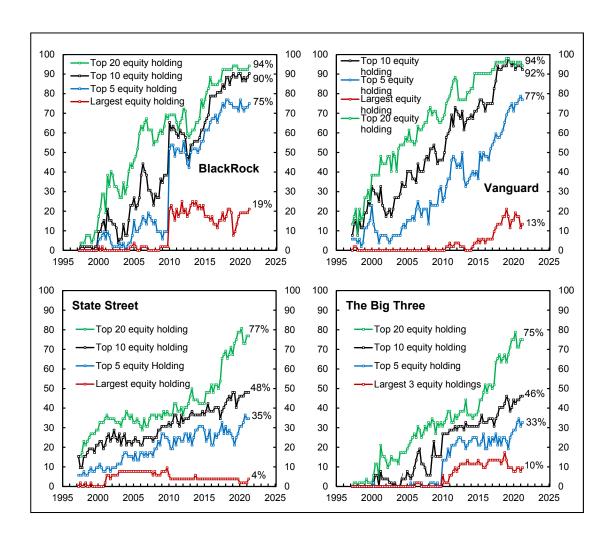


Figure 3. Decomposition of the Big Three's Rankings among Equity Holders of the Carbon Majors

Source: Bloomberg Professional

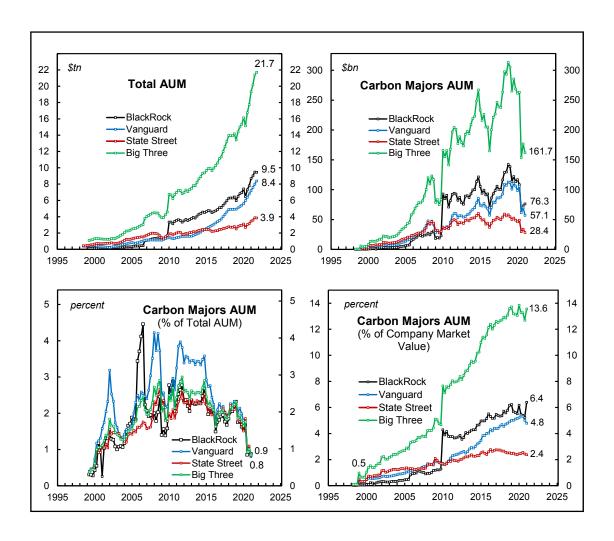


Figure 4. The Size of the Big Three's Holdings in the Carbon Majors

Source: Bloomberg Professional. Vanguard total AUM data from Wyatt (1998), Fender (2003), Forbes (2005), Investment Management Association (2006), Lipkin (2006), Watson Wyatt (2006), Asia Asset Management (2009), Barr (2010), Bogle (2011), Investments & Pensions Europe (2014, 2015, 2016, 2017), Housell (2017), Kozlowski (2018), Delventhal (2019), Zacks (2020), Vanguard (2021), ADV Ratings (2021).

Note: 22 observations were recorded for Vanguard's total AUM in the period 1998 to 2021, where Vanguard's total AUM data is missing it is interpolated.

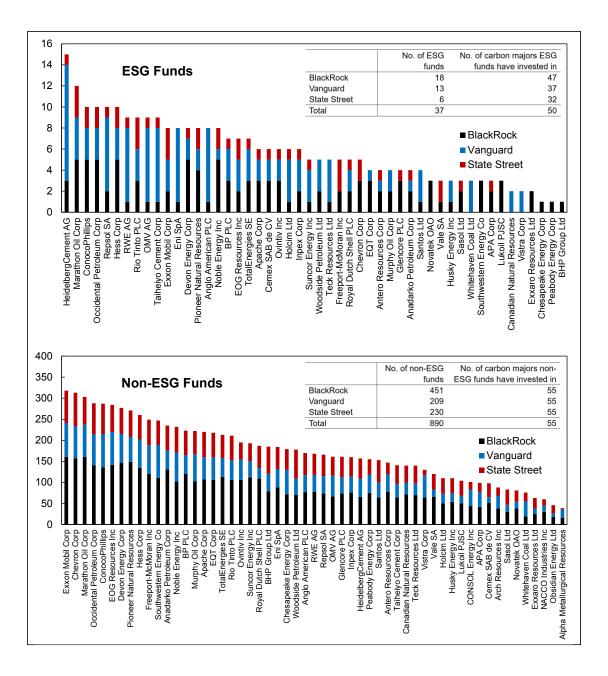


Figure 5. Carbon Majors in which the Big Three's ESG and non-ESG funds have invested, 2014-21

Source: Proxy Insight (2021)

	Number of recorded	Number (percentage)	Number (percentage
			-
	voting positions of the	of recorded 'for' votes	of recorded 'against
	Big Three	of the Big Three	votes of the Big Three
1. Environmental (*)			
2014-15	129	8 (6%)	94 (73%
2016-17	152	36 (24%)	97 (64%
2018-19	57	14 (25%)	39 (68%
2020-21	78	20 (26%)	46 (59%
Total	416	78 (19%)	276 (66%
2. Buybacks & Dividends (**)			
2014-15	190	177 (93%)	
2016-17	167	151 (90%)	
2018-19	170	155 (91%)	
2020-21	140	136 (97%)	
Total	667	619 (93%)	
3. Director Elections (*)			
2014-15	16	6 (38%)	10 (63%
2016-17	30	13 (43%)	
2018-19	35	13 (37%)	12 (34%
2020-21	56	35 (63%)	4 (7%
Total	137	67 (49%)	26 (19%
4. Director Elections (**)			
2014-15	2513	2360 (94%)	75 (3%
2016-17	2503	2315 (92%)	86 (3%
2018-19	2702	2412 (89%)	104 (4%
2020-21	2531	2193 (87%)	104 (4%
Total	10249	9280 (91%)	369 (4%
5. Remuneration (*)			
2014-15	20	-	20 (100%
2016-17	21	-	21 (100%
2018-19	3	-	3 (100%
2020-21	6	-	6 (100%
Total	50	-	50 (100%
6. Remuneration (**)			
2014-15	459	437 (95%)	15 (3%
2016-17	540	496 (92%)	34 (6%
2018-19	469	432 (92%)	23 (5%
2020-21	484	453 (94%)	23 (5%
2020-21			

(*) shareholder resolutions; (**) management resolutions

Table 1. Positions Taken by the Big Three in Shareholder Resolutions and Manager Resolutions for the Carbon Majors

Source: Proxy Insight (2021)

Note: Total 'for' and 'against' vote data for do not always sum to total votes due to abstentions and occasions in which the Big Three did not vote. See appendix for more details on data.

	2014-15	2016-17	2018-19	2020-21	2014-2021 Total
Number of marginal votes	3	17	5	17	42
Number (%) of marginal votes in which one or more of the Big Three were pivotal in securing a majority	-	3 (18%)	1 (20%)	7 (41%)	11 (26%)
Number (%) of marginal votes in which BlackRock helped secure the majority by voting in favour	-	2 (67%)	-	6 (86%)	8 (73%)
Number (%) of marginal votes in which Vanguard helped secure the majority by voting in favour	-	2 (67%	1 (100%)	5 (71%)	8 (73%)
Number (%) of marginal votes in which State Street helped secure the majority by voting in favour	-	3 (100%)	1 (100%)	4 (57%)	8 (73%)
Number (%) of marginal votes in which one or more of the Big Three were pivotal to the failure of securing a majority	3 (100%)	14 (82%)	4 (80%)	10 (59%)	31 (74%)
Number (%) of marginal votes in which BlackRock contributed to this failure by voting against	3 (100%)	14 (100%)	4 (100%)	9 (90%)	30 (97%)
Number (%) of marginal votes in which Vanguard contributed to this failure by voting against	-	11 (79%)	4 (100%)	10 (100%)	25 (81%)
Number (%) of marginal votes in which State Street contributed to this failure by voting against	2 (67%)	1 (7%)	1 (25%)	4 (40%)	8 (26%)

Table 2. Summary of the Big Three's Positions in Marginal Votes on Shareholder Resolutions on Environmental Governance, 2014-2021

Source: Proxy Insight

Appendix

Environmental resolutions are defined as the following resolution types classified by Proxy Insight: 'energy', 'environmental' and 'political activities'; buybacks and dividends are defined as: 'approve allocation of profits/dividends' and 'approve stock repurchase/buyback'; director elections are defined as 'director re/elections'; and remuneration is defined as 'bonus', 'director remuneration', and 'equity based plans'. It is not always the case that every fund which belongs to each of the Big 3 votes in the same way as every other fund in the same asset management firm. The table below lists the vote events in which funds in the same asset management did not attain complete congruence in their votes:

	Number of record vote events	Number (percentage) of
		recorded vote events without
		complete vote fund uniformity
Environmental (*)	416	50 (12%)
Buybacks & dividends (**)	667	29 (4%)
Director elections (*)	137	41 (30%)
Director elections (**)	10,249	258 (3%)
Remuneration (*)	50	1 (2%)
Remuneration (**)	1,952	58 (3%)
All categories	13,471	437 (3%)

(*) shareholder resolutions; (**) management resolutions

Table A1. Vote events in which funds within the same asset management company did not vote in a uniform way

Source: Proxy Insight (2021)

In these divergent fund vote events, the majority vote cast was selected as representing the aggregate vote of the asset management company. Where the vote cast was evenly split between for/against and abstain/did-not-vote, for/against was selected as the aggregate vote for the asset management firm. And where the vote cast was evenly split between abstain and did-not-vote, abstain was selected as the aggregate vote for the asset management firm. Marathon Petroleum was selected for this investigation rather than Marathon Oil, from which it split in 2011, given its much higher GHG emissions.

	Company and shareholder resolution	Votes in favour (%)	BlackRock stake (%) and voting stance	Vanguard stake (%) and voting stance	State Street stake (%) and voting stance	Big Three voting rationale (where available)
30 th April 2014	Marathon Petroleum Report on Lobbying Payments and Policy	47.7	11.4 [Against]	5.3 [Abstain]	5.2 [Abstain]	-
30 th April 2014	Marathon Petroleum Adopt Quantitative GHG Goals for Products and Operations	35.9	11.4 [Against]	5.3 [Abstain]	5.2 [Against]	-
1 st May 2015	Occidental Petroleum Report on Methane Emissions Management and Reduction Targets	33.1	6.6 [Against]	6.1 [Abstain]	4.5 [Against]	-
28 th April 2016	Suncor Energy Approve Annual Disclosure of Lobbying-Related Matters	40.0	9.1 [Against]	2.0 [Against]	0.1 [For]	BlackRock: "Company already has policies in place to address these issues."
29 th April 2016	Occidental Petroleum Annually Assess Portfolio Impacts of Policies to Meet 2 Degree Scenario	49.0	7.3 [Against]	6.7 [Abstain]	4.8 [For]	BlackRock: "Company already has policies in place to address these issues." Vanguard: "While we believe the issue is real, we may not believe the proposal meets our threshold for support."
29 th April 2016	Occidental Petroleum Report on Methane and Flaring Emissions Management and Reduction Targets	32.9	7.3 [Against]	6.7 [Abstain]	4.8 [Abstain]	BlackRock: "Corporate policy decisions are best left to the board absent demonstrable harm to shareholders by prior board action or inaction. The board can be held accountable for its decisions through the election of directors."

10 th May 2016	Anadarko Petroleum Report on Methane and Flaring Emissions Management and Reduction Targets	42.0	7.4 [Against]	6.7 [Abstain]	5.0 [For]	BlackRock: "Company already has policies in place to address these issues." State Street: "This proposal merits support as the company's disclosure and/or practices related to climate change can be improved."
25 th May 2016	Chevron Corp. Annually Assess Portfolio Impacts of Policies to Meet 2 Degree Scenario	40.8	6.1 [Against]	6.7 [Against]	6.0 [For]	BlackRock: "Corporate policy decisions are best left to the board absent demonstrable harm to shareholders by prior board action or inaction. The board can be held accountable for its decisions through the election of directors." Vanguard: "While we believe the issue is real, we may not believe the proposal meets our threshold for support." State Street: "This proposal merits support as the company's disclosure
25 th May 2016	Exxon Mobil Corp. Annually Assess Portfolio Impacts of Policies to Meet 2 Degree Scenario	38.1	5.9 [Against]	6.7 [Against]	4.6 [For]	and/or practices related to climate change can be improved." BlackRock: "Corporate policy decisions are best left to the board absent demonstrable harm to shareholders by prior board action or inaction. The board can be held accountable for its decisions through the election of directors." State Street: "This proposal merits support as the company's disclosure and/or practices related to climate change can be improved."
8 th June 2016	Devon Energy Corp. Annually Assess Portfolio Impacts of Policies to Meet 2 Degree Scenario	36.1	6.4 [Against]	7.6 [Against]	5.1 [For]	BlackRock: "Company already has policies in place to address these issues." Vanguard: "While we believe the issue is real, we may not believe the proposal meets our threshold for support." State Street: "This proposal merits support as the company's disclosure and/or practices related to climate change can be improved."
26 th April 2017	Marathon Petroleum Report on Strategy for Aligning with 2 Degree Scenario	40.9	11.3 [Against]	7.9 [Against]	5.5 [For]	BlackRock: "Upon engagement, decided to vote with management who will look to frameworks for greater disclosure on climate." Vanguard: "While we believe the issue is real, we may not believe the proposal meets our threshold for support." State Street: "This proposal merits support as the company's disclosure and/or practices related to climate change can be improved."

26 th April 2017	Marathon Petroleum Report on Environmental and Human Rights Due Diligence	35.3	11.3 [Against]	7.9 [Against]	5.5 [Abstain]	BlackRock: "Company already has policies in place to address these issues." Vanguard: "While we believe the issue is real, we may not believe the proposal meets our threshold for support." State Street: "SSGA is abstaining on the proposal as the company's environmental disclosure and/or practices are broadly in line with market standard but could be enhanced."
12 th May 2017	Occidental Petroleum Assess Portfolio Impacts of Policies to Meet 2 Degree Scenario	67.3	7.2 [For]	7.3 [For]	5.1 [For]	BlackRock: "On balance, following our engagement on this topic over the past two years and the lack of observed change in reporting practices, we voted in favor of the shareholder proposal at the 2017 AGM." State Street: "This proposal merits support as the company's disclosure and/or practices related to climate change can be improved."
12 th May 2017	Occidental Petroleum Report on Methane Emissions and Flaring Targets	45.8	7.2 [Against]	7.3 [Against]	5.1 [Abstain]	BlackRock: "Company already has policies in place to address these issues." State Street: "SSGA is abstaining on the proposal as the company's disclosure and/or practices related to GHG emissions are broadly in line with market standard but could be enhanced."
12 th May 2017	Pioneer Natural Resources Report on Annual Sustainability	52.1	7.3 [Against]	7.1 [Against]	5.4 [For]	BlackRock: "Upon engagement, decided to support management against shareholder." State Street: "This proposal merits support as the company's sustainability disclosure and practices can be improved."
31 st May 2017	Exxon Mobil Corp. Report on Methane Emissions	38.7	5.9 [Against]	7.2 [Against]	5.0 [For]	BlackRock: "Company already has policies in place to address these issues." State Street: "This proposal merits support as the company's disclosure and/or practices related to GHG emissions can be improved."
31 st May 2017	Exxon Mobil Corp. Report on Climate Change Policies	62.1	5.9 [For]	7.3 [For]	5.0 [For]	BlackRock: "We believe that shareholders economic interests would be served by Board disclosure on two-degree scenario planning." State Street: "This proposal merits support as the company's disclosure and/or practices related to climate change can be improved."

7 th June 2017	Devon Energy Corp. Annually Assess Portfolio Impacts of Policies to Meet 2	41.4	8.5 [Against]	8.5 [Against]	5.2 [For]	BlackRock: "Upon engagement, decided to support management at this time." State Street: "This proposal merits support as the company's disclosure
	Degree Scenario		and/or practices related to climate change can be improved."			
7 th June 2017	Devon Energy Corp. Report on Lobbying Payments and Policy	35.9	8.5 [Against]	8.5 [Against]	5.2 [For]	BlackRock: "Company already has policies in place to address these issues."
						State Street: "This proposal merits support as the board's oversight of lobbying activities can be improved."
7 th June 2017	Hess Corp. Report on Plans to Address Stranded Carbon Asset Risks	30.1	8.8 [Against]	7.5 [Against]	4.8 [Against]	BlackRock: "Company already has policies in place to address these issues."
15 th May 2018	Anadarko Petroleum Assess Portfolio Impacts of Policies to Meet 2 Degree Scenario	53.0	8.3 [Against]	7.8 [For]	5.1 [For]	BlackRock: "Upon engagement decided to support management."
30 th May 2018	Chevron Corp. Report on Methane Emissions	45.0	6.9 [Against]	7.8 [Against]	6.0 [Abstain]	BlackRock: "Upon engagement decided to support management."
30 th May 2018	Chevron Corp. Report on Lobbying Payments and Policy	31.5	6.9 [Against]	7.8 [Against]	6.0 [Against]	BlackRock: "These matters are regulated by local, state and federal governments and company policy should be left to the board absent demonstrable harm to shareholders by prior board action or inaction."
29 th May 2019	Chevron Corp. Report on Plans to Reduce Carbon Footprint Aligned with Paris Agreement	33.2	6.9 [Against]	8.4 [Against]	6.1 [Abstain]	BlackRock: "Upon engagement decided to support management."
29 th May 2019	Exxon Mobil Corp. Report on Lobbying Payments and Policy	37.3	6.7 [Against]	8.2 [Against]	4.7 [For]	BlackRock: "Company already has policies in place to address these issues."

3 rd April 2020	Santos Ltd. Approve Paris Goals and Targets	43.7	5.1 [Against]	4.6 [Against]	0.5 [For]	BlackRock: "We believe Scope 3 targets encompassing all indirect emissions in a company's value chain take time to implement, particularly for the natural gas sector."
						Vanguard: "We viewed as too prescriptive the request to disclose details of the companies' exploration and capital expenditures. Disclosing proprietary details of a company's acquisition or development of reserves could give its competitors an advantage."
3 rd April	Santos Ltd. Approve Climate	46.7	5.1 [Against]	4.6 [Against]	0.5 [For]	BlackRock: "Upon serious engagement and discussion, conditional support of management."
2020	Related Lobbying					Vanguard: "Encouraged by details that board members provided us on the progress the company had made on climate initiatives and its improving disclosures."
29 th April 2020	Ovintiv Inc. Create Climate Change Report	56.4	4.6 [For]	7.2 [For]	2.3 [For]	BlackRock: "While Ovintiv has made notable progress on their climate reporting from a governance and risk management perspective, the company has yet to set targets recommended by the TCFD framework or disclose a clear timeline for doing so."
						Vanguard: "Although Ovintiv publicly discloses sustainability data, its current disclosure fails to set Paris Agreement-aligned targets Because we agreed with the proposal's spirit, we voted for it."
30 th April 2020	Woodside Petroleum Ltd. Approve Climate Related Lobbying	42.7	6.0 [Against]	5.9 [Against]	0.7 [Abstain]	BlackRock: "Based on our analysis, Woodside's lobbying is consistent with its public position on climate change Our conditional support for management on this resolution is based on the company's public commitment to undertake a more comprehensive review of its industry association advocacy by November 2020."
30 th April	Woodside Petroleum Ltd.	50.1	6.0 [Against]	5.9 [Against]	0.7 [For]	BlackRock: "On our assessment, Woodside already substantively addresses the request made in the resolution."
2020	Approve Paris Goals and Targets					Vanguard: "Although Woodside have room for improvement—a point we raised in our engagements—they have made significant progress and commitments on disclosure, primarily regarding Scope 1 and 2 emissions We viewed as too prescriptive the request to disclose details of the companies' exploration and capital expenditures. Disclosing proprietary details of a company's acquisition or development of reserves could give its competitors an advantage."

27 th May 2020	Chevron Corp. Report on Climate Lobbying	53.5	6.6 [For]	8.4 [Against]	6.3 [Abstain]	BlackRock: "We believe it is in the best interests of shareholders to have access to greater disclosure on this issue."
27 th May 2020	Chevron Corp. Report on Petrochemical Risk	46.0	6.6 [Against]	8.4 [Against]	6.3 [Abstain]	BlackRock: "believes that Chevron demonstrates adequate management of the physical risks associated with climate change at this time."
27 th May 2020	Exxon Mobil Corp. Report on Lobbying Payments and Policy	37.6	6.7 [Against]	8.4 [Against]	5.2 [Abstain]	BlackRock: "The company's disclosures align with BIS' perspective on corporate political activities providing insight into the board's role in overseeing this risk We have separately asked the company to provide more detailed disclosures regarding the company's trade association expenditures."
27 th May 2020	Exxon Mobil Corp. Report on Report on Political Contributions	31.0	6.7 [Against]	8.4 [Against]	5.2 [Against]	BlackRock: "Company already has policies in place to address these issues."
11 th May 2021	ConocoPhillips Emission Reduction Targets	59.3	6.5 [For]	8.3 [For]	4.3 [Against]	BlackRock: "We recognize the company's efforts to date, but believe that supporting the proposal may accelerate the company's progress on climate risk management and oversight."
						Vanguard: "The shareholder request that ConocoPhillips set a companywide emission reduction target across Scope 1, 2, and 3 emissions will appropriately encourage the company to prioritize options beyond public policy advocacy to prepare for and mitigate the transition risks associated with climate change."
26 th May 2021	Chevron Corp. Report on Impacts of Net Zero 2050 Scenario	47.8	6.6 [Against]	8.3 [Against]	6.6 [Against]	BlackRock: "The company has already committed to fulfilling its task and has demonstrated meaningful progress on climate action to date."
26 th May 2021	Chevron Corp. Reduce Scope 3 Emissions	60.7	6.6 [For]	8.3 [For]	6.6 [For]	BlackRock: "Supported this shareholder proposal, while recognizing the company's efforts to date, because it is consistent with what we expect of large companies like Chevron and its peers."
26 th May 2021	Chevron Corp. Report on Lobbying Payments and Policy	47.9	6.6 [Against]	8.3 [Against]	6.6 [Against]	BlackRock: "Chevron meets our expectations of companies regarding their activities and disclosures related to political spending and lobbying and has reflected our feedback in its recently updated climate lobbying report."

26 th May 2021	Exxon Mobil Corp. Report on the Effect of Reduction of Fossil Demand in	48.9	6.7 [For]	8.3 [Against]	5.7 [For]	BlackRock: "We believe shareholders would benefit from greater insight into whether and how the IEA's Net Zero 2050 scenario would affect Exxon's financial position and long-term strategy."
	Financial Position					Vanguard: "Given the recency of the IEA's scenario release, Exxon's current scenario analysis disclosure, and the company's stated plans to review the scenario and roadmap, we concluded that this shareholder proposal did not warrant the Vanguard funds' support at this time"
26 th May 2021	Exxon Mobil Corp. Report on Climate Lobbying	63.9	6.7 [For]	8.3 [For]	5.7 [For]	BlackRock: "We believe such a report would help investors' understanding of Exxon's climate-related lobbying and participation in trade associations."
						Vanguard: "Exxon's existing disclosures do not explain how its lobbying efforts are tied to its publicly stated support of the Paris Agreement goals."
26 th May 2021	Exxon Mobil Corp. Report on Lobbying Payments and Policy	55.6	6.7 [For]	8.3 [For]	5.7 [Against]	BlackRock: "BIS supported this shareholder proposal because additional disclosure of the company's state and local level lobbying activities and expenditures, payments to trade associations and other tax-exempt organizations that conduct lobbying, and related oversight mechanisms would allow shareholders to better assess the company's management of these activities, as well as related risks and benefits."
						Vanguard: "Although the company discloses details about its lobbying activities, its disclosure does not clearly explain how the company's lobbying efforts align with its strategy and publicly stated positions."
26 th May 2021	Exxon Mobil Corp. Report on Political Contributions	30.5	6.7 [Against]	8.3 [Against]	5.7 [Against]	BlackRock: "The company already provides sufficient disclosure and/or reporting regarding this issue, or is already enhancing its relevant disclosures."
						Vanguard: "Exxon's recent enhancements to its disclosure on this topic give investors adequate insight into the company's political contributions and its board's oversight of this risk"

Table A2. The Big Three's Positions in Marginal Votes on Shareholder Resolutions on Environmental Governance, 2014-2021

Source: Proxy Insight (2021)

Note: Equity stake data are calculated as the average percentage of common shares outstanding for the year in which vote was held.