

BlackRock Inc.: Climate Risk and Anticompetitive Concern

Introduction

At BlackRock's headquarters in New York, Alice, the portfolio manager of the *iShares Total U.S. Stock Market Index Fund*, is reviewing the situation ahead of Peabody Energy's upcoming shareholder meeting. One of the proposals on the agenda calls for appointing a "climate expert" to the board, arguing that the company's current carbon reduction strategy is inadequate.

BlackRock is a participant in global climate initiatives such as the *Net Zero Asset Managers Initiative (NZAM)*. Through these commitments, the firm has publicly stated its intention to achieve carbon neutrality across its assets under management and to encourage portfolio companies to set emissions reduction targets. This position reflects a broader view among asset managers that climate change represents a material financial risk that must be managed over the long term.

However, the fund Alice manages is a non-ESG passive index fund. Its prospectus clearly states that the fund does not pursue sustainability objectives or specific ESG goals, nor does it make investment decisions based on ESG criteria. Instead, the fund aims to track the overall market and does not adopt an investment strategy that takes individual firms' environmental or social performance into account.

At the same time, BlackRock has faced allegations that, in promoting ESG objectives, it coordinated with other large asset managers in ways that may be anti-competitive. Against this backdrop, Alice must decide how to vote at the shareholder meeting and what stewardship posture to adopt after the meeting, while staying consistent with the fund's prospectus and minimizing antitrust concerns and legal risk.

If Alice votes for the proposal, how can she mitigate anti-competitive concerns and related legal risk? How should Alice interpret and apply the fund's prospectus when deciding stewardship posture? Regardless of how she votes, should Alice exercise active stewardship as a shareholder, given the potential risks that climate change poses to firm value and long-term investment performance? If she chooses to pursue stewardship, what should be the appropriate scope? If she does not support the proposal and limits her stewardship, how can she justify her decision in the face of criticism that she failed to adequately consider climate-related risks?

Antitrust Lawsuit

On November 27, 2024, a coalition of 11 Republican-led U.S. states, led by Texas Attorney General Ken Paxton, filed an antitrust lawsuit against BlackRock, Vanguard, and State Street. These three firms—often referred to as the "Big Three"—collectively hold substantial ownership stakes across the U.S. equity market.

The plaintiffs argue that since 2021, these asset managers have pursued a shared "net zero" objective through their participation in climate-related initiatives such as *Climate Action 100+* and the *Net Zero Asset Managers Initiative*. According to the complaint, this coordinated effort placed pressure on coal companies—including Peabody Energy and Arch Resources—and influenced corporate decision-making in ways that constrained coal production.

The plaintiffs claim that these actions violate Section 7 of the Clayton Act, which prohibits stock acquisitions that may substantially lessen competition, as well as Section 1 of the Sherman Act, which bans agreements that unreasonably restrain trade. They argue that coordination among asset managers reduced energy supply, raised consumer prices, and generated collective benefits for the participating firms.

A central issue in the case is whether collective action to advance ESG objectives can be permissible under U.S. antitrust law, and whether stewardship activities by large asset managers exceed what is legally considered ownership "solely for investment purposes." The plaintiffs also contend that BlackRock used voting rights associated with non-ESG funds to advance climate goals, creating a mismatch between what was disclosed to investors and how the funds were actually managed. This

allegation raises further questions about potential breaches of fiduciary duty.

Asset Management Industry: The Big Three Asset Managers

In the U.S. asset management industry, BlackRock, Vanguard, and State Street occupy an especially dominant position. Collectively known as the “Big Three,” these firms manage large portfolios across a wide range of asset classes, including equities and bonds.

As of the first quarter of 2024, BlackRock managed approximately \$10.5 trillion in assets, Vanguard about \$9.3 trillion, and State Street roughly \$4.3 trillion. When combined, the equity holdings of these three asset managers account for more than 20 percent of the total market capitalization of the U.S. stock market. They are also estimated to control nearly one-quarter of the voting rights in U.S. publicly listed companies.

Because of their size, the Big Three are in a position to exert significant influence at corporate shareholder meetings. How they exercise their voting rights can therefore affect corporate governance practices as well as broader market outcomes.

Passive Investing

One of the key drivers behind the growth of the Big Three is the rapid expansion of passive investing. Passive investing aims to replicate the performance of a specific market index—such as the S&P 500 or the Nasdaq—by holding the same securities in the same proportions as the benchmark. The goal is not to outperform the benchmark, but to closely match its overall return.

In contrast, active investing involves portfolio managers selecting individual stocks based on firm-level analysis in an attempt to outperform the market. Because active funds require more research and more frequent trading, they typically involve higher management fees and transaction costs than passive funds.

According to Bogle (2016), over the 30-year period from 1985 to 2015, the S&P 500 delivered an average annual return of 11.2 percent, while actively managed large-cap equity funds achieved an average annual return of 9.6 percent. This performance gap is largely attributed to differences in costs, including management fees and trading expenses. Over long investment horizons, these cost differences can lead to substantial divergence in cumulative returns, with the index generating a total return of 2,494 percent compared to 1,548 percent for active funds.

Following the global financial crisis of 2008, investor capital increasingly shifted toward passive investment products. Between 2008 and 2015, actively managed funds experienced net outflows of approximately \$600 billion, while index funds attracted inflows of around \$1 trillion. As a result, the share of index funds in the U.S. equity mutual fund market rose from about 4 percent in 1995 to roughly 34 percent by 2015 (Bogle, 2016).

The growth of passive investing is closely linked to the rise of exchange-traded funds (ETFs). ETFs can be traded on stock exchanges throughout the day, much like individual stocks, which improves accessibility and liquidity for investors. By entering the ETF market early and aggressively, the Big Three have secured dominant positions. Today, they manage 18 of the 20 largest ETFs by assets under management.

Common Ownership

Index funds, which form the foundation of the Big Three asset managers’ growth, are designed to reflect the performance of the specific index. To achieve this, they construct highly diversified portfolios that include shares of hundreds or even thousands of firms. This structure reduces idiosyncratic risk—the risk associated with poor performance or failure of individual firms—and helps stabilize overall investment returns.

Because the composition of market indices changes relatively infrequently, index funds tend to hold

shares of the same firms for long periods. This feature is often described as a “buy-and-hold” strategy. As a result, the Big Three have become major shareholders in a large number of companies. One study finds that they are the largest shareholder in approximately 88 percent of firms in the S&P 500 (Greenspon, 2019).

Economic Incentives and Anticompetitive Concerns of Common Ownership

Common ownership refers to a situation in which a single investor holds ownership stakes in multiple firms that compete within the same industry. Scholars have examined how this ownership structure may affect firms’ competitive behavior.

From a theoretical perspective, when competing firms are part of the same investor’s portfolio, aggressive competition by one firm may generate gains for that firm but losses for other firms in the portfolio. In such cases, improvements in an individual firm’s performance may have only a limited—or even negative—effect on the investor’s overall portfolio value. This phenomenon is sometimes described as a form of externality in economics.

Under this view, common ownership may weaken firms’ incentives to compete aggressively for market share. Strategies such as price cuts or capacity expansion can improve a firm’s short-term performance, but they may reduce industry-wide profitability and negatively affect the value of other firms held by the same investor. Some researchers argue that this mechanism challenges the traditional assumption of competitive market economies that individual profit-maximizing behavior leads to socially efficient outcomes (Schmalz, 2018).

These concerns may be particularly relevant for large institutional investors such as the Big Three, which hold substantial voting rights across a wide range of firms. Beyond formal influence through board elections and shareholder votes, these investors may also shape corporate decisions through private communication with management (Bebchuk and Hirst, 2022). This practice is commonly referred to as active stewardship.

Incentives for Active Stewardship under Passive Investing

Institutional investors that follow passive investing strategies are not entirely excluded from influencing corporate behavior. Several academic research suggests that even passive investors may have meaningful economic incentives to engage with the firms they own.

First, like active investors, passive investors have incentives to monitor managers and promote better corporate performance. Improvements in overall market efficiency and firm performance increase the value of their portfolios (Del Guercio and Hawkins, 1999). Moreover, because passive funds are required to track a benchmark index, they cannot easily sell shares of underperforming firms. This limited “exit” option may give passive investors stronger incentives to remain engaged with firms over the long term, as their investment outcomes depend on sustained improvements in corporate performance rather than short-term trading opportunities (Romano, 1993; Carleton et al., 1998).

Second, large institutional investors that manage passive funds typically hold substantial ownership stakes across many firms, which gives them influence through voting rights. All institutional investors are subject to fiduciary duties, requiring them to exercise voting rights in the best interests of their beneficiaries. Some studies suggest that corporate managers may place greater weight on the views of long-term shareholders—such as passive investors—than on those of investors with short holding periods (Del Guercio and Hawkins, 1999).

From a practical perspective, passive investors are not necessarily confined to being “passive owners.” For example, Glenn Booraem of Vanguard has argued that passive investors can engage in constructive dialogue with firms, offering long-term perspectives and encouraging companies to create sustainable value for all investors.

Evidence on the Competitive Effects of Common Ownership

Despite these theoretical arguments, empirical evidence on whether common ownership actually reduces market competition remains mixed. Therefore, both academic researchers and authorities continue to debate the competitive implications of common ownership, reflecting a wide range of views on its economic and legal significance.

Some studies suggest that higher levels of common ownership are associated with weaker competition. For instance, Azar et al. (2018), in their analysis of the U.S. airline industry, report that increased common ownership leads to higher ticket prices and reduced passenger volumes.

In contrast, other research finds that such results are difficult to generalize. Koch et al. (2021) argue that there is no consistent relationship between common ownership and competition measures such as profitability, prices, or non-price competition across industries. They conclude that the empirical evidence does not provide clear support for the claim that common ownership systematically reduces competition.

Policymakers have also expressed caution in evaluating these issues. In 2018, Noah Phillips, then a commissioner at the Federal Trade Commission (FTC), stated that the available data were not yet conclusive and that there was no clear indication that passive funds were at the center of a large-scale antitrust conspiracy. Such remarks underscore that debates over the competitive effects of common ownership remain ongoing among academics and regulators alike.

Common Ownership and Antitrust Law

U.S. antitrust law can apply not only to controlling stakes but also to minority shareholdings. **Section 7 of the Clayton Act** prohibits the direct or indirect acquisition of all or part of a company's stock if the effect of that acquisition may be to substantially lessen competition. Importantly, the focus of this provision is not ownership itself, but whether the ownership allows the investor to exert meaningful influence over corporate behavior or market competition.

Under this interpretation, minority shareholdings held solely for investment purposes in competing firms are generally not considered antitrust violations. In practice, U.S. antitrust authorities have never brought an enforcement action against institutional investors based solely on common ownership. The only notable exception, *U.S. v. Tracinda* (1979), involved an individual investor who held stakes in competing movie studios. The Department of Justice (DOJ) brought the case, but the court ultimately rejected the claim.

Section 1 of the Sherman Act prohibits contracts, combinations, or conspiracies among competitors that restrain trade. By its terms, this provision requires some form of agreement or coordinated conduct. Courts have never held that merely owning shares in multiple competing firms is sufficient to establish illegal collusion. Consistent with this view, the DOJ has stated that common ownership becomes relevant under Section 1 only if it leads to the sharing of competitively sensitive information, market allocation, or explicit or implicit agreements to soften competition. In other words, stock ownership alone is not treated as an "agreement" under antitrust law.

More recent policy discussions, however, have begun to look beyond existing case law and to focus on the potential effects of common ownership on competitive incentives. The Merger Guidelines issued in 2023 explicitly note that common ownership may weaken firms' incentives to compete. Similarly, in a joint filing submitted in 2024 to the Federal Energy Regulatory Commission (FERC), the DOJ and the FTC argued that minority shareholdings in competitors can still harm competition by enabling influence, reducing competitive incentives, or facilitating the exchange of sensitive information. As a result, firms operating in markets with significant common ownership should recognize that, even without clear precedent, evidence of coordination or weakened competition could still trigger antitrust scrutiny.

U.S. Coal Industry

In the U.S. coal industry, a group of eight publicly traded producers—including Peabody Energy and Arch Resources—with annual outputs exceeding five million tons, accounted for approximately 46%

of total domestic production in 2022. These firms play a particularly important role in the supply of thermal coal, which is primarily used for electricity generation.

At the same time, the Big Three asset managers hold significant ownership stakes in major U.S. publicly traded coal companies. Public disclosures indicate that, across nine leading listed coal producers, the Big Three jointly own between roughly 8 percent and 34 percent of outstanding shares. In addition, BlackRock is reported to be the largest shareholder in six of these firms.

Table 1: Big 3's Ownership in the Coal Companies (Shareholder Rank)				
	BlackRock	Vanguard	State Street	Total
Peabody Energy	13.62% (1)	11.18% (2)	5.63% (4)	30.43%
Arch Resources	15.01% (1)	12.81% (2)	6.37% (3)	34.19%
NACCO Industries	5.88% (2)	3.63% (3)	1.34% (8)	10.85%
CONSOL Energy	14.15% (1)	8.94% (2)	5.88% (5)	28.97%
Alpha Metallurgical Resources	14.58% (1)	9.58% (2)	5.54% (3)	29.70%
Vistra Energy	7.91% (2)	12.57% (1)	4.46% (4)	24.94%
Hallador Energy	4.09% (2)	3.01% (5)	1.2% (11)	8.30%
Warrior Met Coal	14.04% (1)	11.38% (2)	6.2% (3)	31.62%
Black Hills Corp	15.56% (1)	12.04% (2)	5.27% (3)	32.87%

Source: Complaint, *State of Texas v. BlackRock, Inc.*

Key Production Region: Powder River Basin

One of the most important coal-producing regions in the United States is the Powder River Basin (PRB), which spans parts of Wyoming and Montana. In 2022, the PRB produced approximately 260 million tons of coal, representing about 43.5 percent of total U.S. coal output.

The PRB is divided into the North PRB (NPRB) and the South PRB (SPRB). Coal produced in the SPRB is characterized by relatively low sulfur and sodium content, making it easier to meet environmental regulations. In addition, mining costs in this region tend to be lower than in other coal-producing areas. For these reasons, electric power plants generally prefer coal from the SPRB, and most coal production activity within the PRB is concentrated there. Of the 15 active coal mines in the PRB, 12 are located in the SPRB, primarily along the Cheyenne River basin.

The coal production industry is not easily accessible to new entrants. Most coal reserves in the PRB are located on federally owned land. As a result, new producers must not only make substantial capital investments in mining equipment and infrastructure, but also obtain multiple federal and state-level permits before entering the market.

Is the U.S. Coal Market Concentrated?

Market concentration is commonly measured using the Herfindahl–Hirschman Index (HHI), which is calculated by summing the squared market shares of all firms operating in a given market. As a general guideline, an HHI below 1,500 indicates an unconcentrated market. An HHI between 1,500 and 2,500 reflects a moderately concentrated market, while an HHI above 2,500 is considered a highly concentrated market. In antitrust analysis, both the level of the HHI and the change in the HHI resulting from a transaction (e.g., mergers) are used to assess potential competitive harm.¹

Market Concentration in the SPRB There are currently 12 operating mines in the SPRB. In 2022, these mines produced approximately 240 million tons of coal, accounting for about 40.4 percent of total U.S. coal production and roughly 45.1 percent of U.S. thermal coal output. Assuming that production

¹ According to the 2023 Merger Guidelines, if a post-transaction HHI exceeds 1,800 and increases by more than 100 points, the transaction is considered likely to create or enhance market power. Similar structural benchmarks are often applied to mergers or joint ventures in which a firm's market share exceeds 30 percent and the HHI increases by at least 100 points.

decisions are made independently by each firm, the HHI for the SPRB market is estimated at approximately 2,360.6 (see Exhibit 1). By contrast, if the major coal producers in this market were placed under common control through a formal merger or joint venture, the HHI would rise to approximately 4,530.

Market Concentration in the Thermal Coal Market Total U.S. thermal coal production amounts to approximately 532.3 million tons. Of this total, the eight major coal producers generate about 240.8 million tons, or roughly 46 percent of output. Based only on these eight firms, the HHI for the thermal coal market is estimated at approximately 521.96. If these firms were to merge or form a joint venture, the HHI in the thermal coal market would be expected to increase to around 2,116 (see Exhibit 2).

Changes in Coal Production and Firm Performance (2019–2022)

Between 2019 and 2022, total coal production in the South Powder River Basin (SPRB) declined by approximately 28.8 million tons. During the same period, coal companies in which the Big Three asset managers held ownership stakes reduced production by a combined total of about 33.8 million tons (see Exhibit 3). At the same time, U.S. thermal coal production fell from roughly 295.2 million tons in 2019 to about 238.5 million tons in 2022, a decrease of approximately 56.7 million tons, or 19.2 percent decrease (see Exhibit 4).

Firm-level data show that declines in production were often accompanied by improvements in financial performance (see Exhibit 5). For example, Peabody Energy reduced its coal output by approximately 34.7 million tons (25.5 percent) over this period, yet its revenues increased by about \$358.5 million and net income rose by roughly \$1.59 billion. Arch Resources experienced a similar pattern: production fell by about 9.4 million tons (11.7 percent), while revenues increased by approximately \$1.45 billion and profits rose by about \$1.10 billion. Comparable trends were observed among other major coal producers. NACCO Natural Resources recorded lower production but higher profits, while CONSOL Energy, Alpha Metallurgical Resources, Hallador Energy, and Warrior Met Coal also reported either revenue or profit growth alongside declining output. These outcomes may reflect a combination of factors, including coal price movements, changes in cost structures, and broader conditions in electricity markets.

Coal and Electricity Generation

Coal continues to play an important role in U.S. electricity generation. In 2022, of the approximately 594.2 million tons of coal produced in the United States, about 532.3 million tons were sold as thermal coal for power generation. Of this amount, roughly 39.5 million tons were exported, accounting for about 45.9 percent of total U.S. coal exports. The remaining 492.8 million tons were used domestically mainly for electricity generation.

Thermal coal is primarily used to generate steam for electricity production, process heating, or as a direct heat source in industrial operations. Coal-fired power plants are typically designed for long-term operation and require substantial upfront investment. As a result, it is often difficult for these plants to switch fuels quickly, even when fuel prices change in the short run.

There are several structural reasons for this rigidity. First, coal-fired power plants involve very high construction costs—often reaching several billion dollars for modern facilities—which creates strong incentives to continue operating once the plant is built. Second, coal plants frequently serve as base-load generation units, contributing to grid stability through continuous operation. Third, compliance with environmental regulations often requires specific operating patterns to ensure the effective functioning of emissions-control equipment. Finally, replacing existing coal-fired capacity with natural gas, renewable energy, or nuclear power within a short time frame is often impractical due to the high costs, long construction timelines, and regulatory approvals required for new generation facilities. Together, these constraints limit the short-run elasticity of demand for coal.

Competing Energy Sources: Natural Gas and Renewables

Over the past two decades, the U.S. coal industry has undergone significant structural change driven by declining natural gas production costs and the expansion of renewable energy. In *FTC v. Peabody Energy Corporation*, the court recognized that falling natural gas prices and the growth of renewables have contributed to a long-term decline in coal demand.

In an amicus brief submitted in that case, the state of Wyoming argued that aging coal-fired power plants and reduced investment in new coal capacity have further weakened long-term demand for coal, leaving many mines with excess production capacity. In response to these conditions, several coal producers have scaled back output or restructured their operations. For instance, Arch Resources reduced its production by approximately 60 percent between 2010 and 2022, while Peabody Energy also adjusted its production strategy to adapt to changing conditions in energy markets.

According to analysis by the U.S. Energy Information Administration (EIA), the center of U.S. electricity generation has gradually shifted away from coal toward natural gas and renewable energy sources (see Exhibit 6).

Climate Risk

Historically, climate change was primarily discussed within the framework of corporate social responsibility (CSR). More recently, however, a growing number of institutional investors have begun to view climate change as a factor that directly affects investment decisions. As a result, discussions of climate change have increasingly shifted toward a financial risk perspective.

The Current State of Climate Change

Reports from international organizations indicate that, by the end of 2023, global average temperatures had risen by approximately 1.1 to 1.4°C above pre-industrial levels. The Intergovernmental Panel on Climate Change (IPCC) attributes this warming largely to the long-term use of fossil fuels. Similarly, the World Meteorological Organization (WMO) reported that the average global temperature in 2023 reached about 1.45°C ($\pm 0.12^\circ\text{C}$) above pre-industrial levels (see Exhibit 7).

Some researchers suggest that rising temperatures may increase the likelihood of significant changes in certain climate systems. Accelerated glacier and sea-ice loss, as well as ecosystem disruptions, may exhibit non-linear behavior if critical tipping points are approached. For example, Möller et al. (2024) find that risks associated with several climate components increase as global warming approaches the 1.5°C threshold. The IPCC also emphasizes the importance of limiting global temperature increases to 1.5°C, which would require substantial reductions in global greenhouse gas emissions by 2030. Together, these scientific assessments suggest that climate change is already underway and is likely to remain closely linked to future policy choices and economic conditions.

Financial Risks of Climate Change

Climate change is increasingly viewed not only as an environmental issue, but also as a source of risk to corporate financial performance. Prior research shows that climate-related factors can affect firms' revenues, costs, asset values, and access to capital. For example, Jagannathan, Ravikumar, and Sammon (2017) argue that incorporating climate-related considerations into the investment process may help investors better manage portfolio risk.

With respect to **physical climate risk**, empirical studies document that extreme heat and natural disasters can negatively affect firm activity. Pankratz et al. (2023), analyzing data from more than 17,000 firms across 93 countries, find that firms repeatedly exposed to extremely high temperatures experience declines in both revenues and operating profits. Similarly, Hsiang and Jina (2014), using evidence from multiple cyclone events, show that natural disasters can have persistent negative effects on long-term economic growth.

Beyond physical damage, climate change can also affect firms through **transition risk**. Transition risk refers to the possibility that changes in climate policy, technological innovation, or consumer preferences alter the profitability of existing business models. Policies such as carbon taxes, stricter

emissions trading systems, and rapid improvements in renewable energy technologies may significantly affect the cost structures and competitive environments of firms in carbon-intensive industries.

As awareness of these risks has grown, investors and financial institutions have increasingly incorporated climate considerations into investment decisions. Hartzmark and Sussman (2019) show that mutual funds with higher sustainability ratings tend to attract capital inflows, while mutual funds with lower ratings experience outflows. Pástor and Vorsatz (2020) find that during the COVID-19 crisis, mutual funds with stronger sustainability profiles experienced smaller outflows, suggesting that investors may view sustainability not as a luxury but as a necessity. Ginglinger and Moreau (2023) observe changes in the financial structures of firms with high exposure to physical climate risk following the Paris Agreement. Finally, Krueger et al. (2020), based on a survey of institutional investors, report that long-term oriented investors increasingly view climate risk as a key factor in their investment decision-making.

Climate Risk Management

Institutional investors can manage climate-related risks using several strategies. Two commonly discussed approaches are divestment (or exclusion) and active stewardship (or voice).

The divestment strategy involves excluding firms or entire industries that are considered highly exposed to climate risk from an investment portfolio. Investors may assess factors such as a firm's carbon emissions or the likelihood that its assets will become stranded assets and incorporate these risks into their investment decisions. For example, some investors choose to restrict or exclude investments in oil or coal-related businesses.

By contrast, the active stewardship involves remaining invested in a company and seeking to influence its decisions as a shareholder. It can take several forms.

First, investors may vote against the election of directors if they believe that climate risk management or disclosure is inadequate. An example occurred in 2021, when the activist hedge fund Engine No.1 challenged the climate strategy of ExxonMobil and proposed changes to the board. With the support of the Big Three asset managers, three directors were replaced.

Second, shareholders may vote in favor of climate-related shareholder proposals. For example, "Say on Climate" proposals typically ask a company to develop and disclose a credible climate transition plan and submit that plan to shareholders for a recurring, advisory vote. Beyond Say on Climate, proposals can address a wide range of environmental topics, such as enhanced carbon-emissions disclosure, water-use disclosure, or the nomination of directors with environmental expertise. In practice, BlackRock significantly increased its support for environmental shareholder proposals, from about 6 percent in the 2019–2020 proxy season to 64 percent in the 2020–2021 season. Although such proposals are generally non-binding, high levels of support can influence corporate reputation, board composition, and investor relations.

Third, investors may directly communicate with management through meetings or letters to request improvements in climate risk management. This communication is often called "Engagement". Engagement can be a particularly powerful tool because it allows investors to raise issues that never appear on the proxy ballot. Glenn Booraem of Vanguard has argued that "engagement is where the action happens," noting that hundreds of direct discussions each year can often achieve outcomes comparable to—or even greater than—what investors can accomplish through voting alone. Consistent with this view, BlackRock has reported extensive engagement activity on climate and natural capital, conducting over 1,600 such engagements in 2022–2023 and more than 1,250 in 2023–2024. In addition, Larry Fink, BlackRock's CEO, has repeatedly emphasized in his annual letters that climate risk can be closely tied to long-term investment performance.

Global Climate Initiatives

To address climate-related financial risks, the Big Three asset managers have participated in several

global climate initiatives. These initiatives are typically voluntary and provide principles and frameworks that investors may use when engaging with companies, exercising voting rights, and requesting disclosures as part of their stewardship activities.

At the same time, there is ongoing debate over how much coordination such participation implies and how it may relate to legal concerns such as competition policy. Different stakeholders—including companies, investors, regulators, and litigants—often interpret the implications of these initiatives in different ways.

1. Climate Action 100+ (CA100+)

Climate Action 100+ is an investor-led initiative launched in 2017. It focuses on encouraging large greenhouse gas-emitting companies to reduce emissions, strengthen governance, and improve climate-related financial disclosures. According to publicly available descriptions, CA100+ operates through a network of participating investors and provides tools and frameworks to support stewardship activities. For example, one CA100+ resource, *Investor Expectations for Diversified Mining*, outlines investor expectations for mining companies and highlights the importance of reducing thermal coal production among other indicators. The initiative is currently described as running through 2030.

A core principle of CA100+ is that participating investors remain independent fiduciaries, each responsible for their own investment and voting decisions. The initiative emphasizes that participation does not dictate specific actions toward particular firms; rather, decisions about how and where to engage are left to each institution's discretion.

BlackRock became a signatory to CA100+ on January 9, 2020. According to CA100+, “as signatories, investors commit to engagement with companies, in seeking to ensure they:

- ✓ Take action to reduce greenhouse gas emissions across the value chain in line with the overarching goals of the Paris Agreement;
- ✓ Implement a strong governance framework which clearly articulates the board's accountability and oversight of climate change risks and opportunities; and
- ✓ Provide enhanced corporate disclosure in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).”

State Street announced its participation in CA100+ on November 30, 2020. It identified improved climate governance, emissions reduction, and stronger climate-related disclosures as key objectives, noting that these goals were consistent with its existing stewardship approach through engagement and proxy voting. State Street also described the initiative as an opportunity to collaborate with other asset managers and asset owners to amplify its influence on climate risk.

2. Net Zero Asset Managers Initiative (NZAM)

The Net Zero Asset Managers Initiative is a voluntary initiative through which asset managers commit to supporting investments aligned with the global goal of achieving net-zero greenhouse gas emissions by 2050, taking into account their own circumstances. NZAM provides a platform for participants to disclose their individual net-zero targets and implementation strategies, helping stakeholders understand how firms are addressing climate-related financial risks.

In 2021, BlackRock, Vanguard, and State Street all became NZAM signatories. They committed to pursuing net-zero emissions by 2050 across their assets under management and agreed to set interim targets for 2030. These targets were aligned with the 1.5°C pathway outlined in the net-zero scenario of International Energy Agency (IEA), and in some cases explicitly referenced plans to gradually reduce exposure to coal investments.

BlackRock and Vanguard joined NZAM on March 29, 2021, while State Street announced its participation on April 20, 2021. On December 7, 2022, Vanguard announced its withdrawal from NZAM, while stating that it would continue to engage with companies and promote climate-related disclosure as part of its ongoing stewardship activities.

Coal and Climate Change

Coal continues to play a major role in global greenhouse gas emissions. As of 2022, coal accounted for approximately 36 percent of global electricity generation. Data from Carbon Majors suggest that, as of 2023, coal combustion was responsible for roughly 41 percent of total greenhouse gas emissions across industrial activities.

A large body of research highlights that coal-fired power generation has a significantly higher carbon intensity than alternative energy sources. For example, estimates by the Electric Power Research Institute (EPRI) place the CO₂ emissions intensity of coal-fired electricity at approximately 0.9 to 1.0 tons of CO₂ per megawatt-hour, which is roughly twice the level associated with natural gas generation. As a result, the cost structure of coal power is likely to be more heavily affected by carbon pricing mechanisms, such as carbon taxes or emissions trading systems.

Coal-fired power plants are typically designed to operate for several decades. However, under certain climate transition scenarios, early retirement of these assets may be required. The Net Zero roadmap of IEA indicates that global coal production for power generation would need to decline by about 50 percent by 2030 and by approximately 91 percent by 2050 relative to 2021 levels. Power plants with higher emissions intensity may face particularly early phase-outs under such pathways.

Against this backdrop, the financing environment for coal mine expansion and new coal projects has begun to change as financial institutions adopt net-zero commitments. According to the World Resources Institute (WRI), many lenders have increasingly excluded new coal projects from their financing activities (see Exhibit 8). Some studies describe this dynamic as a stranded asset problem, in which existing assets lose economic value earlier than expected as countries and firms pursue climate targets (Navarro et al., 2025).

The Decision

Alice is fully aware that her decision may influence not only the management of trillions of dollars in assets, but also broader environmental and social outcomes. She recognizes that actions intended to protect investors' long-term interests and address environmental concerns could, from a legal perspective, be viewed as unlawful coordination or as undermining other economic values, such as competition.

As the clock approaches 5:00 p.m. on the day of the shareholder meeting, Alice looks at the proxy voting screen in front of her. Her choice forces her to confront a fundamental trade-off: how to balance fiduciary duties to investors, the asset manager's approach to climate risk management, and the preservation of competition and market order.

How can Alice explain her decision to investors, regulators, and future stakeholders?

Exhibit 1. SPRB Market Shares and HHI Calculations

Mine/Parent Company	2022 Output (million tons)	Big Three Ownership	Percentage of SPRB Market	HHI
Black Thunder Mine Arch Coal	62.2	34.19%	27.8%	773
Coal Creek Mine Arch Coal	3.8			
North Antelope Rochelle Mine Peabody Energy	60.4	30.43%	34.8%	1212
Rawhide Mine Peabody Energy	10.3			
Caballo Mine Peabody Energy	12.1			
Wyodak Mine Black Hills Mining	3.5	31.62%	1.5%	2
Belle Ayr Mine Eagle Specialty Materials	14.3	Privately Held	12.4%	154
Eagle Butte Mine Eagle Specialty Materials	15.1			
Antelope Mine Navajo Transitional Energy Company	21.7	Privately Held	14.4%	207
Cordero Rojo Mine Navajo Transitional Energy Company	12.5			
Buckskin Mine Kiewit Corporation	18.2	Privately Held	7.6%	59
Dry Fork Mine Western Fuels Association	3.7	Privately Held	1.5%	2
Total	237.8	-	100%	2409

Source: Complaint, *State of Texas v. BlackRock, Inc.*

Exhibit 2. Thermal Coal Market Shares and HHI Calculations

2022 Rank	Company	2022 Output (million tons)	Percentage of National Market	HHI
1	Peabody Energy	99.5	19.0%	295.84
2	Arch Resources	70.6	13.5%	174.24
7	NACCO Industries	28.9	5.5%	24.01
8	CONSOL Energy	22.4	4.3%	16.81
11	Alpha Metallurgical Resources	3.6	0.7%	7.29
13	Vistra Energy	9.3	1.8%	2.56
18	Hallador Energy	6.5	1.2%	1.21
Total		240.8	46.00%	521.96

Source: Complaint, *State of Texas v. BlackRock, Inc.*

Note: Warrior Met Coal produces only metallurgical coal.

Exhibit 3. SPRB Output in Millions of Tons: 2019-2022

Mine/Parent Company	Big Three Ownership	2019	2020	2021	2022	Change 2019-2022
Average Open Market Price SPRB (Wyoming) Coal	-	\$ 12.48	\$ 12.94	\$ 12.84	\$ 15.13	\$2.65
Black Thunder Mine Arch Coal	23.6%	72	50.2	59.4	62.2	-9.8
Coal Creek Mine Arch Coal	23.6%	2.5	2.1	2	3.8	+1.3
North Antelope Rochelle Mine Peabody Energy	19.7%	85.3	66.1	62.8	60.4	-24.9
Rawhide Mine Peabody Energy	19.7%	10.1	9.5	11.6	10.3	+.2
Caballo Mine Peabody Energy	19.7%	12.6	11.6	13.9	12.1	-.5
Wyodak Mine Black Hills Mining	32.2%	3.7	3.7	3.7	3.5	-.2
Belle Ayr Mine Eagle Specialty Materials	Privately Held	10.2	11.2	14.4	14.3	+4.1
Eagle Butte Mine Eagle Specialty Materials	Privately Held	11.6	12.3	13.5	15.1	+3.5
Antelope Mine Navajo Transitional Energy Co	Privately Held	23.2	19.8	21.7	21.7	-1.5
Cordero Rojo Mine Navajo Transitional Energy Co	Privately Held	11.9	9.8	12.9	12.5	+.6
Buckskin Mine Kiewit Corporation	Privately Held	17.6	9.7	10.6	18.2	+.6
Dry Fork Mine Western Fuels Association	Privately Held	6.1	3.9	3.7	3.7	-.2.4
Total		266.8	209.9	230.2	237.8	-29.0

Source: Complaint, *State of Texas v. BlackRock, Inc.*

Exhibit 4. Thermal Coal Output in Millions of Tons: 2019-2022

Mining Company	Big Three Ownership	2019	2020	2021	2022	Change 2019-2022
Average Net Selling Price (Per Metric Ton)	-	\$ 27.54	\$ 24.93	\$ 25.85	\$ 34.57	\$ 7.03
Peabody Energy	19.7%	135.9	103.6	105.4	101.2	-34.7
Arch Resources	23.6%	74.6	54.8	65.2	70.6	-4
NACCO Industries	9.9%	34.6	31	30.8	28.5	-6.1
CONSOL Energy	28.1%	18.3	12.9	13	22.4	4.1
Alpha Metallurgical Resources	30.1%	11.2	2	0	0	-11.2
Vistra Energy	24.7%	12.4	13.1	10.8	9.3	-3.1
Hallador Energy	9.6%	8.2	5.6	5.7	6.5	-1.7
Total		295.2	223	130.9	238.5	-56.7

Source: Complaint, *State of Texas v. BlackRock, Inc.*

Exhibit 5. Output, Revenues, and Profits by Firm: 2019-2022

Firm		2019	2020	2021	2022	2019-2022 Change
Peabody Energy	Output (millions of tons)	135.9	104	105.4	101.2	-34.7
	Revenues (\$ millions)	4623.4	2881.1	3318.3	4981.9	358.5
	Profits (\$ millions)	-211.3	-1728.3	432.2	1381.6	1,592.90
Arch Resources	Output (millions of tons)	80.2	54.8	65.2	70.8	-9.4
	Revenues (\$ millions)	2294.4	1467.6	2208.1	3742.6	+1,448.2
	Profits (\$ millions)	233.8	-344.6	339.4	1330.9	1,097.10
NACCO Natural Resources ²	Output (millions of tons)	34.6	31.0	30.8	28.5	-6.1
	Profits (\$ millions)	34.120	25.436	45.784	38.309	4.189
CONSOL Energy ³	Output (millions of tons)	27.3	18.8	24.0	24.1	-3.2
	Revenues (\$ millions)	1,288.5	771.4	1,085.1	1,973.8	685.3
	Profits (\$ millions)	197.1	16.2	94.2	620.2	423.1
Alpha Metallurgical Resources ⁴	Output (millions of tons)	22.3	13.9	15.8	15.9	-6.4
	Revenues (\$ millions)	2,258.6	1,416.2	2,258.7	4,101.6	1,843.00
	Profits (\$ millions)	357.1	(170.7)	359.2	1,580.9	1,223.80

² Results are for NACCO's Coal Mining segment alone. NACCO provides output and operating profit data for both its consolidated and unconsolidated mines; the firm does not, however, provide revenue data for its unconsolidated mines. As those unconsolidated mines accounted for the bulk of NACCO's output (25.2 vs. 3.2 million tons in 2022; 27.8 vs. 3.0 million tons in 2021; 28.5 vs. 2.5 million tons in 2020; and 32.0 vs. 2.6 million tons in 2019), the revenue data for the consolidated mines (\$95.2 million, \$82.8 million in 2021; 72.088 million in 2020; and 68.701 million in 2019) do not include the bulk of the Company's coal-related revenues.

³ Revenue and net income figures are for the Company's Pennsylvania Mining Complex Segment and exclude revenues from operation of its CONSOL Marine Terminal Segment.

⁴ Data reflect operating income

Hallador Energy Company ⁵	Output (millions of tons)	8.2	5.6	5.7	6.5	-1.7
	Revenues (\$ millions)	317.4	242.1	243.9	289.4	-35.9
	Profits (\$ millions)	(82.2)	-8.9	-6	30.4	112.6
Warrior Met Coal ⁶	Output (millions of tons)	7.683	7.132	5.084	5.699	-2
	Revenues (\$ millions)	1,236.0	761.8	1028.3	1707.6	471.6
	Profits (\$ millions)	383.4	-27.1	243.8	801.4	418

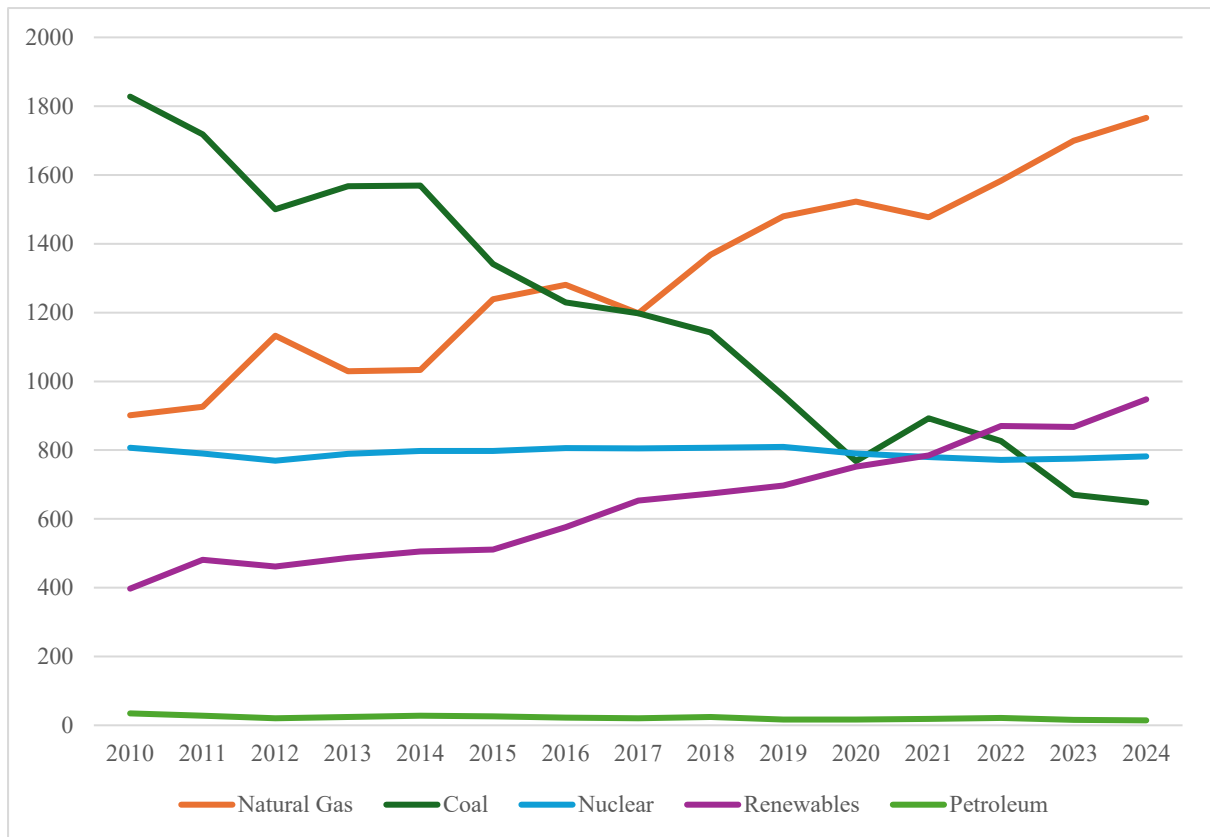
Source: Complaint, *State of Texas v. BlackRock, Inc.*

Note: Vistra operates coal mines in Texas to provide fuel for its electricity generation facilities. It does not break out revenue or income data related specifically to that production in its financial reports.

⁵ Revenue data reflect Hallador's coal sales; income (loss) is operating income (loss).

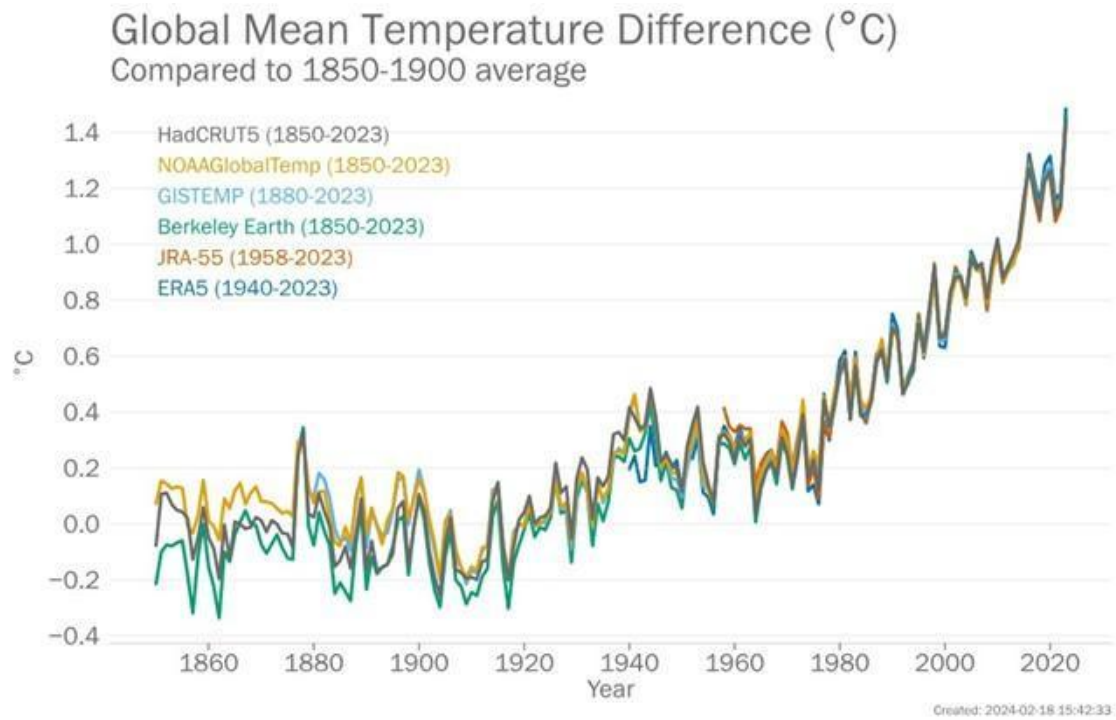
⁶ Revenue figures reflect Warrior Met Coal's sales and exclude "other revenues"; Profits are operating income

Exhibit 6. U.S. Electricity Generation by Sources (billion kilowatthours)



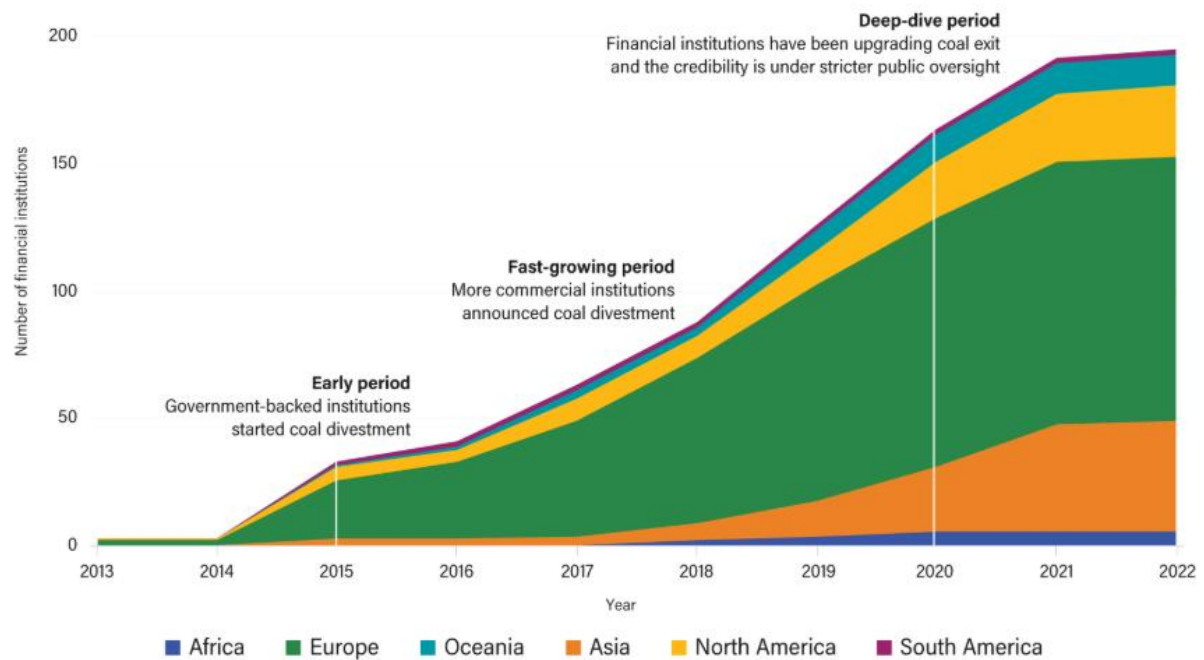
Source: U.S. Energy Information Administration (EIA)

Exhibit 7. Global Mean Temperature Difference



Source: World Meteorological Organization (WMO)

Exhibit 8. Number of New Coal Divestment Announcements



Notes: Data accessed March 6, 2023. Institutions here include banks, insurers, multilateral development banks, central banks, and export credit agencies.

Source: WRI compiled from the Institute for Energy Economics and Financial Analysis "Coal Divestment".

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