

The BlackRock logo is displayed in white, bold, sans-serif font on a black rectangular background. The background of the entire page is a scenic landscape featuring a dense forest of green trees under a sky with scattered white and grey clouds. A layer of mist or fog hangs over the middle ground, partially obscuring the forest.

BlackRock®

2021 TCFD report

BlackRock's climate-related
disclosures

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Cover photo: The Keo Seima Wildlife Sanctuary (“KSWS”) is home to a rich diversity of wildlife, forest types, landscapes, and Indigenous communities. Pictured here is a part of the tree canopy in the KSWS, an area that includes evergreen, semi-evergreen, deciduous, and bamboo forests. BlackRock has supported KSWS through its carbon credits strategy. Photo courtesy of KSWS and Wildlife Conservation Society.

Photo courtesy of KSWS and Wildlife Conservation Society. Pictured is a black-shanked douc langur. KSWS is home to the largest population in the world of this critically endangered monkey, and to the highest number of species recorded in any protected area in Cambodia.

To our stakeholders



Dalia Blass
Global Head of
External Affairs

BlackRock is pleased to provide our second report aligned to the recommendations of the Task Force on Climate-Related Financial Disclosures (“TCFD”). This report serves our commitment to providing meaningful transparency on our approach to managing climate-related risks and opportunities across our business.

It is our continued belief that robust and thoughtful disclosure can impact how companies are managed for the benefit of all stakeholders. BlackRock was an early advocate of the TCFD Recommendations and we continue to encourage adoption of the TCFD as a disclosure framework. We are encouraged by the year-over-year increase in the number of companies who are reporting against the TCFD recommendations and more recent developments to encourage further standardization of global sustainability disclosures.



**Alexis
Rosenblum, CFA**
Chief Corporate
Sustainability
Officer

As advocates for transparency, we recognize the importance of BlackRock meeting the same standards of disclosure that we ask of the companies our clients are invested in. TCFD is a key mechanism through which BlackRock can provide transparency to stakeholders on how we are managing climate risk and addressing the global transition to net zero within our business. But it's also an important mechanism through which we can contribute to the evolving global dialogue on what informative and decision-useful climate-related disclosure looks like to investors.

This year, BlackRock announced a series of commitments in support of clients as they prepare their portfolios for a net zero economy. Getting to net zero requires measuring where we are today. That's why a critical component of our commitment is focused on enhancing transparency at the fund and firm level. This year's TCFD report marks the first time that BlackRock is reporting preliminary estimates reflecting the emissions associated with BlackRock's clients' investments in corporate securities and real estate (where reliable data is available).

We all have some way to go, but this is a milestone on our journey as we work towards a more equitable and resilient future for our stakeholders. We look forward to your feedback on how we can continue to strengthen our efforts and further advance the global dialogue around climate-related disclosures.

About this report

BlackRock's 2021 Task Force on Climate-Related Financial Disclosures ("TCFD") Report is being provided for BlackRock, Inc. (together, with its subsidiaries, unless the context otherwise indicates, "BlackRock" or the "Company" or the "firm"). The report is aligned to the TCFD Recommendations.¹ All data in this report is as of September 30, 2021 unless otherwise noted. The policies and practices referred to in this report, unless otherwise noted, are adopted by BlackRock on a group-wide basis and applied in relevant jurisdictions in which BlackRock operates. All references to figures in dollars (\$) are in USD.

TCFD Recommendations

The TCFD Recommendations, first launched in 2017, are designed to encourage consistent and comparable reporting on climate-related risks and opportunities by companies to their stakeholders. The TCFD Recommendations are structured around four content pillars: (i) Governance; (ii) Strategy; (iii) Risk Management; and (iv) Metrics & Targets; and eleven recommendations to support effective disclosure under each pillar. Throughout this report, BlackRock has sought to provide information on all four pillars and eleven recommendations.

Perspectives included in this report

BlackRock is a leading publicly traded investment management firm with \$9.46 trillion of assets under management ("AUM"). With approximately 18,000 employees in more than 30 countries who serve clients in over 100 countries across the globe, BlackRock provides a broad range of investment management and technology services to institutional and retail clients worldwide. As an asset manager, BlackRock invests assets that belong to its clients, on its clients' behalf. BlackRock also offers the investment and risk management platform, Aladdin®, which combines comprehensive portfolio management, trading, and risk reporting tools with sophisticated risk analytics on a single platform.

BlackRock, therefore, approaches climate-related risks² and opportunities from two main perspectives, which are captured across this report:

1. As an **asset manager** striving to help our clients benefit from investment opportunities arising from the global transition to net zero, and with a responsibility to manage material risks to our clients' portfolios, including climate-related risks, within the bounds of our clients' guidelines and objectives; and
2. As a **corporate entity** whose business is affected by climate-related risks and opportunities and whose operations have both direct and indirect impacts on the climate.

Reporting on Other Sustainability-Related Topics

While this report is focused on climate-related risks and opportunities, BlackRock has also published corporate sustainability disclosure on other environmental, social, and governance ("ESG") topics in its [2020 Sustainability Disclosure](#).

Constant Evolution

As the sustainability landscape evolves with new information and greater standardization, BlackRock will continue to refine and expand its disclosures to provide meaningful information for stakeholders. We look forward to feedback and encourage our stakeholders to provide feedback by emailing invrel@blackrock.com.

Executive summary

BlackRock is a publicly traded investment management firm that provides investment management and technology services to institutional and retail clients worldwide. The assets BlackRock manages – BlackRock’s AUM – belong to BlackRock’s clients who rely on us to act in their best interests. BlackRock clients range from pension funds serving nurses, teachers, and factory workers, to individuals planning to buy a home or pay for their children’s education. BlackRock invests its clients’ money in companies of all types and sizes, in every region of the world, helping those companies grow and operate.

As BlackRock’s CEO, Larry Fink, has said: “There is no company whose business model won’t be profoundly affected by the transition to a net zero economy.”² This statement holds just as true for BlackRock as it does for any other company. As long-term investors, clients expect BlackRock to monitor and act on long-term risks and opportunities that affect their investments. Clients of all types are asking how to prepare their portfolios for the physical effects of climate change and the transition to a net zero economy. BlackRock is evolving its business strategy, governance, and risk-management processes to account for climate-related impacts to its business and clients.

Supporting the transition to net zero

In 2020, BlackRock announced a commitment to making Sustainability Our Standard for Investing. Building upon the progress made in 2020, BlackRock announced a series of commitments in January 2021 focused on the global transition to net zero. The commitments focus on three themes: (i) measurement and transparency; (ii) investment management; and (iii) investment stewardship. In 2021, BlackRock joined the Net Zero Asset Managers initiative (“NZAM”) and the Glasgow Financial Alliance for Net Zero (“GFANZ”). GFANZ brings together financial sector net zero initiatives for the common goal of decarbonizing the economy. BlackRock has made significant progress towards its goals and commitments that were set forth earlier this year.

Investment opportunities for clients

The climate transition will create historic investment opportunities for BlackRock’s clients. As the world moves toward net zero, BlackRock can best serve its clients by providing investment solutions to help them navigate the transition. In 2021, BlackRock increased the number and breadth of investment solutions available to our clients. BlackRock launched nine new funds and repurposed seven equity and fixed income funds with clearly articulated ESG criteria embedded in their investment mandates and objectives. BlackRock also launched active sustainable exchange-traded funds (“ETFs”) focused on investing in companies that are positioned to benefit from the transition to a low carbon economy. Additionally, BlackRock enhanced existing ESG product suites by adding climate considerations and launched an ETF range that tracks Paris Aligned Benchmarks.³

\$434 bn

AUM in dedicated sustainable investment strategies¹

\$64 bn

net inflows into sustainable investment strategies

\$36 bn

invested in green bonds on behalf of clients

350

wind, solar, & electric vehicle infrastructure projects funded by Real Assets Team

60

new sustainable ETFs and index mutual funds launched in 2021

Figures above as of September 30, 2021



Sustainable investing is one of the leading topics on every client’s mind, because sustainability risk is investment risk – and opportunity. The rise of sustainable investing is the biggest shift in global investing since the rise of securitization and indexing in the 1980s and even with record growth over the last few years, it’s still in early innings.

Mark Wiedman, Head of International and Corporate Strategy, 2021

In addition, BlackRock announced a partnership with Temasek to focus on investments that advance decarbonization solutions through late-stage venture capital and early growth private equity investment funds.⁴ Blackrock has also raised \$673 million for the Climate Finance Partnership (“CFP”), a public-private finance vehicle focused on investing in climate infrastructure across emerging markets.

Engaging on climate risk & opportunities

BlackRock is a long-term investor on behalf of clients. As climate risks and opportunities are likely to impact long-term returns, BlackRock’s Investment Stewardship team (“BIS”) engages on climate risk with investee companies. This engagement stems from BlackRock’s conviction that companies that act early to anticipate climate-related risks will be better positioned to mitigate such risks and/or capture opportunities at a time of historic transition. BIS understands that climate change can be very challenging for many companies and aims to be a supportive long-term investor on behalf of its clients. In 2021, BIS amplified climate and natural capital-related discussions with investee companies. During the 2020-2021 proxy year, BIS took voting action with 255 directors and 319 companies for climate-related concerns that in BIS’ view could negatively affect shareholder value. BIS also expanded its Climate Focus Universe in 2021 to include over 1,000 public companies. BIS reviews and engages with the companies in the Climate Focus Universe on their climate action plans and disclosures. In 2021, BIS explicitly encouraged these companies to articulate how their business model is aligned to a scenario in which global warming is limited to well below 2°C, consistent with moving towards global net zero emissions by 2050.⁵

Technology to measure climate risk

Aladdin® is BlackRock’s end-to-end investment management and operations platform. Aladdin combines sophisticated risk analytics with portfolio management, trading, and operations tools on a single, unified platform. In 2020, BlackRock launched Aladdin Climate to meet the urgent need among financial institutions and investors to quantify climate risk in their portfolios. Aladdin Climate translates climate risks and opportunities into investment terms so that investors can understand their exposure to the financial risks associated with climate change.

200+
Sustainable Index Offerings globally

1,645
engagements on environmental topics in 2021

319
companies with which voting action was taken for climate-related concerns in 2020 – 2021 proxy year

>1000
companies in BIS Climate Focus Universe

Figures above as of September 30, 2021, unless otherwise specified



As the world transitions to a net zero economy, it's critical that investors understand the impact of their investment decisions through a climate risk-adjusted lens.

Sudhir Nair, Global Head of Aladdin, 2021

Aladdin Climate offers investors measures of physical and transition risk with climate-adjusted security and portfolio-level financial risk metrics. To support the buildout of these capabilities, BlackRock has developed partnerships with leading researchers, energy system experts, climate scientists, and data providers, including Rhodium Group and Baringa Partners. In 2021, Aladdin Climate released a set of models and analytics covering both physical and transition risks. These tools were leveraged as part of the climate scenario analysis discussed in this report.

Managing BlackRock's operations sustainably

In 2020, BlackRock achieved carbon neutrality in its operations⁶ by employing energy-efficiency strategies, achieving its 100% renewable electricity goal,⁷ and compensating for the emissions BlackRock could not otherwise eliminate by purchasing carbon credits.⁸ During 2021, BlackRock worked to advance its environmental sustainability strategy which is underpinned by setting science-aligned emissions reduction targets. To achieve these targets, BlackRock's focus will continue to be on increasing energy efficiency, maintaining its 100% renewable electricity goal, and supporting the development of new technologies that can help reduce emissions such as sustainable aviation fuel ("SAF").

Philanthropy & Breakthrough

Philanthropy is one lever, among many, that BlackRock uses to drive the firm's priorities. This year, BlackRock took steps to further align its philanthropic commitments with BlackRock's leading role at the intersection of sustainability and technology. In 2021, The BlackRock Foundation committed \$100 million, its largest grant ever, to Breakthrough Energy's Catalyst Program ("Catalyst"), to help accelerate the development of the climate solutions necessary to achieve net zero emissions by 2050. This philanthropic capital will support cutting the "Green Premium"⁹ on clean energy technology including SAF, green hydrogen, direct air capture, and long-duration energy storage.

100%

renewable electricity goal in operations achieved

\$2.8 tn

AUM in funds for which climate metrics are reported publicly ¹⁰

151

active sustainable offerings

8,000+

ESG metrics within Aladdin platform

Figures above as of September 30, 2021, unless otherwise specified

Our commitment to transparency

Getting to net zero starts with measuring where we stand today and providing transparency to stakeholders on where we're going. BlackRock asks this of the companies in which we invest on behalf of our clients, and we recognize the importance of leading by example in our own disclosure. That is why a critical component of BlackRock's net zero commitment is focused on enhancing transparency at the fund and firm level.

This TCFD report marks the first time that BlackRock is reporting preliminary estimates reflecting the greenhouse gas ("GHG") emissions associated with BlackRock's AUM. These figures represent the emissions associated with the corporate securities and real estate BlackRock invests in on behalf of its clients. Several advancements allow BlackRock to compile and report these estimates: (i) corporate issuers

are increasingly reporting their GHG emissions through voluntary and regulatory initiatives; (ii) BlackRock's commitment to put sustainability at the center of Aladdin® has led to greater incorporation of climate-related metrics and data into BlackRock's analytics; and (iii) a series of industry efforts are facilitating the development of methodologies for calculating climate-related and portfolio alignment metrics and setting net zero-aligned targets.

At the fund level, BlackRock publishes climate and other Sustainability Characteristics, including weighted-average carbon intensity ("WACI") and implied temperature rise ("ITR"), on product pages of BlackRock's website for ETFs and index mutual funds where sufficient data on the underlying fund holdings and satisfactory methodologies are available. One or more climate-related metrics is publicly available on product pages for \$2.8 trillion in AUM managed by BlackRock. ¹⁰

BlackRock's Net Zero Commitments

Stewardship

- Engaging with the companies our clients are invested in to understand how they are mitigating climate risk and considering the opportunities presented by the net zero transition
- Asking companies to disclose a business plan aligned with the goal of limiting global warming to well below 2°C, consistent with achieving net zero global emissions by 2050
- Increasing the role of votes on shareholder proposals in our stewardship efforts around sustainability

Investment management

- Incorporating the impacts of climate change into capital market assumptions, the cornerstone for portfolio construction at BlackRock
- Implementing a framework for managing securities that pose significant climate risk in active portfolios
- Helping clients benefit from opportunities created by the energy transition
- Launching investment products with explicit temperature alignment goals, including products aligned to a net zero pathway

Corporate Initiatives

- Reporting aggregate emissions attributable to investment portfolios managed on behalf of BlackRock's clients, where data permits
- Continuing to advocate for public policies that help make the financial system more resilient, sustainable, and equitable, including advancing the goal of net zero

Measurement and transparency

- Publishing a temperature alignment metric for ETFs and mutual funds for markets with sufficiently reliable data
- Publishing the proportion of our AUM that are currently aligned to net zero, and announcing an interim target on the proportion of our AUM that will be aligned to net zero in 2030, for markets with sufficiently reliable data
- Through Aladdin Climate, helping more investors manage and meet their climate objectives by tracking investment portfolios' trajectories toward net zero, and helping to catalyse increasingly robust and standardized climate data and metrics to better serve the industry

Key Points in Response to TCFD Recommendations

Pillar / Recommendation	Key Points
Governance: Disclose the organization's governance around climate-related risks and opportunities	
Describe the board's oversight of climate-related risks and opportunities	Oversight of near- and long-term business strategy (including sustainability) by BlackRock's Board of Directors (the "Board")
	Board Nominating, Governance & Sustainability Committee of BlackRock's Board of Directors oversees investment stewardship, public policy, corporate sustainability, and social impact
	Board Risk Committee assists the Board in overseeing, identifying, and reviewing enterprise, fiduciary, and other risks, including those related to climate and other sustainability risks, that could have a material impact on the firm's performance
Describe management's role in assessing and managing climate-related risks and opportunities	Global Executive Committee ("GEC") sets the strategic vision and priorities of the firm and drives accountability, including related to BlackRock's sustainability strategy
	GEC Investment Sub-Committee oversees the firm's investment processes, including ESG integration
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material	
Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	Opportunities: increased demand for sustainable investment products and Aladdin, operating efficiencies
	Risks: market, regulatory, and reputational risks, as well as physical risks
Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	Management of climate-related risks and opportunities is embedded across investment processes, business strategy, and operations
Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	BlackRock conducted a climate-related scenario analysis exercise, leveraging Aladdin Climate analytics, to understand the potential implications of climate-related physical and transition risk scenarios to BlackRock's business strategy over the short-, medium-, and long-term
Describe how risks and opportunities are factored into relevant products or investment strategies and describe related transition impact*	The primary means by which BlackRock incorporates climate-related risks and opportunities into investment processes is through ESG integration and investment stewardship. BlackRock portfolio managers are accountable for identifying material climate- and other sustainability-related risks and opportunities in their portfolios. Please refer to BlackRock's 2020 Sustainability Disclosure (Item FN-AC-410a.2) for additional information on ESG Integration at BlackRock. Please see BlackRock's 2020 Sustainability Disclosure (Item FN-AC-410a.3) and the BIS 2020 Investment Stewardship Annual Report for an overview of investment stewardship at BlackRock.

*Reflects recommendations that are included in the Supplemental Guidance for Asset Managers, which incorporates updates to the guidance for the financial sector released by the TCFD in 2021 (https://assets.bbhub.io/company/sites/60/2021/07/2021-TCFD-Implementing_Guidance.pdf)

Pillar / Recommendation	Key Points
Risk Management: Disclose how the organization identifies, assesses, and manages climate-related risks	
Describe the organization's processes for identifying and assessing climate-related risk	For risks in client portfolios, investment teams are the primary risk owners, or first line of defense. BlackRock's risk management team, Risk & Quantitative Analysis ("RQA"), serves as a key part of the second line of defense. RQA evaluates material ESG risks, including climate risk, during its regular reviews with portfolio managers to provide oversight of portfolio managers' consideration of these risks in their investment processes. This helps to ensure that such risks are understood, deliberate, and consistent with client objectives. BlackRock Sustainable Investing ("BSI") partners with RQA to monitor and review ESG risk exposure at the portfolio level, providing rigor and consistency across our diverse investment platform, while seeking to ensure that risk taking is deliberate, diversified, scaled, and in line with the clients' objectives. ESG risks are evaluated in operational processes, including considering ESG risks in risk and control self-assessments, product development, and incident management. Risks associated with ESG investment and operational processes are represented in risk profiles shared with risk oversight committees.
Describe the organization's processes for managing climate-related risks	
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	
Describe how material climate-related risks are identified, assessed and managed for each product or investment strategy.*	
Describe engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks in order to improve data availability and asset managers' ability to assess climate-related risks*	BIS has engaged with companies for several years on TCFD-aligned reporting. In 2021, BIS expanded the Climate Focus Universe to over 1,000 carbon-intensive companies. For companies in the Climate Focus Universe, BIS assesses their climate action plans and risk disclosures voting against management when BIS believes accelerated progress is necessary. Between July 1, 2020 and June 30, 2021 (the "2020-2021 proxy year"), BIS had over 1,300 engagements with nearly 670 of the companies in the 2021 Climate Focus Universe. BIS voted against 255 directors and 31.9 companies for climate-related concerns that in BIS' view could negatively affect shareholder value during the 2020-2021 proxy year.
Metrics & Targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material	
Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	Categories of metrics: Business Indicators, Corporate GHG Emissions, Firm-Level Climate Metrics for BlackRock's AUM, Product-Level Sustainability Characteristics
Describe metrics used to assess climate-related risks and opportunities in each product or investment strategy*	Varies by investment strategy. Investment teams develop views on materiality of specific sustainability-related topics by considering BlackRock's proprietary ESG research, as well as research from a variety of external sources. BlackRock has developed proprietary measurement tools to deepen portfolio manager understanding of material ESG risks including climate risks.
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	See Exhibit M.3. BlackRock reports Scope 1, 2, and all relevant categories of Scope 3 emissions.
Asset managers should disclose GHG emissions for their AUM and WACI for each product or investment strategy, where data and methodologies allow. Asset managers should consider providing other carbon footprinting metrics they believe are useful for decision-making.*	See Exhibit M.6. This TCFD report marks the first time that BlackRock is reporting preliminary estimates reflecting the absolute emissions and the carbon footprint associated with BlackRock's AUM in corporate securities and real estate.
Asset managers should describe the extent to which their assets under management and products and investment strategies, where relevant, are aligned with a well below 2°C scenario, using whichever approach or metrics best suit their organizational context or capabilities.*	BlackRock publishes weighted-average carbon intensity ("WACI") and implied temperature rise ("ITR"), on product pages of our website for ETFs and mutual funds where reliable data are available. As of December 2021, one or more climate-related metrics are publicly available on product pages for \$2.8 trillion in AUM managed by BlackRock (note holdings values as of September 30, 2021).
Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	In January 2021, BlackRock announced a series of commitments <u>focused on supporting clients in the global transition to net zero</u> , around three themes: (i) measurement and transparency; (ii) investment management; and (iii) investment stewardship. Also see Exhibit M.2 for progress towards environmental targets for operations.

*Reflects recommendations that are included in the TCFD Supplemental Guidance for Asset Managers, which incorporates updates to the guidance for the financial sector released by the TCFD in 2021 (https://assets.bbhub.io/company/sites/60/2021/07/2021-TCFD-Implementing_Guidance.pdf)

Governance

Disclose the organization’s governance around climate-related risks and opportunities.

Effective corporate governance is critical to executing on BlackRock’s strategy, fulfilling its responsibilities to clients, and delivering for stakeholders. BlackRock’s commitment to good corporate governance with respect to climate and sustainability-related¹ matters reflects BlackRock’s commitment to strong leadership and effective oversight by BlackRock’s senior management and Board of Directors. [BlackRock’s Governance Overview](#) and [Corporate Governance Guidelines](#) provide more information on BlackRock’s Corporate Governance framework, including the role and responsibilities of the Board of Directors.

Board Oversight

BlackRock’s Board of Directors (“Board”) engages with senior leaders on near- and long-term business strategy and reviews management’s performance in delivering on BlackRock’s framework for long-term value creation. Sustainability, including climate-related issues – from the integration of ESG factors into the firm’s investment processes, to sustainable investment strategies and investment stewardship priorities – is a critical component of the firm’s overall business strategy and the objectives of senior management over which the Board has oversight.

The Board holds six regularly scheduled meetings per year during which the Board’s committees also meet. In 2021, the full Board reviewed and discussed aspects of BlackRock’s climate and sustainability-related strategy during five out of the six meetings. These reviews and discussions covered elements of the firm’s commitment to supporting the global goal of net zero emissions by 2050 or sooner, including steps BlackRock is taking to help clients prepare their portfolios for a net zero world, as well as BlackRock’s approach to expanding sustainable investment solutions, ongoing ESG integration efforts, and the investment stewardship team’s engagement on environmental and social issues.

The Nominating, Governance & Sustainability Committee of BlackRock’s Board of Directors (“NGSC”) oversees investment stewardship, public policy, corporate

sustainability, and social impact. The NGSC periodically reviews corporate and investment stewardship-related policies and programs, as well as significant publications relating to environmental (including climate change), social, and other sustainability matters. As appropriate, the NGSC may make recommendations on these matters to be reviewed by the full Board. The NGSC also periodically reviews public policy and advocacy activities, including lobbying priorities, political contributions, and memberships in trade associations, as well as the philanthropic programs of the firm and related strategies.

In 2021, the NGSC discussed BIS’ updated engagement priorities, which included asking companies to disclose a plan for how their business models will be compatible with a low-carbon economy, an increased focus on natural capital risks, and BIS’ approach to voting on environmental and social shareholder proposals. Additionally, BlackRock’s Global Public Policy Group (“GPPG”) and Corporate Sustainability teams presented to the NGSC on governance enhancements with respect to the firm’s external activities, including a review of the alignment of trade association positions on material and strategic public policy issues, including climate policy and sustainability disclosure regulations. Finally, the NGSC reviewed and discussed the Corporate Sustainability team’s priorities and progress in 2021, including on advancing BlackRock’s environmental sustainability strategy and corporate sustainability disclosures.

BlackRock’s Board has responsibility for oversight of risk management activities. The Risk Committee of the Board of Directors (“Risk Committee”) assists the Board in overseeing, identifying, and reviewing enterprise, fiduciary, and other risks, including those related to climate and other sustainability risks, that could have a material impact on the firm’s performance. In 2021, the Risk Committee reviewed and discussed the incorporation of ESG considerations into the firm’s risk management processes, a framework for active investment portfolios, ESG risks associated with new business activities and new products, and regulatory risk relating to sustainability.

Management Oversight

BlackRock’s senior management oversees progress towards BlackRock’s strategic objectives, including climate- and sustainability-related objectives. Exhibit G.1 provides an overview of the management committees that share responsibility for management of various climate and other sustainability-related risks and opportunities.

Exhibit G.1: Sustainability-Related Management Committees

Management Committee	Sustainability-Related Responsibilities
Global Executive Committee (“GEC”)	<ul style="list-style-type: none"> Led by the CEO, the GEC sets the strategic vision and priorities of the firm and drives accountability at all levels. In 2021, the GEC sent a letter to clients outlining steps BlackRock is taking to help investors prepare their portfolio for a <u>net zero world</u>. Actively involved in the development of, and receives regular updates on, BlackRock’s sustainability strategy, including progress towards delivering upon the firm’s net zero commitments.
Investment Sub-Committee of the GEC	<ul style="list-style-type: none"> Oversees investment process consistency across the firm’s investment groups. Members include the Chief Risk Officer and global heads or sponsors of all major investment divisions Oversees ESG integration in BlackRock’s investment processes.

Functional Groups

In practice, sustainability is integrated into different business units across the firm. Several teams focus on sustainability, while others integrate sustainability into their broader functional responsibilities.

Exhibit G.2: Functional Groups Involved in Climate & Sustainability-Related Matters

Team	Sustainability-Related Responsibilities	Management Reporting Line
Sustainability-Focused Teams		
BlackRock Investment Stewardship (“BIS”)	<ul style="list-style-type: none"> Engagement and proxy voting with investee companies on behalf of clients Promotes sound corporate governance and sustainable business models that can help drive long-term financial returns 	Global Head of BIS is a GEC member
BlackRock Sustainable Investing (“BSI”)	<ul style="list-style-type: none"> Partners with investment teams to deliver sustainable investment products Works cross-functionally to advance ESG research and ESG integration 	Global Head of BSI reports to a Vice Chairman (GEC member)
Corporate Sustainability	<ul style="list-style-type: none"> Oversees efforts to manage environmental sustainability of corporate operations including setting environmental targets for operations Implements corporate sustainability disclosures 	Chief Corporate Sustainability Officer reports to Global Head of External Affairs (GEC member)
Sustainability Integrated into Broader Functional Responsibilities		
Investment Divisions	<ul style="list-style-type: none"> Accountable for ESG integration into investment processes Often have sustainability-focused units, (i.e., BlackRock Alternative Investment Sustainability team, Fixed Income ESG Investment team) 	Heads of investment divisions are members of GEC and GEC Investment Sub-Committee
Risk & Quantitative Analysis Group (“RQA”)	<ul style="list-style-type: none"> BlackRock’s risk management function Discuss material ESG risks (including climate) during reviews with active strategy portfolio managers to provide oversight of ESG Integration 	Chief Risk Officer is a member of GEC and GEC Investment Sub-Committee
Aladdin	<ul style="list-style-type: none"> Integrates climate and ESG data, as well as physical and transition risk analytics into investors’ workflows delivered through Aladdin 	Global Head of Aladdin is a member of GEC
Enterprise Services (“ES”)	<ul style="list-style-type: none"> Health & Safety monitors adherence to local environmental regulations Real Estate and Facilities teams implement sustainability efforts in offices Business Continuity Management manages disaster recovery planning, strategy, and crisis management activities 	Global Head of ES reports to Global Head of Technology & Operations (GEC member)

Exhibit G.3: Governance Structure, Sustainability

BlackRock Board of Directors

- The Board oversees long-term strategy in which BlackRock’s sustainability and climate-related strategies are integral components
- Risk Committee aids Board in overseeing risk (including ESG risks)
- NGSC oversees Investment Stewardship, Public Policy, Corporate Sustainability, and Social Impact

Global Executive Committee

Oversees sustainability strategy; Investment sub-committee oversees investment process consistency including ESG integration

Sustainability-Focused Teams

BlackRock Investment Stewardship

Engages with companies in client portfolios on sustainability and governance matters, casts proxy votes

BlackRock Sustainable Investing

ESG integration • Sustainable Solutions • Research & Insights • Data & Analytics
Works closely with RQA to drive high-quality ESG integration across investment teams

Corporate Sustainability

Develops and oversees environmental sustainability strategy for operations, collects and reports corporate GHG emissions data; develops climate-related disclosures

Sustainability Integrated into Broader Functional Responsibilities

Investment Divisions

ETFs and Index Investments, Portfolio Management Group, Global Trading & Transition Management, and BlackRock Alternative Investors

Aladdin

Delivers ESG and climate data, analytics, models, and tools into investors’ daily workflows

Risk and Quantitative Analysis

Oversight of investment, counterparty, and enterprise risks including ESG risks

Enterprise Services

Business Continuity Management team manages business continuity risks, Corporate Real Estate and Facilities teams implement environmental sustainability initiatives in coordination with Corporate Sustainability, Health and Safety team monitors local environmental regulations

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning, where such information is material

Asset owners and asset managers alike have heightened their commitments to support the global transition to net zero. To put this in perspective, GFANZ now represents over 450 financial firms responsible for assets of roughly \$130 trillion committed to accelerating the decarbonization of the economy.¹ In addition, over 3,000 companies and investors have committed to net zero through the Race to Zero, a global coalition for climate action as of November 2021.

BlackRock recognizes the critical importance of adapting its business to reflect this intensified global focus on net zero by its clients, as well as governments and policy makers around the world. Additionally, BlackRock must consider all matters that are material to its clients’ long-term financial returns, consistent with their investment objectives, including climate-related risks and opportunities. That is why in January 2021, BlackRock announced commitments to help investors prepare their portfolios for a net zero world, including capturing opportunities created by the net zero

transition and worked over the course of the year to implement those commitments (progress shown on page 8).

BlackRock also recognizes that different clients have different investment preferences and objectives. We continue to believe strongly in the power of providing choice to clients. This includes offering a wide range of investment products to help clients meet their investment goals, including those that incorporate climate change and other ESG considerations in different ways and to different degrees. BlackRock believes that it is this commitment to providing choice that supports the firm’s resilience to different climate scenarios.

This section discusses how climate-related risks and opportunities are managed by BlackRock with an emphasis on new developments in 2021. Exhibit S.1 provides an overview.

Exhibit S.1: Overview of Strategy to Address Climate-Related Risks & Opportunities

As an ASSET MANAGER	As a COMPANY
Sustainable Investment Solutions Expanding offerings of sustainable investment products	Corporate Operations Reducing the environmental footprint of our operations
Investment Stewardship Engagement & proxy voting on material climate and natural capital issues	Vendor Sustainability Encouraging vendors to set science-aligned emissions reduction targets
ESG Integration & Insights Incorporating material climate considerations into active investment decisions & ESG Research	Public Policy & Industry Engagement Encouraging standards and regulations for climate disclosures
Aladdin Putting sustainability at the heart of Aladdin and developing Aladdin Climate	The BlackRock Foundation Supporting critical climate technologies through philanthropy
COMMITMENT TO TRANSPARENCY <i>at firm and fund level</i>	

ESG Integration

The primary means by which BlackRock incorporates climate-related risks and opportunities into investment processes are through ESG integration and investment stewardship. BlackRock portfolio managers are accountable for identifying material sustainability-related risks and opportunities – including climate-related considerations– in their portfolios. Investment teams develop views on the materiality of specific sustainability-related topics by considering BlackRock’s proprietary ESG research, as well as research from a variety of external sources. In addition, BlackRock has developed proprietary measurement tools to deepen portfolio manager understanding of material ESG risks including climate risks. In BlackRock’s index investments business, the firm works with index providers to expand and improve the universe of sustainable indexes, and our investment stewardship processes encourage the companies in which our clients are invested to manage and

disclose material sustainability risks. Please refer to BlackRock’s SASB-aligned [2020 Sustainability Disclosure](#) (Item FN-AC-410a.2) for additional information on ESG Integration at BlackRock.

As an advancement to its existing ESG integration efforts, in 2021, BlackRock established a framework to monitor exposures to issuers that may present significant climate risk in active portfolios. While many issuers are effectively preparing for the global transition towards a net zero economy, others that are not adequately preparing may present a risk to BlackRock’s clients’ portfolios, which BlackRock monitors closely. Conversely, companies that distinguish themselves in terms of their transition preparedness and governance may represent investment and/or alpha opportunities for BlackRock’s clients.

Investment Stewardship

As a long-term investor on behalf of our clients, BlackRock’s conviction is that sustainability risk – and climate risk in particular – is investment risk, and that every company will be affected by the transition to a net zero economy. BIS encourages sound corporate governance and sustainable business models that can help drive the long-term financial returns that enable BlackRock’s clients to meet their investing goals. BIS does this by engaging with investee companies and proxy voting on BlackRock’s clients’ behalf.

[BIS’ Engagement Priorities](#) reflected a continuing emphasis on board effectiveness alongside the impact of sustainability-related factors on a company’s ability to generate long-term financial returns. “Climate and Natural Capital” is one of BIS’ engagement priorities. In 2021, BIS sought to understand how companies are mitigating climate-related risks and implementing plans to transition to a low-carbon economy. BIS also encouraged companies to consider their impact and dependence on natural capital². BIS’ approach on these issues is summarized in Exhibit S.2.

Exhibit S.2: BIS’ approach to [Climate Risk](#) and [Natural Capital](#)

Climate Risk

In 2021, BIS asked companies to articulate how their business model is aligned to a scenario in which global warming is limited to well below 2° C, consistent with a global aspiration to reach net zero emissions by 2050. BIS also encouraged companies to provide disclosure aligned with the TCFD, including Scope 1 and Scope 2 emissions. Companies in carbon-intensive industries were also encouraged to disclose Scope 3 emissions.

Natural Capital

In 2021, BIS released a commentary on its approach to natural capital, encouraging companies to disclose how their business models are consistent with the sustainable use and management of natural capital, including natural resources such as air, water, land, minerals, and forests. BIS also sought to understand how companies promote biodiversity and ecosystem health and the responsible use of energy, as well their impact on communities in which they operate.

Climate Focus Universe. In 2020, BIS focused on a universe of 440 carbon intensive companies. BIS identified 244 companies within this universe that did not meet BIS' standards of managing climate-related risks or adequately addressing exposure to such risks.³ In 2021, BIS expanded the Climate Focus Universe to over 1,000 carbon-intensive public companies.⁴ For companies in the Climate Focus Universe, BIS reviews their climate action plans and disclosures – voting against management when BIS believes that accelerated progress towards climate risk mitigation is necessary to drive sustainable, long-term financial returns for clients. Between July 1, 2020 and June 30, 2021 (the “2020-2021 proxy year”), BIS had over 1,300 engagements with nearly 670 of the companies in the 2021 Climate Focus Universe.

Climate-related voting on behalf of clients. Voting is how BIS signals support for or raises concerns with a company to achieve an outcome that BIS believes is most aligned with BlackRock's clients' long-term economic interests. Where BIS identifies concerns, the team may vote against directors or other management proposals, or in support of a shareholder proposal. Votes on director elections are a globally available mechanism for signaling concern and one that BIS employs more frequently than votes on shareholder proposals.

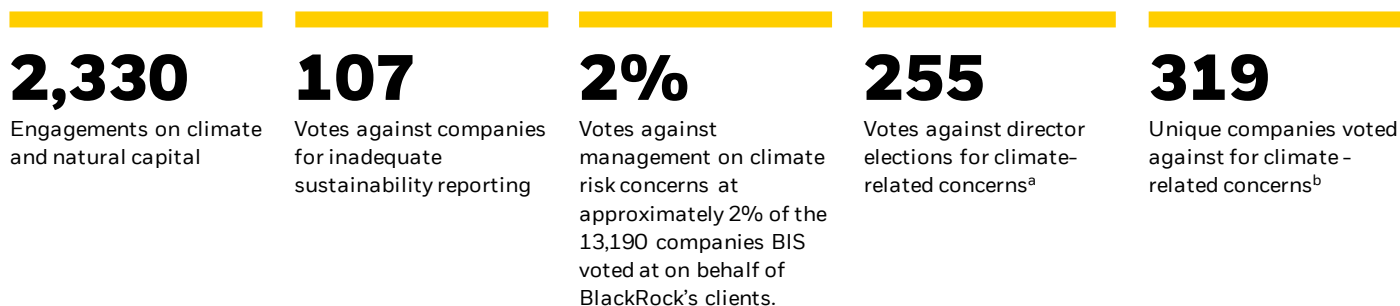
Over the 2020-2021 proxy year, votes cast against directors or in support of climate-related shareholder proposals generally reflected concerns that companies had not adequately addressed climate-related risks. Though it

should be noted that BIS supported some shareholder proposals where a company was on track but the team wanted to encourage accelerated progress on either actions or reporting. Other votes reflected BIS' view that management could have better managed climate-related risks and/or reported on one or more of the following factors:

- Disclosures that address all four pillars of the TCFD framework
- Reporting on Scope 1 & 2 GHG emissions data
- Setting short-, medium-, and long-term GHG emissions reduction targets

BIS' climate-related votes on behalf of clients in the 2020-2021 proxy year reflect a focus on sectors where climate change and other sustainability factors pose the greatest risk to those companies' business operations and performance. When BIS voted against management to signal its concern that further progress on climate-related issues is needed, it did so in the long-term economic interests of BlackRock's clients. BIS will continue to engage all companies, with a particular focus on those in the Climate Focus Universe, to encourage further action and enhanced disclosures to assess these companies' preparedness to navigate the transition to net zero. Exhibit S.3 highlights engagement and voting statistics for climate-related concerns across investee companies for the 2020-2021 proxy year.

Exhibit S.3: Engagement and Voting for climate-related concerns



Source: BlackRock and Institutional Shareholder Services (“ISS”). ISS classifications used. Sourced on July 8, 2021, reflecting data from July 1, 2020 through June 30, 2021. For more information refer to BIS' 2021 Voting Spotlight “Pursuing long-term value for our clients” Available at: <https://www.blackrock.com/corporate/literature/publication/2021-voting-spotlight-full-report.pdf>. ^a Abstentions are included ^b Abstentions are included. Votes against unique companies on climate include: i) votes against or abstain on director elections and director-related proposals, and ii) votes in support or abstain on climate-related shareholder proposals

Investment Strategies

An estimated \$50 trillion to \$100 trillion in capital investment is required to reach net zero by mid-century, a massive shift that will affect the long-term profitability of companies, industries, and whole economic sectors.⁵ Investment solutions that can help BlackRock's clients better manage climate-related risks to their portfolios and benefit from or contribute to the energy transition are, therefore, amongst the greatest climate-related opportunities for BlackRock.

BlackRock's capital markets assumptions ("CMAs") are long-run estimates of risk and return that can be used as building blocks for portfolio construction. In 2021, BlackRock enhanced its CMAs to incorporate climate considerations. Underpinning our new CMAs is the view that avoiding climate change damages will help drive economic growth and offer investors better returns over the long-term. Climate change and the transition to net zero are expected to be persistent drivers of asset returns, and consequently fundamental to making strategic investment decisions.⁶

Over the past few years, BlackRock has significantly expanded the number of sustainable investment strategies available to clients. For example, in 2021 BlackRock launched nine new funds and repurposed seven equity and fixed income funds with clearly articulated ESG criteria embedded in their investment mandates and objectives. As of September 30, 2021, BlackRock managed \$434 billion in dedicated sustainable investment strategies⁷ on behalf of its clients.

In the first three quarters of 2021, BlackRock saw nearly \$64 billion of net inflows into sustainable investment strategies, representing 27% of total long-term net inflows over the same time period. These solutions include a variety of products and strategies that support the transition to a low-carbon economy.

ETFs & Index Investments

Sustainable ETFs remain one of the fastest growing segments within the ETF market. In 2021, iShares® launched 60 sustainable ETFs and index mutual funds ("IMFs") across the US, Europe, Asia-Pacific, and Canada – well exceeding BlackRock's goal of doubling sustainable ETF offerings to 150 in total for the year. As of September 30, 2021, iShares® had over 200 sustainable index offerings globally. Some examples of advancements made to the sustainable ETFs landscape include:

1. The launch in April 2021 of two active sustainable ETFs focused on investing in companies that BlackRock believes are better positioned to benefit from the transition to a low carbon economy.⁸
2. The launch of a range of Paris Aligned Benchmark products in Europe in April 2021.
3. The application of Climate Transition Benchmarks to BlackRock's ESG enhanced suite in Europe in November 2021.⁹

Further, BlackRock's ETFs & Index Investments team ("EII") works to promote greater standardization and transparency of sustainability benchmark methodologies. Several of BlackRock's sustainable ETFs are the result of engagement with major index providers to develop sustainable versions of flagship indexes.¹⁰ These products differ from more traditional index solutions in that they provide investors access to major benchmark exposures while helping them incorporate climate considerations into their portfolios.¹¹ Additionally, EII has published temperature alignment metrics for ETFs and IMFs where data is sufficient (see page 46 for more detail).

Active Investment Strategies¹²

As the world transitions to a low carbon economy, sustainability-oriented data and climate-related insights are increasingly important to help uncover the catalysts that could drive asset values over the long-term. BlackRock manages active investment strategies across a range of asset classes including: (i) equities; (ii) fixed income; and (iii) multi-asset strategies. In 2021, BlackRock expanded its active investment lineup to incorporate a greater range of sustainable investment strategies. Below are some examples of the active investment strategies that incorporate climate-related considerations:

Fundamental Equity. In fundamental active equities ("FE"), BlackRock's approach to sustainable investing is an inclusive one, anchored on the recognition that a diverse range of investment strategies are necessary to tackle the significant sustainability issues that we face globally. FE uses fundamental expert insights and employs an interdisciplinary toolkit to construct portfolios addressing clients' needs and helping them achieve their sustainable goals. The FE platform manages three main types of sustainable investment strategies:

- **Core.** Core Fundamental Sustainable Equity invests across the market in companies that FE believes can lead in a more sustainable world. In 2021, BlackRock launched eight funds within its Core Fundamental Sustainable Equity range, which aims to deliver long-term outperformance with measurable sustainable outcomes, specifically better ESG scores and lower carbon emissions versus benchmarks. The funds invest in three types of companies: (i) Leaders: “best-in-class” companies that effectively manage ESG factors; (ii) Improvers: companies showing demonstrable progress in their ESG journey; and (iii) Enablers: companies advancing the transition and/or innovating towards sustainable solutions, which may have revenues aligned to the United Nations (“UN”) Sustainable Development Goals (“SDGs”).
- **Thematic.** The FE Thematics & Sector team invests around specific sustainability themes including measuring the alignment of investments to the UN SDGs. For example, in October 2019, the Thematics & Sector team launched a circular economy investment strategy in partnership with the Ellen MacArthur Foundation (“EMF”) ¹³ to complement its existing range of sustainable, fundamental, thematic funds. EMF is a global thought leader that works to accelerate the transition to a Circular Economy. ¹⁴ At its core, the Circular Economy strategy helps BlackRock’s clients put their money to work in support of the transition to a circular economy, as well as in businesses that are evolving to a more sustainable way of operating.
- **Impact.** BlackRock’s FE Impact team seeks to invest in companies whose core products and services address social and environmental challenges as identified by the UN SDGs. The team manages US, International, and Global Impact strategies. In May 2021, the FE Impact team published its inaugural Global Impact Report, which describes the team’s innovative approach to impact investing in public equities. Climate-related highlights from this report include the generation of over 102,000 GWh of renewable energy by companies in which the Global Impact strategy invested. ¹⁵

Systematic Strategies. The BlackRock Systematic team (“BSYS”) manages sustainable strategies across three main categories: (i) core equity and fixed income ESG strategies, (ii) multi-asset strategies, and (iii) liquid alternative ESG strategies. In 2021, BSYS launched a long-short equity product based on a sustainable universe with sustainable alpha signals. In systematic sustainable funds, BSYS does not divest from specific sectors, rather the team tilts to more sustainable companies within each sector.

BSYS also produces research on a variety of topics including climate-related insights. In research published in 2021, ¹⁶ BSYS found that companies operating buildings with Leadership in Energy and Environmental Design

(“LEED”) certifications ¹⁷ often demonstrate greater operational efficiency and subsequently exhibit better financial outcomes. The LEED buildings themselves result in better environmental outcomes for the communities in which they operate. These types of sustainable alpha signals—which aim to deliver returns while also improving environmental and social outcomes—are a key focus of BSYS sustainable research.

Sustainable Research Framework. BlackRock developed a sustainable research framework to measure the sustainability (including climate) characteristics of companies through an investment materiality lens. This framework aims to deliver exposure to sustainability attributes that are material to enterprise value creation by aggregating a collection of sustainability-related key performance indicators, ¹⁸ selected for their financial materiality, into a normalized score to compare companies based on such attributes. The framework is rooted in BlackRock’s investment conviction that sustainable business practices can lead to higher risk-adjusted performance over the long term. The analytics powered by this framework have been deployed in Aladdin, which alongside other internal analytics and third-party datasets, equip BlackRock’s investment teams with sustainable research inputs and investment decision-useful tools. This sustainable research framework can also help position portfolios to seek outperformance through sustainable insights by targeting relevant datasets and providing a framework to prioritize material environmental, including climate, and social issues in different sectors.

Active Fixed Income. The need for sustainable fixed income solutions is pressing. Many large investors, such as insurers and pension funds, hold the bulk of their assets in fixed income. Fixed income encompasses many different asset classes, with varying degrees of sustainability information available for each asset class. BlackRock’s Fixed Income ESG Team works with sector teams within BlackRock’s Fixed Income team (“FI”) to identify relevant ESG characteristics and to develop tools to aid this process. The FI platform has developed a proprietary sustainability categorization that focuses on positive and negative externalities across fixed income asset classes. This framework drives several dedicated active ESG strategies, including four new public fund offerings launched in 2021.

Further, the FI team has developed approaches within certain pools of assets to identify fixed income impact opportunities. This currently includes strategies in US municipal bonds and mortgages, as well as green and social bonds across developed market and emerging markets. The Fixed Income ESG team has developed a proprietary shading taxonomy for green and social bonds, which is utilized by active teams to understand the degree of impact inherent in a use of proceeds structure. FI has been producing quantifiable Green Bond impact reports on green bond funds since 2018.

Spotlight on Green Bonds









The green and social bond market is steadily growing, helping raise funds for projects that have positive environmental or social impact. More than \$3 trillion in sustainable bonds have been issued since these securities first emerged in 2007, according to research company BloombergNEF.¹⁹ BlackRock is heavily involved in and supportive of the green bond market. As of September 30, 2021, BlackRock managed over \$36 billion, on behalf of clients, in green bonds across dedicated portfolios and as a component of broader fixed income mandates. These bonds support numerous renewables and low-carbon projects.

BlackRock's Head of Fixed Income ESG Investing sits on the Executive Committee of the Green Bond Principles and the firm is a partner of the Climate Bonds Initiative. A green bond is a fixed income instrument dedicated to new or existing projects deemed environmentally beneficial.²⁰ Green bonds' proceeds are ring-fenced on the issuer's balance sheet to finance these green projects. Since green bonds trade like ordinary bonds and have secondary market liquidity, they serve as a valuable tool that enables investors to fund green projects without taking on the more limited liquidity or credit risk that comes with directly investing in infrastructure projects.

Investors want to know that green bonds deliver their intended environmental benefits. They want to measure how their investments contribute to their environmental objectives and/or report the environmental benefits to their end-investors, plan participants, or customers. BlackRock has developed portfolio-level impact reporting for a green bond strategy – an illustrative example of which is shown in Exhibit S.4. The reporting includes carbon emissions avoided, renewable capacity installed, and energy savings attributable to green bond investments in the portfolio.

Exhibit S.4: Impact Report for Green Bond Strategy

Example Impact Report for Green Bond Strategy (*Environmental Impact per USD 1 million invested*)

	<p>1,843 tCO₂/year of avoided emissions Equivalent to taking 398 cars off the road</p>		<p>1,073 MWh/year of renewable energy generated Equivalent to annual electricity use of 87.5 homes</p>
	<p>441 m³ / year of water savings Equivalent to 1/6 of an Olympic-sized swimming pool</p>		<p>253 MWh/year of energy savings Equivalent to 6,796 light bulbs switched to LEDs</p>
	<p>38 hectares of land area re/afforested or preserved Equivalent to 54.3 football fields</p>		<p>6,350 m³/year of water or waste collected and disposed or treated Equivalent to 3.2 Olympic-sized swimming pools</p>
	<p>169 people benefitting from forest, agriculture, water or waste projects 5 jobs created across all categories</p>		<p>9,835 new passengers/year on public transit 214 minutes saved due to better public transit</p>

Sources: BlackRock analysis of publicly available environmental impact reports as communicated by issuers as of 18 May 2020. The above results are shown for informational purposes only, to illustrate the positive environmental impact of a green bond portfolio. They are not meant to be a prediction or projection. Not every issuer reports on every metric, hence no linear extrapolation should be performed. BlackRock is not held responsible for inaccuracies in issuers' reporting; methodology available upon request. US EPA's Greenhouse Gas Equivalencies Calculator for CO₂ and energy measures. Other assumptions: 1 Olympic pool = 2,500 m³ of water; 1 football = 7,000 m²

Private Market Alternatives

Private market investments, such as infrastructure, real estate, private credit, and private equity, benefit not only our clients, but can also directly drive positive impacts on the local communities where such investments are situated, as well as the individuals who work on the development, operation, and management of such investments.





BlackRock's Real Assets platform has established investment strategies that address the global market opportunities presented by the energy transition. As an early mover in renewable power investing, BlackRock manages one of the largest renewable power platforms in the world. BlackRock's Real Assets investment team manages approximately \$13.7 billion of invested and committed capital supporting over 350 wind, solar, and electric vehicles infrastructure projects globally.

Renewable Power Infrastructure. BlackRock believes the strategies managed by BlackRock's Global Infrastructure Equity teams, which are part of the broader Real Assets team, are well positioned to support the global energy transition, as the world moves from a power generation sector historically dominated by fossil fuels, to one that is expected to comprise over 60% renewables by 2050.²¹ BlackRock views this opportunity as the largest, single structural shift taking place in infrastructure globally, and one that has the potential to create \$10 trillion of investment opportunities in the next 3 years.

Beyond BlackRock's dedicated global renewable power strategies, BlackRock's wider infrastructure investment strategies continue to recognize the investment opportunities emerging from the global energy transition. This includes natural gas, which the team believes has a role as a transition and peaking fuel, as well as the opportunities generated by emerging decarbonization infrastructure, such as carbon capture and storage, battery storage, energy efficiency, hydrogen, and electrified transportation. Exhibit S.5 provides an example of impact data for a sample Global Renewable Power portfolio.

Exhibit S.5: Sample Global Renewable Power Portfolio

Impact Metrics Projected over Time Horizon of Portfolio ^a

		Dollarized Impact (US\$)	Impact Multiple ^b
6 Clean water and sanitation 	Water savings from renewable power generation 216,061,834m³ water reduced	\$ 650m ^c	0.24x
7 Affordable and clean energy 	Homes powered with clean energy 49,247,813 (lifetime) 1,834,094 (annual)	\$ 3,487m ^d	1.26x
13 Climate action 	Greenhouse gas emissions avoided 68,387,699 tons of CO₂ emissions avoided		
8 Decent work and economic growth 	Jobs supported 25,224 jobs	\$1,219m ^e	0.44x
Portfolio Total		\$ 5,357m	1.94x

Source: BlackRock, September 30, 2021.

a. Global Impact Investing Network ("GIIN")'s Impact Reporting and Investment Standards ("IRIS") metrics were leveraged to measure impact. For full set of SDG-aligned IRIS metrics, see: <https://iris.thegiin.org/document/iris-and-u.n.sustainable-development-goals/>.

b. Impact Multiple for each metric = Dollarized Impact (USD) / total capital invested (USD)

c. Dollarized water saved (USD) = Cost of water (USD/m³) * Total water saved over time horizon (m³).

d. Dollarized CO₂ emissions avoided (USD) = social cost of carbon (USD/metric ton) * total CO₂ emissions avoided over time horizon (metric tons CO₂). Social Cost of Carbon based on estimates from US Interagency Working Group on Social Cost of Greenhouse Gases, United States Government. Assuming 3% discount rate, adjusting 2007 dollars for inflation to obtain 2019 dollars. See https://19january2017snapshot.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf

e. Dollarized jobs created (USD) = Employee annual wages (USD) * time horizon (years)

Climate Finance Partnership (“CFP”). In 2021, BlackRock raised \$673 million for the CFP bringing together governments, philanthropies, and institutional investors to accelerate the flow of capital into climate infrastructure in emerging markets. BlackRock and the founding catalytic partners designed a fund structure that seeks to bring their collective skills and capabilities together to help mobilize private investment into emerging markets through a de-risking of the investment set for institutional investors. The structure seeks to provide a narrower standard deviation of outcomes for institutional investors alongside access to the fastest growing infrastructure segment, and markets, of the next 30 years. CFP investments will be targeted in Asia, Latin America, and Africa with a focus on the climate infrastructure sector including: (i) grid connected and/or distributed renewable power generation; (ii) energy efficiency in residential, commercial, and/or industrial sectors; (iii) transmission or energy storage solutions; and (iv) ultra-low emission or electrified transportation and mobility services.

Partnership with Temasek on Decarbonization. In 2021, BlackRock announced a partnership with Temasek to establish Decarbonization Partners, which plans to focus on investments that advance decarbonization solutions through late-stage venture capital and early growth private equity investment funds.²² The partnership will seek to make investments in early-stage growth companies targeting proven, next generation renewable and mobility technology including emerging fuel sources, grid solutions, battery storage, and electric and autonomous vehicle technologies, as well as in building and manufacturing sectors to drive decarbonization resource efficiencies, and material and process innovation. Together, BlackRock and Temasek have committed \$600 million to invest in companies and proven technologies that could reduce and potentially eliminate carbon emissions.

Cash Management

In 2019, BlackRock introduced a new fund series that seeks to offer the stability, liquidity, and yield potential of a money market fund while considering environmental criteria. Since launch, there has been significant global momentum behind this series of environmental thematic cash management funds and, these strategies comprise over \$19 billion in AUM. Available in USD, GBP, EUR, and CAD currencies, the new fund series considers select environmental criteria in addition to BlackRock’s standard credit risk assessment process for liquidity management portfolios. Since launching this series, BlackRock’s Cash Management team has used a portion of its net management fees from the fund in support of renewable energy projects through the purchase of carbon credits.

Growing the field of sustainable cash offerings is not simply a function of new product offerings. BlackRock also actively engages with issuers of short-term bonds to develop money market fund-eligible “green” securities. In late 2020, BlackRock’s Cash Management team invested on behalf of clients over \$585 million in short-term green asset-backed commercial paper developed by Credit Suisse to fund solar energy in the United States.²³ Opportunities such as this, via BlackRock’s global cash management funds, provide a source of short-term financing for sustainable projects – a crucial development towards advancing the sustainable cash management ecosystem and clearing the path for further environmentally-focused client investment opportunities.

Sustainability in Aladdin

Aladdin® is BlackRock's end-to-end investment management and operations platform. The Aladdin platform combines sophisticated risk analytics with portfolio management, trading, and operations tools in a single, unified environment.

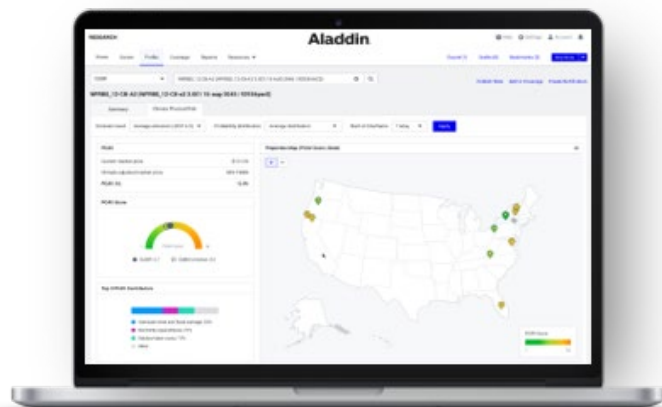
In 2020, BlackRock launched an initiative to build new sustainability-focused capabilities within Aladdin, with a vision to power the shift to sustainable investing by integrating sustainability data, analytics, and functionalities into investors' daily workflows to drive more informed investment and risk management.

In 2021, BlackRock followed up by creating the Aladdin Sustainability Lab and accelerating the build out of Aladdin Climate, a technology solution that seeks to translate climate risks and opportunities into investment terms so that investors can understand their exposure to climate-related risks and opportunities and take action in their portfolios. Aladdin Climate offers investors measures of both the physical and transition risks of climate change with climate-adjusted security and portfolio risk metrics. As a demonstration of innovative work in building Aladdin Climate, in 2021, BlackRock earned a Best Buy Side Tech Award.²⁴

Physical risk analytics quantify the impacts associated with extreme weather events and longer-term changes in the climate on investments. Through the data and quantitative analytics BlackRock acquired in September 2021 from Rhodium Group,²⁵ BlackRock has access to granular physical risk data – like temperature change and rising sea levels – at a hyper-localized level, as well as economic impact – for example, related to changes in energy and labor costs. Aladdin Climate is able to connect these climate hazards and their associated economic impact to the risk profile of a security.

Transition risk analytics quantify risks and opportunities arising from exposure to the transition to a lower-carbon economy through policy changes, new technologies, and market changes. This is complex to forecast because there are many potential transition paths the world could take. BlackRock acquired the Climate Change Scenario Model from Baringa Partners in June 2021, which in combination with Aladdin financial models, enables Aladdin Climate to deliver analytics on the effects of various transition pathways across different sectors. This allows Aladdin to develop more granular modeling of the impact of a transition to a net zero economy on specific investments. Both physical and transition risk capabilities are now available through Aladdin Climate.

Ultimately, Aladdin is seeking to fully support investment professionals in their integration of sustainability data and analytics into their daily workflows.



Risks, opportunities & scenario analysis

BlackRock recognizes the importance of effective identification, monitoring, and management of climate-related risks and opportunities across its global business. Before discussing the climate-related risks and opportunities that BlackRock has identified, it is important to revisit BlackRock's business model for context. BlackRock's exposure to climate-related risk is primarily indirect, with such risk primarily having the potential to affect future revenues and expenses, as opposed to assets and liabilities. This is because the assets that BlackRock manages belong to BlackRock's clients, not BlackRock. BlackRock typically earns investment management fees as a percentage of AUM. BlackRock also earns performance fees on certain portfolios relative to an agreed-upon benchmark or return hurdle. For some products, BlackRock also may earn securities lending revenue.

In addition, BlackRock offers its proprietary Aladdin investment system as well as risk management, outsourcing, advisory, and other technology services, to

institutional investors and wealth management intermediaries. Revenue for these services may be based on several criteria including value of positions, number of users, or accomplishment of specific deliverables.

Although BlackRock's global offices could be impacted by adverse physical climate events, the direct financial impact to BlackRock is limited, as BlackRock leases most of its facilities and sites are evaluated for physical risks during the selection process. Further, BlackRock maintains insurance, which helps to mitigate the potential financial impact of physical climate risks. Additionally, BlackRock maintains business continuity plans to facilitate the continuity of business in the event of a business disruption, which can include disruptions related to physical climate risks. Further discussion of business continuity management is included on page 33.

Exhibits S.6a and S.6b provide an overview of climate-related risks and opportunities that BlackRock has identified.

Exhibit S.6a: Summary of Key Climate-Related Opportunities

Opportunity	Description	Primary Anticipated Financial Impact*
Products & Services Investment Solutions	BlackRock's \$434 billion dedicated sustainable investment platform is well-positioned to meet increased demand as more clients focus on the impact of climate change on their portfolios. BlackRock's iShares® Sustainable ETF range is one of the largest in the industry, both in terms of AUM and the number of investment options provided to investors. BlackRock manages one of the largest renewable power infrastructure investment platforms in the world and is one of the largest investors in green bonds on behalf of clients.	Increased revenues
Products & Services Aladdin	There is increasing demand from Aladdin clients to understand their exposure to climate-related risks in their portfolios. Building on BlackRock's strength in risk management through the Aladdin® platform, BlackRock launched Aladdin Climate to address this need. Aladdin Climate translates climate risks and opportunities into investment terms so that investors can understand their exposure to the financial risks associated with climate change and take action in their portfolios.	Increased revenues
Resource Efficiency Operations	In its operations, BlackRock's sustainability strategy seeks to decouple company growth from its impact on the environment, while increasing the efficiency and resiliency of its operations. Finding innovative ways to run its operations with renewable energy, lower emissions, and reduce waste, among other efforts, reduces BlackRock's environmental impact.	Reduced Expenses

* There is no guarantee that the primary anticipated financial impact referenced above will be achieved.

Exhibit S.6b: Summary of Climate-related Risks*

Risk	Description	Primary Anticipated Financial Impact
Market	Climate-related risks could impact the value of BlackRock's AUM and reduce investment management revenue. BlackRock may be unable to develop new products and services and the development of new products and services may expose BlackRock to reputational harm, additional costs, or operational risk. Unsuccessful efforts to develop products to suit clients' climate-related needs could expose BlackRock to additional costs and/or cause revenue and earnings to decline. Changes in client preferences and/or changes to regulation to which its clients are subject could reduce demand for certain investment products offered by BlackRock.	Reduced Revenues
Reputation	Stakeholder concern and/or associated activism related to the impact of BlackRock's client portfolio holdings on the climate as well as BlackRock's stated views on climate-related matters could create reputational risk, reduce client and employee loyalty, or lead to shareholder divestment. ¹	Reduced revenues
Regulatory	New environmental and sustainability-related disclosure requirements, or regulations or taxes that apply to BlackRock's investment products or other aspects of BlackRock's operations could increase compliance costs or make BlackRock's products less desirable to clients. New laws or regulations could restrict or discourage the use of BlackRock's investment products and/or services by clients due to authorities' views on BlackRock's actions related to climate- and other sustainability-related matters.	Increased expenses or reduced revenues
Physical	BlackRock's global offices could be impacted by adverse climate events; however, the direct financial impact is limited, as BlackRock leases most of its facilities ² and sites are evaluated for physical risks during the selection process. Further, BlackRock maintains insurance, which helps to mitigate the potential financial impact of physical climate risks. Additionally, BlackRock maintains business continuity plans to facilitate the continuity of business in the event of a business disruption, which can include disruptions related to physical climate risks.	Increased expenses

* The inclusion of climate-related risks in Exhibit S.6b should not be construed as a characterization regarding materiality or financial impact of these risks. For a discussion of risks that BlackRock has determined could be financially material, please see Item 1A. Risk Factors in our Annual Report on Form 10-K, as well as our subsequent Form 10-Q filings.

Climate Scenario Analysis

The TCFD recommends that companies "consider how climate-related risks and opportunities may evolve and their potential business implications under different conditions."³ Scenario analysis is a technique used to inform assessments of the resilience of an organization's business or strategy to disruptions and/or the organization's ability to adapt to changes or uncertainties that might affect its performance. In the case of climate change, scenario analysis allows an organization to develop insight into how the physical and transition risks and opportunities arising from climate change might impact its business over time. While climate scenario analysis is not meant to predict the future, BlackRock believes it is a helpful tool to hone its understanding of climate-related risks and opportunities. Climate scenarios allow organizations to explore possible outcomes, the assumptions they depend upon, and the possible courses of action the organization can take to address climate-related risks and opportunities that may arise.

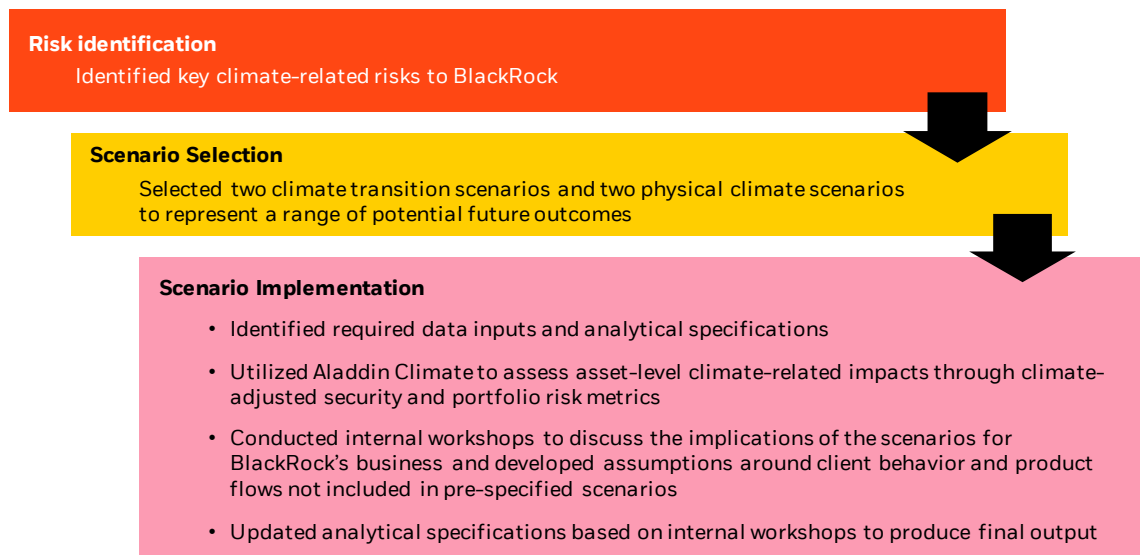
BlackRock conducted its first climate-related scenario analysis in 2020, which was published in [BlackRock's 2020 TCFD Report](#). In 2021, BlackRock sought to build on this foundational work by integrating Aladdin Climate⁴ analytics, as well as incorporating physical risk scenarios and additional transition risk scenarios into its analysis.

The analysis combined quantitative analytics from Aladdin Climate with qualitative assumptions about potential client reactions to each scenario to derive conclusions about potential impacts to BlackRock's business. Below is a description of the process through which BlackRock developed its 2021 climate scenario analysis.

Analysis Overview

BlackRock's 2021 enterprise-level climate scenario analysis entailed the key steps outlined in Exhibit S.7.

Exhibit S.7: Steps of BlackRock's Enterprise-level Climate Scenario Analysis



Risk Identification

BlackRock evaluated climate-related risks relevant to BlackRock's business referencing guidance provided by the TCFD. Four key climate-related risks were identified, as shown in Exhibit S.6b. Importantly, as discussed on pages 23-24, BlackRock's exposure to climate-related risk is primarily indirect, affecting potential future revenue and expenses, rather than the assets and liabilities on BlackRock's balance sheet. As such, BlackRock's enterprise-level climate scenario analysis focused on assessing climate-related impacts to the valuation of AUM and the associated management fees generated by that AUM. The analysis also sought to evaluate potential client reactions to the different scenarios.

As highlighted in Exhibit S.6b, market-related climate risk is one of the key risks to which BlackRock's future profitability may be exposed. More specifically, fluctuations in asset values due to climate-related risks could lead to a reduction in BlackRock's investment management revenues as a result of: (i) a decline in the value of AUM; (ii) the withdrawal of funds from BlackRock's products; or (iii) the rebalancing or reallocating of assets into different BlackRock products. As such, the primary focus of BlackRock's climate scenario analysis was on the potential impact that physical and transition risks may have on the firm's revenue under different climate scenarios. Key drivers of outcomes under the various scenarios were expected client investment flows into and out of BlackRock investment products as well as expected capital market returns under each scenario.

As mentioned previously, climate scenario analysis is not meant to predict the future, but rather to guide companies' understanding of how these risks might affect their businesses over time. All the aforementioned facets of climate-related market risk could be influenced by both transition and physical climate risks to markets.

Scenario Selection

For the 2021 climate scenario analysis, BlackRock sought to include a range of physical and transition risk scenarios in its analysis. Exhibit S.8 provides an overview of the selected scenarios.

Transition Risk. Climate-related transition risks arise from exposure to the transition to a lower-carbon economy through policy, legal, technology, and market changes. Depending on the nature, speed, and focus of these changes, the global climate transition will create meaningful shifts within sectors and across the entire economy.

Transition risk scenarios assess different forward-looking economic, policy, and technology pathways, resulting in projected values for energy supply and demand, GHG emissions, and energy prices and costs. Each scenario takes a different shape depending on assumptions made on the pace of technology adoption and when climate policy changes are made.

A key unknown within the context of the global climate transition is the degree of orderliness and the timing under which the transition will unfold. As such, BlackRock sought to understand the potential implications of a disorderly and delayed unfolding of the

transition relative to a more gradual and coordinated outcome. To represent this distinction, BlackRock selected two climate transition scenarios developed by the Network for Greening the Financial System (“NGFS”): (1) Orderly – Net Zero 2050; and (2) Disorderly – Delayed Transition. These transition pathways use three detailed integrated assessment models (“IAMs”)⁵ given the range of climate sensitivities. BlackRock elected to utilize the NGFS scenarios for transition risk given the increasing adoption by global regulators and the granularity of data provided across a range of plausible scenarios.

Physical Risk. Physical risks of climate change arise from the direct impacts of a changing climate in the short- and long-term. Such risks can include the risks of extreme weather events and rising global temperatures impacting operations, leading to impairment of infrastructure and facilities, as well as disrupting supply chains.⁶ With respect to physical climate risk, uncertainty surrounds the degree of warming that may occur and the associated implications for the planet’s climate over the long term. As such, BlackRock sought to review physical risk scenarios with a range of temperature outcomes. Two scenarios developed by the Integrated Assessment Modeling Consortium (“IAMC”)⁷ and used in the Intergovernmental Panel on Climate Change (“IPCC”)'s Fifth Assessment Report were selected for the analysis: (1) RCP 4.5 – some climate action; and (2) RCP 8.5 – no climate action. RCP 4.5 represents an intermediate scenario in which emissions peak around 2040 then decline, and global mean surface temperature change likely exceeds 2.4°C. RCP 8.5 represents a very high emissions pathway where global emissions continue to grow through the rest of the century and is considered a worst-case scenario for the physical effects of climate change.⁸

Scenario Implementation

For each scenario, BlackRock developed analytical specifications to consider the potential impact to BlackRock’s AUM and profit margin. As BlackRock derives revenues from management fees earned on AUM, key elements of the specification included:

- BlackRock’s AUM broken down by asset class and investment style;
- Management fees, establishing the management fee level for each analyzed asset class, investment style, and sector-level exposure;
- Aladdin Climate analytics to assess asset-level climate-related impacts to BlackRock’s AUM through climate-adjusted security and portfolio risk metrics;
- Market return assumptions based on BlackRock Investment Institute Capital Market Assumptions; and
- Assumptions around client behavior in response to the respective scenario derived from internal workshops with various subject-matter experts across the firm

A key advancement to BlackRock’s 2021 enterprise-level climate scenario analysis was the use of Aladdin Climate to assess asset-level climate-related impacts. As such, following is a discussion of the Aladdin Climate analytics that were utilized for this analysis. Exhibit S.9 provides an overview of Aladdin Climate’s approach to quantifying transition and physical climate risks.

Exhibit S.8: New Climate Scenarios in 2021 Analysis

	Orderly – Net Zero 2050	Disorderly – Delayed Transition	RCP 4.5 – Some Climate Action	RCP 8.5 – No Climate Action
Description	Stringent climate policies and innovation, reaching global net zero CO ₂ emissions around 2050	Climate policies are delayed, which forces a very aggressive policy response starting in 2030	Emissions peak around 2040 then decline	Global emissions grow through the rest of the century
Expected Temperature Rise *	1.5°C	1.8°C	2.4°C ** (1.7°C to 3.2°C)	4.3°C (3.2°C to 5.4°C)
Transition or Physical	Transition	Transition	Physical	Physical
Source	NGFS	NGFS	IPCC	IPCC

** Expected temperature rise by 2081-2100 relative to 1850-1900. Numbers in parenthesis correspond to the likely range

** The physical risk models in Aladdin Climate were developed utilizing the Fifth Assessment Report of the IPCC

Sources: IPCC, 2014: Climate Change 2014. Chapter 2. Available at: <https://www.ipcc.ch/report/ar5/syr/> Network for the Greening of Financial Services (“NGFS”). “NGFS Scenarios Portal”. Available at: <https://www.ngfs.net/ngfs-scenarios-portal/explore/>.

Exhibit S.9: Aladdin Climate Approach to Modelling Climate Risk

01

Select a Climate Scenario

Assess expected risks under forward-looking climate scenarios

02

Assess the sector & Economic Impact

Convert climate projections into forecasts of sector & economic impact

03

Map to Company & Asset Information

Map sector impacts and geolocations to individual companies and assets

04

Translate into Financial Terms

Translate into financial risks and temperature metrics at security and portfolio level

Source: BlackRock, October 2021. Notes: Produced using BlackRock's Aladdin Climate approach for modeling climate risk for individual securities and portfolios.

Conclusions

The results of the analysis indicate that, despite a lack of direct exposure to climate-related risks, BlackRock's AUM and associated revenues and profit margin could be affected by different climate scenarios. Every scenario reviewed highlighted plausible challenges that BlackRock and its clients may face over time. The wide range of scenarios also reflect the range of potential outcomes with respect to climate change and the vast amount of uncertainty with which businesses, like BlackRock's, need to contend.

While these challenges are profound on many levels, the range of possibilities in our view suggests that BlackRock's diversified platform and commitment to providing choice to its clients creates flexibility in its business model that is likely to support the firm's resilience as it adapts to the impacts of both physical and transition climate risks.

Over the long-term, we would expect both transition scenarios to lead to better outcomes for BlackRock and its clients, than either physical risk scenario, where global warming is not limited to well below 2 degrees Celsius. This is because in our analysis, we assume that if a significant low carbon transition occurs, this will reduce the potential magnitude of physical climate risks over the long-term. This in turn is beneficial to economic growth and stability. However, in the short- and medium-term, the transition scenarios create risks that must be managed including through continued efforts to adapt BlackRock's business to account for the global transition to a low carbon economy.

The Orderly – Net Zero 2050 scenario is most likely to affect BlackRock in the short- to medium- term, as decisive policy actions will need to be effectuated in the very near-term to remain on this trajectory. The Disorderly – Delayed Transition scenario could also affect BlackRock with a key challenge presented through the need to adapt to a potentially uncoordinated or disjointed regulatory environment across jurisdictions. Under this scenario, BlackRock would need to be mindful that disparate regulations across jurisdictions could affect client demand for different products in different jurisdictions.

We believe that both physical risk scenarios would create significant risks for BlackRock over the long-term. The magnitude of the physical effects may not only reduce asset values and therefore BlackRock's AUM and revenue, but it could also potentially reduce capital markets investment by BlackRock's clients who would likely need to divert their capital to address losses to physical property and other challenges created by very significant negative physical climate outcomes.

Limitations

Scenario analysis is a dynamic exercise and iterative process that is meant to help envision potential future outcomes, rather than predict the future. This climate scenario analysis exercise provided a structured way to evaluate climate-related risks and opportunities – both in a quantitative and qualitative manner, and it opened a wider discussion as to how physical and transition risks could affect BlackRock’s business. As with any scenario analysis, there are limiting factors worth highlighting.

First, predicting climate change and quantifying its impacts on the economy is inherently complex – in how the impacts of climate change will impact asset values, how companies will react to regulatory and market pressures, as well as how BlackRock’s clients will react and adapt to these impacts.

Further, assumptions about client responses to each scenario are a significant driver of outcomes in this analysis but are also inherently difficult to predict with any certainty. The assumptions regarding client responses to the scenarios were developed based on the qualitative judgement of subject-matter experts across the firm. As such, there is no guarantee that clients will respond in the manner assumed. This introduces inherent uncertainty into the results established by the analysis.

As such, we reiterate that this discussion is intended to highlight the tools and analytical specifications BlackRock established to refine its understanding of potential climate-related risks and opportunities; it is not meant to predict the future.

Operations

In its operations, BlackRock pursues a sustainability strategy that seeks to decouple company growth from the firm's impact on the environment, while increasing the efficiency and resiliency of BlackRock's operations. Finding innovative ways to power BlackRock's business with clean energy, lower the firm's emissions, and reduce waste, among other efforts, reduces BlackRock's environmental impact.

BlackRock's environmental sustainability strategy is primarily focused on reducing emissions. In 2020, BlackRock reached carbon neutrality in its operations.¹ BlackRock reached this milestone by employing energy efficiency strategies, achieving its 100% renewable electricity goal,² and compensating for those emissions the firm could not otherwise eliminate through the purchase of carbon credits.

Progress to Date

Exhibit S.10 shows the relationship between BlackRock's revenue, headcount, and Scope 1 and 2 (location-based) emissions as an illustration of BlackRock's progress towards decoupling its emissions from its growth.

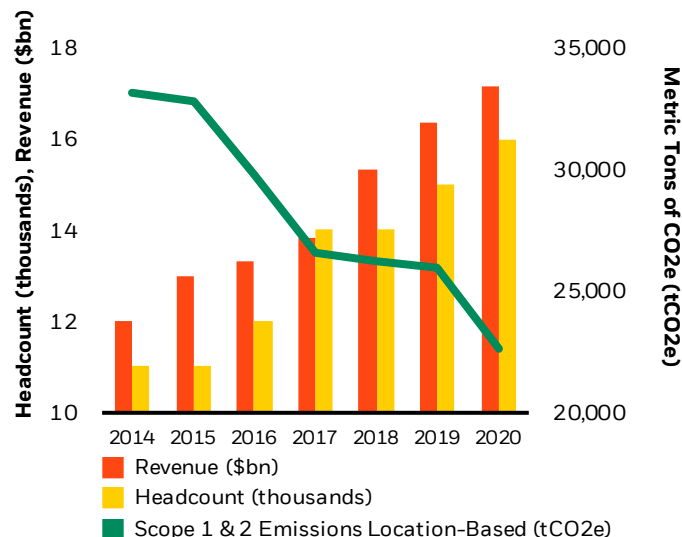
As of year-end 2020, BlackRock had reduced Scope 1 and 2 (location-based) emissions by 32%³ from a 2014 baseline despite a 47% increase in headcount and a 37% increase in square footage over the same period. By achieving our 100% renewable electricity goal, BlackRock has also reduced Scope 2 (market-based) emissions related to electricity to zero. Several Scope 3 categories declined significantly in 2020, most notably, business travel. However, the steepness of these declines is primarily attributable to changes to our operating model arising from the COVID-19 pandemic.

Evolving to Science-Aligned Emissions Reduction Targets

Building on the progress made in reducing our emissions to date, BlackRock has established new science-aligned emissions reduction targets using a 2019 baseline, as shown below:

- 67% reduction of Scope 1 and 2 emissions by 2030
- 40% reduction in Scope 3 business travel emissions by 2030
- Have suppliers representing 67% of our emissions (estimated based on spend) set science-aligned targets by 2025

Exhibit S.10: Revenue and Headcount Growth vs. Greenhouse Gas Emissions



Source: BlackRock as of December 31, 2020.

BlackRock is committed to achieving its science-aligned emissions reduction targets and strives to operate as efficiently as possible and by leveraging less carbon intensive energies, such as renewable electricity and sustainable aviation fuel ("SAF"). Below is a discussion of some of the larger sources of emissions from BlackRock's operations and the efforts BlackRock is undertaking to reduce those emissions.

Business Travel

When the world is not experiencing a global pandemic, business travel by employees is a significant source of emissions within BlackRock's operations. BlackRock recognizes the environmental impact of travel, but also believes that its culture and connections with clients and other stakeholders can be enhanced by the personal connections that come from face-to-face meetings. At the same time, the pandemic has taught employees that many meetings can happen effectively in a virtual environment. As BlackRock has invested in these virtual capabilities, which were central to its resilience during the pandemic,⁴ BlackRock encourages use of audio-visual capabilities to reduce travel. In addition, BlackRock is working to incorporate SAF, the leading decarbonization technology in aviation, into its emissions reduction strategy to both help scale SAF's adoption more broadly and to reduce its own GHG emissions.

Electricity

Since BlackRock began tracking electricity use in 2014, the square footage of its operations has expanded by 37% and its headcount has increased by 47%, yet BlackRock’s electricity usage has not exceeded 2014 levels in either 2019⁵ or 2020.

BlackRock accomplished this through the consolidation of its data centers, retrofitting for LED lighting, redesigning its office space use, and adjusting its heat, ventilation, and air conditioning systems to correlate to occupancy more closely. BlackRock has also worked to make its data centers among the most efficient in the industry by designing, building, and operating them to maximize efficient use of energy, water, and materials.⁶

BlackRock has made it a priority to not only become more energy efficient, but also to ensure that the energy we purchase comes from clean sources, wherever possible. BlackRock’s operations leverage renewable electricity, a zero-carbon energy, which reduces electricity-related emissions. In June 2020, BlackRock achieved its 100% renewable electricity goal to match the same amount of renewable electricity as the electricity that BlackRock’s global operations consume annually. This goal is achieved by contracting directly for renewable electricity, wherever possible (approximately 50%), and purchasing environmental attribute certificates (“EACs”)⁷ when BlackRock does not have operational control to procure its own electricity or where renewable electricity is not available.

Carbon Credits

As part of BlackRock’s efforts to mitigate its environmental impact while on the journey to net zero, BlackRock purchases carbon credits to compensate for the emissions from its operations that cannot currently be eliminated. This is a near-term mitigation strategy until BlackRock can further eliminate emissions or there is a more permanent nature-based or engineered technology solution. While BlackRock does not rely on carbon credits to reach its emissions reduction targets, carbon credits are a key supplemental and transitional strategy. Exhibit S.11 provides a description of the carbon credits projects BlackRock supported to compensate for its 2020 operational emissions.

To further enhance BlackRock’s carbon credits strategy, BlackRock joined the LEAF Coalition, a public-private initiative designed to help reverse the trend of deforestation, one of the leading contributors to climate change, and to accelerate climate action by providing results-based finance to countries committed to protecting their tropical forests and the billions of people depending on them and to support sustainable development. Large-scale, jurisdictional tropical forest protection provides an opportunity to slow and ultimately halt climate change. BlackRock joins this initiative alongside the governments of Norway, the United Kingdom, the United States, and a group of private sector participants, which helps to diversify the initiative across sector and geography.

Exhibit S.11: Carbon Credits Projects for 2020 Offsets

Projects	Description
Keo Seima, Arbor Day Foundation	<ul style="list-style-type: none"> • Located in Cambodia • A leader in safeguarding biodiversity and supporting the cultural diversity of the indigenous Bunong community, helping them to secure the first Indigenous Community Land Title in Cambodia while also serving as the national REDD+⁸ model for Cambodia • Supports sustainable development by helping indigenous communities secure tenure; providing agriculture training; supporting alternative sustainable livelihoods, such as ecotourism; and supporting education
The International Small Group and Tree Planting (“TIST”) Program	<ul style="list-style-type: none"> • BlackRock supported TIST projects in India, Kenya, and Uganda • A combined reforestation and sustainable development program carried out by subsistence farmers with the goals of combatting poverty, deforestation, and climate change by improving their farms and planting trees • Farmers utilize an innovative, community led approach to tree planting, developing tools to responsibly care for their local environment, local biodiversity, the global climate, and the well-being of their families and communities • Farmers plant trees on their land and retain ownership of the trees and their products, while receiving training from TIST and a share of the carbon revenues • Carbon credit sales generate participant income and provide project funding to address agriculture, HIV/AIDS, and nutritional and fuel challenges

Green Team Network

The Green Team Network (“GTN”) is BlackRock’s community of conservation-minded employees who steward sustainability initiatives in our offices, homes, and communities. GTN members are critical to bringing about a more sustainable culture at BlackRock. 48 BlackRock offices host GTN chapters with participation from approximately 3,000 employees. GTN initiatives include efforts to reduce single-use plastic, reduce paper use and waste, plant trees, and support biodiversity in communities. GTN is also focused on educating employees about sustainability topics.

Examples of GTN initiatives in 2020 and 2021 include:

- The “Do One Thing” campaign focused on actions employees can take to reduce their impact on the environment, including adjusting thermostat and water heater settings, unplugging unused electronics, getting educated on environmental issues, and reducing meat consumption.
- GTN championed an educational campaign highlighting ways employees can reduce their plastic use.
- The “Net Zero Challenge” encouraged employees to measure their own emissions and commit to actions to reduce them.

Social Impact

Social Impact is the firm’s charitable arm that seeks to advance equitable and sustainable economies and communities. Through The BlackRock Foundation (the “Foundation”), BlackRock funds and partners with organizations globally that help people, beyond the reach of the firm’s core business, to build financial security and participate in the transition to a low-carbon future. Distinct from the Foundation’s grantmaking portfolios, BlackRock also runs employee engagement programs to equip employees with the tools and opportunities to be drivers of local impact in their communities. Please see [BlackRock’s 2020 Sustainability Disclosure](#) for an overview of BlackRock’s Social Impact program.

Below are examples of the Foundation’s climate-related philanthropic commitments and programs:

- **Breakthrough Energy Catalyst.** In September 2021, the Foundation committed \$100 million to Breakthrough Energy Catalyst, a program within the larger Breakthrough Energy network founded by Bill Gates. Catalyst is a new model for how businesses, governments, and private philanthropy can help build the foundation of the net zero economy.⁹ Catalyst identifies technologies at critical junctures where investments and blended financing can reduce the “green premium” – the difference in cost between a carbon emitting technology and its cleaner alternative. Catalyst’s initial focus will be to help speed the development and commercialization of four clean energy technologies: direct air capture, green hydrogen, sustainable aviation fuel, and long-duration energy storage. BlackRock will also help Catalyst convene additional partners and provide its investment expertise as the program deploys its blended financing around the world.
- **Generation.** In February 2021, the Foundation committed to support an equitable economic recovery from Covid-19 through a \$13 million grant to Generation, a nonprofit that supports jobseekers across fourteen countries with the skills to access sustainable employment. BlackRock is funding and partnering with Generation’s country operations in the US, UK, France, Italy, Spain, and India to help them scale their programs and place many more people into growth sectors that are compatible with a sustainable, low-carbon economy, including green jobs opportunities. These jobs, identified by Generation, will help program graduates launch stable careers and ultimately support their communities in the transition to a green net zero economy.
- **Echoing Green.** BlackRock partners with social impact accelerator Echoing Green to create opportunities for BlackRock employees to lend their skills and brainpower to Echoing Green’s social entrepreneur fellows focused on renewable energy access, sustainable agriculture, and other climate solutions. In 2021, BlackRock engaged in both long-term (7-week) and short-term (90-minute) projects where employees are paired with a climate-focused Echoing Green Fellow and work in teams to tackle a strategic challenge the organization is facing. Echoing Green has invested over \$8.1 million in climate change solutions that reach more than 40 countries. Their Fellows have launched over 100 organizations that help global communities mitigate and adapt to climate change.¹⁰

Industry Engagement & Public Policy

BlackRock supports the creation of regulatory regimes that increase financial market transparency, protect investors, and facilitate responsible growth of capital markets, while preserving consumer choice and properly balancing benefits versus implementation costs. BlackRock's Global Public Policy Group ("GPPG") coordinates and engages on important policy and regulatory dialogue. BlackRock's approach to public policy engagement, political activities, and trade associations is described in [BlackRock's 2020 Sustainability Disclosure](#).

As it relates to climate and sustainability-related policy matters, BlackRock strives to engage constructively in the global dialogue through participation in collaborative industry initiatives as well as through engagement with regulators around the world.

Collaborative Initiatives

BlackRock and its employees participate in collaborative initiatives, examples of which are listed in Exhibit S.12, to share technical expertise and investment research regarding climate-related risks and the transition to a net zero economy, as well as to support the development of consistent industry standards and approaches to climate-related disclosures and net zero portfolio alignment.

In 2021, BlackRock joined GFANZ, an organization that brings together over 450 financial firms across 45 countries, collectively responsible for more than \$130

trillion dollars in assets to help transform the global financial system to accelerate and finance the investment in a net zero economy. BlackRock co-leads the GFANZ Sectoral Pathways workstream with a network of UN and COP advisers, expert climate NGOs, and firms across the GFANZ member base with the goal of helping to mobilize and accelerate platforms being developed in hard-to-abate sectors focusing on aviation, steel, and oil & gas. BlackRock also joined NZAMI in 2021, which is an international group of asset managers committed to supporting investing aligned with net zero emissions by 2050 or sooner.

Public Policy

BlackRock is a proponent of TCFD-aligned reporting, supplemented by industry-specific metrics, in addition to supporting convergence of the private sector reporting frameworks and standards to establish a globally consistent approach to climate and sustainability reporting more broadly under a common governance framework.

BlackRock advocates for consistent reporting standards for corporate issuers on climate and other sustainability-related disclosures. In 2021, BlackRock provided comments in support of several policy efforts to encourage climate-related reporting globally, including in comments submitted to the Hong Kong Securities and Futures Commission ("SFC") and the US Securities and Exchange Commission ("SEC").¹¹

BlackRock has long supported international efforts toward a single, globally consistent set of baseline sustainability reporting standards upon which different jurisdictions can build.¹² Last year, BlackRock publicly stated its view that the optimal outcome and the one most likely to succeed is the one proposed by the International Financial Reporting Standards ("IFRS") Foundation¹³ that would establish a sustainability standards board working with the existing initiatives and building upon their efforts. We were pleased that the IFRS Foundation announced in November 2021 the formation of a new International Sustainability Standards Board ("ISSB") to develop a comprehensive global baseline of high-quality sustainability disclosure standards to meet investors' needs.¹⁴ BlackRock supports the formation of the ISSB and believes this will help drive progress toward the convergence needed to improve the quality of information available to investors and other stakeholders, while reducing the reporting burden on companies.

Exhibit S.12: Select Examples of Climate-Related Collaborative Initiatives

- Climate Bonds Initiative
- Energy Transitions Commission
- Glasgow Financial Alliance for Net Zero
- Green Bond Principles
- Institutional Investors Group on Climate Change
- Net Zero Asset Managers Initiative
- Partnership for Carbon Accounting Financials
- Portfolio Alignment Team
- Taskforce on Climate-related Financial Disclosures
- Taskforce on Nature-related Financial Disclosures
- Taskforce on Scaling Voluntary Carbon Markets

Note the above list is not exhaustive and is provided for informational purposes.

Risk Management

Disclose how the organization identifies, assesses, and manages climate-related risks.

An integral part of BlackRock's identity is the core belief that rigorous risk management is critical to the delivery of high-quality asset management services.

BlackRock employs a three-lines of defense approach to managing risks in client portfolios. BlackRock's investment teams and business management are the primary risk owners, or first line of defense. Portfolio managers and research analysts are responsible for evaluating the material environmental (as well as social and governance) risks and opportunities for an industry or company just as they consider other potential economic issues related to their investments. Examples of climate-related risks taken into account include: risks from regulatory change or litigation and exposure to physical impacts such as flooding or other extreme weather events or changes in temperature. In addition, BlackRock has developed a framework to monitor exposure to carbon intensive assets to support the understanding and management of potential climate-related risks.

BlackRock's risk management function, RQA, serves as a key part of the second line of defense in BlackRock's risk management framework. RQA partners with portfolio teams and business management to help them understand, monitor, manage, and report risks, including climate and other ESG-related risks. In addition to producing quantitative analysis to support BlackRock in managing its fiduciary and enterprise risks, RQA works with portfolio managers to help ensure that portfolio risks are consistent across mandates, reflect current investment themes within particular strategies, and are consistent with clients' reasonable expectations. RQA evaluates material ESG risks, including climate risk, during its regular reviews with portfolio managers to provide oversight of portfolio managers' consideration of these risks in their investment processes. This helps to ensure that such risks are understood, deliberate, diversified, and scaled, and are consistent with client objectives.

BSI partners with RQA to review and monitor ESG risk exposure at the investment group level, providing rigor and consistency across our diverse investment platform. RQA, BSI and BlackRock Solutions Portfolio Analytics Group work

with investment leadership to create ESG risk dashboards and standard reporting practices, leveraging the capabilities of the Aladdin platform.

The third line of defense, BlackRock's Internal Audit function, operates as an assurance function. The mandate of Internal Audit is to objectively assess the adequacy and effectiveness of BlackRock's internal control environment to improve risk management, control, and governance processes.

Business Continuity Risk Management

BlackRock is committed to providing high-quality, resilient services to its clients. Significant resources and effort are dedicated to the Business Continuity Management ("BCM") and technology Disaster Recovery programs, which are designed to meet or exceed legal and regulatory obligations in the locations in which BlackRock operates.

BlackRock maintains business continuity plans to facilitate the continuity of business in the event of a business disruption. BlackRock's executive management provides oversight and governance to the firm's BCM program, supported by the BCM team, which manages the program.

BlackRock's Enterprise Resilience Team conducts assessments of physical locations to create individual site risk models and plans for BlackRock offices and data centers that are then incorporated into BlackRock's risk management framework and reported on a monthly basis to the firm's risk management committees. These risk models consider acute climate-related risks, including severe weather, wildfires, and flooding, as well as long-term risks such as climate change.

BlackRock uses predictive weather modeling to assess risks from natural disasters across multiple phases, including site selection, facility design processes, and routine facility management operations. Evaluation criteria include scale and type of energy use, GHG emissions, local climate, facility type, location, occupancy status, and potential financial impact.

Metrics & Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Getting to net zero starts with measuring where we are today. We expect this of the companies in which we invest on behalf of our clients, and we recognize the importance of leading by example in our own disclosure. That is why a critical component of BlackRock's net zero commitment is focused on enhancing transparency at the fund and firm level.

BlackRock utilizes four main categories of climate-related metrics, as follows:

- **Business Indicators.** Exhibit M.1 provides business indicator metrics across sustainable investing, ESG integration, and investment stewardship.
- **Corporate GHG Emissions.** BlackRock reports Scope 1, Scope 2, and relevant categories of Scope 3 emissions. BlackRock obtains third-party verification for its Scopes 1 and 2 emissions, as well as for most Scope 3 categories.¹ Exhibit M.2 provides progress towards BlackRock's 2014-2020 environmental sustainability goals. Exhibit M.3 provides BlackRock's corporate GHG emissions, in addition to select intensity and energy metrics. As discussed below, BlackRock believes that Scope 3 (Investments) should refer to emissions from investments made with assets that are owned by the company, rather than those managed by an asset manager on behalf of external asset owners. As such, the Scope 3 (Investments) figure reported in Exhibit M.3 represents emissions from BlackRock's seed and co-investment portfolios (where data is available), which reflect investment of BlackRock's own capital. Emissions associated with BlackRock's AUM in corporate and real estate securities are reported separately as described in the following bullet.

- **Firm-Level Climate Metrics for BlackRock's AUM.** This TCFD report marks the first time that BlackRock is reporting preliminary estimates reflecting the absolute emissions and the carbon footprint² associated with BlackRock's AUM in corporate securities and real estate. Preliminary estimates of these metrics are provided in Exhibit M.6.

- **Product-Level Sustainability Characteristics.** BlackRock manages thousands of portfolios, each with their own investment strategy, guidelines, and constraints. As an asset manager, one of the most important components of the transparency BlackRock provides is with respect to the Sustainability Characteristics of investment products offered to clients.

Sustainability Characteristics provide investors with specific non-traditional metrics. Alongside other metrics and information, these enable investors to evaluate funds on certain ESG characteristics. Sustainability Characteristics do not provide an indication of current or future performance nor do they represent the potential risk and reward profile of a fund. They are provided for transparency and for information purposes only. Sustainability Characteristics should not be considered solely or in isolation, but instead are one type of information that investors may wish to consider when assessing a fund.

BlackRock makes Sustainability Characteristics publicly available for publicly-offered funds that it manages, including ETFs and mutual funds (where reliable data is available). As of December 2021, one or more climate-related metrics are publicly available for funds totaling approximately \$2.8 trillion in AUM (note holdings value as of September 30, 2021).

Business Indicators

Exhibit M.1: Business Indicators

Business Indicators	2018	2019	2020	Q3 2021
Sustainable Investing AUM (\$ billions) ^a	\$52 ^b	\$107 ^b	\$199	\$434
Flows into Sustainable Products (\$ billions)	-	\$34	\$68	\$64
Investment Stewardship Team Size	36	45	50	67
Total Investment Stewardship Engagements ^{c d}	2,049	2,050	3,501	2,689
Total Investment Stewardship Engagements on Environment-Related Issues (# of engagements) ^{c d}	301	316	1,939	1,645

a. The dedicated sustainable investment platform includes: 1) strategies with an explicit ESG objective which may include a targeted quantifiable ESG outcome ("Broad ESG"); 2) strategies that capitalize on long-term transformative industry or societal trends through pursuit of specific E, S, or G themes ("Thematic"); 3) strategies where investments are made with the intention to generate positive measurable social and environmental impact alongside financial return ("Impact") and; 4) screened strategies that incorporate BlackRock's baseline screens ("Dedicated Screened"). BlackRock's definition of impact investments is in line with the International Finance Corporation's Operating Principles for Impact Management.

b. 2018 and 2019 figures do not include Dedicated Screened strategies.

c. BlackRock counts only direct interaction as an engagement. BIS also write letters to raise companies' awareness of thematic issues on which BIS are focused or changes in policy, but this outreach is considered distinct from engagement as it is difficult to monitor the effectiveness of letter writing without direct interaction and therefore not included in the figures shown in this row. See BIS's [2020 Annual Calendar Year report](https://www.blackrock.com/corporate/literature/publication/blk-annual-stewardship-report-2020-calendar-year.pdf). Available at: <https://www.blackrock.com/corporate/literature/publication/blk-annual-stewardship-report-2020-calendar-year.pdf>

d. In 2020, BlackRock Investment Stewardship switched their reporting to calendar year reporting from proxy year reporting. Note that the Investment Stewardship Engagement data for 2018 and 2019 is for the respective proxy year (July 1 2017 – June 30 2018, and July 1 2018 – June 30 2019). Investment Stewardship Engagement data for 2020 and 2021 is for the respective calendar year (January 1 2020 – December 31 2020, and January 1 2021 – September 30 2021).

Corporate GHG Emissions & Targets

Exhibit M.2 provides BlackRock's progress towards select environmental sustainability goals. Exhibit M.3 provides BlackRock's corporate GHG emissions covering Scope 1, Scope 2, and relevant categories of Scope 3. For a discussion of BlackRock's strategy to achieve these goals, please see Operations on pages 29 and 30. Note that data provided in this section is for the year-ended 2020.

Exhibit M.2: Progress on 2020 Environmental Targets for Corporate Operations

Category	Goals	2019 Progress ^a	2020 Progress ^b	2020 Goal ^c
Emissions	Reduce facility location-based GHG emissions (electricity, stationary combustion, and refrigerants) per full-time employee	44%	54%	45%
Renewable Energy	Match same amount of renewable electricity (in MWh) as the electricity that our global operations, including data centers consume annually	100%	100%	100%
Electricity	Reduce absolute global electricity consumption	1%	11% ^d	18%
Air Travel Emissions	Reduce air travel emissions per employee	21%	88% ^e	20%
Paper	Reduce global office paper consumption	44%	78% ^f	25% ^g
Waste	Increase global waste diversion from landfill	48%	7% ^f	75% ^g

a. As of December 31, 2019 unless otherwise noted.

b. As of December 31, 2020 unless otherwise noted. Note that results in 2020 were affected by changes to BlackRock's operating model as a result of the COVID-19 pandemic.

c. 2020 goals use a 2014 baseline unless otherwise noted.

d. This goal was not achieved, in part, due to a significant increase in square footage from our initial baseline. It is worth noting that electricity use per square foot declined by 34% from 2014 to 2020.

e. This figure is not representative of travel in a typical year, as results were largely due to the lack of employee travel during the COVID-19 pandemic.

f. Paper reduction and waste diversion metrics were significantly impacted by low occupancy of offices during the COVID-19 pandemic as employees primarily worked from home.

g. Uses a 2017 baseline

Note on 2020 Data and COVID-19

Like most companies, the COVID-19 pandemic had a significant impact on BlackRock's operating model in 2020, with the majority of employees working from home for three-quarters of the year. Although BlackRock's global offices remained fully open and operational throughout the pandemic, employee travel and other normal in-office activity levels were curtailed. As a result, 2020 data and emissions reductions are not necessarily representative of improvements in the management of our carbon footprint.

Exhibit M.3: Corporate GHG Emissions

(in metric tons of CO ₂ e)		2014	2019	2020	% change ^a
Scope 1 and 2					
	Scope 1	5,756	5,589	3,278	(43%)
	Scope 2 (Location-Based) ^b	27,409	23,126 ^c	19,363	(29%)
	Scope 2 (Market-Based) ^d Electricity	27,409	0	0	(100%)
	Scope 2 (Market-Based) Purchased Heat	-	2,757 ^e	1,011	(63%) ^f
	Total Scope 1 and Scope 2 (Location-Based)	33,165	28,715	22,641	(32%)
	Total Scope 1 and Scope 2 (Market-Based)	33,165	8,346 ^c	4,289	(87%)
Scope 3					
(in metric tons of CO ₂ e)		2017	2019	2020	% change ^g
Upstream	1. Purchased Goods & Services ^h	-	249,356 ⁱ	214,957	(14%) ^f
	2. Capital Goods	-	8,015 ⁱ	2,337	(71%) ^f
	3. Fuel- and Energy-Related Activities (Location-Based) ^j	5,809	7,865	6,825	17%
	3. Fuel- and Energy-Related Activities (Market-Based) ^j	2,718	3,093	2,465	(9%)
	4. Transportation & Distribution ("T&D") ^k	-	1,709	973	(43%) ^f
	5. Waste Generated in Operations ^l	818	1,162	379	(54%)
	6. Business Travel ^m	39,238	39,116	6,606	(83%)
	7. Employee Commuting (employee shuttles in India) ⁿ	611	1,161	26	(96%)
	8. Leased Assets (Location-Based) ^o	596	777	928	56%
	8. Leased Assets (Market-Based) ^o	-	0	0	-
Downstream	9. Transportation & Distribution	Not Relevant			
	10. Processing of Sold Products	Not Relevant			
	11. Use of Sold Products	Not Relevant			
	12. End-of-Life Treatment of Sold Products	Not Relevant			
	13. Leased Assets	Not Relevant			
	14. Franchises	Not Relevant			
	15. Investments ^p (BlackRock balance sheet only – see Exhibit M.6 for AUM-related metrics)	-	-	121,372	-
Emissions Intensity Metrics					
Carbon Intensity (Scope 1 & Scope 2 tCO ₂ e / \$1 million revenue)		-	2.0	1.4	-
Facilities tCO ₂ e per Employee ^q		-	1.8	1.3	-
Scope 3 Business Travel per Employee ^r		2.8	2.4	0.4	(86%)
Electricity					
Total Electricity Consumed (MWh)		66,097	70,605	64,225	(3%)
Percent Renewable Electricity ^s		86%	100%	100%	16%

Footnotes to Exhibits M.3

- a. Percentage change versus 2014 baseline unless otherwise specified. Calculations are using exact figures, so percentage change calculations using rounded figures may not tie exactly.
- b. As defined by the GHG Protocol: "A location-based method reflects the average emissions intensity of grids on which energy consumption occurs."
- c. Scope 2 figures includes both electricity and purchased heat beginning in 2019. Please also note that the purchased heat component of emissions reported for 2019 was not subject to the LRQA limited assurance review.
- d. As defined by the GHG Protocol: "A market-based method reflects emissions from electricity that companies have purposefully chosen. It derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims."
- e. Purchased heat emissions were not subject to LRQA's limited assurance review in 2019.
- f. Percent change versus 2019 baseline. Calculations are using exact figures, so percentage change calculations using the rounded figures above may not tie exactly.
- g. Percentage change versus 2017 baseline unless otherwise specified. Calculations are using exact figures, so percentage change calculations using the rounded figures above may not tie exactly.
- h. Calculations are estimated based on spend for each supplier unless sufficient data is available.
- i. Restated from 2020 TCFD due to the adoption of the Environmental Protection Agency's ("EPA's") methodology. More information available at: <https://www.epa.gov/ghgreporting>. Figures were not subject to LRQA's limited assurance review in 2019.
- j. Fuel and energy-related activities that are not included in Scope 1 & 2.
- k. T&D figures are included in Fuel- and Energy-Related Activities (Location-Based) for 2017. T&D 2019 figure was not subject to LRQA's limited assurance review in 2019.
- l. This figure is estimated. To calculate this figure, BlackRock collected waste data from representative sites. Total emissions are then extrapolated based on the total headcount of the company.
- m. Business travel includes air travel, car rentals, car service, and rail. Travel was significantly curtailed in 2020 due to the COVID-19 pandemic.
- n. Employee commuting emissions are calculated from shuttles transporting employees from their home to work at our India offices. This is not a comprehensive measure of emissions from employee commuting in locations outside of India.
- o. Upstream leased assets emissions are for unmanned data centers and serviced office suites.
- p. This is not a comprehensive measure of Scope 3, Category 15 ("S3C15"). Reported emissions for S3C15 is limited to corporate securities (listed equities, corporate bonds, and associated derivatives) in BlackRock's seed portfolios and co-investments. Data coverage represents approximately 61% of BlackRock's seed and co-investment portfolios. Excludes strategic investments, hedge investments, carried interest, and seed and co-investment portfolio investments in non-corporate fixed income, commodities, derivatives not linked to corporate issuers, and alternatives. BlackRock will seek to incorporate additional asset classes as data and methodologies become available. PCAF Data Quality Score is between 2 and 3. Methodology and Limitations are discussed on pages 42 - 45.
- q. Facilities tCO_{2e} refers to Scope 1 and 2 Location-Based emissions. Denominator includes full time employees and contingent workers. Since setting the similar 2020 target referenced (page 36) which included only electricity, stationary combustion, and refrigerants in Facilities tCO_{2e}, BlackRock has since expanded reporting this metric to include natural gas, diesel fuel, stationary combustion, refrigerants, location-based electricity and purchased heat in this progress metric.
- r. Denominator includes full time employees and contingent workers.
- s. Figures include BlackRock's use of EACs.

Scope 3 (Investments)

Category 15 of Scope 3, “Investments” (hereafter, “Scope 3 Investments” or “S3C15”), is an important category of emissions that should be considered by financial institutions. A key question that arises for asset managers, like BlackRock, is the treatment of investments that are managed on behalf of external clients, who are the asset owners. The Corporate GHG Protocol (“GHGP”) distinguishes asset owners from asset managers under S3C15 in that it requires asset owners to report emissions associated with their investments, whereas asset managers are not required to report emissions associated with the assets they manage for external clients under S3C15 (though they may optionally do so).³

While the GHGP draws this distinction between asset owners and asset managers, it does not fully address reporting under S3C15 by asset managers. Moreover, were asset managers to optionally report emissions associated with investments managed on behalf of their external clients under S3C15, there would be 100% double counting with their clients’ (the asset owners’) S3C15. BlackRock believes this is a problematic outcome that would lead to confusion and reduce the comparability and usability of S3C15 data across financial institutions.

The lack of clarity in the existing GHGP guidance is also likely to lead to underreporting of emissions associated with asset management, particularly in instances where financial institutions manage investments of their own capital in addition to investments on behalf of other asset owners.

BlackRock encourages the development of a level playing field for S3C15 reporting across financial institutions operating in the same lines of business, regardless of corporate structure, and by reflecting within that framework the unique nature of different types of financial activities.⁴ In BlackRock’s view, S3C15 should be limited to on balance sheet loans and owned investments. GHG emissions associated with asset management on behalf of external clients should be reported separately.

This view has been reflected within the reporting provided in this document. As such, S3C15 in Exhibit M.3, which covers BlackRock’s corporate GHG emissions, reflects emissions associated with BlackRock’s seed investments and co-investments portfolios,⁵ which are made with BlackRock’s own capital. Note that the emissions reported reflect emissions only for a subset of BlackRock’s seed and co-investments portfolios that are invested in listed equity, corporate fixed income, and associated derivatives.⁶ Reported S3C15 excludes emissions from strategic investments, hedge investments, carried interest, and seed and co-investment portfolio investments in non-corporate securities, commodities, derivatives not linked to corporate issuers, and alternatives. These assets have been excluded from this year’s reporting due to insufficient data and methodologies available to report this information. BlackRock intends to incorporate additional asset classes as data and methodologies become available over time.

As discussed in the following section, preliminary estimates of emissions associated with BlackRock AUM in corporate securities and real estate are provided in Exhibit M.6. The following section provides a detailed description of the analysis performed to develop preliminary estimates of emissions associated with BlackRock’s AUM (where sufficient data and methodologies were available). The same methodologies were applied to calculate S3C15 for BlackRock’s seed and co-investment portfolios.

Firm-Level Climate Metrics for BlackRock's AUM

BlackRock is an asset manager. Asset managers act as agents investing assets that belong to their clients on their clients' behalf. This TCFD report marks the first time that BlackRock is reporting preliminary estimates reflecting the absolute emissions and the carbon footprint⁷ associated with the investments BlackRock makes on behalf of its clients in corporate securities and real estate (where data is available). Several advancements have enabled BlackRock's ability to produce these estimates, namely:

- (i) Corporate issuers are increasingly reporting their GHG emissions through voluntary and regulatory initiatives;
- (ii) BlackRock's commitment to put sustainability at the center of the Aladdin platform has resulted in the incorporation of a breadth of climate-related metrics and data into BlackRock's analytical systems; and
- (iii) Industry efforts have formed to facilitate the development of methodologies for calculating climate-related and portfolio alignment metrics and setting net zero-aligned targets.

Following is a discussion of the methodology, results, and limitations of an analysis performed in 2021 to compute preliminary estimates of the absolute emissions and carbon footprint associated with BlackRock's AUM in corporate securities (listed equities, corporate bonds, and associated derivatives),⁸ and real estate. These asset classes were included in the analysis because there is consensus around the methodologies for attributing emissions to investors and sufficient reported or estimated data were available. As of year-end 2020, collectively, investments in the assets included in this analysis represent more than 65% of BlackRock's AUM. As consensus around methodologies and available data for additional asset classes builds, BlackRock will seek to incorporate those asset classes into future TCFD reports.

Metrics Selection

There is currently little consensus on how to measure portfolio alignment to net zero and/or exposure to the climate transition.⁹ BlackRock undertook an exercise in 2021 to evaluate existing climate-related and portfolio alignment metrics and methodologies, with the goal of reporting aggregate statistics (where sufficient data and methodologies exist) for BlackRock's AUM. The objective was not only to provide information to stakeholders, but also to advance the dialogue within the asset management industry regarding the uses and limitations of existing approaches. One conclusion from the exercise was that there is no single metric that provides full insight into a portfolio's trajectory or exposure as it relates to the global transition to net zero. Moreover, some metrics are more appropriate for disclosure at the portfolio or fund level, and others are more appropriately reported at a firm or institution level. Exhibit M.4 shows a summary of key climate-related and portfolio alignment metrics. Each of these metrics comes with its own uses and limitations, as shown in Exhibit M.4.

For BlackRock's TCFD firm-level reporting, absolute emissions and carbon footprint were selected. Absolute emissions in this context refers to proportionate exposure to an investee company's or asset's emissions (based on % ownership). While the absolute emissions metric has the benefit of intellectual consistency with other GHG emissions metrics reported at the corporate level,¹⁰ a drawback of absolute emissions is that it does not account for the size of the investor. In other words, absolute emissions are likely to grow if the portfolio or AUM grows and vice versa if the portfolio shrinks. To account for this limitation, carbon footprint, which refers to absolute emissions divided by AUM (rounded to the millions), was also estimated. Carbon footprint normalizes emissions for the size of the portfolio. Global consistency in entity level reporting was also a factor in the selection of these metrics, as both absolute emissions and carbon footprint are metrics that will be required to be reported by asset management entities based in the European Union under the SFDR.¹¹

Further discussion of metrics utilized for fund-level reporting is provided on page 46.

Exhibit M.4: Pros & Cons of Key Climate-Related and Portfolio Alignment Metrics & Incorporation into BlackRock Reporting

	Backward-looking Exposure			Forward-looking Metrics	
	Green Exposure	Absolute Emissions	Emissions Intensity	Implied Temperature Rise	Portfolio Coverage
Unit	\$ or %	tCO2e	tCO2e per unit	Degrees Celsius	%
What it measures	Proportionate exposure to “green” assets or revenues	Proportionate exposure to investee GHG emissions	Emissions exposure per unit of output or investment (i.e., revenue, AUM, MWh)	Temperature rise implied by holdings	Portion of AUM in investees meeting criteria, e.g. having science-based targets
Pros	<ul style="list-style-type: none"> • Captures importance of financing the solutions that support the transition 	<ul style="list-style-type: none"> • Standard data inputs • Direct connection to net zero goals • Industry standard (PCAF) 	<ul style="list-style-type: none"> • Standard data inputs • Normalizes for size, allowing comparability 	<ul style="list-style-type: none"> • Intuitive connection to net zero goals 	<ul style="list-style-type: none"> • Clearly defined • Simple to track / communicate • Industry standard (SBTi)
Cons	<ul style="list-style-type: none"> • Lack of consensus on definition of “green” • Limited data availability 	<ul style="list-style-type: none"> • Doesn’t account for size • Market movement can create noise • Incomplete data / asset class coverage 	<ul style="list-style-type: none"> • Market movements can create noise • Incomplete data / asset class coverage 	<ul style="list-style-type: none"> • Complex, requires multiple assumptions • Methodologies vary 	<ul style="list-style-type: none"> • Target data not yet standardized • No guarantee investees achieve targets
Current BlackRock Use of Metrics	-	Firm-level: Absolute Emissions of AUM (corporates, real estate)	Firm-Level: Carbon Footprint of AUM (tCO2e / \$ million AUM) Fund-level weighted average carbon intensity (“WACI”)*	Fund-level: Implied Temperature Rise (“ITR”)*	-

*Note that WACI and ITR are not reported for all BlackRock funds. The metrics that are reported vary by asset class and strategy in addition to available data and methodologies. For examples of these disclosures on BlackRock index mutual funds and ETFs, please visit www.ishares.com and www.blackrock.com.

Methodology

PCAF is a consortium of financial institutions working to develop an open source GHG emissions accounting standard to establish a harmonized approach to assessing and reporting GHG emissions associated with lending and investment activities.¹² PCAF published the Global GHG Accounting & Reporting Standard for the Financial Industry (“PCAF Standard”), which BlackRock referenced as a starting point for estimating absolute emissions associated with BlackRock’s AUM.¹³ However, the PCAF Standard does not address all asset classes and has a number of methodological issues still to be explored. Further, the PCAF Standard was developed primarily for use by banks and, therefore, has not yet fully addressed the asset management and portfolio context. As such, BlackRock made several methodological decisions that are not included in the PCAF Standard, which are discussed below. Exhibit M.5 highlights key methodological choices.

Corporates. For corporate securities (listed equity, corporate bonds, and associated derivatives), emissions were apportioned based on the proportion of the company’s enterprise value including cash (“EVIC”) represented by BlackRock’s investments on behalf of its clients. Issuer-level Scope 1 and 2 emissions data were obtained from MSCI, as were issuer-level EVIC data. MSCI utilizes reported data from companies where emissions are disclosed. Where companies do not disclose their emissions, MSCI applies proprietary methods to estimate emissions.

Treatment of derivatives and short positions when calculating exposure to each issuer was an important consideration for a subset of portfolios in the analysis. Neither derivatives nor short positions are addressed by the PCAF Standard. Further, there are different views within the industry as to the application of short positions and derivatives in the emissions context. On the one hand, long exposures through physical securities are the most direct representation of engagement rights with companies. On the other hand, omitting derivatives and short positions could misrepresent the economic exposure of the portfolio to a given issuer. After reviewing the pros and cons of each approach, we concluded that metrics that best approximate economic exposure are most appropriate because they align more closely to how financial metrics are reported. As such, the preliminary estimates reported herein reflect net exposure to each corporate issuer including exposure obtained through derivatives. These methodological choices had a minimal impact on absolute emissions and carbon footprint estimates for the firm given that the majority of BlackRock’s AUM is held in long-only index portfolios where short positions and derivatives are not a significant component of the investment strategy. For individual portfolios with more significant use of derivatives or short positions, it may be appropriate to report long and short positions separately.

Another consideration was the treatment of emissions associated with green bonds. Green bonds are bonds whose funding is provided exclusively to projects that are aligned with the International Capital Markets Association (“ICMA”) Green Bond Principles.¹⁴ BlackRock believes that investors should be incentivized to include green bond investment in their portfolios and, therefore, qualifying green bonds should have the benefit of not carrying the emissions of the issuer when calculating portfolio emissions. As such, green bond holdings were excluded when calculating exposure to each issuer. However, all other exposures to those issuers were included.¹⁵

Another key challenge to estimating absolute emissions was obtaining emissions data that is contemporaneous with holdings data. This issue arises because companies typically report their emissions for a given year well after year-end. In addition, there is typically a lag between the date when emissions data is reported and the date when that data is incorporated into the MSCI dataset. As such, holdings values measured at year-end will not be contemporaneous with emissions data that is available at that time. To mitigate the impact of this timing mismatch to the extent possible, this analysis utilizes different dates for: (i) the date at which exposure to each issuer is measured (“holdings value analysis date”); and (ii) the date on which the latest available emissions data is provisioned by a third-party data provider (“emissions effective date”). Whereas the holdings analysis date is December 31 of each reporting year; the emissions effective date is September 30 of the following year. As discussed in the limitations

Exhibit M.5: GHG Emissions from AUM & Carbon Footprint - Methodological Highlights

Emissions Included	Scope 1 & 2
Emissions Excluded	Scope 3*
Asset Classes Included	<ul style="list-style-type: none"> • Corporates (listed equities, corporate bonds, and associated derivatives) • Physical real estate
Asset Classes Excluded	<ul style="list-style-type: none"> • Non-corporate fixed income • Commodities • Alternatives other than real estate • Derivatives not linked to corporate issuers
Data Sources	MSCI (corporates)
Standards Referenced	PCAF (with certain adjustments)

*PCAF calls for Scope 3 emissions of certain sectors to be reported beginning in 2021. This analysis is for 2019 and 2020 data. Further consideration must be given to double counting implications of including Scope 3 emissions.

section below, while this approach is unlikely to address all instances of lagged emissions data, it increases the likelihood that emissions and holdings are measured as of the same or similar time periods. Additionally, this lag in the availability of emissions data is also the reason why the figures in Exhibit M.6 are reported as of year-end 2020 as opposed to a more recent date.

Real Estate. For directly invested, physical real estate, BlackRock has long-established data programs to collate, measure, and report key sustainability metrics, including GHG emissions, at the individual property-level and aggregated portfolio-level. Operational Scope 1 and 2 emissions for each property were apportioned to BlackRock based on the proportionate investments in each property represented by BlackRock’s clients’ assets.

Results & Discussion

Exhibit M.6 provides preliminary estimates of absolute emissions and carbon footprint for BlackRock’s AUM in corporate securities and real estate (where data was available). Estimated absolute emissions were 330.7 million tons CO₂e in 2020, down from 344.3 million tons CO₂e in the prior year. The carbon footprint in 2020 was 58 tons of CO₂e per million dollars of AUM, down from 73 tons per million dollars of AUM in 2019. The limitations of the estimates should be reviewed carefully (discussed in following section).

The analysis indicates that the emissions associated with the investments that BlackRock makes on behalf of its clients are generally aligned with the state of global emissions. The scope of the analysis was corporate

Exhibit M.6: GHG Emissions Associated with BlackRock’s Assets Under Management ^a

	2019 ^b	2020 ^c
Absolute Emissions (million tCO ₂ e)	344.3	330.7
Carbon Footprint (tCO ₂ e / \$ million AUM)	73	58

Data above represents unaudited, preliminary estimates. Not comprehensive – figures reflect coverage of over 65% of AUM. There are several limitations associated with these figures. Please review results in conjunction with the limitations section provided on page 44.

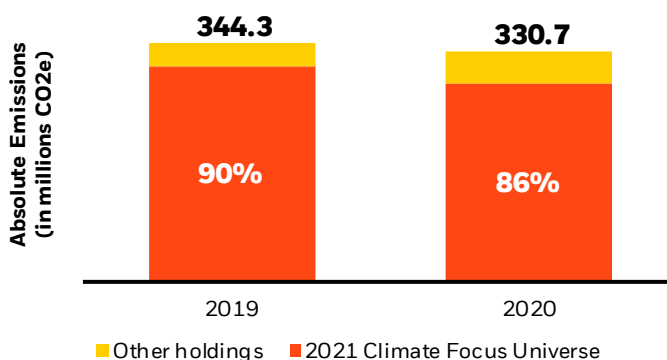
- a) Includes corporate securities (listed equity, corporate bonds, associated derivatives) and physical real estate (where data was available). Excludes all other AUM.
- b) Holdings value analysis date is as of December 31, 2019. The emissions effective date, on which emissions and EVIC data is reported and provisioned by third party data providers is September 30, 2020.
- c) Holdings value analysis date is as of December 31, 2020. The emissions effective date, on which emissions and EVIC data is reported and provisioned by third party data providers is September 30, 2021.

securities and real estate (where data was available), representing approximately \$5.7 trillion of BlackRock’s AUM (over 65% of BlackRock’s total AUM as of December 31, 2020), which equates to just over 1% of global financial assets.¹⁶ The absolute emissions estimates shown in Exhibit M.6 that are associated with that AUM represent just under 1% of total annual global emissions.¹⁷

These results comport with our intuition about our business given that the majority of the investments BlackRock makes on behalf of its clients are held in index funds. Index funds provide numerous benefits to millions of people around the world by democratizing access to diversified and professionally managed portfolios. However, index funds, by their very nature, are meant to reflect the underlying markets in which they invest, which would suggest that the magnitude of emissions from BlackRock’s investments on behalf of clients would be consistent with global aggregate emissions across the markets in which BlackRock invests on behalf of clients.

Another key finding from the analysis, which is shown in Exhibit M.7, is that the companies identified in BIS’ Climate Focus Universe comprised 86% of total absolute emissions in 2020 and 90% in 2019, despite representing approximately 40% of the assets included in this emissions analysis and only approximately 25% of BlackRock’s total AUM in both years. As previously discussed, BIS’ Climate Focus Universe represents over 1,000 carbon-intensive public companies with which BIS is focusing its engagement and voting on climate-related issues. For companies in the Climate Focus Universe, BIS reviews their climate action plans and disclosures – voting against management when BIS believes that accelerated progress towards climate risk mitigation is necessary to drive sustainable, long-term financial returns for clients.

Exhibit M.7: BlackRock 2021 Climate Focus Universe Proportion of Absolute Emissions



Data above represents unaudited, preliminary estimates. Not comprehensive – figures reflect coverage of over 65% of AUM. There are several limitations associated with these figures. Please review results in conjunction with the limitations section provided on page 44.

Limitations

Given the emerging nature of methodologies and data used to estimate absolute emissions and carbon footprint, there are significant limitations to consider as discussed below.

Data Quality

Accurate computation of climate-related metrics in investment portfolios requires high quality security-level data including GHG emissions data for underlying investee companies. Many companies are measuring and publicly reporting their emissions, which facilitates the type of high-quality data that investors need to effectively calculate climate-related portfolio metrics. However, many companies have not yet begun their emissions reporting journey. Recognizing that deferring measurement and reporting until 100% reported data is available would impede the progress BlackRock could make in the near-term in providing transparency to stakeholders, estimates are used, when necessary. However, using estimated data reduces the reliability of the metrics since estimated emissions may not accurately reflect the actual emissions of any given company.

The PCAF Standard recognizes that data availability is a challenge for GHG emissions reporting by financial institutions and provides a methodology for computing a Data Quality Score (ranging from “1” – highest quality to “5” – lowest quality). The PCAF Data Quality Score is designed to provide insight on the level of estimation involved with disclosure of financed emissions. An overview of the PCAF Data Quality score is provided in Exhibit M.8.

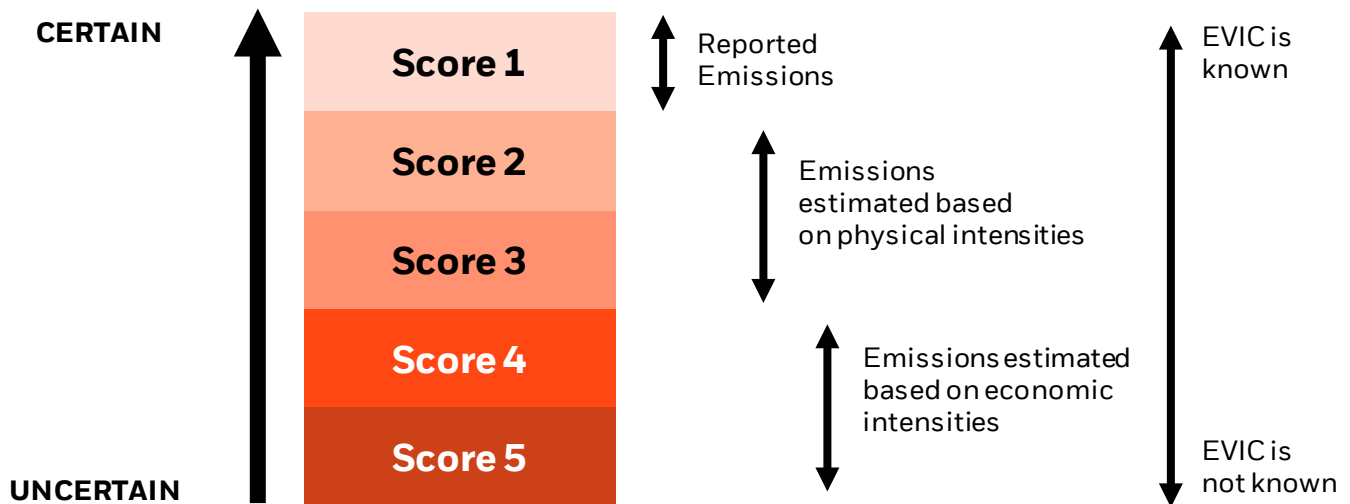
As discussed in the methodology section, BlackRock leveraged MSCI data for emissions and EVIC for the corporate securities included in the analysis. In the case that companies in MSCI’s dataset have not reported their emissions, MSCI uses proprietary methods to estimate the company’s emissions.

To derive a PCAF Data Quality Score, PCAF recommends calculating an average of data scores for individual securities weighted by assets invested in each security. BlackRock sought to estimate a PCAF Data Quality Score for this analysis by mapping fields provided by MSCI that reflect the methodology used for producing emissions data as well as mapping our own data on physical real estate to the PCAF categories. Based on this approach, the PCAF Data Quality Score is between 2 and 3. This means that a significant portion of the underlying data used in the analysis is reported, but a portion is estimated. Increasing regulatory and voluntary climate-related reporting by companies will likely increase the availability of reported data over time, which should improve data quality.

Lagged Data

ESG data reporting by companies is often produced on a lag relative to financial data – as most ESG data disclosure and reporting takes place on an annual basis and requires significant time to produce. In addition, there may be a lag between the time when data is disclosed by companies and when it is incorporated into the dataset produced by MSCI. While BlackRock sought to mitigate the impact of lagged data on the estimates by varying the holdings analysis date and the emissions effective date, emissions data included in the analysis for a given holding each year may reflect GHG emissions from prior year(s) for at least a subset of holdings included in the analysis.

Exhibit M.8: PCAF Data Quality Scores Overview



Note that the above figure is oversimplified for illustrative purposes. Please refer to PCAF Standard for additional detail.

Backward-Looking

While BlackRock believes that absolute emissions and carbon footprint are an appropriate starting point for its firm-level reporting of climate-related and portfolio alignment metrics, it is worth noting that these metrics are backward-looking in that they only consider past emissions of investees. They do not provide an assessment of how those investees may evolve their businesses to reduce their emissions in the future based on transition plans, emissions reduction targets, and goals. Other metrics, such as ITR and Portfolio Coverage, are better placed to incorporate this forward-looking component. While these metrics have not been included in BlackRock's 2021 TCFD reporting, they may be incorporated into future TCFD reports.

AUM Coverage

As discussed in the methodology section, several asset classes in which BlackRock makes investments on behalf of its clients are not included in the preliminary estimates in this TCFD report – either because insufficient data was available or because methodologies to compute GHG emissions associated with an asset class have not yet been established. Due to this, the figures provided in Exhibit M.6 represent roughly 65% of BlackRock's 2020 AUM which excludes nearly 35% of BlackRock's AUM from the analysis. BlackRock will seek to incorporate additional asset classes into its TCFD reporting over time, which will naturally increase the amount of reported absolute emissions.

COVID-19

Global GHG emissions were curtailed during 2020 due to the COVID-19 pandemic. According to the International Energy Agency, global emissions dropped by nearly 2 billion metric tons in 2020 as a result of the pandemic.¹⁸ As such, emissions incorporated into the preliminary estimates for 2020 may reflect anomalous reductions in emissions that are unrelated to operating efficiencies and, therefore, may not be sustained as the world returns to normalcy post-COVID.

Sensitivity to Market Volatility

The PCAF Standard has been very helpful in setting a foundation for reporting absolute emissions and by default, carbon footprint, which measures absolute emissions per unit of AUM. However, as a relatively new and incomplete standard, the metrics defined by PCAF have limitations that have yet to be addressed. One of those limitations is the sensitivity of absolute emissions and carbon footprint to fluctuations in asset values – particularly, though not

exclusively, due to changes in EVIC from one period to the next. In other words, as financial institutions use the metrics defined by PCAF to demonstrate progress towards decarbonization of their portfolios, market volatility can introduce noise that reduces comparability from one year to the next. Other factors that drive changes in absolute emissions are: (i) changes to emissions of the underlying investee companies, and (ii) changes to asset allocation. Sensitivity to market volatility can obscure which of these factors is driving the changes in the metric year-over-year. As such, the figures provided for 2019 and 2020 are not directly comparable. Users should proceed with caution when drawing conclusions based on changes from one year to the next.

It is highly likely that a significant portion of the decline in absolute emissions and carbon footprint observed in Exhibit M.6 from 2019 versus 2020 is due to changes to EVIC. A preliminary analysis of the changes in carbon footprint for major indices saw 45%-60% of the decline between 2019 and 2020 attributable to changes in EVIC. In other words, it is likely that a significant portion of the reduction in carbon footprint and absolute emissions observed between 2019 and 2020 is due to changes in EVIC rather than other factors that have a greater relationship to actions taken on the part of investee companies, BlackRock's clients, or BlackRock's portfolio managers.

BlackRock is developing a methodology to isolate the sources of changes to absolute emissions and carbon footprint as well as to adjust the metrics to reduce the impact of market volatility. In addition, BlackRock is working with industry partners to establish industry consensus on how to address this limitation. BlackRock intends to incorporate this work into future TCFD reporting.

Next Steps

While the estimates included herein reflect a significant step forward in BlackRock's journey to provide greater transparency to its stakeholders, the firm recognizes the importance of continuing to refine this analysis – in particular working to improve data quality, increase data coverage, and to establish methodologies for asset classes where methodologies do not exist today.

In addition, BlackRock will continue to work on refinements to the metrics, such as those to address the sensitivity of both metrics to market volatility.

With these necessary refinements and expansions in mind, we fully expect that the metrics will be updated through time.

Sustainability Characteristics for Client Reporting

BlackRock provides publicly available data on Sustainability Characteristics of investment products offered to clients. At the fund level, BlackRock publishes climate-related metrics including WACI and ITR, on product websites for ETFs and mutual funds where reliable data are available.

WACI measures a portfolio's exposure to carbon intensive companies by representing the estimated GHG emissions per \$1 million in sales across the fund's holdings. WACI is one of the metrics recommended for client reporting in the TCFD Supplemental Guidance for Asset Managers.¹⁹ Investors can use WACI as a comparable and standardized metric to assess the average emissions output associated with a specific portfolio.

In December 2021, BlackRock began publishing ITR on product websites for ETFs and index mutual funds (where reliable data are available). The ITR metric incorporates both current emissions intensity and forward-looking assessments of projected emissions to produce a temperature indication, expressed in half-degree Celsius bands. ITR can help shed light on whether indexes and portfolios are progressing toward the temperature goal of the Paris Agreement, which calls for countries to limit global warming to well below 2°C, and ideally 1.5°C. For further information, please see [Lighting the path to a low-carbon economy | iShares – BlackRock](#).

Sustainability Characteristics provide investors with specific non-traditional metrics. Alongside other metrics and information, these enable investors to evaluate funds on certain ESG characteristics. Sustainability Characteristics do not provide an indication of current or future performance nor do they represent the potential risk and reward profile of a fund. They are provided for transparency and for information purposes only. Sustainability Characteristics should not be considered solely or in isolation, but instead are one type of information that investors may wish to consider when assessing a fund.

As of December 2021, one or more climate-related metrics are publicly available for funds totaling approximately \$2.8 trillion in AUM.²⁰ For more information, please see www.ishares.com.

A large portion of the assets that BlackRock manages are held in index portfolios. These products provide numerous benefits to our clients by democratizing access to diversified and professionally managed portfolios for millions of investors around the world. Index funds, by their very nature, are meant to reflect the underlying markets in which they invest. As such, the WACI and ITR of index funds reflect the underlying markets in which those funds invest. For illustrative purposes, Exhibit M.9 provides examples of the WACI and ITR of several representative index portfolios.

Exhibit M.9: Illustrative Examples of WACI and ITR for Representative Index Portfolios

Index Portfolio Description	WACI (tCO ₂ e/US \$ million sales)	ITR (degrees Celsius)
US Equities - Large Cap	134.1 (99.05%)	2.5-3 °C (99.03%)
European Equities - Large/Mid Cap	128.8 (99.02%)	2.5-3 °C (98.58%)
Global Equities - Large/Mid Cap	152.9 (99.13%)	2.5-3 °C (98.95%)
Emerging Markets - Large/Mid Cap	331.7 (98.55%)	>3 °C (98.11%)
US Equities - Large/Mid Cap Growth	32.7 (98.70%)	2-2.5 °C (98.65%)
US Equities - High Dividend	238.5 (98.58%)	2-2.5 °C (98.54%)
US Equities - Quality	96.8 (99.74%)	2-2.5 °C (99.74%)

Numbers in parentheses represent data coverage for each representative portfolio.

For disclosures of WACI and ITR for additional funds managed by BlackRock, please visit www.ishares.com. The WACI and ITR measures used for these portfolios are attributable to MSCI. Percentage figures represent data coverage. iShares anticipates that the numbers seen here will change over time. Updates will be reflected on www.ishares.com.

TCFD Addendum

Net Zero Asset Manager Initiative (“NZAMI”) Disclosure

This document (published on April 14, 2022) represents an addendum to BlackRock’s 2021 TCFD Report, originally published December 23, 2021.

As an investor and supporter of the TCFD Recommendations, BlackRock holds itself to high standards for providing transparency to its stakeholders. To this end, BlackRock is publicly disclosing information that has been submitted to the Net Zero Asset Managers Initiative (NZAMI).

Discussion

At BlackRock, we believe that climate risk is investment risk, and we strive to help our clients make the most informed choices to improve their investment outcomes. We believe investors and issuers that take a forward-looking position with respect to climate risk and its implications for the energy transition will generate better long-term financial outcomes. Climate risk and the economic opportunities from the transition are a top concern for our clients and a rapidly growing share of them have already committed to net zero portfolios.

Because an orderly transition to net zero by 2050 would benefit the global economy and our clients in aggregate, we believe that by 2030, all issuers would benefit from developing and implementing robust transition plans. However, the Russian invasion of Ukraine is a stark reminder of the challenges of a just and orderly energy transition. These events may drive short-term increases in demand for fossil fuels and associated emissions in some regions, while potentially accelerating investments into renewable energy in Europe and other regions where energy security goals are aligned with decarbonization.

Our clients’ portfolios – which reflect the global economy – cannot reach net zero without sustained and consistent government policy, accelerated technological breakthroughs, and substantial adaptation in corporate business models. These portfolios will reflect the regulatory and legislative choices governments make to balance the need for reliable and affordable energy, and orderly decarbonization.

BlackRock’s role in the transition is as a fiduciary to our clients. Our role is to help them navigate investment risks and opportunities, not to engineer a specific decarbonization outcome in the real economy. The money we manage is not our own – it belongs to our clients, many of whom make their own asset allocation and portfolio construction decisions.

We focus on providing our clients with data and analytics, investment insights and thought leadership about the impacts of the energy transition on their portfolios. We offer a range of products and strategies from which they can choose to achieve their desired outcomes, including strategies designed to help clients navigate or accelerate the net-zero transition. We also engage with the companies in which our clients are invested to promote sound corporate governance and business models necessary to building and sustaining value over time. And in October 2021, we began expanding the opportunity for certain clients to directly participate in proxy voting decisions.

We expect to remain long-term investors in carbon-intensive companies, because they play crucial roles in the economy and in a successful transition. The success of these companies will be critical to the global economy, the world’s low carbon ambitions and our clients’ long-term financial goals. We do not pursue broad divestment from sectors and industries as a policy – particularly as a portfolio fully divested of such sectors in the near term may be at odds with enabling an orderly transition to a net-zero economy in the long term.

Currently, approximately 25% of BlackRock assets under management (“AUM”) with respect to corporate and sovereign issuers is invested for clients in issuers with science-based targets or equivalent. **As the transition proceeds and issuers and asset owners continue to position themselves in front of it, we anticipate that by 2030, at least 75% of BlackRock corporate and sovereign assets managed on behalf of clients will be invested in issuers with science-based targets or equivalent.**

Methodology

NZAMI has recommended that asset managers utilize one of three frameworks related to the initiative: (i) Institutional Investors Group on Climate Change Paris Aligned Investment Initiative Net Zero Investment Framework (“NZIF”); (ii) Net Zero Asset Owners Initiative Target Setting Protocol (“NZAO”); and (iii) Science-Based Targets Initiative Financial Sector Science-Based Targets Guidance (“SBTi”). Each of these frameworks approach portfolio alignment differently, reflecting the current lack of consensus regarding the definition and measurement of net zero-aligned portfolios. Moreover, none of these frameworks were designed specifically to address the asset manager use-case. As such, while each framework presented a helpful starting point for discussion, each also had significant limitations that needed to be considered carefully.

After a review of the recommended frameworks, it was determined that the SBTi Portfolio Coverage Approach was most applicable to BlackRock’s business model and approach to engagement on material climate-related considerations within portfolios managed on behalf of our clients.

As such, this approach was adopted, with several modifications as described below.

The SBTi sets forth guidance for a number of different asset classes, and permits users of the framework to select from several methodologies depending on the asset class in question, of which the SBTi Portfolio Coverage Approach is one permissible method for corporate securities.

The SBTi Portfolio Coverage Approach represents an engagement approach that focuses on the percentage of underlying investee companies that have set their own science-based targets. Under this methodology, SBTi calls on financial institutions to set a minimum ambition for portfolio coverage using “a linear path to achieve 100% SBT coverage by 2040,” such that by 2040, 100% of investee companies would have set their own science-based targets. Based on BlackRock’s current baseline of 25%, this methodology would imply a minimum value of 61% of investees by AUM to have set science-based targets by 2030.

BlackRock’s anticipated value for 2030 ($\geq 75\%$) is based on projections of the rate at which corporate and sovereign issuers will adopt science-based targets or equivalent between 2021 and 2030.

BlackRock has modified the SBTi methodological guidance in a number of ways. First, BlackRock is including sovereign treasury holdings within its scope because of the importance of government action to achieve net zero goals. Sovereigns are not currently addressed by the SBTi guidance, as available methodologies to assess net-zero alignment of sovereign debt are less advanced.

For sovereigns, BlackRock is leveraging the Germanwatch Climate Change Performance Index (“CCPI”) referenced by the NZIF, as well as Climate Action Tracker (“CAT”), a well-cited rating method that evaluates a broad spectrum of government targets and actions to reduce greenhouse gas emissions in line with the Paris Agreement temperature limit. To define alignment thresholds, BlackRock is considering the countries in the top two tiers of these frameworks as net-zero aligned or having set the equivalent of science-based targets. This is subject to change as further sovereign alignment methods are developed. BlackRock also defines sovereign green bond exposure as net-zero aligned.

Second, while SBTi calls for coverage of 100% of listed equity and bonds, BlackRock does not believe that data quality is sufficient to support such an expansive scope for a global asset manager. We have chosen to include the vast majority of our listed markets assets, as proxied by the MSCI ACWI IMI index. These ~9,000 issuers represent ~94% of our total corporate AUM in equity and debt.

Taken together, investments in corporate and sovereign issuers represent 77% of BlackRock’s total AUM as of September 30, 2021.

Finally, BlackRock does not intend to base its methodology and alignment tracking on the SBT Initiative. Aligned with our global stewardship principles, BlackRock may consider issuers aligned if they follow another science-based framework, particularly for sectors for which methods are not available from SBTi.

Important Notes & Limitations

Net zero portfolio alignment frameworks and the underlying data and methodologies to support the computation of these metrics are nascent and expected to evolve significantly in coming years. BlackRock reserves the right to change the methodologies and sources of data used to produce this disclosure, which may lead to significant changes to the metrics reported herein, including changes to the baseline figures.

Endnotes

About this Report

1. See the TCFD Recommendations: <https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf>
2. The inclusion of information contained in this report should not be construed as a characterization regarding the materiality or financial impact of that information. Please also see our Annual Report on Form 10-K filed on February 25, 2021 ("2020 Annual Report on Form 10-K") and other publicly filed documents available at <https://ir.blackrock.com/>.

Executive Summary

1. The dedicated sustainable investment platform includes: 1) strategies with an explicit ESG objective which may include a targeted quantifiable ESG outcome ("Broad ESG"); 2) strategies that capitalize on long-term transformative industry or societal trends through pursuit of specific E, S, or G themes ("Thematic"); 3) strategies where investments are made with the intention to generate positive measurable social and environmental impact alongside financial return ("Impact") and; 4) screened strategies that incorporate BlackRock's baseline screens ("Dedicated Screened"). BlackRock's definition of impact investments is in line with the International Finance Corporation's Operating Principles for Impact Management.
2. Source: Larry Fink's 2021 Letter to CEOs: <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>.
3. A Climate Transition Benchmark is a benchmark where the underlying assets in the benchmark are selected, weighted, or excluded in such a manner that the resulting benchmark portfolio is on a decarbonization trajectory. Paris-aligned Benchmark is a benchmark where the underlying assets are selected in such a manner that the resulting benchmark portfolio's GHG emissions are aligned with the long-term global warming target of the Paris Climate Agreement. Definitions provided by the EU Technical Expert Group on Sustainable Finance. See: https://ec.europa.eu/info/sites/default/files/business_economy_euro/events/documents/finance-events-190624-presentation-climate-benchmarks_en.pdf
4. See "Temasek and BlackRock Launch Decarbonization Investment Partnership" (April 12, 2021).
5. See "Climate risk and the transition to a low-carbon economy" (February 2021). Available at: <https://www.blackrock.com/corporate/literature/publication/blk-commentary-climate-risk-and-energy-transition.pdf>
6. BlackRock achieved and maintains carbon neutrality in its Scope 1, Scope 2, and select Scope 3 categories including Business Travel, Employee Commuting (company provided shuttles in India only), Fuel & Energy-Related Activities ("FERA"), Upstream Leased Assets, Upstream Transportation & Distribution, and Waste.
7. BlackRock achieved its 100% renewable electricity goal to match the same amount of renewable electricity as the electricity that our global operations (including data centers) consume annually. We contract directly for renewable electricity wherever possible (approximately 50%). Where we do not have operational control to procure our own, or where renewable electricity is not available, we purchase environmental attribute certificates as a means of achieving our 100% renewable electricity goal.
8. BlackRock's support for this initiative was made via grants recommended to and paid by the BlackRock Charitable Trust, a donor-advised fund.
9. As defined by Breakthrough Energy: The Green Premium is the additional cost of choosing a clean technology over one that emits a greater amount of greenhouse gases. Available at: <https://www.breakthroughenergy.org/our-challenge/the-green-premium>.
10. Holdings values as of 9/30/21. Includes funds for which Implied Temperature Rise ("ITR") was first published in December 2021.

Governance

1. Sustainability matters, for the purposes of this TCFD report, include: the integration of ESG factors into investment processes, sustainable investment strategies, investment stewardship engagement on climate-related matters, corporate sustainability strategy and disclosures, and public policy and philanthropic activities related to climate change.

Strategy (ESG Integration, Investment Stewardship, Investment Strategies, Aladdin)

1. More information available at: <https://www.gfanzero.com/about/> GFANZ sub-sectoral net zero initiatives including: Net-Zero Banking Alliance ("NZBA"), Net Zero Asset Managers Initiative ("NZAMI"), Net-Zero Asset Owner Alliance ("NZAOA"), Institutional Investor Group on Climate Change's Paris Aligned Investment Initiative ("PAII") and Net-Zero Insurance Alliance ("NZIA"). Information as of November 2021. BlackRock applauds the development of these initiatives and is participating in several of them.
2. See BlackRock Investment Stewardship's approach to engagement on [climate risk](https://www.blackrock.com/corporate/literature/publication/blk-commentary-climate-risk-and-energy-transition.pdf) and [natural capital](https://www.blackrock.com/corporate/literature/publication/blk-commentary-engagement-on-natural-capital.pdf). (February 2021). Available at: <https://www.blackrock.com/corporate/literature/publication/blk-commentary-climate-risk-and-energy-transition.pdf> and <https://www.blackrock.com/corporate/literature/publication/blk-commentary-engagement-on-natural-capital.pdf>.
3. See the BlackRock Investment Stewardship special report "Our approach to sustainability," that outlines the team's engagement approach and voting on climate risk and other sustainability topics (July 2020). Available at: <https://www.blackrock.com/corporate/literature/publication/our-commitment-to-sustainability-full-report.pdf>
4. The climate focus universe was created objectively based on GHG emissions provided by MSCI, it does not reflect a BIS assessment of the climate strategies of companies. In fact, many of the companies are leaders in their sectors that have articulated climate adaptation strategies, committed to rigorous GHG reduction targets, and are creating the technologies and solutions that are vital for a low-carbon transition. Others on the list, however, are at an earlier stage in their energy transition strategy development/integration.
5. Intergovernmental Panel on Climate Change (2018), "Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development," in An IPCC Special Report on the impacts of global warming. Available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter2_Low_Res.pdf
6. BlackRock (February 2021). BlackRock's "Launching climate-aware asset class return expectations".

7. The dedicated sustainable investment platform includes: 1) strategies with an explicit ESG objective which may include a targeted quantifiable ESG outcome ("Broad ESG"); 2) strategies that capitalize on long-term transformative industry or societal trends through pursuit of specific E, S, or G themes ("Thematic"); 3) strategies where investments are made with the intention to generate positive measurable social and environmental impact alongside financial return ("Impact") and; 4) screened strategies that incorporate BlackRock's baseline screens ("Dedicated Screened"). BlackRock's definition of impact investments is in line with the International Finance Corporation's Operating Principles for Impact Management.
8. See "BlackRock Launches Two New Carbon Transition ETFs Underpinned by Proprietary Climate Analytics" (April 9, 2021).
9. A Climate Transition Benchmark is a benchmark where the underlying assets in the benchmark are selected, weighted, or excluded in such a manner that the resulting benchmark portfolio is on a decarbonization trajectory. Paris-aligned Benchmark is a benchmark where the underlying assets are selected in such a manner that the resulting benchmark portfolio's GHG emissions are aligned with the long-term global warming target of the Paris Climate Agreement. Definitions provided by the EU Technical Expert Group on Sustainable Finance. See: https://ec.europa.eu/info/sites/default/files/business_economy_euro/events/documents/finance-events-190624-presentation-climate-benchmarks_en.pdf
10. Equity ETF Channel, Brenton Garen. (September 24, 2020). "iShares Launcher New Suite of ESG Screened ETFs".
11. For more information, please see www.iShares.com.
12. Note that the term "Active" is used to refer to investment strategies that seek to achieve returns that are greater than a benchmark return, as well as absolute return strategies. This terminology is meant to distinguish this subset of products from index investment strategies, which seek to track an index.
13. [The Ellen MacArthur Foundation](https://www.ellenmacarthurfoundation.org/) works to inspire a generation to re-think, re-design and build a positive future circular economy. Additional information available at <https://www.ellenmacarthurfoundation.org/>.
14. As defined by EMF, a circular economy is a systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution. It is based on three principles, driven by design: (i) eliminate waste and pollution, (ii) circulate products and materials (at their highest value), and (iii) regenerate nature. Additional information available at: <https://emf.thirdlight.com/link/vj6i9k5yax0n-1fkyyu/@/preview/1?o>.
15. From BlackRock's Fundamental Equities Impact team based on analysis of company data and reports. More information available at: <https://www.blackrock.com/ca/institutional/en/literature/whitepaper/global-impact-annual-report.pdf>.
16. See Kazdin, J., K. Schwaiger, V-S. Wendt, and A. Ang, 2021, Climate Alpha with Predictors also Improving Firm Efficiency, forthcoming Journal of Impact and ESG Investing.
17. LEED is the most widely used green building rating system in the world. More information available at: <https://www.usgbc.org/help/what-leed>.
18. These KPIs are normalized to ensure comparable scoring, at scale, across E, S and G sectors.
19. See "Sustainable Debt Issuance Hits \$3 Trillion Threshold" (June 10, 2021).
20. See 2018 Green Bond Principals (most recently updated, June 2018) Available at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Green-BondsPrinciples-June-2018-270520.pdf>
21. Data sourced from IEA, [Bloomberg New Energy Finance, New Energy Outlook 2019](https://www.iea.org/pressroom/2019/06/19/061919-new-energy-outlook-2019). Refers to expected investment in renewables up to 2050. Available at: <https://about.bnef.com/new-energy-outlook-2019/>.
22. See more at "Decarbonization Partners" (BlackRock 2021). Available at: <https://www.blackrock.com/corporate/sustainability/blackrock-temasek>
23. See "BlackRock invests \$1.2bn in Credit Suisse-sponsored vehicle for solar energy" (February 2021).
24. Waters technology, 2021. [BST Awards 2021: Best buy-side risk management initiative over the last 12 months—BlackRock](https://www.watertechnology.com/awards-rankings/7894016/bst-awards-2021-best-buy-side-risk-management-initiative-over-the-last-12-months-blackrock). Available at: <https://www.watertechnology.com/awards-rankings/7894016/bst-awards-2021-best-buy-side-risk-management-initiative-over-the-last-12-months-blackrock>
25. BlackRock's partnership with Rhodium began in April 2019. BlackRock deepened this partnership by acquiring Rhodium's climate risk models related to the physical risks of climate change in September 2021.

Strategy (Risks, opportunities & scenario analysis)

1. This refers to the sale of BlackRock, Inc. securities by those who hold shares of BlackRock, Inc. stock.
2. As of December 2020, BlackRock owned an 84,500 square foot office building in Wilmington (Delaware) and a 43,000 square foot data center in Amherst (New York). However, BlackRock otherwise primarily leases office space, including in New York City (New York), and throughout the world, including Atlanta (Georgia), Belgrade (Serbia), Boston (Massachusetts), Budapest (Hungary), Edinburgh (UK), Mumbai (India), Gurgaon (India), Hong Kong, London (UK), Melbourne (Australia), Mexico City (Mexico), Munich (Germany), Princeton (New Jersey), San Francisco (California), Seattle (Washington), Frankfurt (Germany), Santa Monica (California), Singapore (Singapore), Sydney (Australia), Taipei (Taiwan) and Tokyo (Japan).
3. See Recommendations of the Task Force on Climate-related Financial Disclosures, page 25 (June 2017). Available at: <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>.
4. Please see page 22 for an overview of Aladdin Climate.
5. Integrated assessment models are primarily used to conduct cost-benefit analysis of emission reduction strategies at the global level (Mastrandrea et al. 2010).

6. The Intergovernmental Panel on Climate Change (“IPCC”) defines physical risk as risk to facilities and infrastructure, impact on operations, water and raw material availability and supply chain disruptions. See more in the concept of risk in the IPCC Sixth Assessment Report: a summary of cross Working Group discussions (September 2020). Available at: https://www.ipcc.ch/site/assets/uploads/2021/02/Risk-guidance-FINAL_15Feb2021.pdf.
7. The Integrated Assessment Modeling Consortium is an organization of scientific research institutions that pursues scientific understanding of issues associated with integrated assessment modeling and analysis. See more at <https://www.iamconsortium.org/>.
8. IPCC, 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Available at: <https://www.ipcc.ch/assessment-report/ar5/>.

Strategy (Operations, Social Impact, Industry Engagement & Public Policy)

1. BlackRock achieved and maintains carbon neutrality in its Scope 1, Scope 2, and select Scope 3 categories including Business Travel, Employee Commuting (company provided shuttles in India only), Fuel & Energy-Related Activities (“FERA”), Upstream Leased Assets, Upstream Transportation & Distribution, and Waste.
2. BlackRock achieved its 100% renewable electricity goal to match the same amount of renewable electricity as the electricity that BlackRock’s global operations (including data centers) consume annually. BlackRock contracts directly for renewable electricity wherever possible (approximately 50%). Where BlackRock does not have operational control to procure its own electricity, or where renewable electricity is not available, BlackRock purchases environmental attribute certificates as a means of achieving its 100% renewable electricity goal.
3. Note that the COVID-19 pandemic impacted our operating model, leading to declines in emissions that may not persist over time. Between 2014 and 2019, BlackRock reduced Scope 1 and 2 (location-based) emissions by 22% as compared to a 32% reduction between 2014 and 2020.
4. See Sustaining BlackRock through COVID-19. Available at: <https://www.blackrock.com/corporate/literature/publication/sustaining-blk-through-covid-19.pdf>.
5. BlackRock’s most recent normal operating year. In 2019, BlackRock had a 15% expansion in square footage and a 40% increase in headcount.
6. Our data centers consume 75% less energy than the typical enterprise data center does for cooling and electrical support. Our enterprise data centers operate at a PUE of 1.1 and 1.2; the industry average data center PUE is 1.8.
7. Environmental attribute certificates (“EACs”), also known as renewable energy certificates (“RECs”) in the US, are tradeable instruments that represent the legal rights to the environmental attributes of one megawatt-hour (“MWh”) of renewable electricity generation. EACs and RECs are issued when one MWh of electricity is generated and delivered to the electricity grid from a renewable energy resource.
8. REDD+ refers to countries’ efforts to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks.
9. You can read more about this announcement and the Catalyst Program on BlackRock’s Social Impact website. Available at: <https://www.blackrock.com/corporate/about-us/social-impact/breakthrough-energy>.
10. Echoing Green’s approach and portfolio statistics are available at <https://echoinggreen.org/issues/climate-change/>.
11. See BlackRock’s response to the SFC on their Consultation Paper on the Management and Disclosure of Climate-related Risks by Fund Managers (2021) Available at: <https://www.blackrock.com/corporate/literature/publication/sfc-consultation-on-climate-risk-011521.pdf>. BlackRock’s response to the SEC’s Request for Input on Climate Change disclosure is available at: <https://www.blackrock.com/corporate/literature/publication/sec-rfi-climate-change-disclosures-061121.pdf>.
12. See “Sustainability Reporting: Convergence to Accelerate Progress” (October 2020). Available at: <https://www.blackrock.com/corporate/literature/publication/blk-commentary-sustainability-reporting-convergence.pdf>.
13. See IFRS Consultation paper on Sustainability reporting (September 2020). Available at: <https://cdn.ifrs.org/-/media/project/sustainability-reporting/consultation-paper-on-sustainability-reporting.pdf>. See here for more information on IFRS Sustainability Reporting project. Available at: <https://www.ifrs.org/projects/work-plan/sustainability-reporting/#current-stage>. See here for BlackRock’s response to IFRS Consultation paper on Sustainability report. Available at: <https://www.blackrock.com/corporate/literature/publication/blk-response-to-ifrsf-on-sustainability-reporting-standards.pdf>.
14. See “IFRS Foundation announces International Sustainability Standards Board, consolidation with CDSB and VRF, and publication of prototype disclosure requirements” (November 2021). Available at: <https://www.ifrs.org/news-and-events/news/2021/11/ifrs-foundation-announces-issb-consolidation-with-cdsb-vrf-publication-of-prototypes/>.

Metrics and Targets

1. Please see LRQA Independent Assurance Statement Relating to BlackRock, Inc. GHG Inventory. Available at: <https://www.blackrock.com/corporate/literature/continuous-disclosure-and-important-information/lrqa-assurance-statement-2020-ghg-emissions.pdf>.
2. The term “carbon footprint” in this report refers to absolute emissions financed by BlackRock’s clients’ investments divided by BlackRock’s AJM (rounded to \$ millions) in those securities. This aligns with the terminology used in the European Union’s Sustainable Finance Disclosure Regulation (“SFDR”).
3. World Resources Institute and World Business Council for Sustainable Development (2020). *Technical Guidance for Calculating Scope 3 Emissions*. Chapter 15, Category 15: Investments. See for e.g., page 141 (“Whether an organization is required to report on equity investments depends on whose capital is being invested. Asset owners are investing their own capital, so they are required to report emissions from equity investments (although they may establish a threshold, as described in table 15.1). Asset managers investing clients’ capital may optionally report on emissions from equity investments managed on behalf of clients (e.g., mutual funds). Emissions from these types of equity investments can be calculated using the methods described in this section, however it should be noted that mutual funds and other funds managed on behalf of clients are not the primary audience for the calculation methods described here and some of their specific issues have not been addressed, including the business goals relevant to a fund manager and the appropriate use of inventory results.”) Available at https://ghgprotocol.org/sites/default/files/standards_supporting/Chapter_15.pdf.
4. This is one of the reasons why BlackRock joined the Partnership for Carbon Accounting Financials (“PCAF”) in 2021 to support the development of financial industry standards for reporting emissions associated with financial activities.

5. BlackRock primarily holds seed and co-investments in sponsored investment products that invest in a variety of asset classes. Investments generally are made for co-investment purposes, to establish a performance track record, or for regulatory purposes. BlackRock does not engage in proprietary trading activities that could conflict with the interests of its clients. GHG emissions associated with BlackRock's AUM are reported separately in Exhibit M.6.
6. In-scope derivatives are derivatives with corporate issuer underlier and include equity warrants and options, convertible debt and equity, total return swaps, and credit default swaps. The following derivative types are out of scope: equity index options, currency options, options on commodities and volatility index, CDX swaps (other than CDS and total return), and synthetics.
7. The term "carbon footprint" in this report refers to absolute emissions financed by BlackRock's clients' investments in corporate securities and real estate divided by BlackRock's AUM (rounded to \$ millions) in those investments. This aligns with the terminology used in the European Union's Sustainable Finance Disclosure Regulation ("SFDR").
8. In-scope derivatives are derivatives with corporate issuer underliers and include equity warrants and options, convertible debt and equity, total return swaps, and credit default swaps. The following derivative types are out of scope: equity index options, currency options, options on commodities and volatility index, CDX swaps (other than CDS and total return), and synthetics.
9. BlackRock was represented on the TCFD's Portfolio Alignment Team in the publication of a report titled "Measuring Portfolio Alignment: Assessing the Position of Companies and Portfolios on the Path to Net Zero" which provided an assessment of the options available to measure the alignment of financial portfolios with climate goals.
10. While absolute emissions for AUM is intellectually consistent with other emissions metrics reported at the corporate level, it is worth noting that a significant majority of the investments BlackRock makes on behalf of its clients are in publicly traded equity and debt securities. Unlike emissions associated with real economy activities, the buying and holding of equity or fixed income securities does not cause the release of GHG emissions into the atmosphere. In that sense, GHG emissions for AUM are decidedly different than Scope 1 and 2 emissions (as well as many categories of Scope 3 emissions) reported by companies, where the metric reflects activities that directly result in the release of emissions into the atmosphere.
11. Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. Although BlackRock, Inc. is not in scope of the SFDR, individual subsidiary entities of BlackRock, Inc. are subject to this regulation.
12. About | PCAF. PCAF (2021). Available at: <https://carbonaccountingfinancials.com/about>. BlackRock joined PCAF in 2021.
13. We also consulted the Corporate GHG Protocol, and the EU SFDR Regulatory Technical Standards.
14. International Capital Markets Association (2021). The Green Bond Principles. Available at: <https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Bond-Principles-June-2021-140621.pdf>
15. PCAF is consulting on methodologies for green bonds. The methodology utilized by BlackRock differs from the green bonds methodology currently being proposed by PCAF. Note: green bonds reflect only 0.3% of BlackRock's AUM as of December 31, 2020.
16. Global financial assets totaled \$431 trillion in 2020, according to Global Wealth 2021: When Clients Take the Lead, a report by Boston Consulting Group (June 2021). Available at: <https://web-assets.bcg.com/d4/47/64895c544486a7411b06ba4099f2/bcg-global-wealth-2021-jun-2021.pdf>
17. UN Environment Programme (2021). Emissions Gap Report. Available at: <https://www.unep.org/resources/emissions-gap-report-2021>
18. IEA (2020). "After steep drop in early 2020, global carbon dioxide emissions have rebounded strongly". Available at: <https://www.iea.org/news/after-steep-drop-in-early-2020-global-carbon-dioxide-emissions-have-rebounded-strongly>
19. Please see TCFD Supplemental Guidance for Asset Managers on pages 38-43 of Implementing the Recommendations of the TCFD. Available at: <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-TCFD-Annex-Amended-121517.pdf>
20. Holdings values as of 9/30/21. ITR was first published on funds in December 2021.

Additional Resources

For further information on our sustainability efforts, please see:

2020 Sustainability Commitments & Progress

- [BlackRock's 2020 Sustainability Actions](#)
- [2021 Net Zero Commitments, Letter to Clients](#)

Investment Stewardship

- [2022 Global Principles](#)
- [2021 Engagement Priorities](#)
- [2021 Stewardship Expectations](#)
- [2021 Voting Spotlight](#)
- [2020 Calendar Year Annual Report](#)
- [BlackRock Investment Stewardship 2020 Annual Report](#)
- [BlackRock Investment Stewardship Sustainability Report](#)

ESG Integration

- [BlackRock's approach to integrating sustainability-related factors into portfolio management](#)
- [2020 PRI Report](#)
- [ESG Integration Statement](#)

BlackRock Investment Institute Research

- [Troubled Waters: Financial Risks of Water Scarcity](#)
- [Getting Physical](#)
- [Sustainability: the bond that endures](#)
- [Sustainability: the future of investing](#)

Corporate Sustainability

- [Where We Stand: On the journey to prosperity for more and more people](#)
- [2020 BlackRock Annual Report](#)
- [2020 Sustainability Disclosure](#)

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