

Enterprise Sustainability

2023 TCFD Report

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Letter From Leadership

Dear Colleagues, Board Members, and Stakeholders,

We’re pleased to share Morningstar’s 2023 Taskforce for Climate-Related Financial Disclosures-aligned report.

Morningstar’s mission is to empower investor success. To that end, the effects of climate change are a source of risk and opportunity for investors who seek to assess its possible impact on their portfolio holdings. Providing data, research, and tools that help measure and manage this impact is an integral part of our work.

We are excited about the improving quality and comparability of climate data. Disclosure frameworks such as the TCFD act as an important catalyst for change, driving consistency across reporting expectations and helping companies to consider climate-related risks and opportunities in the context of their specific operations. We believe this kind of reporting makes it easier for investors, shareholders, and other business stakeholders

to understand the road ahead and to assess how companies are positioning themselves for long-term success.

Morningstar aims to make climate data easier to access and understand. In 2023, we launched the Low Carbon Transition Ratings to help investors evaluate a company’s readiness for a net zero transition. This assessment, and the research and data that underpin it, are designed to cut through the noise for investors and provide a transparent framework to assess issuer-level climate programs. You’ll see reference to the LCTR and other products we provide to investors, like Physical Climate Risk Metrics, throughout this report; we use Morningstar’s ratings and data analysis to assess our own environmental program and our performance against ambitious goals.

In the past year, we accelerated initiatives aimed at reducing our firm’s environmental impact. We used more renewable energy at our offices; we integrated shared platforms to better connect our business leaders in their efforts to track carbon

emissions across functions; we enhanced our Supplier Code of Conduct and published an Environmental Statement, which addresses how we manage and monitor our impact on the environment. We also continued to participate in industry efforts, such as the Net Zero Financial Service Providers Alliance, that recognize the significance of climate change to global communities and civil society. Our Sustainability Reports Center provides further details on these efforts.

Our TCFD-aligned report reflects a company that is still early in its climate risk planning. Our teams have laid the groundwork aimed at quality data collection and storage, examined our current and historical practices, and articulated a perspective on the strategy ahead. There is certainly more to do, but we believe that our firm can meaningfully contribute to building comprehensive data for climate-focused investors and frameworks that showcase progress toward a net zero economy. Along the way, we seek to provide an example for others who aim to reduce their environmental impact while growing their businesses.

Sincerely Yours,



Kunal Kapoor,
Chief Executive Officer



Jason Dubinsky,
Chief Financial Officer

About Morningstar

Morningstar’s mission is to empower investor success. We provide independent investment insights and products across global markets in North America, Europe, Australia, and Asia and operate in 32 markets. Our products and services guide a range of audiences including individual investors, financial advisors, asset managers and owners, retirement plan providers and sponsors, and institutional investors in the public and private capital markets. We provide data and research on a wide range of investment offerings, including managed investment products, publicly listed companies, private capital markets, debt securities, and real-time global market data. We also offer investment management services through our investment advisory subsidiaries.

Morningstar's Commitment to Sustainability

Equipping investors with investment options, including sustainable-investment choices, and operating with sustainable business practices are integral to our mission. Our commitment to sustainability shapes efforts across the firm.ⁱ



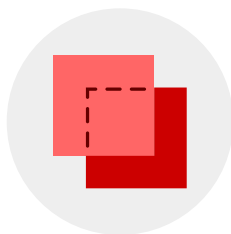
Sustainable-Investing Choices for All Investors

Morningstar aims to provide market-leading data, products, and services across investment processes to enable investors to conduct their business in the ways they believe are best. Through our sustainable-investing data, tools, services, and research, we provide the opportunity for investors of all types to understand sustainability considerations in their investments and support issuers who seek to improve the sustainability of their firms. We aim to make sustainable investing accessible, transparent, and relevant to investors.



Sustainability in Our Firm

We are committed to turning the power of our own environmental, social, and governance data and research on ourselves. We use our own data and tools to understand the sustainability indicators we view as most material to our business—those aimed at creating value and reducing risk for our stakeholders. We are committed to achieving year-over-year progress in our efforts to build a more sustainable business and workplace.



Embracing Transparency and Global Standards

Through Morningstar’s corporate sustainability efforts, we engage with international frameworks and standards to disclose relevant and comparable data for our stakeholders. We report regularly on our sustainability efforts toward our independent targets, consistent with international goals and frameworks where most impactful for our business. We support initiatives that work toward sustainability; more details on these initiatives can be found on the following page.

For more information on our sustainability philosophy and progress across all material ESG issues, please visit our latest corporate sustainability report on our [Corporate Sustainability website](#).

Morningstar’s Climate Commitment

We aim to reduce Morningstar’s impact on the environment while growing our business and the reach of our products. We recognize that Morningstar is uniquely suited to enable innovative investment solutions that address the global climate crisis through our investor product offerings. We also understand that limiting global emissions requires a whole economy in transition and that systemic change requires ambitious efforts across the financial system.

We are affiliated with several international organizations whose members are independently committed to global low carbon transition planning, including the Glasgow Financial Alliance for Net Zero and the Net Zero Financial Service Providers Alliance. In September 2021, Morningstar and a varied group of financial-

services providers announced the launch of the NZFSPA, part of the larger GFANZ. Through our participation, we have reiterated our own commitment to the United Nations Race to Zero. Our involvement underscores our recognition that addressing global emissions requires organizations across the financial system to each initiate and implement their own commitments toward achieving net zero emissions.

At Morningstar, our net zero commitment means acting prudently to reduce the impact of our business operations while engaging in transparent, long-term planning and reporting in the context of global climate change. It entails contributing insight to shared frameworks for measuring our progress and enhancing relevant portions of our product offerings to incorporate science-based net zero targets.

Morningstar has reiterated the following independent commitments in relation to its participation in the NZFSPA:

- 

In the short term, Morningstar has committed to reducing measured greenhouse gas emissions by 50% by 2030 against a 2019 baseline.
- 

In the long term, Morningstar has committed to achieving net zero by 2050 in absolute targets.
- 

Morningstar will deliver annual reporting on progress.
- 

The firm will work to define Morningstar product parameters relevant to net zero transition plans, making these methodologies transparent on public platforms.

Our strategy to implement these commitments while expanding the growth of our business rests on four pillars:

- We recognize the power of our data, research, services, and products to inform investors on climate-related investment risks and opportunities.
- We seek to advance a climate program that emphasizes emissions reduction across our business operations.
- We support the development of transparent carbon markets, technology, and innovation to contribute to carbon removal.
- We invest in partnerships and commit to outside reporting, engagement, and measurement frameworks designed to support a global transition to net zero.

About This Reportⁱⁱ

Established by the Financial Stability Board and now monitored by the International Financial Reporting Standards Foundation, the TCFD framework consists of 11 recommended disclosures to promote the reporting of climate-related financial information by companies. These recommended disclosures are structured around four core themes.



- Governance, the organization’s governance around climate-related risks and opportunities;
- Strategy, the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, financial planning, and strategy;
- Risk management, the processes used by the organization to identify, assess, and manage climate-related risks;
- Metrics and targets, the metrics used to assess and manage relevant, climate-related risks and opportunities.

Increasingly, TCFD reporting standards are contributing to regulatory reporting requirements and industry approaches to disclosing climate risk and strategy for companies. Morningstar’s TCFD Report reflects our efforts toward our climate commitments. It is an important step in our work to expand transparency on our climate program and helps ready the firm for shifting regulatory requirements. The report also demonstrates the ways in which workflows across the organization—products, physical plant, technology, risk, and strategy—are future proofing the firm. It is designed to serve Morningstar’s priority stakeholders including shareholders, clients, employees, and partners, by further detailing our climate position and considerations. Notably, it does not yet include key components that will be part of future strategy, including internal carbon pricing and firmwide scenario analysis. Through our coordination with experts across our organization, we’re utilizing our own climate data, research, and products to better assess our firm strategy to grow our analysis in these key topical areas.

Governance

At Morningstar, like all public commitments we establish, governance of our climate commitments sits with the highest level of our company through our board, management teams, and business units overseeing this day-to-day work. We seek to align Morningstar’s approach to governance, board composition and management, and management oversight with the practices that our research analysts have identified as consistent with good stewardship, shareholder transparency, and long-term value creation.

Our commitment to governance and oversight has remained consistent over the years. We maintain a majority independent board of directors composed of individuals with diverse backgrounds and deep and relevant industry experience. We have a deliberate approach to shareholder engagement, which includes consistent standards and regular, accessible, and equitable communication with investors of all types.

The Board

Morningstar is governed by its board of directors (the “board”), which is currently composed of 10 members, eight of whom are independent. Morningstar’s board of directors is supported by three independent committees: Audit, Compensation, and Nominating & Corporate Governance. Although each committee has a broad scope of responsibilities, the following summarizes their areas of oversight as they impact Morningstar’s climate and sustainability position:

- ▶ Audit Committee oversees topics of cybersecurity, business ethics, and related party matters.
- ▶ Compensation Committee guides benefits, pay, and incentive practices.
- ▶ Nominating & Corporate Governance Committee reviews compliance and governance practices.

Given its critical importance to the company’s product areas and business strategy, oversight of sustainability-related matters at the board level is not limited to a committee. Instead, company sustainability initiatives are integrated into a variety of agenda items at board and committee meetings. This approach pertains to all of Morningstar’s material ESG issues; it includes discussion of issues pertaining to greenhouse gas emissions reduction initiatives, climate-related reporting, and other aspects of environmental management.

Morningstar’s Sustainability and Environmental Programs



Board of Directors
Reviews corporate strategy including the company’s approach to sustainability and oversees Morningstar’s Enterprise Resilience efforts.

Audit Committee members discuss major financial, product, technology, and cybersecurity risk exposures and oversees the firm's disclosure controls and procedures.

Nominating & Corporate Governance Committee members review the company’s sustainability reporting efforts and strategy.



Executive Leadership
Morningstar executive leaders oversee the organizational functions that drive our environmental sustainability program forward. This involves cross-firm coordination to operationalize our data collection and transparency, establish programs and strategies to reduce our emissions and increase efficiency in other environmental considerations, and determine future goals.

Chief Executive Officer
Kunal Kapoor

Chief People Officer
Marie Trupzek-Lynch

Chief Legal Officer
Kathleen Peacock

Chief of Staff
Frannie Besztery

Chief Financial Officer
Jason Dubinsky

Chief Technology Officer
James Rhodes

President, Morningstar Sustainalytics
Ron Bundy



Enterprise Sustainability
Works across the organization to set the strategy for the firm’s material ESG issues and reports on progress; meets with the board to provide updates on the firm's sustainability program.



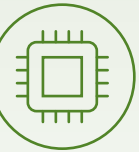
Corporate Systems
Advances enterprise emissions data security, scalability, and analytical automation through our carbon-reporting software.



Human Resources
Maintains policies, programs, and expectations pertaining to our workforce and in-office attendance, such as our hybrid working model.



Legal and Compliance
Advises on regulatory requirements as appropriate and reviews external disclosures.



Central Technology
Collects data center energy consumption and identifies, prioritizes, and implements data-center-focused energy-efficiency opportunities.



Morningstar Sustainalytics Research
Analyzes Morningstar as a use case through our in-house climate-related product offerings.



Financial Reporting & Internal Audit
Financial reporting documents, audits, and validates environmental data for external reporting. Internal audit consults on program enhancements and supports compliance with relevant policies and expectations.



Facilities/Real Estate
Collects emissions and other environmental data related to Morningstar’s built-environment and implements real-estate-focused sustainability programs.



Procurement
Collects business travel emissions and supply chain data.

Morningstar monitors the effectiveness of our business processes, risk management, compliance requirements, and internal controls. Our climate-related efforts are monitored in line with our traditional business processes and internal controls where relevant.

Audit
Our independent Internal Audit Services function performs financial, operational, compliance, and information technology and security assurance and advisory reviews. IAS brings a systematic and objective approach to assess and improve the effectiveness of our governance, risk management, and internal control processes across teams. The Chief Audit Executive reports functionally to the Chairperson of the Audit Committee and administratively to the Chief Financial Officer; the responsibilities of IAS are defined by the Audit Committee.

Compliance
Morningstar’s compliance team maintains compliance policies, trainings, and monitoring practices relevant to each business group. The board of directors, either directly or via the Nominating & Corporate Governance Committee, is regularly briefed on various aspects of the global compliance program and the applicable regulatory landscape.

Enterprise Resilience
Morningstar’s Enterprise Resilience program aims to proactively ready our people, offices, technology, and supporting business processes for swift recovery in the face of business disruption events. The Enterprise Resilience Program consists of two distinct but closely related parts: Business Continuity Management and IT Disaster Recovery programs.

Business Continuity is focused on creating a system of prevention and recovery procedures that ensures that Morningstar’s people, offices, and the business processes they support are protected and able to quickly recover when a business disruption event occurs. Morningstar’s Chief Financial Officer serves as the Business Continuity Program Executive Sponsor to provide support and oversight over development and implementation of the organization-wide Business Continuity program.

IT Disaster Recovery focuses on the technology used to support Morningstar’s internal operations and delivery of our products and

services. It establishes and governs the processes by which disaster recovery plans are implemented and tested, with the goal to enable effective and timely recovery of our technology capabilities in the event of a disaster. Morningstar’s Chief Technology Officer serves as the IT Disaster Recovery Program Executive Sponsor to provide support and oversight over development and implementation of the organization-wide IT Disaster Recovery program.

The Global Enterprise Resilience and Physical Security Director and the Chief Information Security Officer report on the prioritized risks to the Audit Committee on a quarterly basis. Morningstar’s Internal Audit function also periodically audits our Enterprise Resilience Program and reports audit results to the Audit Committee. Additionally, an annual enterprise risk assessment is conducted, and the top risks are included in our annual report.

Strategy

Morningstar’s Climate Offerings for Investors and Corporate Issuers

At Morningstar, we provide data, research, products, and services that are designed to empower investors and help them make informed decisions. Our mission to empower investor success is built upon principles of independence, transparency, and a long-term focus. These principles inform our commitment to data-driven research and shape the tools and insights we deliver, which support investors seeking to grow their savings, access the market, and plan for their financial futures. Climate risks and opportunities are relevant to multiple aspects of Morningstar’s future planning, including our core business products, corporate strategy, the markets in which we operate, and the stakeholders we serve.

We recognize many investors seek to use their money in ways that are aligned with their values and beliefs about the future. The sustainable-investing ecosystem provides investors with the resources to assess how companies and funds are prioritizing sustainability outcomes,

managing and mitigating material ESG risks, and incorporating new information, data, and research into their processes.

Our climate data, research, products, tools, and services are a growing component of our sustainable-investing offerings. They are designed for a range of audiences, including individual investors, advisors and wealth managers, asset managers, asset owners, and corporate issuers. Our offerings enable investors to target specific climate themes and opportunities, determine investments based on industry focus areas such as climate technology, or find companies that limit climate-related risks that are material to their business.

In 2023, we expanded our climate solutions product portfolio to meet this demand, introducing the Low Carbon Transition Ratings and physical climate risk products. These products are designed to help investors assess company approaches to climate change and use both quantitative and qualitative measures to assess the potential for substantive strategic

or financial impacts from climate transition. We use them in our analysis to assess significant portions of the physical and climate transition risks in Morningstar’s business operations and to help examine our processes around the risks associated with climate change.

The LCTR offers a forward-looking, science-based evaluation of a company’s alignment with a net zero pathway, seeking to answer a critical question: To what degree would the world warm if all companies behaved like the company examined? This provides valuable insights into whether a company is adopting essential practices for contributing to a sustainable climate future.

The LCTR analyzes a company’s carbon exposure by examining historical trends and projecting emissions over time. This assessment indicates a company’s alignment with a net zero pathway. It includes an analysis of corporate climate management practices: evaluating policies, programs, strategy, governance, and financial position for alignment with a net zero

world. The LCTR is designed to provide investors with a nuanced understanding of a company’s actions pertaining to climate transition and sustainability practices.

In response to growing concerns around physical climate risks, Morningstar Sustainalytics also introduced physical climate risk assessments designed for investors, asset managers, and banks. The Physical Climate Risk Metrics offering allows users to evaluate potential risks to properties and assets and assess the financial impact of direct or indirect physical risks at both company and asset levels. For example, using issuer-level physical risk assessments, users can quantify a company’s exposure to specific threats like heightened flood risks in the United States. These innovative solutions enable stakeholders to make informed decisions and navigate the complexities of physical-risk-related challenges in their investment portfolios.


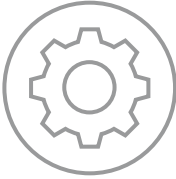
Morningstar’s Climate-Related Risks and Opportunities

Morningstar has identified a range of climate-related risks and opportunities for our own business operations, our global offices, and our global teams. We want to understand and manage these risks and opportunities as we begin the climate transition planning process. Our approach addresses parts—though not all—of the TCFD recommendations by using the framework to categorize our climate-related risks and opportunities.


Morningstar may face a range of risks in the future based on policies, regulatory decisions, client expectations, market demands, and technology advancement. Transition risks, evaluated with our Low Carbon Transition

Ratings, arise from potential changes in policy, technology, and markets that could affect our ability to meet our independent net zero goals and to operate in a low carbon economy. Physical risk assessments help measure potential future exposure to issues that may impact our business, such as floods or wildfires. We summarize areas of risk in the table on the next page.


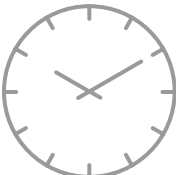
Climate-Related Transition Risks

Risk Type	Description	Potential Financial Impacts and Mitigation Efforts	Short (2030)	Medium (2040)	Long (≥2050)
<div>Market</div> <div></div>	Changes in client expectations	<p>Potential Financial Impact: Changes in client preferences and expectations around products and services can impact revenue and cash flows.</p> <p>Mitigation: We continuously innovate products and services to meet the evolving needs of investors and will accommodate shifting client preferences and needs to best serve the marketplace.</p>	Low	Low	Low
	Increased cost of materials and critical equipment	<p>Potential Financial Impact: If the cost of materials and equipment increases, this could impact expenses and net revenue.</p> <p>Mitigation: Our global finance and procurement teams implement practices to reduce the potential impact of supply-chain risk.</p>	Low	Low	Low
	Changes in stakeholder expectations	<p>Potential Financial Impact: Changes in stakeholder expectations could lead to lower stock valuations if we fail to meet our commitments and reach our targets.</p> <p>Mitigation: We understand that failure to fulfill our public commitments and targets could result in reputational harm. We seek to align our corporate strategy with business offerings, ensuring that our actions reflect our mission and values.</p>	Low	Medium	Medium
<div>Technology</div> <div></div>	Risk of new technologies, unsuccessfully designed for climate transition	<p>Potential Financial Impact: Adopting technologies that are not suited to a climate transition can lead to sunk costs and stranded assets.</p> <p>Mitigation: We aim to increase our use of renewable energy across our offices and data centers, and we work with providers who employ leading heat management and energy consumption practices.</p>	Low	Low	Low
	Costs associated with transition to lower emissions technologies	<p>Potential Financial Impact: Adoption and change management of new technologies with lower emissions can add expense.</p> <p>Mitigation: We prioritize the purchase of efficient products, and we employ an Environmental Statement, which details our approach to environmental stewardship.</p>	Low	Low	Low

Climate-Related Transition Risks

Risk Type	Description	Potential Financial Impacts and Mitigation Efforts	Short (2030)	Medium (2040)	Long (≥2050)
<div>Policy and Legal</div> <div></div>	Enhanced emissions—reporting obligations	<p>Potential Financial Impact: Potential for increased emissions reporting obligations which could require additional compliance-related costs.</p> <p>Mitigation: We seek to disclose comprehensive data pertaining to our environmental and climate-related impacts. Our Enterprise Sustainability team works across the organization to coordinate climate measurement and strategy, and works with our Legal and Finance teams to produce the appropriate reporting. Our Government Affairs team monitors emerging regulatory requirements across regions to keep us up to date on new emissions reporting obligations.</p>	Medium	Medium	Medium
	Regulation of existing products and services	<p>Potential Financial Impact: Potential for regulation of existing products and services which could pose additional compliance-related costs.</p> <p>Mitigation: While the initial operational efforts to meet new regulations may result in additional costs incurred, we are supportive of the regulation of products and services that help investors analyze climate risks. Our Government Affairs team works with our Legal team to monitor regulatory developments that may affect the products and services we provide to the market, alerting internal groups to relevant changes to respond accordingly.</p>	Medium	Medium	Medium
	Exposure to litigation	<p>Potential Financial Impact: Potential for climate-related litigation pertaining to Morningstar products could result in loss to Morningstar.</p> <p>Mitigation: We do not consider such climate transition-related litigation risk to be material. Our Legal team is responsible for evaluating the risk of such climate-related litigation, and we structure our client contracts to limit our exposure to liability in this regard.</p>	Low	Low	Low
	Increased pricing of greenhouse gas emissions	<p>Potential Financial Impact: As regions adopt policy and pricing mechanisms for GHG emissions, excess emissions may pose an increasing cost to firms.</p> <p>Mitigation: We aim to reach net zero emissions by 2050, reach near-term carbon reduction goals, work to decarbonize our businesses, and report annually on progress. We are also increasing our use of renewable energy across regions.</p>	Low	Medium	Medium

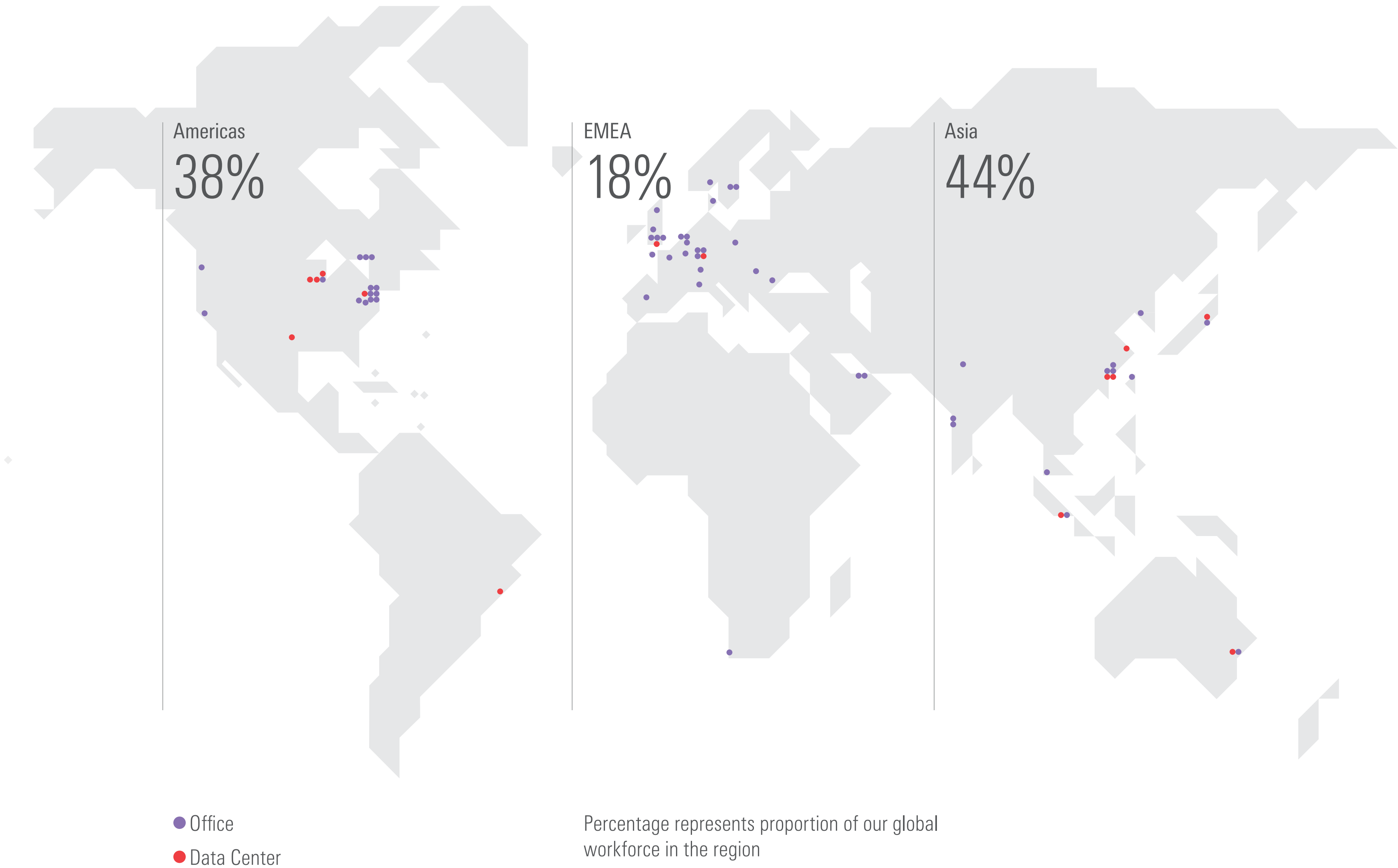
Climate-Related Physical Risks

Risk Type	Description	Potential Financial Impacts and Mitigation Efforts	Short (2030)	Medium (2040)	Long (≥2050)
<div>Acute</div> <div></div>	Increased severity and frequency of extreme weather events such as flooding, wildfires, and cyclones	<p>Potential Financial Impact: Damage to buildings and supply chains from climate events may cause operational disruptions and reduce revenue from business disruptions to our locations.</p> <p>Mitigation: We are migrating data centers to cloud services, devising comprehensive business continuity contingency plans, and broadening our supplier network to mitigate operational disruptions and revenue loss during climate events.</p>	Low	Low	Medium
<div>Chronic</div> <div></div>	Long-term shifts of the climate such as precipitation, extreme weather variability and mean temperatures increases	<p>Potential Financial Impact: We could face increased costs for cooling and heating due to temperature variations.</p> <p>Mitigation: We will optimize energy usage in our leased real estate, integrating renewable energy solutions where feasible and prioritizing buildings with climate-resilient designs to manage temperature fluctuations and curtail long-term operational expenditures.</p>	Low	Low	Low

Applying Our Research

Morningstar uses our own climate solutions—the LCTR and the PCRM—to assess the firm’s climate-related physical and transition risks and to better understand the position of our global business—53 offices and 14 data centersⁱⁱⁱ operating in 32 markets, employing 11,334 professionals.

We do not own real estate; we lease our data centers and office buildings, primarily in multitenant buildings, so our exposure to real estate asset risk is limited. Additionally, our operations are global but are concentrated in a few regions. Our largest offices are in Chicago, Mumbai, Toronto, Seattle, New York, and London. These locations account for approximately 8,450 employees, which is 75% of our total workforce.

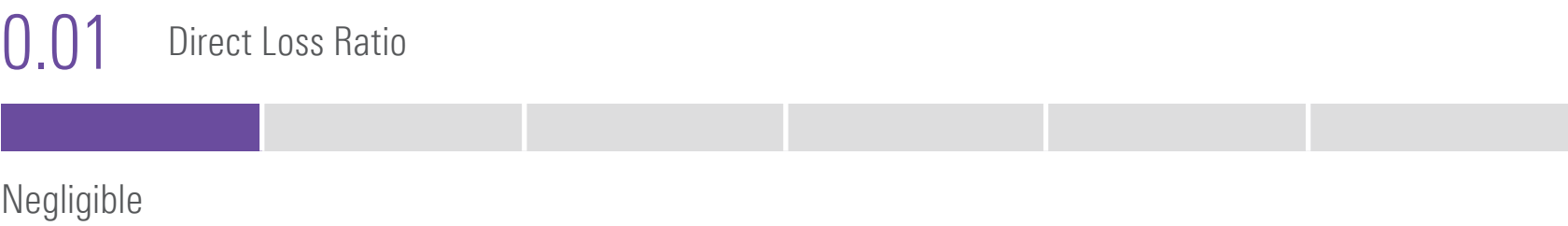


Morningstar’s Climate-Related Physical Risks

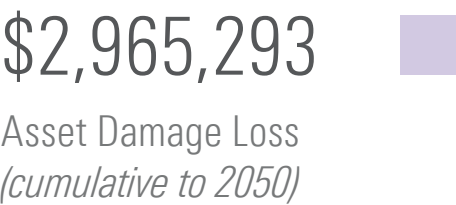
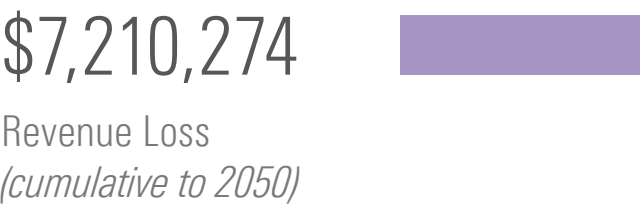
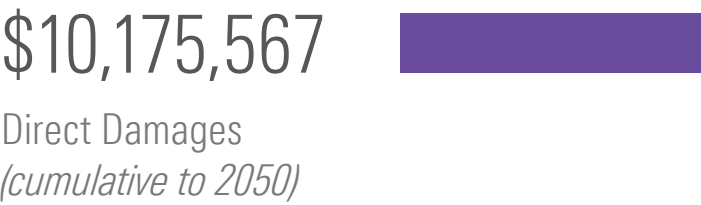
We assess the potential physical risk to our offices and data centers^{iv} alongside the city, state, and country infrastructure that supports them. To assess PCRM Issuers level results, we analyze data over three time horizons: short-(2030), medium-(2040), and long-term (2050 and beyond). We consider two widely known climate scenarios: Representative Concentration Pathways (RCP) 2.6 and RCP 8.5 (see appendix for further discussion). In these scenarios, between the time of analysis and 2050, the exposure of Morningstar’s leased offices and data centers to climate-related physical risks is considered very low.

Morningstar’s Exposure & Loss under PCRM

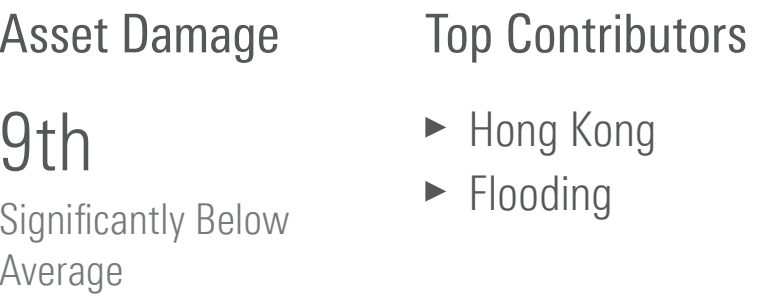
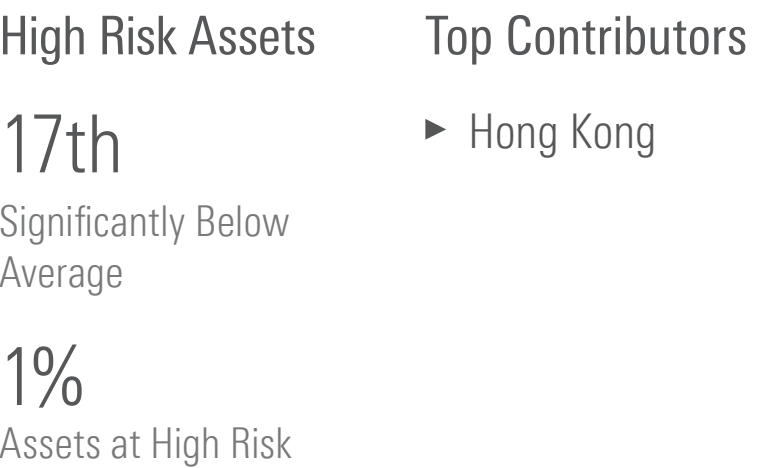
Scenario RCP 2.6



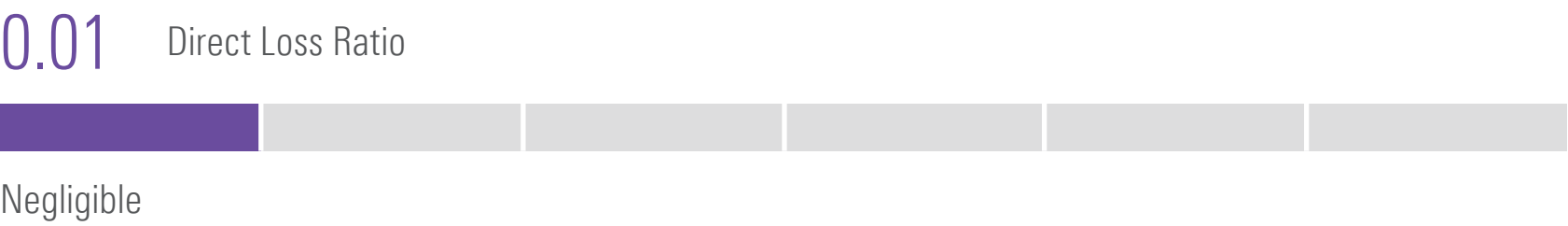
Loss Amounts



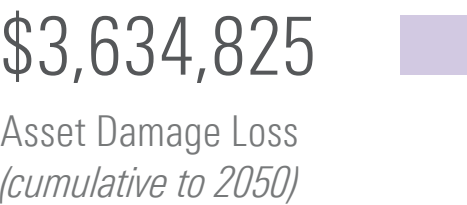
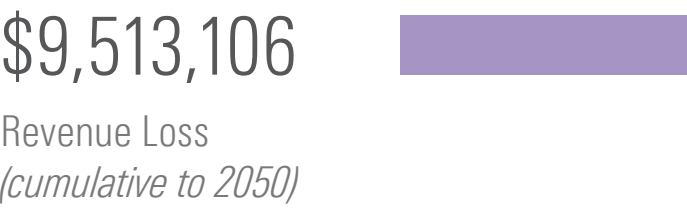
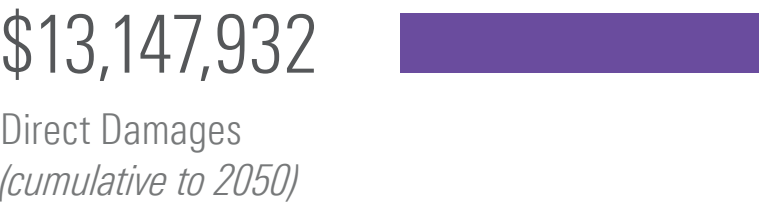
Direct Risk Metrics



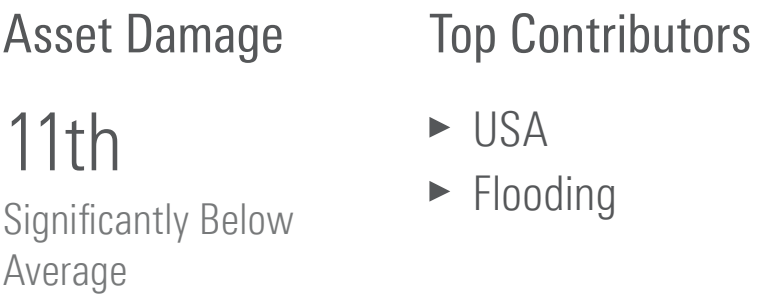
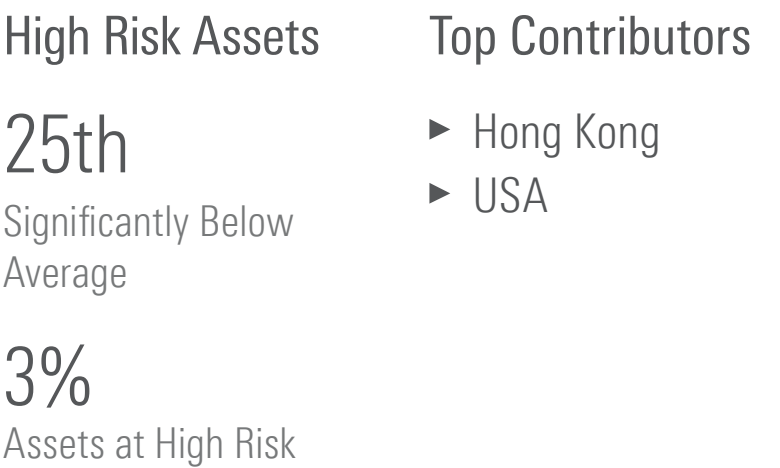
Scenario RCP 8.5



Loss Amounts



Direct Risk Metrics



- Under both scenarios, our leased real estate is most vulnerable to flooding when it comes to asset damage. Extreme heat would be the primary contributor to productivity loss under both climate scenarios.
- Under the optimistic scenario (RCP 2.6), 1% of our total leased real estate will be at high risk, meaning these properties would lose at least 1% of their asset value due to physical damage by 2050. Under the pessimistic scenario (RCP 8.5), the percentage of properties at high risk rises to 3%.
- Overall, our risk assessment suggests that under RCP 8.5, Morningstar could expect to lose up to approximately USD 13 million in direct damages between the time of analysis and 2050. The number drops to approximately USD 10 million under RCP 2.6.

Managing Our Climate-Related Physical Risks: What’s Next?

Insights regarding our exposure to physical climate risks offered through PCRM Issuers enable Morningstar to make more-informed real estate decisions, enhance our existing processes, and secure additional insurance to offset potential damages or business interruptions.

Morningstar’s Climate-Related Transition Risks

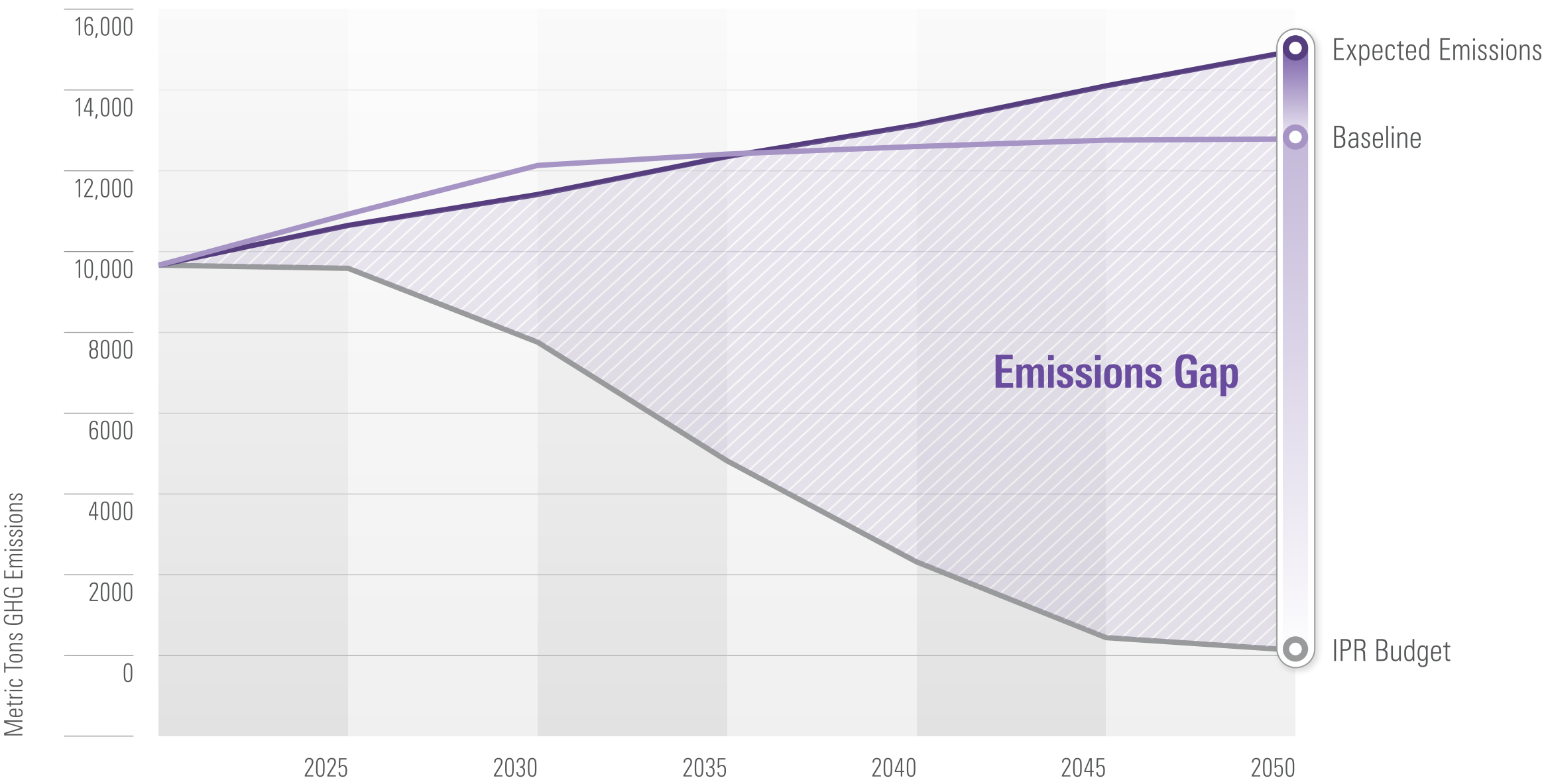
We leverage our LCTR to better assess our firm’s transition risks, using a forward-looking, science-based assessment of our current alignment to the net zero targets that we’ve elected to independently establish, under the U.N. Principles for Responsible Investment’s Inevitable Policy Response Required Policy Scenario and International Energy Agency’s Net Zero by 2050 Scenario. Our emissions budget is calculated to provide an estimate of the emissions that Morningstar may emit while being aligned with our net zero goals. A key assumption within this analysis is that firms’ shares in the financial exchanges and data industry (including Morningstar’s) will remain constant over time. The exercise provides a good starting place to understand what reduction targets we will need to maintain over time to reach our net zero goal.

- Currently, if all companies maintain the same practices as Morningstar does, the world would warm by an estimated 2.0 degrees Celsius (°C) above preindustrial levels.
- This measure (2°C) represents the Implied Temperature Rise if the global economy had

the same trajectory as Morningstar between now and 2050. The ITR is a translation of the overall alignment of Morningstar’s trajectory to a net zero pathway and our management preparedness on transition issues.

- Our assessment indicates that Morningstar is moderately misaligned to a net zero pathway. Our assessment further suggests that Morningstar’s expected emissions gap, or the gap between our emissions budget and our expected emissions, is 231,966 metric tons of CO2e, or 162% by 2050. This gap is then expressed as our ITR. It’s important to note that the scope 3 assessment will need to be further examined, which may impact future alignment as the firm better quantifies emissions sources such as supply chain emissions. Morningstar’s GHG emissions reporting remains aligned to the industry and subindustry but needs to enhance tracking and disclosure for scope 3 reporting.
- This is consistent with the other firms in the industry; as of first-quarter 2024, 44% of financial exchanges and data companies covered by LCTR have an ITR equal to or

Morningstar’s Emissions Projections based on the Low Carbon Transition Ratings



below 2°C, while the rest of the covered subindustry is characterized by ITRs between 2.1°C and 3.2°C. Within the broader universe of companies with LCTR ratings, only 18% are projected to reach net zero by 2050 based on their current GHG management practices.

- At the time of analysis, our low carbon transition-related value at risk, which assesses the potential future financial impact of a

transition to a net zero scenario, is USD 3.6 million, or 0.004% of our enterprise value including cash. This means the financial impact of our misalignment to a net zero budget is low. There are two primary factors behind this: First, the firm is not engaged in activities that produce high emissions, and our operations are located in regions with low expected carbon pricing schemes, such as India and the US.

In addition to estimating the emissions budget, ITR, and VaR of Morningstar, the LCTR also includes an assessment of our firm’s low carbon transition preparedness as it pertains to climate transition measures. Finally, it provides detail with respect to actions that could increase net zero alignment.

- When analyzing Morningstar through the LCTR, our management preparedness of low carbon transition issues is 48 out of 100, about average within the financial exchanges and data services industry.
- Based on our current policies and programs, it is expected that we will increase our emissions by 4%, compared with our baseline projection.

Looking Forward

We recognize the importance of disclosure on and management of climate-related risk and embrace the role that Morningstar plays in championing transparency in and comparability of climate datasets. We seek to better track and understand our own climate transition risks, improve business resilience, and integrate our climate research expertise into business operations. Over the long term, examples of these improvements may include:

- Enhancing targets: The addition of intensity targets to our GHG Emissions Targets or aligning of internal targets, established independently, with standardized decarbonization pathway metrics, ensuring that our efforts have meaningful impacts.
- Implementing carbon pricing: The swift adoption of an internal carbon price based on regional and sectoral trends, which will enable carbon costs to contribute to real estate and operations decision processes.
- Integrating climate management into key aspects of corporate strategy: Opportunities include remuneration and office and

data center location strategy. Efforts in remuneration, for example, can take the form of executive level, board level, or business unit remuneration. Efforts in location strategy could take the form of transitioning Morningstar’s data centers to cloud-based platforms.

Morningstar intends to build on our firm’s net zero commitments; expand the depth and breadth of our climate-related products and services; enhance data standardization and transparency; and engage with investors of all types to deliver data, research, tools, and insights that build resilient investment strategies, organizations, and communities.

Risk Management

Enterprise Resilience

As Morningstar is a research and data provider, our enterprise risks are primarily related to maintaining technology products and service offerings that are readily available for our clients. We recognize that service interruptions pose a potential strategic, operational, financial, and customer support risk; therefore, it’s important that we maintain quality capabilities for critical business processes, minimizing impact where possible following any business disruption event. Our enterprisewide goal is to restore all critical business activities and supporting technology in a timely manner following a major emergency or disaster. Morningstar’s Enterprise Resilience Program provides a framework to ensure that our business can swiftly recover following a business disruption event that causes a loss of facilities, technology, staff, or vendors.

Resilience Program Scope & Structure

The Enterprise Resilience Program is applicable to all Morningstar entities globally, including all locations, subsidiaries, business units, departments, information processing facilities, personnel, consultants, contractors, and third-party personnel. Morningstar’s Enterprise Resilience Program is developed using all “All-Hazards Approach” to resilience. This risk-based approach begins with identifying potential hazards, their likelihood of occurring, and impacts they may have, while accounting for any existing hazard prevention, deterrence, and risk-mitigation capabilities. Although it is unfeasible to plan for every possible hazard, the All-Hazards Approach relies on identified risks to guide the development of continuity strategies and a diverse set of capacities. This enables us to recover from various business-disruptive events, including violence, pandemics, natural disasters, and other climate, technological, or human-related incidents.

Incident Management

The incident management process is a framework for responding to incidents, or disruptions of day-to-day business operations, with the objective of returning to the state of “business as usual” as quickly as possible. Incident management focuses on determining the impact of a disruption and developing a strategy for response and recovery of impacted systems or processes in a timely manner across our locations. As different Morningstar locations will have different risk profiles and varying incident response needs, we ensure a timely and adequate response by creating and managing specific procedures unique to the location through the local incident management team.

IT Disaster Recovery Management

Morningstar utilizes a platform specializing in resilience and risk management to facilitate effective disaster recovery planning process management. The platform standardizes all aspects of the plan lifecycle, while enabling centralized auditing. The platform is hosted outside of Morningstar’s data centers, on an infrastructure that is geographically diverse, ensuring access to recovery plans and procedures in the event of a disaster. After identifying risks and quantifying their potential impacts on Morningstar’s systems, a variety of mitigation strategies are employed to minimize those impacts on our infrastructure, ensuring high levels of resilience and a reduction in downtime.

In the event of a service disruption, Morningstar has dedicated internal incident management teams to track and manage incidents. Morningstar will notify any impacted stakeholders as soon as possible and continue to provide regular status updates to the affected stakeholders until such

time that service is restored to its normal state. Morningstar’s crisis communication and management are actions taken to protect and defend our reputation, brand, and products and services. A crisis may result from an incident, however, not every incident will cause a crisis, and not every crisis will be an incident. We’ve established a framework for effectively managing internal and external communications in the event of a crisis in any of Morningstar’s offices executed by the corporate incident management team and local incident management teams.

Looking Forward

To address climate-related risks, we recognize the need to evolve our Enterprise Resilience Program from reactively managing climate-related physical risks to proactively mitigating both physical and transition risks. For example, physical and transition risks surfaced in the PCRMM and LCTR products can help us better identify climate-related risks and integrate climate risk management into our enterprise resilience efforts and functional processes.

Metrics & Targets

Our goals pertaining to climate reflect the understanding that systemic change requires ambitious commitments across the financial system. This supports our own path toward environmental impact reduction, beginning with a focus on decarbonization of our business operations. Morningstar is committed to reducing measured emissions by 50% by 2030 against a 2019 baseline and achieving net zero greenhouse gas emissions by 2050. This commitment means acting prudently to measure and manage the impact of our business operations while engaging in transparent, long-term planning and reporting. We translate our commitments and goals into action plans and prioritize clear, quantifiable, and time-bound targets that demonstrate a road map for achieving long-term environmental sustainability. The full text of our Climate Transition Plan is available at our [Sustainability Reports Center](#).

2023 Emissions Data Trends

In 2023, Morningstar’s total (location-based) emissions were 9,724 tCO2e, an increase of 1,166 tCO2e from last year. This was primarily due to an increase in our scope 3 emissions, driven by an increase in business travel. Our total scope 1 and scope 2 (both market- and location-based)^v emissions remained consistent with prior years. To quantify the intensity of this impact, we measure our total emissions per million dollars of revenue. Our full-year revenue was USD 2 billion, leading to 4.8 (location-based) and 4.6 (market-based) tCO2e per million dollars in 2023, an increase from 4.6 (location-based) and 4.4 (market-based) tCO2e per million in 2022.

Scope 1: Direct emissions from company-owned or controlled sources.

Estimated scope 1 emissions declined in 2023 by 79 tCO2e from 2022. This decrease is driven primarily by reclassification of some office energy sources (moving from scope 1 to 2) and our improved data collection in specific regions, allowing us to reflect actual consumption data rather than intensity estimates.

Scope 2: Market-based: Purchased electricity, heat, and steam.

In 2023, our market-based emissions were 4,846 tCO2e, an estimated 81 tCO2e reduction from 2022. We are beginning to build a strategy in our renewable transition to reduce our overall emissions. In late 2023, we entered a contract to purchase renewable energy from a Texas wind farm equal to the total kilowatt-hour consumption of our Chicago office each month; we anticipate that this will more dramatically affect 2024 reported data.

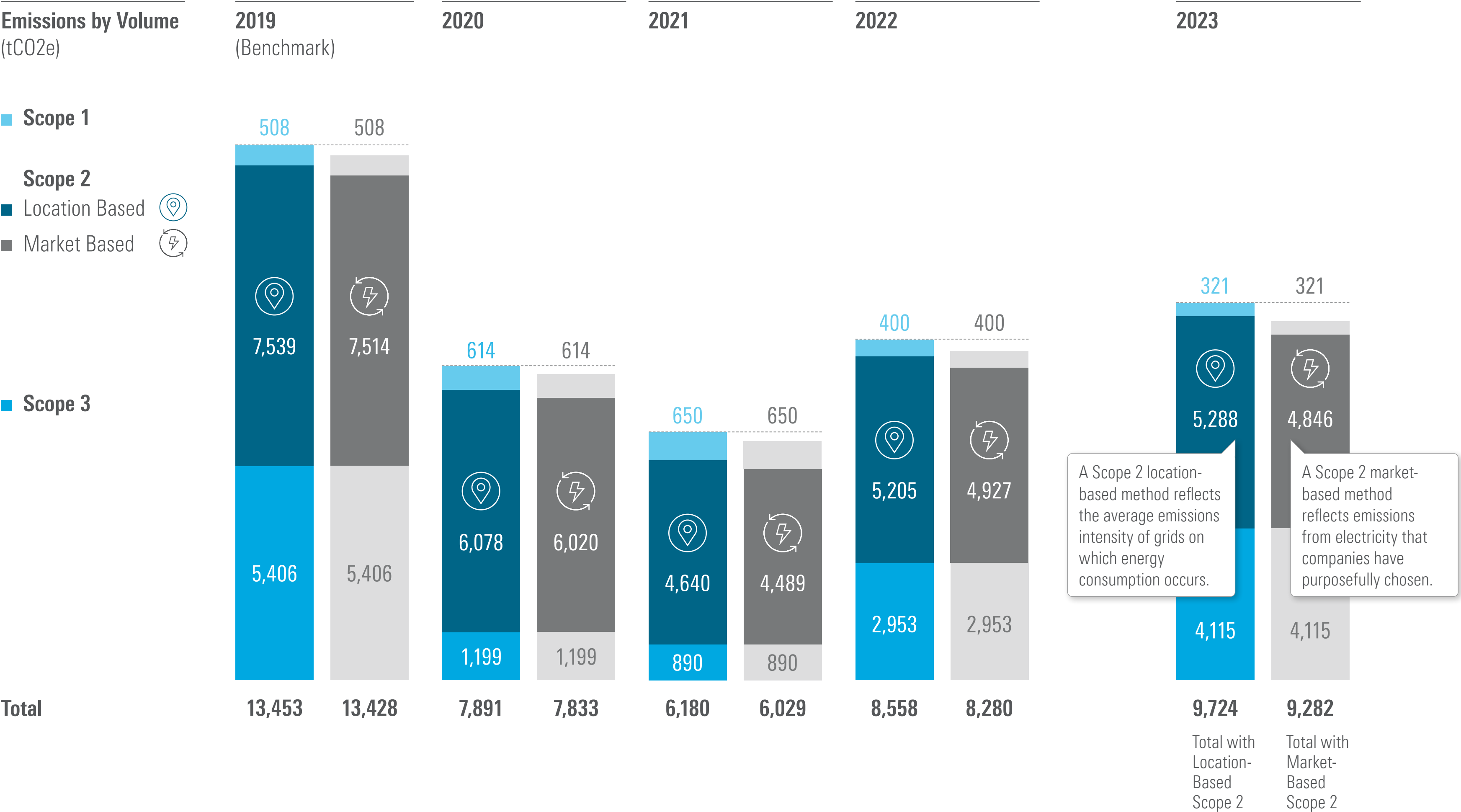
Scope 2: Location-based: Purchased electricity, heat, and steam.

Estimated location-based scope 2 emissions slightly increased in 2023 by 83 tCO2e. Changes in our global operations impacted these numbers: Our data centers enhanced hardware efficiency, and we moved our Chicago data center to a colocation site, which reduced emissions from our data centers. But the expansion of our office space in Mumbai, as well as an expansion of several of our PitchBook offices, drove an increase in total scope 2 emissions compared with 2022.

Scope 3: Indirect emissions that occur in a company’s value chain.

Estimated scope 3 emissions increased in 2023 by 1,162 tCO2e. The most significant impact was a 1,421 tCO2e increase from air travel year over year. The firm has invested in tools for remote collaboration, but travel has increased significantly since pandemic lows. This year, we also shifted our in-office data center to a CyrusOne colocation and greatly reduced inefficient hardware causing a shift from scope 2 to scope 3 emissions. While this impact on our emissions data has not yet been quantified, we anticipate an increase in scope 3 emissions due to this transition. As we continue outsourcing most of our data centers, we foresee this trend will continue. Additionally, we will increasingly depend on the substantial emissions reduction commitments of key suppliers, particularly AWS, or Amazon Web Services, to mitigate our footprint in this domain.

Environmental Impact: Our Contributions



Environmental Impact: Our Contributions

Scope Emission Details^{vi}

2019 (Benchmark)			2020			2021			2022			2023		
Scope 1	%		Scope 1	%		Scope 1	%		Scope 1	%		Scope 1	%	
Fuel	2.9	<div></div>	Fuel	6.2	<div></div>	Fuel	9.5	<div></div>	Fuel	4.7	<div></div>	Fuel	3.3	<div></div>
Fugitives	0.9	<div></div>	Fugitives	1.6	<div></div>	Fugitives	1.0	<div></div>	Fugitives	0.0	<div></div>	Fugitives	0.0	<div></div>
Scope 2	%		Scope 2	%		Scope 2	%		Scope 2	%		Scope 2	%	
Electricity	56.0	<div></div>	Electricity	77.0	<div></div>	Electricity	75.1	<div></div>	Electricity	60.8	<div></div>	Electricity	54.4	<div></div>
Scope 3	%		Scope 3	%		Scope 3	%		Scope 3	%		Scope 3	%	
Air	30.6	<div></div>	Air	11.5	<div></div>	Air	11.2	<div></div>	Air	19.8	<div></div>	Air	32.0	<div></div>
Hotels	4.9	<div></div>	Hotels	1.5	<div></div>	Hotels	1.2	<div></div>	Hotels	11.1	<div></div>	Hotels	5.8	<div></div>
Rail	0.4	<div></div>	Rail	0.1	<div></div>	Rail	0.1	<div></div>	Rail	0.3	<div></div>	Rail	0.3	<div></div>
Road	2.8	<div></div>	Road	0.8	<div></div>	Road	0.9	<div></div>	Road	1.8	<div></div>	Road	2.8	<div></div>
Waste	1.5	<div></div>	Waste	1.3	<div></div>	Waste	1.0	<div></div>	Waste	1.5	<div></div>	Waste	1.4	<div></div>

For additional details on Morningstar’s environmental strategy including our consumption data, memberships and commitments, and approach to carbon markets, visit our Corporate Sustainability Report, available at our [Sustainability Reports Center](#).

What’s Next?

At Morningstar, continued disclosure and transparency on climate-related issues is viewed as a key business priority. Our priorities include:

- Review the emissions impacts of key business activities and strategies, including those pertaining to Scope 3 emissions, such as business travel.
- Establish an enhanced data-tracking mechanism to increase our disclosure and strategy regarding aspects of scope 3 emissions that we cannot currently quantify, including supply chain and financed emissions.
- More swiftly integrate core research and product methodologies into key elements of our companywide corporate strategy to better understand the firm’s position with respect to climate risks and opportunities.
- Expand our climate data collection and disclosure efforts, particularly with respect to supply chain emissions data.
- Meet reporting and disclosure requirements as the regulatory landscape evolves, and provide actionable insights to investors, advisors, asset managers, and asset owners.

Appendix

Climate Scenario Analysis: General Definition and Types

A full discussion of the Morningstar Sustainalytics’ Physical Climate Risk Metrics methodology and Low Carbon Transition Ratings methodology, both of which discuss Climate Scenario analysis approaches, is available for download.

In order to effectively evaluate climate-related risks and opportunities, strategically plan for exposures over time horizons, and make informed decisions on capital allocation, we need to strategize with the future state of climate in mind. However, factors that shape the future climate are highly uncertain, dynamic, and complex. Since the future is inherently uncertain, we turn to climate scenarios to gain an understanding of how climate change may impact Morningstar’s business and performance over time.

According to the IPCC Climate Scenario Development paper, a climate scenario is “a plausible representation of future climate that has been constructed for explicit use

in investigating the potential impacts of anthropogenic climate change.” In other words, climate scenarios are possible alternatives of how the future climate system may come to pass. Climate scenarios provide plausible quantified targets, end-goals, or pathways that capture the relationship among technological, social-economic, and environmental driving forces. Climate scenarios often rely on climate models^{vii} to build climate projections, or, according to the IPCC paper, “descriptions of the modeled response of the climate system to scenarios of greenhouse gas and aerosol concentrations.” As hypothetical images of possible futures, the final report recommendations of the TCFD state that climate scenarios allow an organization to “explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.”

The variety of climate scenarios reflects the degree of uncertainty in quantifying the possible future state of the world. Climate scenarios

also differ based on the question they seek to answer (for example, “What can happen?” vs. “What should happen?”). Types of climate scenarios include:

- Emissions, concentration, and climate forcing scenarios (for example, Representative Concentration Pathways)
- Socioeconomic scenarios (for example, Shared Socioeconomic Pathways),
- Global Energy and Climate Model (GEC Model) scenarios (for example, Stated Policies Scenario)
- Forecast policy scenarios (for example, Inevitable Policy Response or Required Policy Scenario).

Representative Concentration Pathways
RCPs are time-dependent, radiative forcing scenarios, each tied to one value representing the change in radiative forcing at the tropopause by 2100, relative to the preindustrial levels. According to the IPCC Data Distribution Center Glossary, the four RCPs are:

► **RCP 2.6**
One pathway where radiative forcing peaks at approximately 3 watts per square meter

(W m-2) before 2100 and then declines back to 2.6 W m-2 by 2100;

► **RCP 4.5 & RCP 6.0**
Two intermediate stabilization pathways in which radiative forcing is stabilized at approximately 4.5 W m-2 and 6.0 W m-2 after 2100;

► **RCP 8.5**
One high pathway for which radiative forcing reaches greater than 8.5 W m-2 by 2100 and continues to rise for some amount of time.

Shared Socioeconomic Pathways
According to the 2017 paper, “The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century,” SSPs are pathways of projected socioeconomic global changes up to 2100, describing plausible changes in demographics, human development, economy, institutions, technology, and environment in the future. According to the 2016 paper, “The Shared Socio-Economic Pathways (SSPs): An Overview,” SSPs represent an integrated, multidisciplinary approach toward projecting climate change, as they cover policy-

relevant scenarios, in addition to relating to RCPs and climate projections. SSP offers five narratives describing alternative socioeconomic challenges to climate change adaptation and mitigation:

- ▶ SSP1-1.9: Sustainability
- ▶ SSP1-2.6: Middle of the Road
- ▶ SSP2-4.5: Regional Rivalry
- ▶ SSP3-7.0: Inequality
- ▶ SSP5-8.5: Fossil-Fueled Development

International Energy Agency’s Global Energy and Climate Model Stated Policies Scenario

According to the IEA, STEPS reflects the direction of energy system progression based on the current policy landscape, taking into account relevant existing policies and policy proposals, as well as implementation measures adopted as of the end of August 2023. As a scenario based on sector-by-sector and country-by-country assessment of energy-related policies, STEPS also considers manufacturing capacities for clean energy technology. STEPS serves as a more conservative benchmark, relative to other GEC Model scenarios: the

Announced Pledges Scenario and the Net Zero Emissions by 2050 Scenario.

Inevitable Policy Response Forecast Policy Scenario and Required Policy Scenario

Commissioned by the U.N. PRI in 2018, the Inevitable Policy Response is a climate transition forecasting consortium that aims to prepare institutional investors for portfolio risks and opportunities tied to anticipated, climate-change-induced acceleration of policy responses and the associated exposure to transition risks. Since markets price transition risk inconsistently because of new technological disruptions, limited intelligence from currently available scenarios, and the need to deepen financial institutions’ climate transition understanding, IPR offers its Forecast Policy Scenario and 1.5°C Required Policy Scenario. The FPS quantifies the response to major climate policies that are likely to be enacted in the 2020’s on key sectors and regions, energy and land use, and the macroeconomy, whereas the 1.5°C RPS illustrates further action is required to hold global warming to 1.5°C with net zero in 2050.

Climate Scenarios Used in Morningstar’s Climate Solutions Offerings

Morningstar developed and continues to advance our climate products and services. We leveraged our own Climate Solutions offerings to gain insights into our physical and transition risks.

To design solutions that address the interdependent complexity and evolving nature of climate systems, Morningstar employs a suite of climate scenarios across our products to more comprehensively cover the range of plausible climate outcomes. We also recognize the growing interest in measuring sensitivity to risk under different scenarios; in the future, we will add scenarios in order to enhance climate risk management with sensitivity analysis.

Featured Climate Product Name	Specialization	Climate Scenarios Used
Physical Climate Risk Metrics— Issuers Level	Company-level physical risks, specifically forest fire, flooding, coastal inundation, extreme wind, extreme heat, soil subsidence, freeze-thaw, and cyclone wind	RCP 2.6 RCP 8.5
Low Carbon Transition Ratings	Transition risks	IEA STEPS IPR RPS

Endnotes

- i.

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on our current expectations about future events. Forward-looking statements by their nature address matters that are, to different degrees, uncertain, and often contain words such as “may,” “could,” “expect,” “intend,” “plan,” “seek,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “prospects,” or “continue.” These statements involve known and unknown risks and uncertainties that may cause the events we discuss not to occur or to differ significantly from what we expect. We describe risks and uncertainties that could cause actual events to differ materially in the “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Quantitative and Qualitative Disclosures about Market Risk” sections of our Forms 10-K and 10-Q. Morningstar undertakes no obligation to publicly update any forward-looking statements as a result of new

information, future events, or otherwise, except as required by law. Information contained in links to this report/information on our website are not incorporated by reference into this report.

ii.

The data reflected in this report is as of Dec. 31, 2023, unless otherwise noted.

iii.

Represents the number of Morningstar offices and data centers under our operational control at any point in 2023.

iv.

When conducting the PCRM Issuers Level and LCTR analyses in August 2023, we utilized a number of offices and data centers based on the available information at the time, reflecting a higher number of spaces than the total analyzed at year end.

v.

As defined by the Greenhouse Gas Protocol, a scope 2 location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data).

A scope 2 market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice). 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.

vi.

The scope emission breakdowns reflect the emissions from each scope component, utilizing the location-based scope 2 emissions.

vii.

A Climate Model is a simulation of the Earth’s climate system, including the atmosphere, ocean, land, and ice; it is mathematically characterized by how energy and matter interact in different parts of the ocean, atmosphere, and land, representing the transfer of energy and materials through the Earth’s system.

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