

# 2021 ESG ISSUER ENGAGEMENT REPORT

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Addressing the Materiality of Climate Risk Through Issuer Engagement







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*Readers should note that the footnotes to this report appear on the back cover of the publication.*



# EXECUTIVE SUMMARY

## Addressing the Materiality of Climate Change Risk Through Issuer Engagement

Breckinridge's 2021 Issuer Engagement program focused on climate change risk as a unifying theme. We view climate change as a risk multiplier for corporate, municipal, and securitized bonds. It is an integral factor in our approach to environmental, social and governance (ESG) risk assessment.

During the first eight months of 2021, our research team members held nearly 60 direct engagement discussions with issuers and subject matter experts (SMEs). These meetings were in addition to the numerous interactions the analysts had routinely with issuers and SMEs as they conducted new security research and ongoing surveillance of the bonds in our investment portfolios.

### UN Report Starkly Illustrates the Challenge

This year, the United Nations (UN) confirmed that climate change risks are permanent and intensifying. On August 7, 2021, the [\*UN International Panel on Climate Change \(IPCC\) assessment report\*](#) stated that climate change is unequivocally driven by greenhouse gas (GHG) emissions caused by human activity.

Climate change and its consequences—extreme weather including hurricanes, typhoons, cyclones, and tornadoes; rising seas; melting ice caps; wildfires; deadly urban heat; coastal flooding; persistent droughts—are constant threats to human life and commerce. The more than 200 scientists convened by the UN to develop the report concluded that nations can no longer stop global warming from intensifying over the next 30 years.

While the science says that there is still a short window to prevent a disastrous future, the authors warned that, even if nations started sharply cutting emissions today, total global warming is likely to rise to around 1.5 degrees Celsius within the next two decades.

## Designing the Engagement Program on Climate Change Risk

During our 2021 issuer engagements, our analysts, issuers, and SMEs explored material physical risks of climate change. They also examined transition risks facing corporate and municipal issuers as they adapt to a low- or no-carbon economy.

Our engagement discussions also highlighted the dimensionality of climate change. Climate change is a pervasive risk across corporate and municipal sectors. This dimensionality of material climate change risks can complicate the task of transitioning to a low- or no-carbon economy, but it also may provide potentially powerful opportunities for collaborations that can accelerate progress. For example, representatives of city and state governments spoke of effective partnerships forged with regional groups addressing risks associated with water/sewer services. Corporate issuers discussed with us their work with SMEs to develop climate risk mitigation, adaptation, and measurement strategies.

### Two of Many Investment Insights from Issuer Engagement Meetings

Two conclusions from our engagement discussions on climate change are inescapable:

1. By and large, issuers recognize the threat of climate change to their current operating models and are seeking to mitigate the risks, but remain in the early stages of doing so; although there are pioneers, and
2. Investors must be discerning as they decide where to direct their investment capital for long-term sustainable performance in the markets and society





## Corporations at Various Stages of Addressing Climate Risks

Among corporate bond issuers, we learned that companies in the banking sector are increasing lending that targets sustainability projects, specifically climate change. The banking industry is also a leader in reducing GHG emissions in operations. In the energy and transportation sectors, we believe that carbon is a financially material ESG consideration. While the energy companies we met with have room to improve GHG emission-reduction plans, the large majority of transportation companies that we engaged with are targeting science-based GHG emission reductions.

In the corporate sector, we found food and beverage companies are developing innovative approaches to addressing the climate-related risks of water stress and scarcity. Those companies are moving the fruits of their research down the supply chain to farmers and other producers. Meanwhile, in the retail sector, bond issuers continue to balance addressing climate-risk concerns with consumer sentiment that often drives business to the most convenient and lowest-price provider.

## Municipal Bond Issuers Confront Multiple Challenges, Often Locally Defined

In the municipal market, we spoke with management teams at the state and city level, at municipal utilities, and at housing finance authorities. States often commented on the need for greater direction and funding from the federal level. As noted, cities are collaborating with state and regional teams that focus on local climate concerns. For example, our engagement with cities highlighted concerns associated with heat island effects in urban centers, and the inclusion of social and environmental justice considerations in mitigation and adaptation.

Municipal utilities—those providing electricity and those providing water and sewer services—also demonstrated growing understanding of the climate challenges they face. Power companies that are under regulatory mandates to achieve net zero emissions are setting strategies to reach their goals. Water and sewer utilities face a range of climate-related risks that are specific to their local service areas, from flooding in some areas to extreme drought in others.

Housing finance authorities face the dual challenge of addressing climate risk while preserving and adding to affordable housing

stocks in their communities. We learned they are in the early stages of their strategy development, but some promising mitigation and adaptation responses are emerging.

## Mortgage-Backed Securities and Climate Change

We also discussed integrating climate change risk in analysis of mortgage-backed securities (MBS) with one of the nation's largest government-sponsored enterprises (GSE) that issues mortgage bonds. The agency is in the early stages of including climate change in its considerations. We had the opportunity to advocate for more robust risk disclosure.

## Disclosure Must Be Improved to Better Serve Investors, Increase Climate Change Understanding

Another current vulnerability that was mentioned frequently during our engagement discussions was disclosure on climate risk. We discussed with issuers reasons that investors cannot access relevant information on climate risks. Some organizations may not have integrated comprehensive climate risk disclosures in their reporting practices. Regulatory requirements may not be up to date with the rapidly changing information required for robust climate risk reporting. Finally, and this rings true in our experience with issuers of municipal bonds, sufficient resources—financial and human—are not available to provide investors with comprehensive climate risk data.

We believe that the most sustainable businesses and municipal operations will be those that best plan for, mitigate, and adapt to climate change risk. The quality of disclosure on climate risks currently is often inadequate for investors seeking information before making an investment decision. It also is inadequate for a world seeking to measure and monitor progress in managing climate change.

In light of the IPCC's report, there is no time to be lost in this effort. Investors will need to be discerning in their analysis of the bond issuers making the best progress to achieve their climate risk management goals.

The summaries of our engagement efforts that follow in this report, show that most issuers across corporate and municipal bond sectors have come to recognize the operational risks associated with climate change. Nevertheless, we found that they are still in the early stages of defining and setting strategies to mitigate, adapt to or become more resilient to the risks.

# ABOUT BRECKINRIDGE

Breckinridge Capital Advisors is a Boston-based, independently owned asset manager specializing in investment grade fixed income portfolio management.



## What Sets Us Apart:

- Independent Asset Manager
- Integrated Fundamental & ESG Research
- A Decade of Sustainability
- Strong belief in customized separate accounts
- Continuous emphasis on innovation

Working through a network of investment consultants and advisors, we serve a wide variety of clients ranging from high-net-worth individuals to large institutions. Breckinridge's assets under management totaled more than \$46 billion as of June 30, 2021.

Reflecting our commitment to ESG and sustainability, Breckinridge is a [Massachusetts Benefit Corporation](#) and a certified [B Corp](#). We believe these designations help us in our goals to create positive, long-term impact for our clients, employees, and the communities in which we live, work, and invest.

## About Breckinridge's ESG Approach

A decade ago, leveraging the capacity for self-determination that our independence affords us, we departed from the path most other asset managers were following and decided to fully integrate ESG research into our investment process.

Breckinridge believes that material ESG issues can identify long-term and idiosyncratic risks. ESG fits seamlessly with our investment philosophy, which holds that investors are well served by counterbalancing higher-risk assets with investment grade fixed income investments.

Our annual program of engagement with bond issuers is a component of our ESG research. Driven by our research teams, engagement meetings with issuers and SMEs are opportunities to:

- Gain a better understanding of the ESG profiles, material issues, opportunities, and risks of issuers, industries, or sectors;
- Provide an idea generation platform for our analysts; and
- Encourage the transparent reporting of material ESG issues, as we believe improved disclosure enhances our ESG analysis to the benefit of our clients.

By better understanding and addressing investment risks across ESG and fundamental financial factors, we can better recognize risks and opportunities that may not be reflected in the long-term value of a security. We also believe ESG factors can provide useful insights into the character and caliber of management. An important element of our ESG approach is an annual effort to actively engage with bond issuers and SMEs on material ESG risks.

"Our engagement program is an important part of our ESG research process and our efforts to advance the interests of sustainability across markets and the economy. We take our responsibility as sustainable investors seriously and are committed to its continuation."



**ROB  
FERNANDEZ, CFA**

Director, ESG Research



# ENGAGEMENT APPROACH

## MUNICIPAL

The Breckinridge municipal bond research team identified five key climate change topics across large sectors of the municipal market. Team members arranged engagement meetings with issuers and SMEs to explore the topics in depth.

### THE COMPREHENSIVE AGENDA WAS:



**Ruth Ducret &  
Andrew Teras**

Heat stress  
and equity



**Robert Azrin, CFA  
& Michael Bonanno**

State climate planning  
and intergovernmental  
coordination



**Timothy Daley &  
Patrick Araujo-Lipine**

Water projects and  
climate planning



**Christopher  
Woodward, CFA**

Utilities and carbon  
neutral planning



**Alriona Costigan &  
David Stenhouse, CFA**

Housing affordability  
and climate change

During the first eight months of 2021, the team held nearly 30 direct engagement discussions with issuers and SMEs. These meetings were in addition to the numerous interactions the analysts routinely had with issuers and SMEs in the conduct of new security research and ongoing surveillance on the more than \$38.5 billion in tax-efficient bonds held in our clients' portfolios as of June 30, 2021.

As reported in a March 2021 commentary titled Muni-bond investors need straight talk about climate-change risk,<sup>1</sup> a Brookings Institution examination of 590 U.S. counties with populations over 100,000 found that "the offering statements of just 10.5 percent of municipal revenue bonds mentioned climate change." Revenues to repay investors in these bonds often are derived from physical projects such as tunnels, roads, and treatment facilities, which would likely suffer from adverse climate events.

Further, the Brookings study found that only 3.8 percent of general obligation municipal bonds mentioned climate change. Most municipalities issuing these bonds derive the bulk of their

revenues from taxes on real estate. Real estate values likely would materially decline as hurricanes or wildfires continue to threaten ever larger geographical regions across America.

Climate change is a material risk and a risk multiplier for municipal bond issuers, in our view. Yet, the information about this material risk that is made available for investors is often inadequate.

In past years, our municipal bond engagement programs explored topics such as disaster recovery, infrastructure resiliency, community development, community access to and affordability of higher education, municipal utility rate design, social determinants of health, health care cost transparency, and in 2020, responses to COVID-19.

The year 2021 proved to be a critical year to focus on the clear and present risks of climate change and the responses, adaptations, and mitigation strategies of municipal bond issuers.

# CITIES ADDRESS HEAT ISLAND EFFECTS WITH AN EMPHASIS ON EQUITY

People living in certain areas within the same city are at higher risk from heat, largely because of a lack of greenery. The circumstance can produce heat island effects.<sup>2</sup> Local governments can reduce heat vulnerability for residents through long-term planning to lessen future climate risks. By adapting to increasing heat, which we find often disproportionately affects underserved communities, and by pursuing climate resiliency, cities can enhance livability, attract, and retain residents, and build the tax base.

We held engagement meetings with municipalities and SMEs to examine how cities address heat stress and equity. Our meetings illustrated that while addressing excessive heat risk, cities also should plan for and respond to a broader range of extreme weather events. For example, one engagement meeting on extreme heat occurred during an extreme cold weather emergency that knocked out the city's power.

Identifying and analyzing which neighborhoods are most vulnerable to extreme heat events—which we found are often those communities created by historical redlining—correlated with a range of inequities and vulnerabilities, including poverty, age, housing status, social determinants of health, and in 2020, COVID-19 impacts. For example, social distancing is complicated if neighbors gather in cooling centers to escape heat.

Data is essential. It supports and defines efforts to address physical risks and social and environmental justice. Data can pinpoint areas where mitigation and adaptation strategies can be deployed for greatest effect, including tree-planting, shade structures, energy-efficient appliances, green infrastructure, and built-environment modifications such as cool roofs and pavements.

Data collection and analysis are increasingly sophisticated and essential to mapping a municipality's most serious heat stresses and most vulnerable communities. In one example, a city worked with a local university to institute urban heat island sensors to track and transmit data wirelessly to city planners.

Municipalities should address a range of climate risks. Marshalling and analyzing data to guide policy and practice are elements of equitably addressing issues, including heat stress. Staffing and funding strategic response plans through collaborative efforts within government and with community partners are essential to long-term progress.

As cities sought to address climate risks, we observed wide ranging efforts in depth and breadth. Some city administrations prioritize climate mitigation, adaptation, and resilience. They are supported in their efforts by coordinated and collaborative approaches across city departments, with involvement of local nonprofits, NGOs, foundations, and endowments. Other cities and regions are starting almost from scratch as municipal politics change. While some municipalities have comprehensive and up-to-date Climate Action Plans, other plans are more narrowly focused or have not been updated or outfitted for implementation.

ANALYSTS



Senior Research Analyst



Director, Municipal Research

## THEME:

“Our focus was learning more about how cities are addressing heat stress, a climate risk that can impact various regions across the U.S.”

“Sound urban planning that includes measures for adapting to extreme heat in both the short- and long term is an effective way for cities to respond to the heat island effect while fulfilling their mission to protect and provide vital services to the community.”

— U.S. Environmental Protection Agency



## SECTOR: STATE/REGIONS

# STATES CAN PLAY AN IMPORTANT ROLE IN HELPING LOCAL GOVERNMENTS PLAN FOR CLIMATE CHANGE

States can play a central role in addressing climate change at local levels, often filling a void left with lack of direction at the federal level. Local and regional entities address climate change risks across a wide range of concerns, including air, water, land use, power, GHG reduction, transportation, trade and commerce, and coastal and inland natural systems. States can facilitate and advocate for climate change, often brokering resources and expertise among local government, while advocating regionally and nationally for coordination, direction, financing, and action.

We held engagement meetings with states that are taking proactive roles so that we could develop a deeper understanding of how they are planning for climate change and the role the federal and local governments play in these efforts.

In meeting with state executive leadership teams, five key themes emerged: 1) a one-sized solution will not address every state's need, 2) state support of local efforts varies widely, 3) regional and state collaborations can be helpful, but also are flawed and have their own challenges to address, 4) the federal government can be an important partner to the states to an extent, and 5) a focus on social and environmental equity in solutions is growing.

States tend to see an important part of their role to be providing resources—sometimes financial, sometimes expertise—for local governments as they identify climate hazards and plan and implement adaptation, mitigation, and resiliency programs.

All of the states that we met with are addressing the need to reduce GHG emissions, a critical factor when planning for climate change, but their approaches differ. One state publicly discloses its targets and progress in a dashboard, a level of disclosure that leads among states we met. Another state sponsors an infrastructure bank, which is a model for providing local governments with funding.

Still, funding is insufficient at the federal, regional, state, and local levels. Without adequate funding, local governments cannot execute their plans for adaptation, mitigation, or resiliency.

States also find frequent shortfalls in technical expertise at the local level. States are in a position to offer economies of scale by providing technical assistance to local governments as they identify and implement priority projects. These collaborations can accelerate progress on implementation.

The federal government can be an important source of financial support for state and local governments in pursuing mitigation, adaptation, and resiliency. Washington's most important role, based on our conversations, may be for the federal government to lead by promulgating effective climate policy that provides a supportive context for local actions. This would help to avoid political infighting and other roadblocks that may stymie progress at the state and local level.

Social equity is a growing consideration during deliberations, planning, and deployment of climate adaptation and mitigation projects. One state noted it is prioritizing those projects that clearly address social and environmental issues. Another state representative commented on a heightened priority the state is placing on "equitable transitions for environmental justice populations" (See [Justice Concepts Integrated in Administration's Environmental and Climate Initiatives](#).)

In some cases, states are playing important roles as collaborators and, to varying extents, enablers of climate risk mitigation, adaptation, and resiliency efforts. Increased effort and support from the federal government as well as regional collaborations are critical to advancing progress in addressing the myriad of pressing climate challenges at the state and local level.

ANALYSTS



**ROBERT AZRIN, CFA**

Senior Research Analyst



**MICHAEL BONANNO**

Senior Research Analyst

## THEME:

"Our focus was developing a deeper understanding of how states are planning for climate change and the role federal and local governments play in these efforts."

"Since the early 1990s, state and local governments moved to fill some of the climate policy void left by the federal government's inaction."

— "Climate Change Policymaking in the States: A View at 2020"

# CLIMATE THREATENS QUALITY AND EQUITY OF MUNICIPAL WATER/SEWER SERVICE PROVIDERS

Providing clean water and effective wastewater management are essential municipal services. They are an important factor to a community's quality of life. The presence or absence of high-quality delivery of these services can be the difference between attracting and retaining residents and businesses, which supports property values, compared with economic and population declines.

Delivering high-quality water/sewer services is difficult enough considering aging infrastructure that many municipalities must maintain and refurbish. Add in climate change effects, including increasingly common extreme rainfall events and drought conditions we have observed, and the task municipalities face in maintaining these services grows more complicated.

We held engagement meetings with large municipal water/sewer authorities and sector SMEs to explore the issues and risks more fully. During our meetings with these issuers and professionals, we discussed innovative and proactive efforts to maintain, refurbish, and adapt clean water and wastewater capabilities to changing climate conditions.

We spoke with a number of authorities that are integrating social and environmental issues in their capital spending plans, including the concerns of historically underserved communities. (See [Justice Concepts Integrated in Administration's Environmental and Climate Initiatives](#) and see our discussions of environmental and social justice in our engagement report *Cities Address Heat Island Effect Adaptation, Mitigation as Guided by Justice Considerations*.)

Underserved communities have seen a number of incidences of negative effects from deteriorating water and sewer systems in recent years, as reported in high profile cases including Flint, Michigan, Dos Palos, California, and Newark, New Jersey.<sup>3</sup>

As one authority approached enhancements to its infrastructure, it engaged with the community for 18 months about a green infrastructure/stormwater management plan, educating residents about the project

and discussing potential job creation and neighborhood revitalization.

Another authority is in early stages of considering the potential effects of climate change on water/sewer operations, with no specific GHG emission reduction or climate resiliency plans. The authority participates in regional planning council efforts. Further, prompted by our engagement, management at the authority began to reach out to nearby communities to learn more about their approaches to water/sewer mitigation, adaptation, and resilience. The authority and its banking advisors enthusiastically participated in our engagement, stating that investor questions are important drivers of bond issuer action.

Our engagement meetings on the climate risks confronting municipal water/sewer service providers offered a definitive reminder of risk dimensions confronting them. Stormwater management is a prominent area of concern for some, while drought, erosion, conservation, and clean water supply are more prominent concerns for others.

Our engagement highlights that the authorities that are positioned well to confront these risks are those innovative authorities that take a systemic approach. They work collaboratively with certain departments—operations and maintenance, engineering, and finance—as well as local and regional communities to tackle multiple risks during capital planning to address supply, storage, pipelines, treatment plants, pump stations, and other infrastructure and contingencies.

In discussions with authorities and SMEs, we confirmed that many issuers will look to enhance their climate reporting if driven by constituencies, local political officials, or if and when they experience environmental emergencies. Waiting until that eventuality can place a municipality at a significant disadvantage for recovery and progress. Continual planning needs to be undertaken and practical progress accomplished before emergencies arise to maintain quality of life and control long-term costs.

ANALYSTS



Senior Research Analyst



Senior Research Analyst

## THEME:

“We focused on water supply, resiliency efforts, and local climate issues in conjunction with capital planning.”

“As the population grows, agricultural demands, energy production, and industry expansion will increase water demand while extreme weather spurred by climate change will threaten drinking water supplies. Properly managing our scarce water resources is therefore more important than ever.”

— “Urban Cities Confronting Climate Change Through Water Management: New York City as an example”



## SECTOR: PUBLIC POWER

# MUNICIPAL POWER PROVIDERS ARE REIMAGINING THE ELECTRICITY GRID

Increasingly, municipal power providers are instituting or adopting mandates to transition away from carbon for power production. For these municipal bond issuers, two considerations are key in our credit and sustainability assessments: resources and reliability. We seek to assess which electric resources will compose the renewable energy output, and what system reliability will be during and after transition based on expected peak needs.

We held engagement meetings with municipal power providers in major metropolitan and wide geographic service areas—including one organization encompassing both power and water services—to discuss approaches to moving away from carbon production. In addition, we consulted nonprofits facilitating clean-energy transitions.

Like investor-owned utilities, municipal power providers face a multi-dimensional challenge on their path away from carbon-based energy production, including meeting customers' still-growing capacity demands while simultaneously retiring fossil-fuel generation plants and replacing them with carbon-free alternatives.

While most municipal power providers we met have defined target goals on a path away from carbon-based operations, their integrated resource plans—and one integrated system plan—reflect disparate strategies to reach the goals and have made varying progress on them.

Their individual challenges require further consideration when assessing the issuers. While one municipal power provider must mitigate the risk of wildfires, another is seeking to address water resource demands in a drought prone area. Several municipal power providers should develop service and rate plans that equitably address disparate residential and commercial needs.

Renewable energy solutions—solar, wind, geothermal, biodiesel, green hydrogen, nuclear—offer alternatives for companies and customers. As consumers more frequently choose to adopt alternative means

of powering their homes, utilities may have the opportunity to account for emission reductions realized through customers' initiatives in combination with reductions that the utility may achieve. First, the utilities must implement policies and procedures for capturing the benefits that consumers are achieving from renewable energy solutions. During our engagements, we have spoken with utilities that have not taken these steps.

One engagement highlighted for us, as well as for the municipal power providers, is that by understanding its customer types and needs and integrating their progress with those of the power provider, the utility can take into its own accounting the progress realized by the customer. Purchasing rooftop energy counts toward utility goals and when timed with battery storage can be less disruptive to the overall aim of maintaining reliability.

This points to the fact that municipal power providers must avoid complacency. As the U.S. electric grid and its customers become equipped to achieve aims for differentiated energy supply—both clean and dirty—customers will be able to assume an increasing role as energy-provider and storer, in addition to being the utility's consumer.

We believe that there was authentic and genuine give-and-take in our engagements. Municipal power providers demonstrated interest in our views and definitions of sustainability to inform their future planning. We have observed a shift in the philosophical view of some service providers to seek to better understand their customers and comparative-advantages they share. More recently, we note that shared goals can advance each party's interests.

Actual progress is more difficult to document in some cases, which means investors must be discerning in their examination of a utility's progress away from carbon.

ANALYST



Senior Research Analyst

### THEME:

"This engagement assessed credit risks and sustainability of public utilities that either self-impose or are required to meet elevated carbon-free mandates. The intent is to gauge risks specific to the transition to these resources."

"In the context of electric utility climate resilience planning, measures to gird against coming climate consequences should be evaluated and implemented in a manner consistent with emission reduction strategies. Thus, for example, electric utilities should consider investments to support distributed renewable energy resource deployment instead of hardening fossil fuel infrastructure."

— *Climate Risk in the Electricity Sector: Legal Obligations to Advance Climate Resilience Planning by Electric Utilities*<sup>4</sup>

# ADDRESSING CLIMATE CHANGE ADAPTATION AND MITIGATION IN AFFORDABLE HOUSING

Housing affordability is becoming an increasingly difficult challenge for American cities and towns. Recent studies suggest that sea-level rise and coastal flooding due to climate change will threaten the future availability of affordable housing.<sup>5</sup> Housing Finance Authorities (HFAs) that do not address climate adaptation and mitigation face risks to real property, the value of current housing stock, and residents' health and welfare.

We held engagement meetings with affordable housing developers and financiers as well as SMEs who are addressing the supply of safe and affordable multi- and single-family housing for low- and moderate-income residents across America. To help frame the challenges that climate risk poses for affordable housing, one executive outlined a strong relationship between affordable housing and climate risks, putting those dependent on affordable housing at extreme risk of losing their homes.

In some states, the primary tool that HFAs utilize to incorporate climate resiliency in awarding Low Income Housing Tax Credits is the Qualified Allocation Plan (QAP). In those instances, a QAP may have a dedicated climate section that requests information about climate adaptation and risk mitigation for new construction. Developers seeking financing can gain points by qualifying for standards such as National Green Building, Net Zero Energy, Passive House, and Energy Benchmarking, for example.

Increasingly, new developments are incorporating Leadership in Energy and Environmental Design (LEED) building approaches. Creative programs are helping affordable housing developers, owners, and financiers protect buildings and residents from climate change events. For example, one program offers free tools and guides for assessing portfolio and property climate vulnerability and developing actionable strategies.

Trends in passive housing design were common topics among the agencies and authorities we met. Passive housing employs principles to attain measurable and rigorous

levels of energy efficiency within a specific quantifiable comfort level. New construction employing passive housing techniques may prove more sustainable over time.

Financing adaptation and mitigation for existing affordable housing stock can be more complicated than for new construction. Addressing the climate risks threatening current affordable housing stock requires responses to a wide range of climate change risks, depending on location, including flooding, hurricanes, extreme heat, and fire, among others. Tax credits or government-sponsored financing for resiliency projects could spur additional upgrades for existing affordable housing.

As HFAs seek to anticipate and respond to climate risks, they face challenges similar to those faced by other municipal agencies. As one SME observed, HFAs historically have been slow to adapt. Implementing climate resiliency initiatives is no different. Being involved early in planning is essential.

Further, while some federal programs and data sources support the efforts of affordable housing owners, operators, and managers to better understand and plan for risks, others offer limited or outdated data that is not forward looking. In addition, while fortified housing standards exceed typical building codes to deliver superior performance during severe weather or disaster events, no template exists to endorse ESG for a real estate entity.

The effort to provide affordable housing faces significant barriers frequently, including community opposition, lack of funding, limited financial support through tax credits, escalating material and labor costs, and complex regulations. Climate risk further complicates an already difficult proposition.

By working with HFAs pursuing affordable best practices for the housing industry, we believe we can better identify providers that will address community affordable housing needs on an equitable basis, while maintaining an ability to meet bondholder obligations.

ANALYSTS



ALRIONA COSTIGAN  
Senior Research Analyst



DAVID STENHOUSE, CFA  
Senior Research Analyst

## THEME:

“Recent studies suggest that sea level rise and coastal flooding due to climate change will threaten the future availability of affordable housing. Our focus was the intersection of climate change and affordable housing.”

“Extreme weather events fueled by climate change are exacerbating the intertwined crises of affordable housing and homelessness and thus require timely intervention by federal, state, and local governments.”<sup>6</sup>

— The Center for American Progress



# ENGAGEMENT APPROACH

## CORPORATE

The Breckinridge corporate bond research team identified five key climate change topics across sectors of the corporate market. Team members arranged engagement meetings with issuers and SMEs to explore the topics in depth.

### THE COMPREHENSIVE AGENDA WAS:



**Nicholas Elfner**

Climate risk management and disclosures



**Joshua Stein, CFA**

Transition risk across value chain



**Brian Garcia, CFA**

Water stress, scarcity



**Abigail Ingalls**

Energy efficiency for retail locations



**Joshua Perez, CFA**

Competitive opportunities and threats

During the first eight months of 2021, the team held nearly 30 direct engagement discussions with issuers and SMEs. These meetings were in addition to the numerous interactions the analysts had routinely with issuers and SMEs in the conduct of new security research and ongoing surveillance on the more than \$7.8 billion in bonds managed across Breckinridge government/credit and fixed income portfolios as of June 30, 2021.

On July 28, 2021, *Pensions & Investments* quoted the Securities and Exchange Commission (SEC) Chairman Gary Gensler speaking at a Principles for Responsible Investing event. “Today, investors increasingly want to understand the climate risks of the companies whose stock they own or might buy,” Mr. Gensler said. “Large and small investors alike, representing literally tens of trillions of dollars, are looking for this information to determine whether to invest, sell, or make a voting decision one way or another.”

Equity investors are not the only ones who need this information; corporate, municipal, and securitized bonds investors need this information as well. The SEC is currently working on rulemaking for climate-risk disclosure and has received more than 550 comment letters—including ours—on the issue during a comment period that ended in June 2021. Consistent and detailed reporting serves investors well and would represent a significant improvement from the current rules and requirements around corporate ESG reporting broadly and corporate climate risk disclosure specifically.

During the last several years, our research analysts have conducted more than 260 direct engagement discussions with corporate bond issuers. The year 2021 has proven to be a critical year to focus on responses, adaptations, and mitigation strategies of corporate bond issuers to the clear and present risks of climate change.

## SECTOR: BANKS

# SUSTAINABLE FINANCING: FUNDING THE JOURNEY TO A SUSTAINABLE ECONOMY

Global systemically important banks (GSIBs) are seeking to limit risk and pursue opportunities associated with shifts in business and society in response to climate change. For example, green, social, sustainable, and sustainability-linked bonds as well as bank lending increased substantially in 2021.<sup>7</sup> Banks with a proactive approach to financing sustainability initiatives may be better positioned to grow as climate-related transitions and broader social initiatives advance.

We held engagement meetings with banks in four countries that held more than \$6.6 trillion (USD) in assets collectively, as of December 31, 2020. The banks provide sustainable financing to customers and mitigate climate risk in their operations. Some have records of accomplishments that date back more than a decade, including one that traces its sustainable approach to its founding as a cooperative bank working with farmers.

Collectively, they have committed to delivering more than \$1 trillion in sustainable financing, largely within the next 10 years (See [Sustainable Bond Innovations Sparks Issuance, Boost Transparency](#)). In their own operations, they have achieved already or are planning to achieve net zero GHG emissions well before the 2050 goal of the [Paris Agreement](#). The banks also measure, document, and report on their climate risk management efforts.

Perhaps reflective of these banks' long-term involvement with sustainability in lending and operations, our engagement meetings with GSIBs also revealed long-term working relationships with banking regulators and leading NGOs that are developing climate risk management strategies, activities, and procedures.

A challenge facing these banks is continuing to manage and measure sustainability in underwriting activities and loan portfolios, while encouraging sustainable operations among clients, and all within a highly competitive marketplace where other banks may not maintain the same standards and commitments to long-term climate change risk adaptation and mitigation.

Negotiating evolving climate regulations and political shifts is an additional test. During our engagement program, we identified GSIBs that are adopting procedures of the Partnership for Carbon Accounting Financials (PCAF). PCAF enables financial institutions to assess and disclose GHG emissions of loans and investments (including GHG emissions in Scope 3 categories) in addition to their own direct and indirect emissions (Scope 1 and Scope 2 category emissions). (For more on PCAF, see the accompanying article "PCAF (Partnership for Carbon Accounting Financials) Sets Standards for Bank GHG Reporting".)

In 2021, the Federal Reserve (Fed) created two new entities to regularly evaluate and respond to the threat of climate change to the financial system. The first, the Financial Stability Climate Committee, focuses on the broader financial system. The second, the Supervision Climate Committee, focuses on individual institutions. The work of the committees is intended to ensure that banks embed climate change in their business decisions.

For investors, the work of these committees means that the Fed and other bank regulators will require that banks gather climate-relevant information in a consistent way. Such information is needed so that regulators can enforce a consistent set of standards and evaluate and manage risks across the system.

As sources of financing for business and community growth, GSIBs and large banks hold a powerful and essential position from which they can address and influence sustainability across sectors and economies. The banks we conducted engagements meetings with are leaders relative to peers on issues related to sustainability and climate risk in their operations and those of their borrowers. Nevertheless, the management teams we met with acknowledge there is much work left to be done to achieve their targets for sustainable lending and net zero operations. As such, they are positioned to lead a transformation of financing with sustainable goals in mind, while the world's economy transitions to a low carbon future.

"The global sustainable bond market has surpassed \$3 trillion of issuance and shows no signs of slowing as the pandemic fuels demand for funds for environmental, social and governance purposes."

—*"Global ESG Debt Market Tops \$3 Trillion as Virus Spurs Issuance," Bloomberg, 6-10-21*





Co-Head, Research

## PCAF Sets Standards for Bank GHG Reporting

Our engagement discussions with financial institutions, such as global banks, over the past few years led us to conclude that most were in the very early stages of accounting for GHG emissions in their lending or investment portfolios.

Financed emissions is a major source of Scope 3 emissions for the sector. They also represent a significant percentage of a bank's entire GHG footprint. Poor visibility into the emissions profile of a lending client is an ESG risk for the institution.

A key reason for the banking sector's lack of traction on emissions accounting was due to fact that a globally recognized reporting framework has not existed, until recently.

PCAF published the first edition of its "Global GHG Accounting and Reporting Standard for the Financial Industry" in November 2020. The effort was started by a group of Danish banks in 2015. In 2021, 149 financial institutions, mostly commercial banks, with over \$48 trillion in assets collectively, have committed to measuring and reporting on the

GHG emissions embedded in their portfolio of loans and investments. The standards provide guidance on GHG quantification and disclosure for six assets classes including listed equity and corporate bonds, business loans on unlisted equity, and project finance.

PCAF is planning to relaunch its revised and expanded standard for consultation ahead of United Nations Climate Change Conference (COP26) in November 2021, in Glasgow, Scotland. The PCAF standards are a welcomed development for the banks and financial institutions where Breckinridge invests. We expect that the standards will provide several benefits including much needed transparency to a bank's portfolio level climate risks.

Additionally, alignment with the standards provides an important foundational element for banks as they seek to achieve their zero-carbon goals, as well as asset managers committing to the net-zero asset managers initiative.

### THEME:

"We engaged with global banks to learn more about their initiatives to mitigate climate risk and provide sustainable financing solutions."

"For example, Accenture research conducted in May shows that almost three-quarters (71%) of U.S. banks can monitor and assess their carbon footprint today."

— "Banks Increasingly See Climate Risk As Top Priority"  
Forbes, January 29, 2021



# U.S. LAGS DESPITE SUCCESSES IN ADDRESSING ENERGY TRANSITION ISSUES

Companies in the energy sector face among the most material risks to their businesses as the world transitions to a low- or no carbon economy. As they wrestle with existential challenges that they will face in the long-term as oil, gas, and coal use declines, fossil-fuel companies also will be expected to reduce current GHG emissions to comply with regulations and, as one executive we talked to during our engagement program described as, “what society demands.”

We held engagement meetings with companies across energy subsectors including oil and gas exploration and production, pipelines, refining, and oil field services. During the meetings, we examined how companies across the energy value chain are managing climate transition risk.

Our engagement discussions focused on how the oil and gas sector can decarbonize its own operations (Scope 1 and 2 emissions) and reduce the emissions of the products and services the sector provides (Scope 3 emissions). It is estimated that 88 percent of the sector’s emissions are from Scope 3,<sup>8</sup> so this was a key area of focus. (For more on the GHG reduction challenges across Scopes 1, 2, and 3 emissions among Global Systemically Important Banks (GSIBs), see *Sustainable Financing: Funding the Journey to a Sustainable Economy*).

The companies we spoke with have comprehensive plans to reduce their Scope 1 and 2 GHG emissions. In fact, most of the net-zero goals in the sector currently only include Scope 1 or Scope 1 and 2 emissions. These plans include

operational efficiencies, investing in renewables or signing purchase power agreements for renewable power generation, and electrifying vehicle fleets. One company proactively reset its baseline year for reduction comparisons to account for corporate changes and acquisitions and divestitures in accordance with the Greenhouse Gas Protocol.

Reducing Scope 3 emissions is where we found the greatest divergence across companies.

While several companies are innovative in their responses to business transition risk and GHG reductions, others appear to be ignoring signs that their peers in the U.S. and overseas acknowledge. Across the U.S. energy sector, the intensity and intent of risk management approaches vary widely among companies.

We noted in several instances that renewables—wind, solar, low-carbon alternatives such as biofuels, renewable diesel, and hydrogen—are being pursued to augment or replace fossil fuels (For related information, see *Climate Risk Mitigation at the Point of Sale and Driving Change: Transportation Sector Faces Challenges in Climate Change Responses*, reports on our engagements with retailers and transportation companies, respectively, in 2021). In addition, carbon capture and storage (CSS) technology is being developed, deployed, and is operating by some companies with early successes.

Responses to climate concerns across the sector are not uniform, however. During one engagement discussion, we learned that the company’s GHG reduction targets are not comprehensive, science based, or reflective of any anticipation of a transition away from fossil fuels. Instead, the company expects persistent fossil fuel demand and seeks to be a low-cost provider. However, this company leads in reducing methane emissions from gas flaring at well sites, which is a positive contribution to reducing emissions.

Another company advocated for political and regulatory incentives to support technology development. We believe coordination across governments globally is needed to incentivize shifts in demand for lower-emitting products and services. Governmental coordination could also incentivize energy companies to transition their businesses as well. Incentives could include carbon taxes, or subsidies for development of electric vehicles (EV), CCS, and renewable fuels, as examples.

While advocacy among investors and other stakeholders is needed, the absence of government efforts can dissuade companies from large-scale investments in clean technology because of lower expected returns compared with traditional oil and gas businesses.

We continue to see divergence in management’s focus on energy transition among U.S.-based and non-U.S.-based companies (For more on this subject, see [Carbon Transition Risk Engagements Reveal Global Disparities](#)).

This may change in the U.S. with the focus on climate change from the Biden Administration and a return to the Paris Agreement (For more on this subject, see [Changed Power Structure in DC May Support Environmental Initiatives](#)).

Notably, the U.S. Senate passed the Infrastructure Investment and Jobs Act on August 10, 2021, which includes substantial investments in energy efficiency, clean tech, EV charging stations, EV batteries, and CCS, among other initiatives. Following Senate approval, the bill moved to the U.S. House of Representatives for consideration.

In the absence of advancing sector-level efforts in line with those of non-domestic energy peers, we believe that U.S. energy companies overall will lag in contributions to stemming the effects of climate change and the risks it presents to the sector's future performance.



# ANALYST



Senior Research Analyst

## THEME:

“This engagement series examined how companies across the energy value chain are managing climate transition risk.”

“The world’s energy system is transforming rapidly, yet current progress lags global climate ambition.”

— International Renewable Energy Agency

## SECTOR: FOOD & BEVERAGE

# FOOD AND BEVERAGE COMPANIES ADDRESS WATER RISKS THROUGH COLLABORATION AND INNOVATION

The material water scarcity and water stress risks that confront global food and beverage companies are intensified by the effects of climate change. Given a high reliance on water in operations and supply chains as well as increasing water stress and scarcity globally, food and beverage companies can be exposed to supply disruptions and added costs.

During 2021, we held engagement meetings with global food and beverage manufacturers that produce major branded products across cereals, pastas, snacks, baking products, yogurt, soft drinks, spirits and beer, and frozen foods. During our engagement meetings, we examined strategies companies employ to mitigate water risk and enhance its efficient use and conservation.

An important conclusion of our discussions is that companies with effective water scarcity and stress strategies in place also tend to provide best-in-class ESG disclosure, which is important for investors seeking to integrate material ESG factors into security analysis. Companies lagging in responses to water resource risks also tend to lag in reporting on other ESG factors.

Food and beverage companies addressing water supply and management risks reported success in working with key stakeholders that are drawing from the same watersheds as the companies. Collaborating with local communities, governments, nonprofits, and NGOs create a sense of accountability, as well as strengthen cooperative efforts to protect and maintain watersheds.

Food and beverage companies also engaged with suppliers to mitigate risks of water supply disruptions or shortages. This strategy addresses the fact that the majority of the companies' water use is in supply chains, and specifically in agricultural supply chains.

Regenerative agriculture is proving to be a strategy gaining acceptance among leading food and beverage companies. Traditional farming tends to deplete key resources including soil and water. Regenerative agriculture can enrich soil, promote biodiversity, improve water quality, and capture carbon.

Additional strategies we discussed with food and beverage sector bond issuers are resiliency and restoration of watersheds, implementing drip irrigation rather than flood irrigation, and developing water management strategies and effective reporting.

Overall, our 2021 engagement with food and beverage companies highlighted best practices in water risk management in the food and beverage sector. We were able to better assess the performance relative to peers of each company we engaged with about this material ESG factor.

ANALYST



**BRIAN GARCIA, CFA,**

Senior Research Analyst

### THEME:

“The engagement program examined how food and beverage companies manage the financially material ESG issue of water use and management.”

“Shifting both crop and pasture management globally to regenerative systems is a powerful combination that could drawdown more than 100% of annual CO2 emissions, pulling carbon from the atmosphere and storing it in the soil.”

— The Rodale Institute,  
September 2020.



## SECTOR: RETAIL

# CLIMATE RISK MITIGATION AT THE POINT OF SALE

As public sentiment shifts to favor environmentally friendly businesses,<sup>9</sup> a retailer can leverage sustainability principles to attract and retain new clients. Companies that authentically integrate and publicly communicate progress on climate risk mitigation may be positioned for stronger future growth.

We believe that energy efficiency can be a powerful strategy to improve customer service, demonstrate commitment to sustainability, and achieve environmental goals. Our 2021 program of engagement with retail sector companies explored how they manage climate risks including GHG emissions, energy efficiency across store networks, and employee safety as it relates to hazardous materials.

We held engagement meetings with national general merchandise dollar store operators and companies operating retail locations selling aftermarket auto parts, supplies, equipment, accessories, and tools. In total, the companies operate more than 34,000 retail locations collectively in the western hemisphere as of December 31, 2020.

Our engagement meetings found companies with sustainability efforts that ranged from proactive to perfunctory. Compared with big-box omnichannel retailers, we engaged with companies that tend to focus their operations on brick-and-mortar stores. As a general rule, aftermarket automotive and dollar store sub-segments seem to lag the broader retail peer landscape when it comes to tackling climate change challenges in their operations.

We hypothesize that this could be a result of elevated consumer price-sensitivity in these subsegments. When customers are focused on price as a key differentiator, issuers may be incentivized to pursue sustainability initiatives only within the confines of prioritizing price and convenience, rather than pursuing wholesale strategy changes.

For example, several companies reported energy use and GHG emissions reductions by converting to interior LED lighting and more efficient heating/ventilation/air conditioning infrastructure, while committing to setting science-based targets for Scope 1 and 2

emissions (their own direct and indirect emissions). In one notable example, the company's chief sustainability officer is working with a third-party consultant which recommends strategies to achieve energy efficiency.

Several companies see supply chain engagement as an opportunity to reduce Scope 3 GHG emissions (all other indirect emissions). Their efforts include prioritizing suppliers that are seeking to cut GHG emissions or encouraging existing suppliers to make improvements. One retailer, for example, is working to source products from cargo carriers certified by the Environmental Protection Agency's SmartWay program.

These examples of innovative efforts serve as a contrast to another retailer that has yet to appoint a sustainability leader, does not have any stated GHG emissions reduction target, and is not systematically measuring energy consumption price/supply risks.

More than one of our engagement discussions highlighted that, similar to issuers in other economic sectors, issuers in the retail sector face a wide range of reporting/disclosure requests from investors, which can cause confusion. Those committed to leadership in reporting consistently disclose information according to at least one recognized framework, while exploring potential strengths and weaknesses of others; these efforts demonstrate genuine commitments to communication.

Like other issuers, retailers face myriad ESG challenges beyond those in the environmental sphere. We were curious about the interplay between labor management and environmental practices. We explored company policies and practices that encourage employee performance to avoid environmental harm or proactively address chemical and hazardous waste risks.

Efforts to reduce energy consumption, advance environmental goals, to minimize waste, and to reduce and recycle hazardous waste could have substantial positive effects on a retailer's competitive positioning.

ANALYST



Senior Research Analyst

### THEME:

"The focus of the engagement with retailers was their approach to managing climate-related risks, including efforts to reduce greenhouse gas emissions."

"Through large-scale manufacturing, shipping materials, supply chain processes, and powering stores, the global retail industry is a staggeringly large contributor of carbon emissions."

— "Consumers demand action on climate change — and it's time for retailers to listen"  
Retail Dive – February 21, 2020

# DRIVING CHANGE: TRANSPORTATION SECTOR FACES CHALLENGES IN CLIMATE CHANGE RESPONSES

America's transportation sector has a multifaceted role in responding to the risks of climate change. GHG emissions, hazardous pollutants, and fuel efficiency are central challenges for the sector.

To explore how sector leaders are responding to threats and opportunities of physical climate change risks and preparing for a transition to a low-carbon economy, we held engagement meetings with companies that engage in freight delivery over rails, primarily deliver packages and parcels over roads, and provide logistical support to freight haulers.

Through our discussions, we learned that railroads consider the physical risks of climate change, including more frequent adverse weather conditions, to be a greater material risk than road-transportation companies.

The rail companies' heightened concern is due to maintenance of the expansive in-place network of thousands of miles of track. Aging track degraded by weather must be replaced or refurbished while tracks at risk of flooding should be raised. The increase in extreme weather events brought on by climate change directly impacts the physical infrastructure that railroads must have to operate.

One railroad executive said "arguably all" of a rail company's capital expenditures (capex) are sustainability focused. As a practical matter, non-maintenance capex targets lower costs, not all of which is through fuel efficiency.

To his point, however, more efficient railroad operations will use fewer diesel-powered locomotives to move longer trains and more freight with less idling time. Considering that railroads are four times more fuel efficient than typical diesel-powered trucks,<sup>10</sup> a more productive and fuel-

efficient business model could further reduce GHG emissions and improve on-time performance relative to road-based freight.

When it comes to transition risks, rails will face reduced freight volumes and revenues in a low-carbon economy. Fully, 30 percent of one railroad's annual revenues 10 years ago was attributed to coal. In 2020, that total had slipped to 13 percent.

In the face of declining revenues, railroads will need to increase efficiency to maintain or improve earnings. Intermodal business is a potential solution to railroads' top-line woes, but that is a lower-margin business.

Conversely, road-based transportation companies are more focused on the transitional risks associated with climate change when compared with physical risks. By focusing on alternative fuel vehicles, leveraging route optimization software, facility automation and drones, road-based transportation companies seek to reduce costs and mitigate the risk of losing market share.

One package delivery company seeks to reach its carbon neutrality goal by 2040—an industry first within the transportation sector. The company intends to cut emissions to zero for its ground fleet and invest in research that will help to sequester CO<sub>2</sub> from the atmosphere to help offset emissions stemming from the company's aircraft operations. The company will support biofuel and CCS developments (For related information, see *Climate Risk Mitigation at the Point of Sale*, a report on our engagements with retailers in 2021, and *U.S. Lags, Despite Successes in Addressing Energy Transition Issues*, a report on our engagements with energy sector companies in 2021).

While physical climate change risks are the primary concern for issuers across the railroad sub-sector, these companies are also developing solutions to further improve their emissions profile such as hydrogen-powered locomotives that could advance fuel cell and battery technology retrofits on existing locomotives, although the technology is in its early stages.

For companies that primarily use road-based transportation, natural-gas powered vehicles and improved logistics are yielding emissions improvements in the near term, while EVs, drone deliveries and CCS technologies may drive future improvements.

Railroads face higher physical risks associated with climate change than the other transportation companies but may have greater opportunities associated with climate change transition risk, as they may be able to take market share from long-haul trucking if they can leverage their edge in cost efficiency and continue to operate with a lower relative emissions footprint.

Road-based transportation companies face higher potential climate-related transition risks related to potential carbon costs and elevated fleet transition costs for efficiency during a transition to a low- or no-carbon economy.





**JOSHUA PEREZ, CFA**

Senior Research Analyst

## Hydrogen is a Promising Source of Low- or No-Carbon Energy

Hydrogen's primary use today is as raw material for such industrial applications as oil refining and in the production of ammonia for fertilizer. However, the chemical element is a promising source of low or no-carbon energy in a net zero pathway. During engagements in 2021, we discussed hydrogen-based fuel cell technology with bond issuers exploring the technology as a solution to cut emissions from locomotives, a major portion of a railroad's carbon footprint.

Breckinridge partnered with MIT Sloan's Laboratory for Sustainability Business for the past several years on a variety of research projects. In 2021, we collaborated with the student team to study the energy sector's exposure to climate transition risk. As part of the research, the team evaluated hydrogen as an emerging new technology and its potential impact on the demand for oil and gas.

Conclusions from the project include the expectation that hydrogen will not create major market disruptions within the next 10 years. Investments in infrastructure projects are expected to distribute hydrogen, which could serve as a new, diversified source of

revenue for midstream companies. Currently, hydrogen can be blended with natural gas and shipped through pipelines. However, the blend ratio of 15% hydrogen to 85% natural gas limits the transportation potential.

In addition, ongoing research and development is anticipated to insert hydrogen into heavy transportation, specifically in marine shipping and rail. Challenges to more widespread usage include hydrogen's physical properties. Its volumetric density is 3.2 times lower than natural gas and 2,700 times lower than gasoline, which makes it harder to handle and store. Another factor stunting hydrogen's growth is fact that it is currently expensive to produce. However, green hydrogen, formed through an electrolysis process with green energy and water as the sole inputs, is expected to be cost competitive by 2030.

Innovation could be accelerated through government invention and incentives. For example, it was reported in early 2021 that over 30 countries have published hydrogen development plans and have pledged government funds to drive adoption.

### THEME:

"The focus of engagement with transportation companies was about their approach to managing the competitive opportunities and threats that climate change presents and how they are positioning themselves in response."

"Transportation is one of the most exposed industries to carbon emissions as a material ESG issue. Most of this exposure stems from fuel and other energy costs, which can constitute up to 30 percent of revenues for major companies."

— *Sustainalytics, Transportation Industry Report, 2020*





# CORPORATE ENGAGEMENT SURVEY RESPONSES ADD INSIGHTS TO ENGAGEMENT MEETINGS

In addition to company specific inquiries, during our engagement meetings with corporate bond issuers, we surveyed management teams using a set of questions about climate risk preparedness and mitigation. The inquiries were either posed during the conversation or researched by going directly to the company's corporate sustainability disclosure. Our climate risk survey questions are provided in Table 1.

The climate risk categories and underlying questions were informed by the objectives of the [Climate Action 100+](#) (CA 100+). Established in 2018, the CA 100+ is an effort among investors to urge the 160 largest GHG emitters to address their climate risks. (See more on our engagement with Climate Risk 100+ in *Teaming Up for Impact: Climate Action 100+ Engagement Efforts* on page 26 of this report).

TABLE 1: QUESTIONS ON CLIMATE RISK PREPAREDNESS AND MITIGATION

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## Climate Governance:

- Is the board of directors involved in overseeing climate risks?
- Has a specific board member been tasked with oversight of climate risks?

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## Emissions Reduction Initiatives:

- Does your company have a formal plan for cutting greenhouse gas emissions? If so, is it aligned with science (i.e. aligned with the Science Based Targets initiative)?
- Does it include an objective to achieve net zero emissions by 2050?\*

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## Climate Risk Disclosure:

- Do you publicly disclose your climate risks, the management of the risks, and your emissions reductions performance?
- If so, would you consider using a standardized reporting framework such as the Task Force on Climate-Related Financial Disclosure (TCFD)?

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*\*Net zero carbon dioxide (CO<sub>2</sub>) emissions are achieved when anthropogenic CO<sub>2</sub> emissions are balanced globally by anthropogenic CO<sub>2</sub> removals over a specified period.*

*Source: IPCC, 2018: Report on global warming of 1.5°C.*

A summary of the results of our survey for the 28 companies we engaged with is provided in Table 2.

**TABLE 2: SUMMARY OF SURVEY RESULTS**

Sector	CATEGORY (Percentage of responses in the affirmative)		
	Is there board of directors' oversight of climate risk?	Has the company set a net zero GHG goal to be achieved by 2050?	Does the company utilize TCFD for its climate risk reporting?
Banks	100%	67%	83%
Energy	80%	60%	100%
Food & Beverage	67%	33%	50%
Retailers	100%	0%	0%
Transportation	100%	33%	50%
	<b>89%</b>	<b>71%</b>	<b>43%</b>

The survey results offer a few interesting takeaways among corporate bond issuers. First, boards of directors for most of the companies we spoke with (89 percent) are directly involved in overseeing climate risks. The results align with [Climate Action 100+ 2020 Progress Report](#), which found that 78 percent of the CA 100+ companies have “disclosed clear evidence” of board surveillance of climate risks.

Less favorably, many companies we engaged with have not made the extra step to designate a board member with direct climate risk oversight responsibilities. CA 100+ benchmark report outcomes were more positive; 45 percent of CA 100+ companies assigned climate risks to a specific board director.

Our survey results also made clear how companies have not coalesced around a strategy for determining whether and which board committee should oversee climate, and ESG risks more generally. For example, climate risks fall under the purview of the board risk committee for two-thirds of the banks we spoke with. For other companies, climate risks are monitored in general board meetings, not by a committee. Others put climate and ESG risk in the charter of committees with sustainability or responsibility in their titles. Interestingly, the nominating and governance committee was cited most often as being in charge of

climate risks, at 28 percent for our surveyed companies. As noted [here](#), the nominating and governance committee has assumed an expanded corporate governance role. Once primarily focused on identifying worthy director candidates, “today’s nominating committees are often at the very heart of the most pressing governance debates impacting a company, from oversight of ESG, to gender diversity and corporate culture...”.

From a GHG emission reduction perspective, 71 percent of our surveyed companies have set a target to achieve Scope 1 and 2 net zero emissions by 2050. Our results exceed the conclusion of the CA 100+ benchmark report, which found that 43 percent of the 160 companies have established a Scope 1 and 2 net zero target. The relatively lower results of the benchmark report, published in December 2020, may reflect our lower sample size, the timing of the benchmark report’s research, as well as the acceleration in corporate net zero target setting. For example, according to [McKinsey Sustainability](#), the number of companies globally with net-zero pledges doubled, from 500 in 2019 to 1,000 in 2020. Moreover, a [report](#) published in March 2021 highlights that one-fifth of the world’s largest public companies have committed to net zero goals. The pace of net zero goal setting gain momentum in 2020 and continues to set a quick pace in 2021.



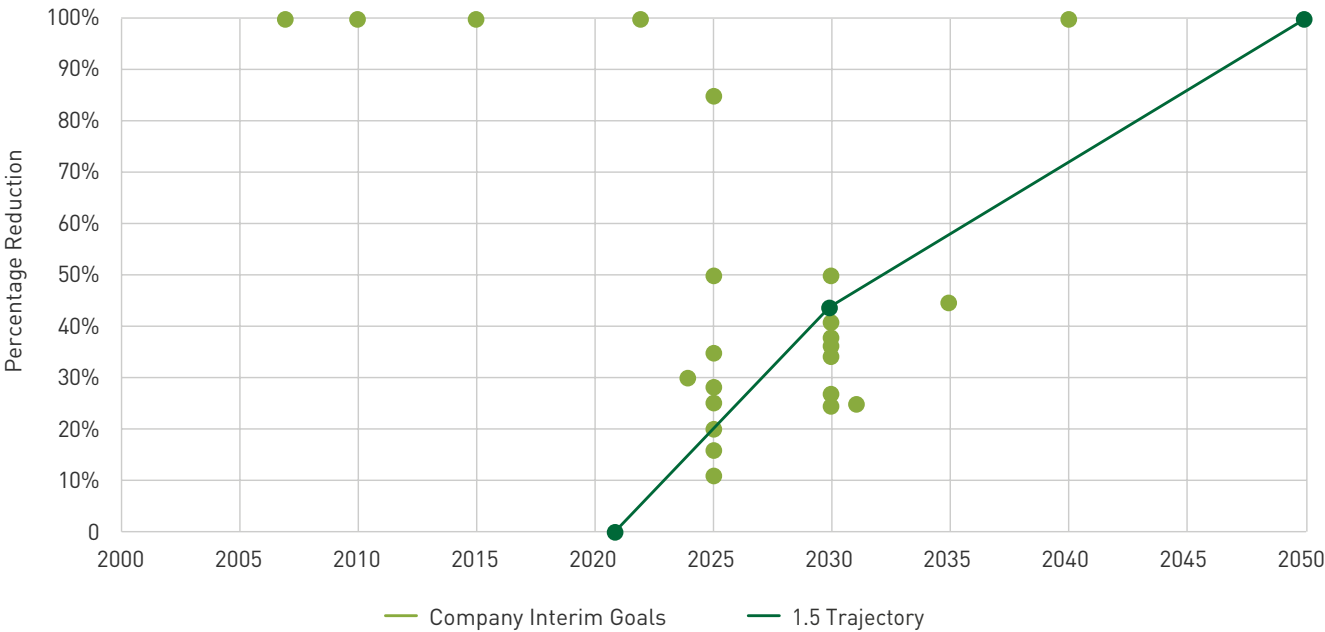
Looking at near term and/or incremental GHG reduction goals, we found that climate ambitions differ widely with 40 percent of surveyed companies setting a target below the necessary Paris Agreement-aligned 1.5°C pathway. Per the *IPCC 2018 Special Report*, to limit warming to 1.5°C from pre-industrial levels, “global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45 percent from 2010 levels to 2030, reaching ‘net zero’ by 2050.” Company interim goals as well as the 1.5°C emissions trajectory are plotted in Figure 1.

Three companies that have already achieved net zero Scope 1 and 2 emissions are all banks. A fourth bank plans to meet a net zero objective by 2022. We commend the performance but also view Scope 1 and 2 carbon emissions a relatively minor ESG issue for the banking sector. Scope 3 emissions in lending and investing activities are more significant and we would expect these banks to focus on quantifying these exposures through disclosure frameworks such as PCAF.

However, carbon is a financially material ESG consideration for the energy and transportation sectors. GHG target setting is less impressive for the energy companies we surveyed. Of the six energy companies we engaged with, only two plan to cut emissions at a Paris Agreement-aligned rate. On the other hand, for the six companies in the transportation sector, five have set science-based targets.

Finally, we found that approximately 43 percent of the companies we engaged with in Table 2 offer disclosure aligned with the Task Force on Climate-Related Financial Reporting (TCFD) framework. Given the need for standardization in ESG reporting as well as for climate risks specifically, Breckinridge signed on as a supporter of TCFD in 2018. For the energy sector, all surveyed companies provide TCFD reporting, including standalone TCFD reports. The high adoption rate reflects the impact of climate change on the business model and pressure from investors and other stakeholders for the disclosure. On the other end, none of the five retailers we spoke with are in alignment with TCFD. This is an opportunity for further engagement.

FIGURE 1: SCOPE 1 AND 2 EMISSIONS REDUCTION PERFORMANCE AND GOALS



Sources: Breckinridge, IPCC, 2018: Report on global warming of 1.5°C. This is a simplified version of a potential scenario meant to depict current corporate GHG reduction ambitions versus necessary 1.5°C reductions, per the IPCC 2018 report.



# THROUGH ENGAGEMENT ON MORTGAGE- BACKED SECURITIES, BRECKINRIDGE SEEKS TO HIGHLIGHT CLIMATE-RISK



Breckinridge integrates ESG analysis when investing in MBS to better understand how events often attributed to climate change—hurricanes, flooding, drought, wildfires—can affect MBS cash flows and investment returns.

Breckinridge invests primarily in agency MBS, those with low credit risk thanks to explicit or implicit guarantees from GSEs: Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.

Our team researched the effect of climate-related events on mortgage prepayment speeds, a key determinant of cash flows and performance. We compared prepayment speeds in various geographic regions against national averages to isolate the effect of disaster-related buyouts on prepayments.

A challenge when attempting to assess climate risks for agency MBS is a lack of disclosure. For privacy reasons, the GSEs stopped disclosing the location—other than state—of

the homes backing mortgages in agency MBS pools. This policy means that investors are unable to determine if a home for an underlying mortgage is located on a coast, where it may be subject to flooding, or in an inland region exposed to climate change effects like wildfires or ground water depletion that causes land subsidence.

Breckinridge raised this concern during an engagement discussion with a GSE in late 2020, and subsequent discussion in May 2021. We learned that the GSE was in the early stages of considering climate risks in its underwriting process. To kickstart the effort, the GSE established an interdepartmental sustainability committee.

Favorably, we were told that the GSE is open to collaborating with investors to better understand and address climate change and other ESG risks. We think our engagement with the GSE helped to heighten awareness of the importance of ESG risk and disclosure for investors.

TRADER



**JOHN  
BASTONI, CFA**

Senior Trader

## THEME:

"Concerns regarding MBS disclosure were raised during GSE engagements."

# TEAMING UP FOR IMPACT: CLIMATE ACTION 100+ ENGAGEMENT EFFORTS

CA 100+ is an investor-led initiative focused on ensuring the world's largest corporate GHG emitters take action to address climate change. Breckinridge signed on to the initiative in late 2018 and we currently serve as a co-lead engagement investor with three U.S.-based large capitalization companies on the CA 100+ list.

2020 was a particularly active year for discussions with one of the companies, a manufacturer of construction machinery. A dialogue that first started in 2019 accelerated in 2020, when we met with the company three times during the year. On each occasion, our engagement team spoke with members of the company's sustainability, human resources, corporate secretary, and investor relations departments.

In 2020, we assisted in organizing and facilitating meetings between the investor engagement teams and each of the three companies. During the discussions, we encouraged the management teams to act on the CA 100+ policy goals. The three goals are:

1. Establish clear oversight of climate risks by the board of directors,
2. Reduce GHG emissions across the value chain in alignment with the Paris Agreement, and
3. Report on climate risks following the framework from the TCFD.

The discussions covered a variety of topics including a comparison of the company's carbon emissions disclosure and intensity performance versus sector peers as well as management's philosophy and process for setting sustainability targets. Additionally, at the company's request, the engagement team prepared and presented educational materials on the importance of setting a SBTi-approved GHG emissions reduction goal and why investors value the reporting frameworks from the Sustainability Accounting Standards Board and TCFD.

Although potential gains remain, the company made progress over the last year on climate risk management. The company has included a specific reference to climate change as an area of oversight for a board of director's subcommittee and a new 10-year GHG emissions reduction target is in place. We believe our engagements played an effective role in educating the management team on CA 100+ expectations for climate risks as well as the importance of adhering to ESG reporting standards.





# CONCLUSION

We are confronted by what increasingly appears to be an ever-worsening environmental crisis. The IPCC report holds that extreme heat waves that previously only struck once every 50 years are now expected to happen once per decade because of global warming, while downpours and droughts have also become more frequent.<sup>11</sup>

In 2015, countries formally agreed to take joint action on climate change in the form of the Paris Agreement. They agreed to a warming limit of 2.0°C or preferably 1.5°C versus pre-industrial levels and that emissions must be net neutral by 2050 to achieve the warmer goal.

As highlighted in the IPCC's report, even these efforts are falling short of halting the warming of the earth's temperatures and causing drastic results.

Companies and municipalities that target credible GHG reduction efforts while working expeditiously toward risk adaptation and mitigation as well as long-term climate resiliency can contribute to efforts to transition our world to a low-carbon economy while sustaining the financial interests of their bond holders.

Engagement with bond issuers, SMEs, and industry organizations—like our work with Climate Action 100+—gives us opportunities to better understand bond risks, to identify issuers making authentic efforts to manage risks, and to contribute to their efforts by sharing knowledge we develop in our research efforts across the bond markets.

We take this responsibility as sustainable investors seriously and are committed to its continuation.





#267647 (9/8/2021)

FOOTNOTES:

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3. <https://www.businessinsider.com/cities-worst-tap-water-us-2019-3#newarks-lead-contamination-is-at-an-all-time-high-5>
4. <http://blogs.edf.org/climate411/files/2020/12/Climate-Risk-Electricity-Sector.pdf>
5. <https://iopscience.iop.org/article/10.1088/1748-9326/abb266>
6. <https://www.americanprogress.org/issues/green/reports/2019/08/01/473067/a-perfect-storm-2/>
7. <https://www.environmentalleader.com/2021/07/sustainability-bonds-to-hit-record-1t-in-2021/>
8. <https://ihsmarkit.com/research-analysis/oil-gas-companies-under-pressure-to-manage-scope-3-emissions-t.html#:~:text=IHS%20Markit%20data%20show%20scope,the%20oil%20and%20gas%20sector.>
9. <https://www.businesswire.com/news/home/20210322005061/en/GreenPrint-Survey-Finds-Consumers-Want-to-Buy-Eco-Friendly-Products-but-Don%E2%80%99t-Know-How-to-Identify-Them>
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