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MFS' View on Climate Change

Climate change will be a defining investment topic for the decade ahead, creating risks and opportunities for all businesses. As long-term investors seeking to allocate capital responsibly, MFS is carefully analyzing the impact that climate change has on all companies held in our clients' portfolios, as well as on those companies being considered for future investment.

Climate change and regulations associated with climate change are materially impacting many businesses' revenue growth, margins and returns, cash flows, capital expenditures and valuation. These impacts are arising due to regional and country commitments (*e.g.*, carbon prices and taxes), changing consumer expectations and preferences for lower-impact products and services, physical disruptions caused by a warming climate and increased divestment/investment based on certain companies' preparedness for climate change. As longterm investors seeking to understand the duration and stability of financial returns, we assess and manage this important issue at both the issuer (company, sovereign or subsovereign) level and portfolio level. MFS also regularly engages with companies to encourage better disclosure and management of climate risks.

Company and industry analysis

As with all risks and opportunities, our assessment of environmental issues like climate change begins with in-depth, fundamental company and industry analysis. Our investment team has conducted a substantial amount of climate research, which has been shared in sector team discussions, regional investment meetings, thematic presentations and one-on-one interactions. This research has covered a wide range of industries spanning the highly affected energy, utility, and industrial sectors alongside other industries that are increasingly being impacted by climate change (*e.g.*, real estate, insurance, consumer staples). Our work has focused on understanding risk in the four areas shown in the graphic below.

Our investment staff utilizes both proprietary and third-party tools to monitor data on ESG factors relevant to each security. These tools include engagements with management teams, ESG and carbon data from third-party providers and proprietary ESG sector maps that highlight ESG risks and opportunities relevant to each industry and sector, along with company examples and engagement guidance. Our Investment team has also developed a proprietary stranded assets model. This model assesses the risk of stranding for each energy type and some industrial assets. It has been used to enrich the research collaborations between our ESG analysts and the broader investment team regarding the risks posed by stranding and related issues such as the ongoing fossil fuel divestment movement.

Recently, our investment team has started to evaluate how various climate scenarios could impact individual companies. When done properly, these analyses are highly complex, requiring forecasts of commodity prices, mix shifts in various types of energy, market share changes at the industry and company level and costs related to carbon taxes and regulations, among many other factors. Given this complexity, we plan to continue to evaluate how to efficiently and effectively create scenarios at the company level before moving to portfolio-level climate scenario analysis.

Portfolio analysis

In addition to the company-specific research outlined above, MFS has used carbon intensity analysis to evaluate the climate risk of various portfolios relative to their benchmarks. Many of our equity portfolios have typically exhibited a lower carbon footprint than their benchmarks, and we have invested, across many portfolios, in companies that are helping to drive the transition to a lower- carbon world. Because of this and the depth of our fundamental company analysis, we believe most of our portfolios would respond favorably in scenarios where global temperature increases are severely limited by increased regulation and physical impacts.

Sovereign analysis

Climate change can pose material risks to sovereign debt due to its impact on national expenditures associated with disaster recovery from extreme weather events or preparedness through climate change mitigation and adaptation projects. Emerging market countries are particularly vulnerable since they often lack capital or have higher funding costs, which exacerbates the myriad risks that they already face. For example, many of these countries are vulnerable to food insecurity from both the impact of climate change on their own agricultural production and higher prices for imports. Our investment team members are increasingly focused on deepening their understanding of environmental risk in sovereigns and its complex links to fiscal and monetary conditions, which in turn affect bond yields and credit ratings.

Green and thematic bonds

We are seeing more issuers such as companies, countries and subsovereigns come to the market with green bonds. The proceeds of green bonds are specifically earmarked for environmental projects to combat climate change across various categories such as alternative energy, green buildings and infrastructure, water and waste management and environmental remediation. We purchase green bonds along with traditional bonds from various issuers in our fixed income portfolios and continue to account for the benefits of holding these instruments.

Engagement

MFS supports alignment with the Paris Accord and the goal of limiting temperature increases to well below 2° Celsius. We regularly engage with our portfolio companies, from both an investment and proxy perspective, in order to inform our understanding of the materiality of ESG risks and opportunities arising from climate change and to advocate for improvements in corporate behavior and disclosure. Over the past several years, we have seen a significant increase in shareholder resolutions seeking increased disclosure around the financial impact of climate change and the long-term implications of a transition to a low-carbon economy in line with the 2° Celsius limit. MFS has supported a substantial majority of these resolutions. We have also engaged collectively on climate issues through our participation in the PRI's collaborative methane engagement and a variety of other initiatives.

Firmwide actions and support of climate disclosures

At the corporate level, MFS is a proponent of robust disclosure regarding all topics that could materially impact the viability of businesses. In 2019, MFS became a user-signatory of the TCFD as we support their mission to increase and normalize climate related disclosure by companies. MFS has been a signatory of the CDP (formerly the Carbon Disclosure Project) since 2010, and when engaging with portfolio companies exhibiting poor disclosure practices, we have requested that they adopt the CDP's reporting framework. We use CDP research and carbon data from other sources in a variety of stock-, industry- and portfolio-level analyses. We have also started discussions with other asset managers regarding the development of ESG integration guidelines for US municipal bonds through our participation in a PRI sponsored work stream.

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