

RESPONSIBLE INVESTMENT

CLIMATE CHANGE STATEMENT

"At AllianceBernstein, responsible investing is part of who we are as a firm and is a cornerstone of our corporate responsibility mission. We have been integrating Environmental, Social and Governance (ESG) factors into our investment decisions for many years. The recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) represent a significant step in advancing the process of consistent and transparent climate-related financial disclosures globally. As investors, this will ultimately help us better understand climate-related issues and is in alignment with our commitment to our clients. We are proud to support the Task Force."

Seth Bernstein, Chief Executive Officer,
AllianceBernstein

IMPACT OF CLIMATE CHANGE ON AB'S OPERATIONS

AB recognizes climate change as a very real phenomenon that poses substantial risks. It can impact our organization commercially, for example, by causing disruptions in global economic conditions, which can cause investors to lose confidence and make investment products generally less attractive. In addition to this commercial risk, AB is faced with the need to maintain safety and security for our staff and our property--substantial capital expenditures and operating expenses are required to address damage to our buildings and technical infrastructure, and to restore operations after adverse weather events.

The AB business continuity strategy provides for the continuation of business-critical functions in the event of a significant business disruption at any of our domestic or international office locations. We've implemented measures to respond to risks: natural disasters, including earthquakes and fires; extreme weather, such as hurricanes and typhoons; and manmade disruptions, which include cyberattacks, equipment malfunctions, power outages and terrorist acts. The recovery strategies are designed to reduce the impact on clients from significant business disruptions that may affect the firm and its employees.

INTEGRATING CLIMATE CHANGE INTO OUR INVESTMENT PROCESS

Our approach is to integrate the assessment of climate change risks and/or opportunities into all products that use our fundamental investment research process.

Our fundamental analysts evaluate climate-related risks by focusing on each issuer's reported climate strategy, the political and regulatory backdrop, potential environmental liabilities and greenhouse-gas emissions. Our analysts then determine short-, medium- and long-term risks and opportunities. Climate-related disclosures are essential in this evaluation. However, it can be challenging to assess carbon risk, given the general lack of reporting standards and transparency. In an effort to gain insight, we regularly engage with issuers on all of these issues, in addition to reviewing related reporting.

Our CIOs and Portfolio Managers are ultimately responsible for ensuring that climate-related issues are addressed by analysts. Several of our CIOs seek investment opportunities in issuers that are focusing on addressing climate issues, including investing in renewable energy and projects to support a transition to a low-carbon economy.

We subscribe to MSCI's Carbon Metrics data tool, which helps us evaluate the issuers in our portfolios and measure the carbon footprint. We address issuers' carbon footprint in two ways: (1) engaging with issuers to understand their strategy for moving to a low carbon economy and; (2) when working with clients to develop solutions for their specific requirements. Unless directed by clients or investment strategies that have specific climaterelated objectives, portfolios are generally not managed with the objective of reducing the carbon metric.

AB manages some strategies for which ESG integration, including climate change analysis, is not applicable due to the nature of the investment style. For example, ESG factors are generally not integrated in our quantitative-driven products, passively managed accounts, fund-of-funds products or strategies with high portfolio turnover.

ACTIVE OWNERSHIP AND TRANSPARENCY

We take a three-pronged approach to active ownership:

- 1) we directly engage with issuers as part of our research and investment process
- 2) we use a framework to help us identify issuers we should engage with to gain more insight or influence behaviour
- 3) we selectively engage as part of our proxy voting process. These approaches are often used in a coordinated way for particular investments.

Our approach has increased its focus on climate change in recent years. We engage more often with issuers to encourage better disclosure and practices around climate-related risks and opportunities. Building on this approach to active ownership, we published our first formal engagement policy in 2017. It includes a more structured framework for identifying and prioritizing engagement, which encompasses potential collaborative engagements. It is based on quantitative metrics, including but not limited to position size, share register ranking and qualitative ESG issues, such as a company's approach to climate change.

Proxy voting is an integral part of encouraging better disclosure. We generally support shareholder proposals calling for climate-related reports and disclosure, while taking into account existing company policies and procedures as well as whether the proposed information benefits shareholders.

In addition to our company-level engagement, we also support transparency through a number of industry organizations:

+ In September 2018, AB became an official supporter of the Task Force on Climate-related Financial Disclosures (TCFD), because better disclosure on climate change based on one standard framework will help our investment teams evaluate climate risk.

- + AB joined the Climate Action 100 collaborative engagement initiative in March 2018. This global, investor-led five-year initiative was launched to engage more than 100 of the world's largest corporate greenhouse-gas emitters to curb emissions, strengthen climate-related financial disclosures and improve governance on climate change risks.
- + AB became an Investor Signatory of the CDP (formerly the Carbon Disclosure Project) in May 2015. In 2018, we signed the Investor Action which was sent to 1,305 companies asking them to reduce emissions, disclose emission reduction targets globally and invest in emissions-reduction projects that generate positive returns.
- + AB is a partner of the Climate Bond Initiative (CBI). We support the efforts of the CBI and participate in various events that it sponsors. For example, an AB team member participated in the CBI-hosted "Future of Green Bonds Roundtable" in Washington, DC in October 2016. An AB team member was also a member of the CBI's advisory panel for its 2017 and 2018 Green Bond Pioneer Awards. We hosted the CBI's Green Bond "boot camp" at our offices in 2018.

LOOKING AHEAD

We continue to make progress in understanding and integrating climate change risk and opportunities. As market developments evolve and new tools and data become available, we will evaluate them to understand how they can enhance our investment process and strengthen fundamental research insights. It's part of our commitment to deliver the best investment outcome for our clients.

Note to All Readers: This information is a general communication and is educational in nature. It is for informational purposes only and is not designed to be a recommendation of any specific investment product, strategy or plan design, or used for any other purpose. By providing this information, neither AllianceBernstein ("AB") nor its employees have the responsibility or authority to provide or have provided investment advice in a fiduciary capacity. The commentaries and opinions provided are part of the general marketing and advertising activities of AB, and should not be construed as suggestions to take or refrain from any course of action or be viewed as an investment recommendation. Please contact your financial professional for investment advice tailored to your specific needs.

MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed or produced by MSCI.

Note to Canadian Readers: This publication has been provided by AllianceBernstein Canada, Inc., or Sanford C. Bernstein & Co., LLC, and is for general information purposes only. It should not be construed as advice as to the investing in or the buying or selling of securities, or as an activity in furtherance of a trade in securities. Neither AllianceBernstein Institutional Investments nor AllianceBernstein L.P. provides investment advice or deals in securities in Canada. Note to UK Readers: This information is issued by AllianceBernstein Limited, a company registered in England under company number 2551144. AllianceBernstein Limited is authorised and regulated in the UK by the Financial Conduct Authority (FCA - Reference Number 147956). This information is directed at Professional Clients only. Note to Readers in Japan: This document has been provided by AllianceBernstein Japan Ltd. AllianceBernstein Japan Ltd. is a registered investment-management company (registration number: Kanto Local Financial Bureau no. 303). It is also a member of the Japan Investment Advisers Association: the Investment Trusts Association. Japan: the Japan Securities Dealers Association: and the Type II Financial Instruments Firms Association. The product/service may not be offered or sold in Japan; this document is not made to solicit investment. Note to Australian Readers: This document has been issued by AllianceBernstein Australia Limited (ABN 53 095 022 718 and AFSL 230698). The information in this document is intended only for persons who qualify as "wholesale clients," as defined in the Corporations Act 2001 (Cth of Australia), and should not be construed as advice. Note to Singapore Readers: This document has been issued by AllianceBernstein (Singapore) Ltd. ("ABSL", Company Registration No. 199703364C). ABSL is a holder of a Capital Markets Services Licence issued by the Monetary Authority of Singapore to conduct regulated activity in fund management and dealing in securities. AllianceBernstein (Luxembourg) S.à r.l. is the management company of the portfolio and has appointed ABSL as its agent for service of process and as its Singapore representative. This document has not been reviewed by the MAS. Note to Hong Kong Readers: This document is issued in Hong Kong by AllianceBernstein Hong Kong Limited (聯博香港有限公 司), a licensed entity regulated by the Hong Kong Securities and Futures Commission. This document has not been reviewed by the Hong Kong Securities and Futures Commission. Note to Readers in Vietnam, the Philippines, Brunei, Thailand, Indonesia, China, Taiwan and India: This document is provided solely for the informational purposes of institutional investors and is not investment advice, nor is it intended to be an offer or solicitation, and does not pertain to the specific investment objectives, financial situation or particular needs of any person to whom it is sent. This document is not an advertisement and is not intended for public use or additional distribution. AllianceBernstein L.P. is not licensed to, and does not purport to, conduct any business or offer any services in any of the above countries. Note to Readers in Malaysia: Nothing in this document should be construed as an invitation or offer to subscribe to or purchase any securities, nor is it an offering of fund management services, advice, analysis or a report concerning securities. AllianceBernstein is not licensed to, and does not purport to, conduct any business or offer any services in Malaysia. Without prejudice to the generality of the foregoing, AllianceBernstein does not hold a capital markets services license under the Capital Markets & Services Act 2007 of Malaysia, and does not, nor does it purport to, deal in securities, trade in futures contracts, manage funds, offer corporate finance or investment advice, or provide financial planning services in Malaysia.

The [A/B] logo and "Ahead of Tomorrow" slogan are registered service marks of AllianceBernstein and AllianceBernstein® is a registered service mark used by permission of the owner, AllianceBernstein L.P.

© 2018 AllianceBernstein L.P.