

ESG Policy

December 2021

INTRODUCTION

As investment managers, we believe that an effective, sustainable global economy is essential to the creation of potential long-term value. We believe that transparency and reliability of information regarding all types of material investment topics benefit our clients and shareholders, and that consideration of relevant environmental, social, and governance (ESG) information can help contribute to fulfillment of our fiduciary duty.

Putnam's active, research-intensive investment approach inherently recognizes the importance of fundamental business operations to the investment process, including thoughtful assessment of environmental, social, and governance factors and the promotion of transparency and integrity of data and disclosures.

Putnam Investments became a signatory of the United Nations-backed Principles for Responsible Investment (PRI) in April 2011 and is committed to sustainable investing, including a focus on understanding how ESG factors may influence performance, generate alpha, and/or mitigate risk in client portfolios. We believe that incorporating ESG considerations into the investment process has the potential to enhance what asset management can accomplish, and that ESG analysis can be an important component of the research process.

Approach

Putnam incorporates consideration of ESG elements in our investment research processes. As active managers, we are committed to conducting thorough research when pursuing investment opportunities for our clients. We consider ESG analysis as additive and complementary to the fundamental understanding that is at the center of our investment philosophy.

Examples of relevant and material ESG issues that we research might include carbon intensity, water use, or plans to reduce waste; employee well-being or commitments

to workplace equality and diversity; and board independence or alignment of management incentives with the company's strategic sustainability objectives. Relevant factors for investments we make are considered within the operating context of the company or issuer. It is through this type of integrated research that we expect to continue to provide value for our clients.

As a fiduciary on behalf of our asset management clients, Putnam generally looks at the entire investment universe to identify potentially attractive securities. We do not require that portfolios limit their universe or their investments in any company, industry, or country based on ESG criteria (except as stated in a portfolio's mandate or as mutually agreed upon with a client). Rather, we expect sustainability-related insights to be a component of the research processes that are used to arrive at investment decisions. ESG issues, data, and analyses are all actively evolving, and likewise we expect our research and investment approaches to continue to develop in ways that are attuned to the contexts of various issuers, asset classes, and investment strategies.

Climate policy

Climate risk and environmental management is a key focus for Putnam because these issues present increasingly important perils and opportunities for businesses and investors. Consistent with our overall investment approach, we analyze climate-related factors where material and financially relevant to the individual issuer, and where the data is available and we believe it is sufficiently accurate. We also incorporate climate-related factors where expressly agreed with our clients, such as in response to their legal requirements or sustainable investment goals. We assess climate risk in a context-specific way where financially relevant, industry by industry and issuer by issuer. Key metrics and analyses referenced can include carbon intensity and GHG emissions, water use and exposure to water-stressed areas, assessment of key supply chain risks, and consideration of physical risk to facilities in various geographies.

Stewardship

At Putnam, our commitment to sustainable investing goes beyond the research process. This includes frequent communication with corporate leadership teams, a detailed proxy voting policy to promote best practices in governance, and a deep-rooted belief in corporate citizenship. We believe that a sustainable

global economy is required for the creation of potential long-term value, and as part of our commitment to clients, colleagues, and our communities, we invest in our own corporate citizenship and engage with those around us.

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