

## Putnam's materiality map

Our sustainability research is guided by our internally developed materiality map, which shows the degree of relevance of environmental, social, and governance issues across industry sectors. We believe that certain ESG issues are relevant and material to long-term business fundamentals, and for that reason, important to all investors. Investment-relevant issues vary by sector, geography, asset class, and company context. Therefore, fundamental research that is tailored to different settings has potential to add meaningful value. Putnam's internally developed materiality map is inspired by the work of the Sustainability Accounting Standards Board (SASB), which is now part of the International Sustainability Standards Board (ISSB).

The materiality map shows that in equity research we focus on context-relevant issues for different types of businesses. We believe that this kind of tailored and forward-looking research focus has the potential to mitigate risk and to generate alpha, and be a key contributor to long-term investment results.

					Tech	Comm and Tech		Materials		
		Consumer	Health Care	Financials	(hardware)	(software)	Industrials	and Energy	Utilities	Real Estate
GOVERNANCE	Board structure and composition									
	Management incentives, ownership, and compensation alignment									
	Risk management and leadership									
	Corporate purpose, culture, and mission alignment									
SOCIAL	Workforce engagement, diversity and inclusion									
	Employee well-being, development and opportunity									
	Product impact and customer well-being									
	Supply and distribution network management									
	Data procurement, privacy, security, and use									
	Marketing and selling practices									
	Pricing philosophy and access									
ENVIRONMENTAL	Climate change mitigation and adaptation									
	Physical climate change risk									
	Greenhouse gas (GHG) emissions									
	Energy sourcing and intensity									
	Materials sourcing, intensity, and lifecycle management									
	Water sourcing, intensity, and lifecycle management									
	Biodiversity and ecosystems risk									

Source: Putnam Investments, adapted from SASB Materiality Map, as of 12/31/24.

Engagement themes selected are determined by the sustainable investing team based on certain environmental, social, and governance factors and were selected without regard to whether such themes were profitable and are intended to help illustrate the investment process. A company may be selected for a portfolio based on factors other than the environmental, social, or governance ("ESG") themes highlighted herein, and the analysis should not be considered a recommendation to purchase or sell any security. 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 product's offering documents or as mutually agreed upon with a client). Rather, we expect sustainabilityrelated insights to be a component of the research processes that are used to arrive at investment decisions.

As part of our investment analysis, depending on the strategy in question, we may integrate ESG issues or considerations into our research and/or investment decision-making. In our view, analysis of ESG issues is part of good investing, as these issues, like other, more traditional areas of investment analysis, such as market position, growth prospects, and business strategy, have the potential to impact risk and returns. For example, in the governance area, evaluation of the strength of a company's management has always been a critical consideration in our investment process. The relevance and materiality of other ESG issues in our process will differ from strategy to strategy from sector to sector, and from portfolio manager to portfolio manager, and for some strategies, including those where we lack relevant ESG data, ESG considerations are not a material part of our process.

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