Putnam INVESTMENTS
A Franklin Templeton Company

June 2025

Climate-related risk and opportunity report

Introduction

Climate risk and environmental management are focus areas for Putnam as these issues present important risks and opportunities for businesses and investors. We perceive notable economic consequences from the transition to a lower-carbon economy, including development of new technologies and business models, rapidly changing regulatory frameworks, shifting consumer decisions, and impacts on materials availability and costs. Analysis of these intertwined elements creates opportunities for active managers to identify potential beneficiaries and to continue to refine research questions.

Consistent with Putnam's overall investment approach and as noted in our ESG Integration Policy, we believe that incorporating consideration of financially material environmental issues is additive and complementary to our fundamental research process and can provide long-term value to clients.

We are a public supporter of the initial disclosure framework created by the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosure (TCFD), the integration of TCFD recommendations in the inaugural ISSB Standards and IFRS Foundation's ongoing progress monitoring of company climate related disclosures. We encourage issuers to adopt the set of reporting guidelines focused on climate risk governance, strategy, risk management, metrics and targets.*

* The TCFD fulfilled its objective to develop recommendations and released its status report on October 12, 2023. The IFRS Foundation (International Financial Reporting Standards) now monitors companies' progress on climate-related disclosures. The IFRS Foundation is a not-for-profit, public interest organization established to develop high-quality, understandable, enforceable, and globally accepted accounting and sustainability disclosure standards.

Putnam milestones — Sustainability and climate

1999

- Transportation-related emission reduction initiatives launched

2011

- Became a United Nations Principles for Responsible Investment (UN PRI) signatory

2015

- ESG Leadership Committee established

2017

- Sustainable Equity team established

2018

- Headquarters moved to a LEED Silver certified building in Boston
- Joined Sustainability Accounting Standards Board (SASB) as an alliance member and participant of SASB Investor Advisory Group

2020

- Hosted "The Complexity of Sustainability and Investing," climate-related research symposium with the Santa Fe Institute Applied Complexity Network
- Joined CDP (formerly Carbon Disclosure Project) as an investor signatory

2021

- Became a public supporter of the Financial Stability Board's Task Force on Climate-related Financial Disclosures

2022

- Boston headquarters received LEED Platinum certification
- Joined Ceres
- Participated in CDP's Non-disclosure Campaign

2023

- Putnam implements internal Firm-level CvaR monitoring

2024

- Putnam is acquired by Franklin Templeton and gains access to global scale and resources to support sustainability efforts
- Putnam joins Franklin Templeton's Stewardship and Sustainability Council
- Putnam develops interactive ESG dashboard tool for investment teams

Governance

Disclose the organization's governance around climate-related risks and opportunities

At Putnam, responsibility for assessing and managing climate-related risks and opportunities is spread across different teams and individuals. Putnam's ESG Leadership Committee is responsible for setting ESG-related policy, including climate-related policy. It also oversees the establishment of strategic priorities for Putnam's ESG-related activity. The Committee includes senior leaders from across the organization and meets regularly to monitor progress across multiple functions and ensure fulfillment of client, regulatory, and investment objectives.

ESG integration and oversight at Putnam is a collaborative effort that spans numerous functional roles throughout the firm. While portfolio managers have ultimate decision-making authority for the strategies they manage, and the level of ESG integration will vary across strategies, the collaborative investment culture incorporates discussion, analysis, and oversight throughout the research process. Investment teams have access to third-party ESG data and internally developed ESG analytical tools. Climate risk and environmental management are core elements of Putnam's overall ESG integration strategy and are part of the firm's risk function.

Climate responsibilities and reporting structure

Role	Reporting to	Climate-related responsibilities
Chief Investment Officer	Head of Public Markets	Lead strategy and execution for Putnam; oversee of all investment-related matters
Head of Risk & Quantitative Strategies	Chief Investment Officer	Incorporate climate-related risk approach in firmwide risk processes
Risk Analysts	Risk Manager	Identify, monitor, and communicate climate risks and controls across Putnam's investment activities; determine metrics and calculations for portfolio analysis and client reporting
Director of Investment Compliance	VP – Franklin Templeton Investment Compliance	Oversee daily compliance with the investment guidelines and restrictions imposed by law, regulation, or contracts with clients
Head of Sustainable Investing	Chief Investment Officer	Lead strategy for ESG integration; manage sustainable investment strategy suite
Director of Equity Research	Chief Investment Officer	Manage sector analysts and oversee research activities, including assessment of climate risks and opportunities at the sector and issuer level
Equity Analysts	Director of Equity Research	Assess impact of financially material climate risks at the issuer and sector level
Head of Sustainability Strategy	Chief Investment Officer	Lead strategy for stewardship and engagement and collaborative affiliations; coordinate with parent company across a range of activities, including climate reporting

Climate-related committees and working groups

Committee/Working group	Leadership	Focus
ESG Leadership Committee	Chaired by Head of Sustainability Strategy	Responsible for setting firmwide ESG-related policy and strategic priorities for Putnam ESG-related activity; meets quarterly to monitor progress across multiple functions to ensure fulfillment of client, regulatory, and investment objectives; composed of cross-divisional senior professionals
Proxy Voting Committee	Chaired by a Portfolio Manager	Responsible for establishing proxy guidelines; considers special proxy issues that may arise; composed of Portfolio Managers and the Head of Sustainability Strategy
Stewardship and Engagement Working Group	Led by Head of Sustainability Strategyy	Responsible for reviewing and prioritizing stewardship activities; composed of Sustainability Strategy, Research, and client service professionals
Climate Risk Working Group	Led by Head of Quantitative Equities & Risk	Responsible for collaborating on climate initiatives, including reporting and analytics; composed of Investment Risk, Investments, and Sustainability Strategy professionals

As a Franklin Templeton specialist investment manager (SIM), our governance structure is complemented by Franklin Templeton's overarching approach to governance of climate-related risks and opportunities which involves Board and Executive Committee oversight as described in Franklin Templeton's TCFD Corporate Report for Fiscal Year 2024.

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material

At Putnam, we are driven by our commitment to active investing and its potential to create valuable products, pursue strong performance, and steward long-term investments with care.

Climate-related risks faced by the companies in our investment portfolios fall into two primary categories:

- Transition risks that may result from shifts including legal and regulatory landscapes, technology changes, market responses, and reputational considerations
- Physical risks that may stem from acute weather-driven events (droughts, floods, or fires) or chronic shifts in weather patterns (long-term shifts in precipitation and/or temperature)

Putnam's strategic approach for assessing climate risks and opportunities involves four key objectives:

- Integrate financially material climate-related risks and opportunities (transition and physical, among others) in fundamental research processes across the sectors in which we invest
- Include climate risk assessments in risk oversight processes. Metrics used to assess climate-related risk and opportunities at the portfolio and firmwide level are provided in the "Metrics and targets" section of this report
- Apply active stewardship efforts (engagement and proxy voting) to encourage issuer disclosure of investment relevant climate-related risks and effective corporate governance to manage such risks
- Increase internal expertise regarding climate risks and opportunities and associated tools, metrics, and analysis through active participation in affiliations with comparable goals and objectives

Risk management

Disclose how the organization identifies, assesses, and manages climate-related risks

Investment research

We believe that climate-related risks are relevant and material to long-term business fundamentals, and for that reason, important to all investors. Climate-related risks vary by sector, geography, and issuer context. Therefore, fundamental research that is tailored to different settings has potential to add meaningful value.

Given this philosophy, our ongoing climate-related research is guided by our internally developed materiality map, which is inspired by the work of the Sustainability Accounting Standards Board (SASB), now the International Sustainability Standards Board (ISSB). Analysts consider climate-related issues, where financially material, within their research process and publications, which are documented within Putnam's internal investment systems. We believe that this kind of tailored and forward-looking research focus has the potential to mitigate risk, generate alpha, and be a key contributor to long-term investment results.

Putnam's materiality map is reviewed annually and currently reflects the relevance of a range of environmental considerations such as climate change mitigation; physical climate-change risk; greenhouse gas emissions; energy intensity and renewable energy use; materials sourcing, intensity, and lifecycle management; water intensity and stress; and biodiversity and ecosystems impact. Additionally, Putnam's Sustainable Equity team's research is informed by a Thriving Planet map which includes a spectrum of environmental related opportunities including Circular economy, Biological Solutions, Resource Stewardship and Sustainable agriculture.

Research of material climate matters is used in conjunction with assessment of governance and social issues, as many risks and opportunities are interconnected. Members of the Putnam Equity investment team have access to third-party data to assess ESG metrics for issuers, sectors, and portfolios. ESG data sets are embedded within the investment platform, allowing for integration where relevant.

As a Frankin Templeton specialist investment manager, Putnam benefits from centralized support offering the data, analytical tools, and opportunities for internal team collaboration and resources to meet clients' needs.

Investment risk

Putnam has established an independent risk team charged with identifying, monitoring, assessing, and communicating market-related risk factors and controls across Putnam's investment activities. The risk team conducts a quarterly climate value at risk (VaR) review of Putnam's overall assets, a forward-looking and return-based valuation assessment to measure climate-related risks and opportunities. The risk team also reviews climate related risks as part of the quarterly fund review held with each investment team, with the goal of raising awareness of any trends in climate metrics and how each strategy compares to the benchmark. In addition, Putnam's web-based investment platform provides a dashboard for the investment teams and the risk team to effectively monitor ESG exposures for each strategy. The dashboard is updated daily to incorporate any changes to portfolio holdings or vendor data.

Engagement and proxy voting

In addition to investment research, Putnam may identify potential climate risks through the engagement and proxy voting processes. Putnam believes that proxy voting can be an important tool for investors to promote best practices in corporate governance and votes proxies in the best interests of its clients as investors. Furthermore, Putnam believes that sustainable environmental practices are important components of long-term value creation. We expect companies to evaluate the potential risks to their business operations that are directly related to environmental factors (among others). In evaluating shareholder proposals relating to environmental initiatives, Putnam takes into account (1) the relevance and materiality of the proposal to the company's business, (2) whether the proposal is well crafted (for example, whether it references science-based targets or standard global protocols), and (3) the practicality or reasonableness of implementing the proposal. Should the investment research or proxy review processes uncover material climate risks or opportunities that warrant further exploration, Putnam will engage with issuers in two-way dialogue to assess the issuer's knowledge of material climate risks, to better understand the cost-effectiveness of any plans to mitigate risks and maximize opportunities, and to assess governance practices. The majority of engagements occur privately and directly with issuers and includes direct dialogue with company management and/or boards of directors. We believe that engaging directly and privately leads to the most effective and candid communication, is most additive to our research process and mosaic of information gathering and offers the highest benefit to our clients.

Metrics and targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

Acknowledging the immense complexity of climate-related risk, we note that while frameworks and data have progressed significantly, any metric or set of metrics still requires significant context. We analyze climate-related factors where material and financially relevant, and where the data is available and, we believe, 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.

Analysis to assess climate value at risk is focused on three key components:

- Transition risks associated with shifts in regulatory and policy landscapes as well as corporate and country greenhouse gas emission reduction approaches
- Physical risks associated with acute and chronic weather-related events
- Opportunities stemming from technological advancements and process innovation

A variety of climate-related metrics may be evaluated, such as but not limited to:

- Carbon footprint — emissions, intensity, and weighted average carbon intensity
- Adaptive capacity to climate change — presence of GHG reduction targets, use of cleaner energy sources
- Exposure to companies classified as low carbon or low carbon solutions
- Exposure to energy sector and power generation – thermal coal, oil and gas, renewables

Relevant climate risk metrics, subject to availability and data quality, are periodically reviewed against applicable benchmarks at the portfolio level and firm level by Portfolio Managers and the Head of Risk & Quantitative Strategies, respectively. Established thresholds allow for identification of risk trends that require further review of portfolio holdings or firm-issuer composition. Results of periodic reviews may trigger initial or follow-up engagement with issuers, as described in detail above.

Conclusion

Putnam believes that an effective, sustainable global financial system is necessary for value creation on behalf of its clients. Our active, research-intensive approach inherently recognizes the importance of fundamental business issues to the investment process, including thoughtful assessment of financially material climate-related risks and opportunities.

While Putnam's ESG Leadership Committee is responsible for setting firmwide ESG-related policy and establishing strategic priorities, numerous roles across the firm play a part in climate-related research, analysis, and reporting for individual securities, portfolios, firm-level assets.

We are committed to monitoring the regulatory landscape, client interests, and the availability and accuracy of climate-related data and will continue to refine our strategy with the goal of providing long-term value to clients.

Putnam INVESTMENTS

A Franklin Templeton Company