

Shareholder Engagement Policy
Putnam Investments Limited

September 2019

SHAREHOLDER ENGAGEMENT POLICY

Introduction

Article 3g of Directive 2017/828/EU (the amended Shareholder Rights Directive, or “SRD II”) requires institutional investors and asset managers to develop and publicly disclose an engagement policy that describes how they integrate shareholder engagement into their investment strategy.

This policy describes how Putnam Investments Limited (the “Company”), on behalf of its asset management clients:

- monitors investee companies on relevant matters, including strategy, financial and non-financial performance and risk, capital structure, social and environmental impact and corporate governance;
- conducts dialogues with investee companies;
- exercises voting rights and other rights attached to shares;
- co-operates with other shareholders;
- communicates with other relevant stakeholders of the investee companies; and
- manages actual and potential conflicts of interests in relation to their engagement.

The Company and its Putnam Investments affiliates, which together form an integrated global investment platform, are referred to as “Putnam” or “we” below.

Consistent with the scope of SRD II, this policy relates to Putnam’s management of client accounts which invest in shares with a listing on an EEA market or on a comparable market outside the EEA. Our approach may differ with respect to portfolio investments other than these shares (such as fixed-income investments).

Monitoring of and Dialogue with Investee Companies

Our engagement with companies is reflective of our belief that the value we provide for clients is linked to thorough integrated research and understanding of long-term business fundamentals. Engagement approaches may differ by issue, asset class, portfolio, and context, and are considered by Putnam's staff as part of their overall approach to investment management. In particular, environment, social and governance (ESG) issues, data and analysis are all actively evolving and likewise we expect our approach to engagement on this topic, which also varies by client account and portfolio manager, to develop over time.

Rigorously monitoring the companies in which we decide to invest is an integral part of our investment approach. As active managers, we are committed to conducting bottom-up, fundamental research (in addition, where applicable, to rigorous quantitative analysis and macro-level research) when pursuing investment opportunities for our clients. Our teams of research analysts have worldwide reach and generate independent research on companies for our portfolio managers. We believe active managers have a particular role to play in working with company management teams, since we are long-term investors and our fundamental research process means that we are already in regular dialogue with companies about strategy and execution. For reference, Putnam's research teams held over 2,000 meetings with company management in 2018.

In addition to meeting with the management of many companies themselves, our analysts and portfolio managers conduct further research to determine the investment potential of companies. Corporate governance is one of the important factors we consider when evaluating and monitoring companies for client portfolios. Other examples of factors that we may take into consideration include business strategy, risk management, environmental and social concerns, compliance, culture and ethics, and performance and capital structure.

Specific to the area of ESG, Putnam has a dedicated Sustainable Investing team whose greatest priority is to extend Putnam's long-standing strength in fundamental research to produce deeper insights in context-specific, forward-looking ESG, sustainability, and impact analysis.

We believe that certain environmental, social, and governance factors are relevant and material to long-term business fundamentals, and therefore important to all investors. Relevant issues vary by

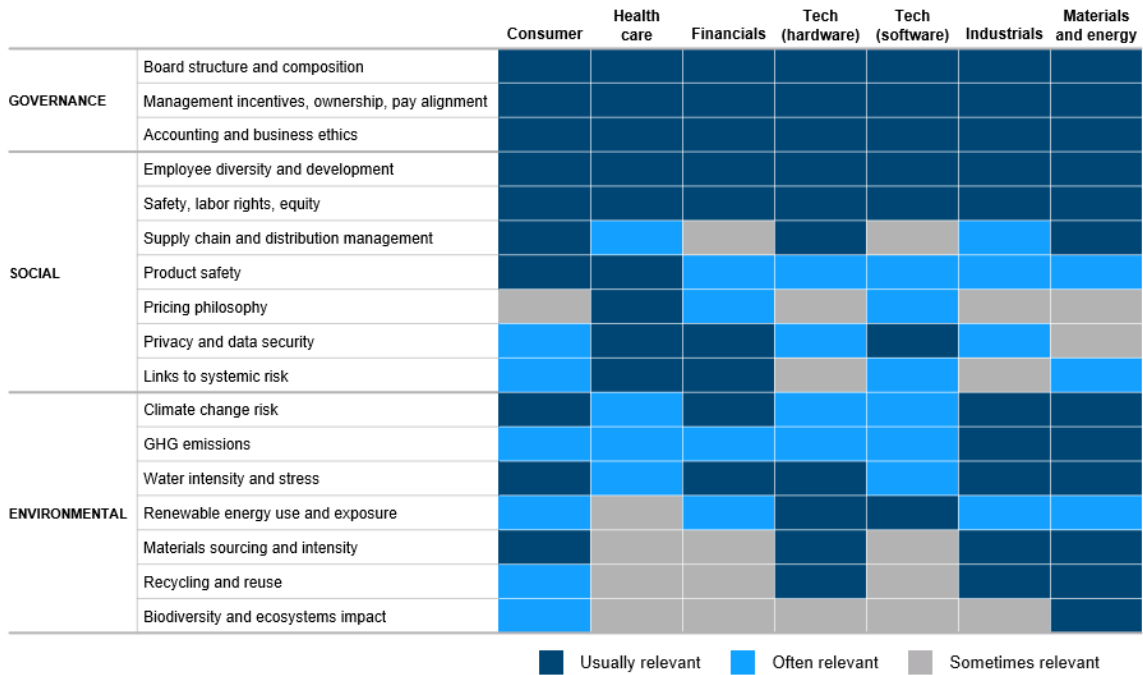
sector, geography, asset class, and company context. Therefore, fundamental research that is tailored to different settings has potential to add meaningful value.

Given this philosophy, the Sustainable Investing team's ongoing ESG research for use by the broader Putnam investment team is guided by internally developed "materiality maps," which were inspired and guided by the materiality mapping of the Sustainable Accounting Standards Board (SASB).¹ We believe that this kind of integrated, long-term research has the potential to mitigate risk and to generate alpha. We also utilise data from several third-party resources, including MSCI and Sustainalytics, as part of our broader research process.

Our belief in the power of context-specific analysis can be seen in the map below, which shows that we have different and complementary frameworks for various sectors and issues in equity research. We believe that this kind of forward-looking and customised research focus is a key determinant of long-term investment results.

¹<https://materiality.sasb.org/>

ESG considerations have varying materiality by sector



As of June 30, 2019.
 For illustrative purposes only.
 Source: Putnam Investments

Putnam has not developed prescriptive guidelines for escalating matters of concern with the companies in which we invest. Typically, if we believe a decision or proposal by company management will negatively affect the company’s long-term investment potential, our portfolio managers will eliminate or reduce the position in their portfolios. However, the approach taken may depend on the views of the particular Putnam portfolio manager or research analyst, past interactions with the company, and other factors. In the rare instances in which we decide to escalate our activities, we typically do so via meetings or conversations between our investment professionals and company management.

Exercising Voting Rights

A core element of our stewardship approach is exercising voting rights on behalf of our clients. We believe that voting proxies can be an important tool for institutional investors to promote best practices in corporate governance. First and foremost, we seek to vote all proxies in accordance with the best interests of our clients as investors. We believe that strong corporate governance at

the companies in which we invest — most notably oversight by an independent board of qualified directors — best serves our clients' interests.

Our detailed proxy-voting guidelines, which undergo periodic review and amendment, have been in place for nearly 30 years. The guidelines summarise Putnam's positions on a variety of issues, including the size and composition of a board of directors, independence of the board, executive compensation policies and changes in a company's capitalisation. In cases where we determine that a board is not sufficiently independent, extra scrutiny may be given to other voting items.

Our written guidelines set forth voting positions determined by Putnam's Proxy Committee on those issues believed most likely to arise day to day. The guidelines may call for votes to be cast normally in favour of or opposed to a matter. Other matters may be referred to our investment professionals on a case-by-case basis.

Putnam generally votes for board-approved proposals, including routine business matters such as changing the company's name, ratifying the appointment of auditors and confirming procedural matters relating to the shareholder meeting. However, in issues pertaining to the board of directors and limiting executive compensation, Putnam has a strong record of voting for independent boards and reasonable executive compensation. Putnam's governance approach and stringent oversight have contributed to votes against management-sponsored non-routine proxy votes in appropriate cases.

Putnam believes that sustainable environmental practices and sustainable social policies are important components of long-term value creation. Companies should evaluate the potential risks to their business operations that are directly related to environmental and social factors (among others). To that end, Putnam may support well-crafted and well-targeted shareholder proposals that request additional reporting or disclosure on a company's plans to mitigate risk to the company related to the following issues and/or their strategies related to environmental issues, including climate change, greenhouse gas emissions, renewable energy, and sustainability, and social issues, including but not limited to, gender pay equity. Putnam will consider factors such as (i) the industry in which the company operates, (ii) the company's current level of disclosure, (iii) the company's level of oversight, (iv) the company's management of risk arising out of these matters, and (v) whether the company has suffered a

material financial impact. Other factors may also be considered. Putnam will consider the recommendation of its third-party proxy service provider and may consider other factors such as third party evaluations of ESG performance.

Putnam's Legal and Compliance Department administers our firm's proxy voting through a proxy manager, who, in turn, instructs a proxy-voting service (currently, Glass Lewis & Co. ("Glass Lewis")), to process proxy votes for our client accounts. Although Glass Lewis may supply proxy-related research to Putnam, Glass Lewis does not make any decisions on how to vote client proxies. The Putnam proxy manager, with supervision from senior members of Putnam's Legal and Compliance Department, oversees the proxy administration work of Glass Lewis.

Co-operating With Other Shareholders and Communication with Stakeholders

Where we consider engagement appropriate, Putnam will typically engage in dialogue with its investee companies directly. While Putnam does not have a history of collaborating with other institutional investors, we will consider doing so if we believe it is likely to advance our clients' best interests, is consistent with our policies and is permitted under applicable laws and regulations.

In targeted areas, Putnam's Sustainable Investing team also engages in collective industry efforts. Examples include:

***Sustainable Accounting Standards Board (SASB):** Putnam joined SASB as an alliance member in 2018. SASB's mission is to connect businesses and investors on the financial impacts of sustainability. Their work includes the development of a taxonomy of financially material sustainability issues on an industry-specific basis.

***Ongoing pollination:** The Sustainable Investing team participates in a number of other ad hoc collaborations, focused on three main areas: research on emerging issues, improving processes around the disclosure and analysis of sustainable investing approaches, and contributing to development and transparency of sustainable business practices.

We do not generally communicate with companies' employee representative organisations or other stakeholders as part of our investment activities.

Managing Conflicts of Interest

Putnam maintains clear policies on matters of potential conflict that may arise in interacting with the companies in which we invest, including such areas as outside employment or directorships by Putnam personnel and the giving and acceptance of gifts and other items of value. More generally, potential conflicts may arise for any asset manager that manages multiple client accounts with differing objectives, and we maintain a compliance programme aimed at monitoring and addressing these potential conflicts.

In the voting area, for example, a potential conflict of interest may arise when voting proxies of an issuer that has a significant business relationship with Putnam. Putnam's policy is to base our votes solely on the investment merits of the proposal.

In order to manage conflicts of interest, Putnam's Proxy Committee, which sets general policy on our proxy voting, is composed solely of professionals in Putnam's Investment Division, whilst proxy administration is the responsibility of our Legal and Compliance Department. Neither the Investment Division nor the Legal and Compliance Department reports to Putnam's marketing businesses. In addition, there are limits on the ability of Putnam employees who are not investment professionals to contact portfolio managers who are voting proxies. Investment professionals must disclose any contact with third parties beyond their routine communication with proxy solicitation firms. In addition, the Putnam proxy manager, a member of the Putnam Legal and Compliance Department, reviews all known Putnam business relationships with companies that have voting items referred to any portfolio management team to consider any potential conflicts and, where appropriate, discusses relevant conflicts with a senior member of the Legal and Compliance Department. Putnam's proxy voting guidelines may only be overridden with the written recommendation of the Investment Division, approval of the Proxy Committee or its Chair, and concurrence of the Legal and Compliance Department.

Annual Review

On an annual basis, the Company will publicly disclose how its engagement policy has been implemented, including a general description of voting behaviour, an explanation of the most significant votes and the use of the services of proxy advisors.

In addition, the Company will publicly disclose how it has cast votes in the general meetings of companies in which its client accounts hold shares, noting that such disclosure may exclude votes that are insignificant due to the subject matter of the vote or the size of the holding in the company.

This information will be made available free of charge on www.putnam.com/uk.

IMPORTANT INFORMATION

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