

Putnam Investments and the UK Stewardship Code

For Year Ended December 2018

Putnam is a global investment firm that has been managing money for individuals and institutions since 1937. This document seeks to demonstrate how our active investment and research philosophy complements the UK Stewardship Code published by the Financial Reporting Council in July 2010 and revised in September 2012 (the ‘Code’). The Code’s seven principles, and how and to what extent Putnam incorporates them into our investment process, are described below. Although the Code is focused on the UK, the description below generally applies to Putnam’s approach across various countries of investment; however, the details of our approach may differ based on local law and practice.

Principle 1

Institutional investors should publicly disclose their policy on how they will discharge their stewardship responsibilities.

Key elements of our investment approach are a long-term perspective and fundamental research. As fiduciaries, we seek to help clients achieve their investment goals, which vary from client to client and from account to account. As part of this responsibility, we actively manage client accounts, vote proxies on behalf of clients and monitor the companies in which we have invested. The scope and details of our monitoring of companies vary from one portfolio manager or research analyst to another and from account to account, but may include matters such as strategy, performance, risk, capital structure and corporate governance, including compensation. Whilst we apply the Code’s principles insofar as they complement our fiduciary responsibility and the long-term financial goals of our clients, we believe a formalistic approach to engagement, or to any investment issue, may limit our ability to pursue our clients’ goals prudently and flexibly.

Stewardship activities differ depending on a firm’s place in the investment chain — as an asset owner (client/principal) or asset manager (agent). As an asset manager, Putnam acts

as agent of and fiduciary to our clients, but we do not own the assets that we manage. We are guided in our activities by any agreed-upon client requirements included in a client's investment management agreement. For example, clients may request that Putnam refrain from investing in certain companies or industries based on environmental, social, governance or other concerns. Similarly, certain clients may request that Putnam vote proxies under client-specific guidelines, subject to our agreement to do so. Other clients may determine to vote proxies for their equity holdings themselves. In each case, Putnam's responsibilities and approach will differ based on the nature of our specific role, as agreed upon with the client.

A core element of our stewardship approach is exercising voting rights on behalf of our clients. Many of our clients have delegated to Putnam the authority to vote proxies for the shares we manage in their accounts. 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. Further information on our voting approach is provided below.

In April 2011, Putnam became a signatory to the United Nations Principles for Responsible Investment. Devised by the investment community, these principles reflect the view that environmental, social and corporate governance (ESG) issues can affect the performance of investment portfolios.

This statement, which is available on our website and upon request, serves as public disclosure of how we approach the Code. Our client disclosure documents, such as relevant client brochures, also detail our approach in specific areas such as proxy voting.

Principle 2

Institutional investors should have a robust policy on managing conflicts of interest in relation to stewardship, which should be publicly disclosed.

We outline Putnam's approach to conflicts of interest to all potential institutional clients in our client brochures. 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 our client brochures provide information on our approach to 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.

Principle 3

Institutional investors should monitor their investee companies.

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. In addition to meeting with the management of the many companies themselves, our analysts and portfolio managers conduct further research to determine the investment potential of companies. Corporate governance is one of the factors we consider when evaluating and monitoring companies for client portfolios.

When attending company meetings, we are sensitive to the risk of exposure to inside information. Where it is believed that Putnam is at risk of being exposed to such information, we will engage with the company or broker arranging the meeting to confirm the nature of the information to be divulged. We believe it is in the interest of our clients to generally avoid attending meetings with investee companies where we believe it is likely that we will be exposed to inside information. In the rare cases in which we determine to accept inside information, contact is coordinated through the Legal and Compliance Department.

Principle 4

Institutional investors should establish clear guidelines on when and how they will escalate their stewardship activities.

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.

Principle 5

Institutional investors should be willing to act collectively with other investors where appropriate.

Whilst Putnam does not have a history of collaborating with other institutional investors, we would 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.

Principle 6

Institutional investors should have a clear policy on voting and disclosure of voting activity.

Our detailed proxy-voting guidelines, which undergo periodic review and amendment, have been in place for more than 20 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 the 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'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 the Legal and Compliance Department, oversees the proxy administration work of Glass Lewis.

Some Putnam clients may separately engage third-party service providers to administer a securities lending program. Where securities lending takes place, voting rights pass with the shares that are loaned (to the extent a loan is open on the relevant record date), and Putnam does not recall shares on loan in order to vote.

Copies of our complete proxy voting policies and procedures are available upon request.

Principle 7

Institutional investors should report periodically on their stewardship and voting activities.

We keep records of our voting decisions, maintaining an audit trail of votes cast and the basis for our votes. We also make records of all voting activity on behalf of a client account available to the client upon request and will publish voting records where required by applicable law.

Putnam does not currently intend to obtain an independent opinion on its voting and engagement processes under a standard such as AAF 01/06. However, Putnam's voting process, like our other business processes, is subject to internal review and audit on a periodic basis.

IMPORTANT INFORMATION

Issued by Putnam Investments Limited which is registered in England at 16 St James's Street, London, SW1A, 1ER, United Kingdom and authorised and regulated by the Financial Conduct Authority (FCA). For the activities carried out in Germany, the German branch of Putnam Investments Limited is also subject to the limited regulatory supervision of the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht -BaFin). This material is directed exclusively at professional clients and eligible counterparties (as defined under the FCA Rules, or the German Securities Trading Act (Wertpapierhandelsgesetz) or other applicable law) who are knowledgeable and experienced in investment matters.

All information contained in this communication is believed to be reliable but may be inaccurate or incomplete. Any opinions stated are honestly held but not guaranteed, should not be relied on and are subject to change.

For further information on Putnam's approach to stewardship, please see www.putnam.com/uk/

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