

AUDIT, COMPLIANCE AND RISK COMMITTEE CHARTER

Purpose. The primary purpose of the Audit, Compliance and Risk Committee (the “Committee”) is to oversee and assist Trustee oversight of: the integrity of the Funds’ financial statements, including overseeing accounting and financial reporting processes of the Funds and the audits of the Funds’ financial statements; the Funds’ compliance with legal and regulatory requirements; the independent auditors’ qualifications and independence; the performance of the Funds’ internal audit function, if any, and independent auditors; certain aspects of risk management oversight as described herein; and all dividends and distributions by the Funds. The Committee’s primary purpose is also to prepare the report required by Item 407(d)(3)(i) of Regulation S-K to be included in the annual proxy statement for closed-end Funds if the proxy statement relates to the election of Trustees.

The Committee is directly responsible for the appointment, terms of engagement, retention, termination, compensation and oversight of the work of the independent auditors employed by the Funds (including resolution of disagreements between management and the independent auditors regarding financial reporting), and the independent auditors shall report directly to the Committee.¹ The Board of Trustees (the “Board”) and the Funds’ shareholders shall have such rights to approve, ratify and replace the Funds’ independent auditors as are required by applicable law.

Composition. The Committee will be comprised exclusively of “independent” Trustees, as such term is interpreted for purposes of Section 10A of and Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended, and the listing standards of each exchange on which shares of one or more of The Putnam Funds are traded (each an “Exchange”), taking into account any exceptions to those requirements set forth in such statute, rule, or listing standards. In addition, none of the Committee’s members will be “interested persons” of the Funds as that term is defined under the Investment Company Act of 1940, as amended. The Committee shall have at least three members who shall collectively satisfy the independence, financial sophistication or expertise, and financial literacy listing standards of each Exchange. Committee members may serve on the audit committee of more than three listed companies, provided that the Board determines that such simultaneous service would not impair the ability of the member to serve effectively on the Committee.

Assistance. The Committee may seek the assistance of the staff of the Office of the Trustees, the Funds’ independent auditors and counsel, management and other parties as it may deem appropriate.

Funding. The Funds will provide the necessary funding as determined by the Committee (i) to compensate the Funds’ independent auditors and any advisers employed by or at the direction of

¹ For purposes of this Charter, the term “management” refers to the relevant officers of the Funds, including officers that comprise the staff of the Office of the Trustees, as well as relevant officers and employees of Putnam Investment Management and its affiliates (“Putnam Investments”).

the Committee and (ii) to pay ordinary administrative expenses of the Committee that are necessary or appropriate in carrying out its duties.

Specific Duties of Committee. The duties of the Committee include:

- Obtaining and reviewing, at least annually, a formal, written report by the independent auditors describing: the auditors' internal quality-control procedures; any material issues raised by the most recent internal quality-control review, or peer review, of the auditors, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, regarding one or more independent audits carried out by the auditors, and any steps taken to deal with any such issues; and (to assess the auditors' independence), consistent with applicable independence standards, all relationships between the independent auditors, management and the Funds;
- Reviewing the arrangements for and scope and adequacy of the annual audits and any special audits;
- Conducting meetings at least quarterly;
- Evaluating Committee performance at least annually;
- For Funds whose shares are traded on an Exchange, reviewing and discussing the annual audited financial statements and semiannual or any other periodic financial statements with Fund management and the independent auditors, including the Funds' disclosures under management's discussion (if any) of Fund performance;
- With respect to the oversight of risk assessment and risk management, as and when appropriate, (A) reviewing the major legal and compliance risk exposures of the Funds and the steps management is taking to identify, assess, and manage these exposures, (B) discussing with management guidelines and policies with respect to risk assessment and risk management for the Funds and their significant service providers, including guidelines governing the process by which the Funds' major risk exposures are identified, assessed, and managed and the steps management has taken to monitor and control these exposures, (C) meeting separately and periodically with the chief risk officer of Putnam Investments (if any; or other personnel responsible for risk management, if any), and (D) to the extent that other committees of the Board, or the Board, oversees risk assessment and risk management with respect to any particular risk exposures, confirming that the other committees are, or the Board is, receiving the information necessary to permit them to fulfill their duties and responsibilities;
- Meeting separately and periodically with management, with internal auditors (if any; or other personnel responsible for the internal audit function, if any) and with the independent auditors;
- Reviewing with the independent auditors any audit problems or difficulties and management's response to such issues;

- If and to the extent that the Funds intend to have employees, setting clear hiring policies by the Funds for employees or former employees of the independent auditors;
- Establishing procedures for (A) the receipt, retention and treatment of complaints received by the Funds regarding accounting, internal accounting controls or auditing matters, and (B) confidential, anonymous submissions regarding questionable accounting or auditing matters;
- Reviewing, at least annually, (A) major issues regarding accounting principles and financial statement presentations, including any significant changes in the Funds' selection or application of accounting principles, and major issues as to the adequacy of the Funds' internal controls and any special audit steps adopted in light of material control deficiencies; (B) analyses prepared by management and/or the independent auditors setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements, including analyses of the effects of alternative GAAP methods on the financial statements; (C) the effect of regulatory and accounting initiatives, as well as off-balance sheet structures (if any), on the financial statements of the Funds; and (D) earnings press releases (paying particular attention to any use of "pro forma," or "adjusted" non-GAAP, information), if any, as well as financial information and earnings guidance provided to analysts and rating agencies;
- Ensuring the regular rotation of the lead audit partner of the independent auditing firm for any Exchange-listed, closed-end Funds;
- Reporting regularly to the Board to review any issues that arise with respect to the quality or integrity of the Funds' financial statements, the Funds' compliance with legal or regulatory requirements, the performance, qualifications and independence of the Funds' independent auditors and the performance of the Funds' internal audit function (if any);
- Pre-approving any work performed by the Funds' auditors, as required by applicable law or the rules of any Exchange (or if the Committee otherwise considers it appropriate);
- Reviewing matters relating to the Funds' Code of Ethics and Putnam Investments' Code of Ethics;
- Reviewing inter-fund transactions pursuant to Rule 17a-7;
- Reviewing the operation of the Funds' and Putnam Investments' compliance programs (including without limitation with respect to liquidity risk management) and compliance matters identified to the Committee;
- Reviewing Putnam Investments' oversight of the Funds' significant other service providers (unless another Committee, or the Board, has this responsibility);
- Making recommendations to the Board regarding the amount and timing of dividends and distributions paid by the Funds, and determining such matters when the Board is not in session;

- Overseeing the policies and procedures pursuant to which Putnam Investments prepares recommendations for dividends and distributions, meeting regularly with representatives of Putnam Investments and its affiliates to review the implementation of these policies and procedures, and reporting to the Board and making recommendations to the Board regarding these matters; and
- Performing such other functions and having such powers as may be necessary and appropriate in the efficient and lawful discharge of the powers provided in this Charter.

Role and Responsibilities of the Committee. The function of the Committee is oversight; it is not the responsibility of the Committee to plan or to conduct audits, to prepare or to determine that the Funds' financial statements are complete and accurate and are in accordance with generally accepted accounting principles, to assure compliance with laws, regulations or any internal rules or policies of the Funds, or to assess or manage the Funds' or their service providers' exposure to risk. It is Fund management's responsibility to maintain appropriate systems for accounting and internal control over financial reporting, and the independent auditors' responsibility to plan and carry out a proper audit. Specifically, a Fund's management is responsible for: (1) the preparation, presentation and integrity of the Fund's financial statements; (2) the maintenance of appropriate accounting and financial reporting principles and policies; (3) the maintenance of internal control over financial reporting and other procedures designed to assure compliance with accounting standards and related laws and regulations; and (4) the assessment and management of the Fund's exposure to risk. The independent auditors are responsible for planning and carrying out an audit consistent with applicable legal and professional standards and the terms of their engagement letter. Nothing in this Charter shall be construed to reduce the responsibilities or liabilities of a Fund's service providers, including the independent auditors.

The review of a Fund's financial statements by the Committee is not an audit, nor does the Committee's review substitute for the responsibilities of the Funds' management for preparing, or the independent auditors for auditing, the financial statements. Members of the Committee are not employees of the Funds and, in serving on the Committee, are not, and do not hold themselves out to be, acting as accountants or auditors. As such, it is not the duty or responsibility of the Committee or its members to conduct "field work" or other types of auditing or accounting reviews or procedures.

In discharging their duties, the members of the Committee are entitled to rely on information, opinions, reports or statements, including financial statements and other financial data, if prepared or presented by: (1) one or more officers of the Funds whom the Committee member reasonably believes to be reliable and competent in the matters presented; (2) legal counsel, public accountants or other persons as to matters the Committee member reasonably believes are within the person's professional or expert competence; or (3) a Board committee of which the Committee member is not a member.

Revised: October 16, 2020