



May 2025

SCHEDULE C DISCLOSURE

Schedule C of Form 5500 requires plan sponsors of large plans (generally plans with 100 or more participants) to report certain compensation information regarding any mutual funds that are part of the plan's available investment options. We are providing the following written disclosures regarding the compensation received by Putnam to assist you with the Schedule C requirements for one or more Putnam mutual funds (each a "Fund"). This disclosure statement is intended to be used in combination with your Fund's existing prospectuses, annual reports, and statements of additional information (SAI), as applicable to satisfy the alternative reporting option for "eligible indirect compensation" as described in the instructions for Schedule C of Form 5500.

Investment management fees

The Fund's Board of Trustees has retained Putnam Investment Management, LLC ("Putnam Management" and together with its affiliates "Putnam") located at 100 Federal Street, Boston, MA 02110 (employer identification number 04-3542621) to be the Fund's investment manager responsible for making portfolio investment decisions for the Fund. The Fund pays Putnam Management a management fee for these services based on the Fund's average net assets. For detailed information regarding Putnam Management's compensation, please see the "Fees and Expenses" section of the Fund's statutory prospectus as well as the "Charges and Expenses" Section of the Fund's SAI. For additional information regarding the management of the Funds and the fees, please see the section titled "Who oversees and manages the fund" of the Fund's statutory prospectus, the section in Part I titled "Portfolio Managers," and the section in Part II titled "Management" of the Fund's SAI. Putnam is an indirect, wholly-owned subsidiary of Franklin Resources, Inc. ("Franklin Resources"). Franklin Resources is a global investment management organization operating, together with its subsidiaries, as Franklin Templeton.

Fees related to purchases and sale/commissions for purchase

A plan may pay a sales charge or a contingent deferred sales charge for purchases of shares of the Fund, depending on the plan's arrangement with Putnam and/or the intermediary through which the plan invested in the Fund.

Sales charges are generally used to compensate financial representatives for asset allocation and other services. In many instances, however, sales charges are waived for employer-sponsored retirement plans. For questions about whether or not the plan paid a sales charge, please contact the plan's financial advisor or other intermediary. For detailed information regarding the payment of sales charges, please see the Fund's statutory prospectus (including the sections titled "Fund summary" and "How do I buy fund shares"), as well as the Fund's SAI (including the section in Part I titled "Charges and expenses" and the section in Part II titled "How to buy shares").

Distribution fees (12b-1)

Putnam Funds are distributed primarily through dealers (including any broker, dealer, bank, bank trust department, registered investment advisor, financial planner, retirement plan administrator, and any other institution having a selling, services, or any similar agreement with Putnam Investments or one of its affiliates). If a Fund, or a class of shares of a Fund, has adopted a distribution plan, the Fund's statutory prospectus describes the principal features of the plan. The Fund's distributor, Putnam Retail Management (EIN 04-1223767), whose place of business is located at 100 Federal Street, Boston, MA 02110 receives these payments from the Fund to compensate qualifying dealers (as described above) for sales of shares and the maintenance of shareholder accounts. For detailed information regarding these payments, please refer to the Fund's statutory prospectus (including the section titled "Distribution plans and payments to dealers") and the Fund's SAI (including the section in Part I titled "Charges and Expenses" and the section in Part II titled "Distribution plans"). For specific dealer

information regarding broker compensation, please contact your plan's financial advisor.

Bank Account Earnings

Putnam and its affiliates may earn additional compensation in the form of "float" (income earnings or bank fee credits) generated from investors' balances in the Putnam bank accounts used for subscriptions and redemptions for the Putnam mutual funds. The item numbers in the description below correspond to the disclosure requirements listed under the "Obligations of Service Providers" as set forth in the Department of Labor's Field Assistance Bulletin 2002-3.

1. Disclose the specific circumstances under which float will be earned and retained.

All plan contributions, distributions, and transfers to or from the Putnam mutual funds are initially deposited in one or more demand deposit accounts ("DDA"). The funds remain in the DDA only to the extent needed to process the particular transaction, as described in items 2 and 3 below.

Depending on the size of the overall balance in the DDA at the end of each business day and the current interest rate environment, a portion of the balance may be invested on an overnight basis in a money market mutual fund or other short term investment vehicle. The balance not invested remains in the DDA as a "buffer" for subscription/redemption activity. Balances invested overnight generate a short-term investment return.

Under current practice, any balances in the DDA that are not invested overnight generate bank fee credits, which are used to offset general banking expenses of Putnam. Accordingly, to the extent the float reduces these expenses, it forms part of the compensation payable to Putnam or its affiliates for the services it provides.

2. In the case of float on contributions pending investment direction, establish, disclose and adhere to specific time frames within which cash pending investment direction will be invested following direction from the plan fiduciary, as well as any exceptions that might apply.

If a purchase order is placed via a direct trade or the National Securities Clearing Corporation ("NSCC"), the transaction receives the share price for the day on which the order is placed, but the settlement with the mutual fund generally occurs on the following business day. This means that the funds usually remain in the DDA for one business day and float is earned for that time period. If the purchase order is placed through the Defined Contribution Clearing and Settlement ("DCC&S") system, the funds generally do not generate float, because the funds and purchase order are transmitted to the mutual fund on the same day. In certain cases, direct orders may generate float for several days for trades settling on a delayed basis.

Putnam agrees to adhere to the foregoing procedures.

3. In the case of float on distributions, disclose when the float period commences (e.g., the date the check is requested, the date the check is written, the date the check is mailed) and ends (the date the check is presented for payment). Also disclose, and adhere to, time frames for mailing and any other administrative practices that might affect the duration of the float period.

If a redemption or transfer is made by wire or NSCC, there is no float because Putnam sends the funds on the same day as the settlement. Transactions via ACH typically generate one day of float. If a redemption or transfer is made by check, funds remain in the DDA until the check is presented for payment, which can be an extended period of time if the shareholder has an undeliverable address or fails to cash the check. Float generated in these circumstances may be credited back to the mutual funds, rather than retained by Putnam. In certain other cases, direct orders may generate float for several days for trades settling on a delayed basis.

4. *Disclose the rate of the float or the specific manner in which such rate will be determined. For example, earnings on cash pending investment and earnings on uncashed checks are generally at a money market interest rate.*

Amounts that are invested on an overnight basis are generally invested in a money market mutual fund or similar investment vehicle. Investment returns are generally at money market rates.

Under current practice, any balances in the DDA that are not invested overnight do not earn explicit interest or other amounts; instead, the float is used to offset general banking expenses of Putnam based on a “credit” rate set by the bank holding the account. Depending on current interest rates, credits may be higher and lower than overnight cash returns, generally by a small margin (for example, rates may be based on a 3-month Treasury Bill rate after deducting a margin for bank capital requirements).

For information about the most recent returns and any investment vehicles used, as well as any relevant credit rates, please contact Putnam.

Soft dollar arrangements

Putnam, consistent with the safe harbor provisions of Section 28(e) under the Securities Exchange Act of 1934, obtains “research” from broker-dealers (“proprietary research”) or third parties paid by broker-dealers (“third-party research”) using commissions generated by security trades on behalf of clients. At present, Putnam generally does not use “soft dollars” to obtain “brokerage services.” The research so obtained includes: economic analysis, investment research, industry and company reviews, statistical information, market data, evaluations of investments, recommendations as to the purchase and sale of investments, access to company management, attendance at industry seminars, and performance measurement services. Any given broker-dealer or third-party research firm may provide Putnam with one or more of the above categories of research, and Putnam may acquire different research services from a firm over different periods. With the exception of market data, which is generally obtained as third-party research, there generally is no categorical distinction between third-party research and proprietary research. Third-party research may be provided by firms that are registered broker-dealers but with whom Putnam does not trade. For additional information regarding soft dollars and/or brokerage and research services, please refer to the Fund’s SAI (including the section in Part II titled “Management”).

Below is a list of the top 20 third-party and proprietary research providers from whom Putnam received research in 2024. The research was not provided to Putnam with respect to any specific Putnam investment product or retirement plan client and, if applicable, is generally not provided in relation to fixed income transactions. As a result, it is impracticable to provide a reasonable estimate of the value of the services received applicable to any specific plan. Putnam also received research from additional providers in 2024. For further information regarding third-party and proprietary research providers, please contact a Putnam representative at 1-800-662-0019.

Top 20 proprietary research providers for 2024	Top 20 third-party research providers for 2024
Barclays	Axioma
Bank of America Merrill	Bernstein
Citigroup	Bloomberg
Cowen & Co.	Bank of America Merrill
Evercore ISI	Citigroup
Exane BNP Paribas	Coleman Research
Goldman Sachs	CoStar
Jefferies & Co.	Deutsche Bank

JP Morgan	Empirical
Mizuho Securities	Gerson Lehrman
Morgan Stanley	Goldman Sachs
Piper Sandler	Jeffries & Co.
Raymond James & Associates	JP Morgan
RBC Capital Markets	Nomura/Instinet
Robert W. Baird	Refinitiv (RKIM) (formerly Thomson Reuters)
Stephens Inc.	Robert W. Baird
Stifel Nicolaus	Sustainalytics
UBS	UBS
Wells Fargo Capital Markets	Wolfe Research
William Blair & Co.	Yipit, LLC

Gifts and entertainment

Putnam employees, including portfolio managers, may receive limited gifts and entertainment from third parties. Under Putnam's policies and procedures, any gifts and entertainment must be of a reasonable value so they do not influence the nature of the investment advice given to clients, the selection of broker-dealers to execute portfolio trades, or other business decisions. It has been determined that under any reasonable method of allocation, the gifts and entertainment received by Putnam attributable to any plan are of insubstantial value and, therefore, exempt from reporting on the Schedule C.

Additional fund information

For additional fund-specific information related to fiscal year-end and fund assets, please refer to the "Statement of assets and liabilities" section of the Fund's annual report. Total expense information, exclusive of fee waivers, can be located under "Total Annual Fund Operating Expenses" in the chart in the "Fees and Expenses" section of the Fund's statutory prospectus. For further information or questions pertaining to the information provided, please refer to Franklin Templeton's website franklintempleton.com or contact a Putnam representative at 1-800-662-0019.