

We need your vote

Please vote today on matters affecting your investment in the Putnam funds.

Your prompt response to this proxy statement is important.

Voting now can help save costs.



Online



Phone



Mail

This page intentionally left blank.

A message from Putnam Investments and the Trustees of the Putnam funds

A few minutes of your time now can help save time and expenses later.

Dear Fellow Shareholder:

We are asking for your vote on important matters affecting your investment in one or more of the mutual funds and exchange-traded funds in the Putnam family of funds (the "funds"). Each fund will hold a special meeting of shareholders on October 20, 2023 in Boston, Massachusetts. We are asking you — and all shareholders — to consider and vote on the important matters described below.

You may conveniently vote by:

- **Visiting** the website listed on the WHITE proxy card.
- **Calling** by telephone, using the toll-free number listed on the WHITE proxy card.
- **Mailing** the enclosed WHITE proxy card — be sure to sign, date, and return the card in the enclosed postage-paid envelope.

Of course, you are also welcome to **attend** your fund's special shareholder meeting and vote your shares in person.

The Board of Trustees of the funds unanimously recommend that you vote "FOR" all proposals described below.

1. Approving new management contracts. Shareholders of each fund, including your fund, are being asked to approve a new management contract with Putnam Investment Management, LLC ("Putnam Management"), your fund's investment adviser.

2. Approving new sub-advisory contracts. Shareholders of each fund, including your fund, are being asked to approve new sub-advisory contracts with respect to one or more of the subadvisers to the funds. Subadvisers for the funds include Putnam Investments Limited ("PIL"), The Putnam Advisory Company, LLC ("PAC"), and PanAgora Asset Management, Inc. ("PanAgora") (PIL, PAC, and PanAgora are also each individually referred to as a "subadviser" and collectively as the "subadvisers").

On May 31, 2023, Great-West Lifeco Inc., the parent company of Putnam U.S. Holdings I, LLC ("Putnam Holdings"), entered into a definitive purchase agreement with Franklin Resources, Inc. ("FRI" and, together with its subsidiaries, "Franklin Templeton") and a subsidiary of FRI for the subsidiary to acquire Putnam Holdings from Great-West Lifeco Inc. (the "Transaction"). Putnam Holdings is the parent company of the investment adviser and subadvisers to the funds. The Transaction will cause the funds' current management and sub-advisory contracts to terminate in accordance with applicable law and the terms of each contract. The Transaction will not be completed unless certain conditions are met. One of these conditions effectively requires shareholders of a substantial number of funds in the Putnam family of funds to approve new management contracts to replace those that will terminate automatically upon consummation of the Transaction. We are therefore asking shareholders to approve a new management contract and new sub-advisory contracts, as applicable for each fund. Each fund's Board of Trustees has approved the new contracts. It is important to note that your fund's management fee rate under its new contracts will remain the same, and the Transaction is not expected to result in any change in the portfolio managers of your fund.

Detailed information regarding these proposals may be found in the enclosed proxy statement.

Please vote today

We encourage you to sign and return your WHITE proxy card today or, alternatively, online or by telephone using the voting control number that appears on your WHITE proxy card. Delaying your vote will increase fund expenses if further mailings are required. Your shares will be voted on your behalf exactly as you have instructed. **If you sign the WHITE proxy card without specifying your vote, your shares will be voted in accordance with the Board of Trustees' recommendations.**

Your vote is extremely important. If you have questions, please call toll-free 1-833-501-4818 or contact your financial advisor.

We appreciate your participation and prompt response, and thank you for investing in the Putnam family of funds.

Sincerely yours,



A handwritten signature in cursive script, reading "Robert L. Reynolds".

Robert L. Reynolds
President and Chief Executive Officer
Putnam Investments



A handwritten signature in cursive script, reading "Kenneth R. Leibler".

Kenneth R. Leibler
Chair, Board of Trustees
The Putnam funds

Table of Contents

Notice of a Special Meeting of Shareholders of the Putnam Mutual Funds and Exchange-Traded Funds	1
Board of Trustees' Recommendations	4
The Proposals	
1. APPROVING A NEW MANAGEMENT CONTRACT FOR YOUR FUND	5
2a. APPROVING A NEW SUB-MANAGEMENT CONTRACT BETWEEN PUTNAM MANAGEMENT AND PIL FOR YOUR FUND	11
2b. APPROVING A NEW SUB-ADVISORY CONTRACT AMONG PUTNAM MANAGEMENT, PIL, AND PAC FOR YOUR FUND	13
2c. APPROVING A NEW SUBADVISORY AGREEMENT BETWEEN PUTNAM MANAGEMENT AND PANAGORA FOR YOUR FUND	15
Additional Information Relevant to the Proposals	17
Further Information About Voting and the Special Meetings	17
Fund Information	21
Appendix A — Number of Shares Outstanding as of the Applicable Record Date	A-1
Appendix B — Management Contracts with Putnam Management — Dates, Approvals and Fees	B-1
Appendix C — New Management Contracts with Putnam Management	C-1
Appendix D — Sub-Advisory Contracts — Dates, Approvals and Fees	D-1
Appendix E — Description of Contract Approval Process	E-1
Appendix F — New Sub-Advisory Contracts	F-1
Appendix G — Fees Paid to Adviser and its Affiliates	G-1
Appendix H — Other Funds Advised by Adviser and Subadvisers	H-1
Appendix I — Officers and Trustees of the Funds	I-1
Appendix J — Management Ownership of Fund Shares	J-1
Appendix K — 5% Beneficial Ownership	K-1

PROXY CARD(S) ENCLOSED

If you have any questions, please call toll-free 1-833-501-4818 or contact your financial advisor.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SPECIAL SHAREHOLDER MEETINGS OF THE PUTNAM MUTUAL FUNDS AND EXCHANGE-TRADED FUNDS TO BE HELD ON OCTOBER 20, 2023: The notice of special meeting of shareholders, Joint Proxy Statement and your form of proxy card are available at <https://www.putnam.com/static/pdf/email/all-putnam-funds-proxy-statement.pdf>.

Notice of a Special Meeting of Shareholders of the Putnam Mutual Funds and Exchange-Traded Funds

To the Shareholders of:

PUTNAM ASSET ALLOCATION FUNDS

PUTNAM DYNAMIC ASSET ALLOCATION BALANCED FUND
PUTNAM DYNAMIC ASSET ALLOCATION CONSERVATIVE FUND
PUTNAM DYNAMIC ASSET ALLOCATION GROWTH FUND
PUTNAM MULTI-ASSET INCOME FUND

PUTNAM CALIFORNIA TAX EXEMPT INCOME FUND

PUTNAM CONVERTIBLE SECURITIES FUND

PUTNAM DIVERSIFIED INCOME TRUST

PUTNAM ETF TRUST

PUTNAM BDC INCOME ETF
PUTNAM BIOREVOLUTION™ ETF
PUTNAM EMERGING MARKETS EX-CHINA ETF
PUTNAM ESG CORE BOND ETF
PUTNAM ESG HIGH YIELD ETF
PUTNAM ESG ULTRA SHORT ETF
PUTNAM FOCUSED LARGE CAP GROWTH ETF
PUTNAM FOCUSED LARGE CAP VALUE ETF
PUTNAM PANAGORA ESG EMERGING MARKETS EQUITY ETF
PUTNAM PANAGORA ESG INTERNATIONAL EQUITY ETF
PUTNAM SUSTAINABLE FUTURE ETF
PUTNAM SUSTAINABLE LEADERS ETF

PUTNAM FOCUSED INTERNATIONAL EQUITY FUND

PUTNAM FUNDS TRUST

PUTNAM CORE BOND FUND
PUTNAM CORE EQUITY FUND
PUTNAM DYNAMIC ASSET ALLOCATION EQUITY FUND
PUTNAM EMERGING MARKETS EQUITY FUND
PUTNAM FLOATING RATE INCOME FUND
PUTNAM FOCUSED EQUITY FUND
PUTNAM GLOBAL TECHNOLOGY FUND
PUTNAM INTERMEDIATE-TERM MUNICIPAL INCOME FUND
PUTNAM INTERNATIONAL VALUE FUND
PUTNAM MORTGAGE OPPORTUNITIES FUND
PUTNAM SHORT DURATION BOND FUND
PUTNAM SHORT TERM INVESTMENT FUND
PUTNAM SHORT-TERM MUNICIPAL INCOME FUND
PUTNAM SMALL CAP GROWTH FUND
PUTNAM ULTRA SHORT DURATION INCOME FUND
PUTNAM ULTRA SHORT MAC SERIES

GEORGE PUTNAM BALANCED FUND

PUTNAM GLOBAL HEALTH CARE FUND

PUTNAM GLOBAL INCOME TRUST

PUTNAM HIGH YIELD FUND

PUTNAM INCOME FUND

PUTNAM INTERNATIONAL EQUITY FUND

PUTNAM INVESTMENT FUNDS

PUTNAM GOVERNMENT MONEY MARKET FUND
PUTNAM INTERNATIONAL CAPITAL OPPORTUNITIES FUND
PUTNAM LARGE CAP GROWTH FUND
PUTNAM RESEARCH FUND
PUTNAM SMALL CAP VALUE FUND
PUTNAM SUSTAINABLE FUTURE FUND

PUTNAM LARGE CAP VALUE FUND

PUTNAM MASSACHUSETTS TAX EXEMPT INCOME FUND

PUTNAM MINNESOTA TAX EXEMPT INCOME FUND

PUTNAM MONEY MARKET FUND

PUTNAM MORTGAGE SECURITIES FUND

PUTNAM NEW JERSEY TAX EXEMPT INCOME FUND

PUTNAM NEW YORK TAX EXEMPT INCOME FUND

PUTNAM OHIO TAX EXEMPT INCOME FUND

PUTNAM PENNSYLVANIA TAX EXEMPT INCOME FUND

PUTNAM SUSTAINABLE LEADERS FUND

PUTNAM TARGET DATE FUNDS

PUTNAM RETIREMENT ADVANTAGE MATURITY FUND
PUTNAM RETIREMENT ADVANTAGE 2065 FUND
PUTNAM RETIREMENT ADVANTAGE 2060 FUND
PUTNAM RETIREMENT ADVANTAGE 2055 FUND
PUTNAM RETIREMENT ADVANTAGE 2050 FUND
PUTNAM RETIREMENT ADVANTAGE 2045 FUND
PUTNAM RETIREMENT ADVANTAGE 2040 FUND
PUTNAM RETIREMENT ADVANTAGE 2035 FUND
PUTNAM RETIREMENT ADVANTAGE 2030 FUND
PUTNAM RETIREMENT ADVANTAGE 2025 FUND
PUTNAM SUSTAINABLE RETIREMENT MATURITY FUND
PUTNAM SUSTAINABLE RETIREMENT 2065 FUND
PUTNAM SUSTAINABLE RETIREMENT 2060 FUND
PUTNAM SUSTAINABLE RETIREMENT 2055 FUND
PUTNAM SUSTAINABLE RETIREMENT 2050 FUND
PUTNAM SUSTAINABLE RETIREMENT 2045 FUND
PUTNAM SUSTAINABLE RETIREMENT 2040 FUND
PUTNAM SUSTAINABLE RETIREMENT 2035 FUND
PUTNAM SUSTAINABLE RETIREMENT 2030 FUND
PUTNAM SUSTAINABLE RETIREMENT 2025 FUND

PUTNAM TAX EXEMPT INCOME FUND

PUTNAM TAX-FREE INCOME TRUST

PUTNAM STRATEGIC INTERMEDIATE MUNICIPAL FUND
PUTNAM TAX-FREE HIGH YIELD FUND

PUTNAM VARIABLE TRUST

PUTNAM VT CORE EQUITY FUND
PUTNAM VT DIVERSIFIED INCOME FUND
PUTNAM VT EMERGING MARKETS EQUITY FUND
PUTNAM VT FOCUSED INTERNATIONAL EQUITY FUND
PUTNAM VT GEORGE PUTNAM BALANCED FUND
PUTNAM VT GLOBAL ASSET ALLOCATION FUND
PUTNAM VT GLOBAL HEALTH CARE FUND
PUTNAM VT GOVERNMENT MONEY MARKET FUND
PUTNAM VT HIGH YIELD FUND
PUTNAM VT INCOME FUND
PUTNAM VT INTERNATIONAL EQUITY FUND
PUTNAM VT INTERNATIONAL VALUE FUND
PUTNAM VT LARGE CAP GROWTH FUND
PUTNAM VT LARGE CAP VALUE FUND
PUTNAM VT MORTGAGE SECURITIES FUND
PUTNAM VT RESEARCH FUND
PUTNAM VT SMALL CAP GROWTH FUND
PUTNAM VT SMALL CAP VALUE FUND
PUTNAM VT SUSTAINABLE FUTURE FUND
PUTNAM VT SUSTAINABLE LEADERS FUND

This is the formal agenda for your fund’s special shareholder meeting. It tells you what proposals will be voted on and the time and place of the special meeting, in the event you attend in person.

A special meeting of shareholders of your fund will be held on October 20, 2023 at 11:00 a.m., Boston time, at the principal offices of the funds, 100 Federal Street, Boston, MA 02110, to consider the following proposals, in each case as applicable to the particular funds listed in the table below:

Proposal	Proposal Description	Affected Funds
1.	Approving a new Management Contract with Putnam Investment Management, LLC for your fund	All funds
2a	Approving a new Sub-Management Contract between Putnam Investment Management, LLC and Putnam Investments Limited for your fund	All funds other than Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF
2b	Approving a new Sub-Advisory Contract among Putnam Investment Management, LLC, Putnam Investments Limited and The Putnam Advisory Company, LLC for your fund	Putnam Core Bond Fund; Putnam Dynamic Asset Allocation Balanced Fund; Putnam Dynamic Asset Allocation Conservative Fund; Putnam Dynamic Asset Allocation Equity Fund; Putnam Dynamic Asset Allocation Growth Fund; Putnam Emerging Markets Equity Fund; Putnam Focused Equity Fund; Putnam Focused International Equity Fund; Putnam Global Health Care Fund; Putnam Global Technology Fund; Putnam International Capital Opportunities Fund; Putnam International Equity Fund; Putnam International Value Fund; Putnam Multi-Asset Income Fund; Putnam Research Fund; Putnam Short Duration Bond Fund; Putnam VT Emerging Markets Equity Fund; Putnam VT Focused International Equity Fund; Putnam VT Global Asset Allocation Fund; Putnam VT Global Health Care Fund; Putnam VT International Equity Fund; Putnam VT International Value Fund; and Putnam VT Research Fund
2c	Approving a new Subadvisory Agreement between Putnam Investment Management, LLC and PanAgora Asset Management, Inc. for your fund	Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF

By Michael J. Higgins, Clerk, and by the Trustees

Kenneth R. Leibler, Chair

Barbara M. Baumann, Vice Chair

Liaquat Ahamed

Katinka Domotorffy

Catharine Bond Hill

Jennifer Williams Murphy

Marie Pillai

George Putnam III

Robert L. Reynolds

Manoj P. Singh

Mona K. Sutphen

In order for you to be represented at your fund’s special shareholder meeting, we urge you to record your voting instructions over the Internet or by telephone or to mark, sign, date, and mail the enclosed WHITE proxy card(s) in the postage-paid envelope provided.

August 15, 2023

Joint Proxy Statement

This document (the “Proxy Statement”) gives you the information you need to vote on the proposals. Much of the information is required under rules of the Securities and Exchange Commission (the “SEC”); some of it is technical. If there is anything you don’t understand, please call toll-free 1-833-501-4818 or call your financial professional.

The Notice of a Special Meeting, the WHITE proxy card and this Proxy Statement are being mailed to shareholders beginning on August 15, 2023.

Proposal	Proposal Description	Affected Funds
1.	Approving a new Management Contract with Putnam Investment Management, LLC for your fund	All funds
2a	Approving a new Sub-Management Contract between Putnam Investment Management, LLC and Putnam Investments Limited for your fund	All funds, other than Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF
2b	Approving a new Sub-Advisory Contract among Putnam Investment Management, LLC, Putnam Investments Limited and The Putnam Advisory Company, LLC for your fund	Putnam Core Bond Fund; Putnam Dynamic Asset Allocation Balanced Fund; Putnam Dynamic Asset Allocation Conservative Fund; Putnam Dynamic Asset Allocation Equity Fund; Putnam Dynamic Asset Allocation Growth Fund; Putnam Emerging Markets Equity Fund; Putnam Focused Equity Fund; Putnam Focused International Equity Fund; Putnam Global Health Care Fund; Putnam Global Technology Fund; Putnam International Capital Opportunities Fund; Putnam International Equity Fund; Putnam International Value Fund; Putnam Multi-Asset Income Fund; Putnam Research Fund; Putnam Short Duration Bond Fund; Putnam VT Emerging Markets Equity Fund; Putnam VT Focused International Equity Fund; Putnam VT Global Asset Allocation Fund; Putnam VT Global Health Care Fund; Putnam VT International Equity Fund; Putnam VT International Value Fund; and Putnam VT Research Fund
2c	Approving a new Subadvisory Agreement between Putnam Investment Management, LLC and PanAgora Asset Management, Inc. for your fund	Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF

Why has a special meeting of shareholders been called?

On May 31, 2023, Great-West Lifeco Inc. (“Great-West Lifeco”), the parent company of Putnam U.S. Holdings I, LLC (“Putnam Holdings”), entered into a definitive purchase agreement with Franklin Resources, Inc. (“FRI” and, together with its subsidiaries, “Franklin Templeton”) and a subsidiary of FRI for the subsidiary to acquire Putnam Holdings from Great-West Lifeco (the “Transaction”). Putnam Holdings is the parent company of Putnam Investment Management, LLC (“Putnam Management”), the investment adviser to the Putnam mutual funds and exchange-traded funds (the “funds”), and of Putnam Investments Limited (“PIL”), The Putnam Advisory Company, LLC (“PAC”), and PanAgora Asset Management, Inc. (“PanAgora”), subadvisers to the funds. In this Proxy Statement, we refer to your fund’s contract with Putnam Management as a “management contract” and to each contract with a subadviser as a “sub-advisory contract,” even though certain of these agreements are titled “sub-advisory contract,” “sub-management contract,” or “subadvisory agreement.”

The Transaction will result in what is commonly called a “change of control” of Putnam Holdings and its subsidiaries that are included in the Transaction, including Putnam Management, PIL, and PAC. The Investment Company Act of 1940, as amended (the “1940 Act”), which regulates investment companies such as your fund, requires management contracts to terminate automatically upon an

“assignment” of the contract, which includes a “change of control” affecting an investment company’s investment adviser (including any subadviser). PanAgora is not involved in the Transaction, and therefore will remain an indirect, wholly-owned subsidiary of Great-West Lifeco, although its sub-advisory contract, by its terms, will also terminate.

The Transaction will not be completed unless certain conditions are met. One of these conditions effectively requires shareholders of a substantial number of funds in the Putnam family of funds to approve new management contracts to replace those that will terminate automatically upon consummation of the Transaction. We are therefore asking shareholders to approve a new management contract and new sub-advisory contracts, as applicable for each fund. The Board of Trustees of the Putnam family of funds, including your fund (the “Board of Trustees”), has approved the new contracts. It is important to note that your fund’s management fee rate under its new contracts will remain the same, and the Transaction is not expected to result in any change in the portfolio managers of your fund.

How will the sale of Putnam Holdings potentially benefit me?

The acquisition of Putnam Holdings by Franklin Templeton will result in one of the world’s largest independent, specialized global investment managers with approximately \$1.57 trillion in assets

under management (based on Franklin Templeton assets under management and assets under management of the Putnam Holdings subsidiaries involved in the Transaction as of June 30, 2023). Assets under management are subject to fluctuation based on market conditions and other factors. The combined organization will offer Putnam Management, PIL, and PAC greater scale and resources, broader distribution capabilities, and new opportunities to grow. Approval of the new management contract and new sub-advisory contracts will provide continuity of the investment program you selected through your fund investment and will allow your fund's operations to continue uninterrupted after the Transaction.

Does the proposed new management contract differ from your fund's current management contract?

The proposed new management contract is identical to your fund's current management contract except for the effective date, initial term, updates to fund names as necessary to reflect previous name changes, and, for certain funds, an additional update described in detail under Proposal 1. There will be no change in the services that your fund will receive under the proposed new management contract.

Do the proposed new sub-advisory contracts differ from your fund's current sub-advisory contracts?

The proposed new sub-advisory contracts are identical to your fund's current sub-advisory contracts, except for effective dates, initial terms, and (in some cases) other non-substantive changes. There will be no change in the services that your fund will receive under the applicable proposed new sub-advisory contract(s).

What happens if new management and sub-advisory contracts are not approved for my fund?

If shareholders of your fund do not approve a new management contract and the one or more new sub-advisory contracts applicable to your fund, and the Transaction is consummated, your fund's current contracts will terminate, and the adviser and/or subadvisers, as applicable, will not be able to provide services to the fund under the new contract unless and until it has been approved. If this should happen, the applicable adviser and/or subadvisers will be able to continue to provide services for your fund for a period of up to 150 days following consummation of the Transaction pursuant to an interim management contract and/or interim sub-advisory contract. During the interim period, the Board of Trustees will consider what additional actions to take, which could include, without limitation, continuing to solicit approval of the new management contract and/or sub-advisory contracts or, in the case of PIL and PAC and to the extent consistent with current law and interpretations of the Securities and Exchange Commission and its staff, determining that shareholder approval is not required with respect to new sub-advisory contracts. The Board of Trustees has approved interim management and sub-advisory contracts to provide for maximum flexibility for your fund's future. The terms of the interim contracts are identical to those of the current contracts except for the term and certain other provisions required by 1940 Act rules, including the escrowing of fees paid under the interim management and sub-advisory contracts.

Who is asking for your vote?

The enclosed proxy is solicited by the Board of Trustees for use at the special meeting of shareholders of each fund, to be held on October 20, 2023 and, if your fund's meeting is adjourned, at any later meetings, for the purposes stated in the Notice of a Special Meeting (see previous pages). The Notice of a Special Meeting, the WHITE proxy card and this Proxy Statement are being mailed to shareholders beginning on August 15, 2023.

How does the Board of Trustees recommend that shareholders vote on the proposals?

The Board of Trustees unanimously recommends that you vote **FOR** each proposal.

1. To approve a new management contract with Putnam Management.
- 2a. To approve a new sub-advisory contract between Putnam Management and PIL.
- 2b. To approve a new sub-advisory contract among Putnam Management, PIL, and PAC.
- 2c. To approve a new sub-advisory contract between Putnam Management and PanAgora.

Please see the table beginning on page 3 for a list of the affected funds for each proposal.

Who is eligible to vote?

Shareholders of record at the close of business on July 24, 2023 (the "Record Date") are entitled to be present and to vote at the special meeting or, if it is adjourned, at any later sessions.

The number of shares of each fund outstanding on the Record Date is shown in Appendix A. Shareholders of each of the exchange-traded funds are entitled to one vote for each dollar of net asset value per share of the fund, and shareholders of each of the remaining funds are entitled to one vote per share of the fund, with any fractional dollar amount or fractional share, as applicable, entitled to a proportional fractional vote.

Shares represented by your duly executed WHITE proxy card will be voted in accordance with your instructions. If you sign and return the WHITE proxy card but don't fill in a vote, your shares will be voted in accordance with the Board of Trustees' recommendations. If any other business comes before your fund's special meeting, your shares will be voted at the discretion of the persons designated on the WHITE proxy card.

Shareholders of each fund vote separately with respect to the proposal to approve a new management contract and the proposals to approve each new sub-advisory contract. The outcome of a vote affecting one fund does not affect the outcome of voting for any other fund.

The Proposals

1. APPROVING A NEW MANAGEMENT CONTRACT WITH PUTNAM MANAGEMENT FOR YOUR FUND

Applicable Funds

Proposal 1 applies to all funds.

Background Information

At the special shareholder meeting, you will be asked to approve a new management contract between your fund and its investment adviser, Putnam Management. You are being asked to approve a new management contract for your fund because your fund's current management contract (its "Current Management Contract" and together with the other funds' current management contracts with Putnam Management, the "Current Management Contracts") will terminate upon the consummation of the Transaction. The Transaction is described in more detail below.

The Board of Trustees has concluded that it is in the best interests of your fund's shareholders to call a special meeting so that shareholders may approve a new management contract with Putnam Management. At an in-person meeting on June 22-23, 2023, the Board of Trustees unanimously approved, and determined to recommend to the shareholders of each fund that they approve, a proposed new management contract with Putnam Management (a "New Management Contract") for their fund.

If shareholders of your fund approve the New Management Contract for your fund before the consummation of the Transaction, the New Management Contract will become effective upon the consummation of the Transaction. In the event that the Transaction is not consummated, Putnam Management will continue to serve as investment adviser of your fund pursuant to the terms of your fund's Current Management Contract.

Description of the Transaction

On May 31, 2023, Great-West Lifeco, the parent company of Putnam Holdings, entered into a definitive purchase agreement (the "Transaction Agreement") with Franklin Resources, Inc. ("FRI" and, together with its subsidiaries, "Franklin Templeton") and an indirect, wholly-owned subsidiary of FRI for the subsidiary to acquire Putnam Holdings from Great-West Lifeco. Putnam Holdings is the parent company of Putnam Management, the investment adviser to the funds, and of PIL, PAC, and PanAgora, subadvisers to the funds. Upon consummation of the Transaction, Putnam Management, PIL, and PAC will become indirect, wholly-owned subsidiaries of FRI. Franklin Templeton is not acquiring PanAgora, which will remain an indirect, wholly-owned subsidiary of Great-West Lifeco.

Under the terms of the Transaction Agreement, subject to certain customary adjustments, Franklin Templeton will pay upfront consideration at closing consisting of 33.33 million shares of Franklin Templeton common stock and \$100 million in cash paid six months after closing, and up to \$375 million in contingent payments in cash between three and seven years after closing tied to the growth of the Partnership (defined below). Great-West Lifeco has agreed to retain shares of Franklin Templeton common stock representing 4.9% of Franklin Templeton's total outstanding

common stock for a minimum period of five years after closing, and the remaining shares of Franklin Templeton common stock issued to Great-West Lifeco are subject to a 180-day lock-up.

Certain key employees of Putnam Management and its affiliates who hold vested or unvested class B shares under the Putnam Investments, LLC Equity Incentive Plan, as amended (the "Plan") (which include, among others, Mr. Reynolds, who also serves as President and a Trustee of the funds, and Ms. Malloy and Smith and Messrs. Clark, Lemaire, Tate, and Trenchard, who also serve as officers of the funds), will be entitled to receive certain cash payments in accordance with the terms of the Transaction Agreement and the Plan. Certain key employees who hold class B shares under the Plan have elected (and it is expected that additional employees will elect before the closing) to receive unvested shares of Franklin Templeton's common stock in lieu of a portion of the cash payments that the employee would have otherwise received at the closing (and the number of shares of Franklin Templeton common stock issued to Great-West Lifeco as described in the paragraph above will be reduced accordingly). As of June 30, 2023, the vested and unvested class B shares held by Mr. Reynolds under the Plan represented approximately 2% of the total outstanding equity interests of Putnam Investments, LLC, with an approximate value of \$20 million.

In connection with the Transaction, Great-West Lifeco, Power Corporation of Canada, the parent company of Great-West Lifeco, and Franklin Templeton have entered into a strategic partnership (the "Partnership") to allocate assets to Franklin Templeton investment products. Great-West Lifeco will provide an initial long-term asset allocation, in the amount of \$25 billion in assets under management, to Franklin Templeton's investment management subsidiaries within 12 months of the Transaction closing, with the potential for that amount to increase over the next several years.

Consummation of the Transaction is subject to certain terms and conditions, including, among others, (i) receipt of applicable regulatory approvals and (ii) consent by advisory clients representing a specified percentage of the revenues of Putnam Management and its affiliates to continue their advisory relationships with Putnam Management (or PIL or PAC) following the consummation of the Transaction. Condition (ii) above effectively requires shareholders of a substantial number of the Putnam family of funds to approve new management contracts to replace those that will terminate automatically upon consummation of the Transaction, as described below. Subject to satisfaction or waiver of the terms and conditions, the Transaction is expected to close in the fourth quarter of 2023.

The Transaction will result in a "change of control" of Putnam Management, PIL, and PAC and will cause the funds' Current Management Contracts, the sub-advisory contracts with PIL, and the sub-advisory contract with PAC to terminate in accordance with the 1940 Act. In addition, although the ultimate parent company of PanAgora will not change as a result of the Transaction, the sub-advisory contract with PanAgora will nonetheless terminate, according to its terms, upon the termination of the management contract with Putnam Management for the funds to which PanAgora serves as subadviser.

The Transaction will result in one of the world's largest independent, specialized global investment managers with approximately \$1.57 trillion in assets under management (based on Franklin Templeton assets under management and assets under management of the Putnam Holdings subsidiaries involved in the Transaction as of June 30, 2023). Assets under management are subject to fluctuation based on market conditions and other factors. The combined organization will offer Putnam Management, PIL, and PAC greater scale and resources, broader distribution capabilities, and new opportunities to grow. Approval of the new management contract and new sub-advisory contracts will provide continuity of the investment program you selected through your fund investment and will allow your fund's operations to continue uninterrupted after the Transaction.

Impact on the Investment Advisory Services Provided to Your Fund

The Transaction is not expected to result in any diminution in the nature, extent or quality of the services provided by Putnam Management to your fund and its shareholders. The Transaction also is not expected to result in any diminution in the nature, extent or quality of the services provided by any subadviser to your fund and its shareholders.

While the organizational structure of Putnam Management, PIL, and PAC is not expected to change immediately following the transaction, Franklin Templeton anticipates that Putnam Management's reporting structure will change. Franklin Templeton currently intends for the equity investment professionals at Putnam Management and its affiliates PIL and PAC to continue to operate largely independently, with the team's leadership reporting directly to the Head of Public Markets at Franklin Templeton, and Franklin Templeton intends to include the fixed income investment professionals at Putnam Management and its affiliate PIL in Franklin Templeton's fixed income group and to include Putnam Management's Global Asset Allocation ("GAA") investment professionals in Franklin Templeton's investment solutions group, with both Franklin Templeton groups reporting to Franklin Templeton's Head of Public Markets.

Section 15(f) of the 1940 Act

Franklin Templeton has agreed to comply with Section 15(f) of the 1940 Act. Section 15(f) provides a non-exclusive "safe harbor" for an investment company's adviser or any affiliated persons of the adviser to receive any amount or benefit in connection with a change of control of the investment adviser as long as two conditions are met. First, for a period of three years after the change of control, at least 75% of the directors of the investment company must not be interested persons of the adviser or the predecessor adviser. Second, there must not be any "unfair burden" imposed on the investment company as a result of the transaction or any express or implied terms, conditions or understandings relating to the transaction. Section 15(f) defines "unfair burden" to include any arrangement during the two-year period after the transaction in which the adviser or predecessor adviser, or any interested person of the adviser or predecessor adviser, receives or is entitled to receive any compensation, directly or indirectly, from the investment company or its security holders (other than fees for bona fide investment advisory or other services) or from any person in connection with the purchase or sale of securities or other

property to, from or on behalf of the investment company (other than bona fide ordinary compensation as principal underwriter for the investment company).

Putnam Management has advised the funds that neither it, Great-West Lifeco, nor Franklin Templeton, after reasonable inquiry, is aware of any express or implied term, condition, arrangement or understanding that would impose an "unfair burden" on the funds as a result of the Transaction. Moreover, Franklin Templeton has advised the funds that Franklin Templeton will not take, nor cause its affiliates to take, any action that would have the effect of causing the conditions of Section 15(f) not to be met with respect to the Transaction, and Franklin Templeton has advised the funds that Franklin Templeton will not fail to take, and will cause its affiliates not to fail to take, any action if the failure to take such action would have the effect of causing the conditions of Section 15(f) not to be met with respect to the Transaction.

The Interim Management Contracts

Each fund's Current Management Contract terminates automatically in the event of an "assignment." If the shareholders of your fund have not approved the New Management Contract for your fund and the Transaction is consummated, an interim management contract between Putnam Management and your fund (an "Interim Management Contract") will take effect upon the consummation of the Transaction. The Board of Trustees approved the Interim Management Contract for your fund on June 23, 2023 to allow Putnam Management to continue providing services to your fund for a period of up to 150 days following consummation of the Transaction while shareholder approval of a New Management Contract continues to be sought.

Rule 15a-4 under the 1940 Act allows an investment company to enter into an interim management contract with a maximum term of 150 days, without first obtaining shareholder approval, so that the investment company may receive investment management services without interruption following the termination by assignment of a previous management contract.

The terms of each fund's Interim Management Contract are identical to those of its Current Management Contract, except for the term and provisions required under Rule 15a-4, including the escrow provisions described below. If your fund's Interim Management Contract takes effect upon the consummation of the Transaction, it will continue in effect for a term ending on the earlier of 150 days from the closing of the Transaction (the "150-day period") or, if shareholders of your fund approve the New Management Contract, the effective date of the New Management Contract. The Board of Trustees or a "majority of the outstanding voting securities," as defined in the 1940 Act, may terminate the Interim Management Contract on 10 calendar days' written notice to Putnam Management without the payment of any penalty. Pursuant to Rule 15a-4 under the 1940 Act, compensation earned by Putnam Management under the Interim Management Contract will be held in an interest-bearing escrow account. If shareholders of your fund approve the New Management Contract before the end of the 150-day period, the amount held in the escrow account under the Interim Management Contract, plus interest earned, will be paid to Putnam Management. If shareholders of your fund do not approve the New Management Contract before the end of the

150-day period, the Board of Trustees will consider what further action to take consistent with their fiduciary duties to the fund, and Putnam Management will be paid the lesser of its costs incurred in performing its services under the Interim Management Contract or the total amount of the escrow account, plus interest earned. The actions considered by the Board of Trustees may include, among other things, negotiating a new management contract with an advisory organization selected by the Board of Trustees, subject to shareholder approval, or taking other appropriate actions.

The New Management Contract; Comparison with your Fund's Current Management Contract

The terms of the New Management Contracts (described generally below) are identical to those of the Current Management Contracts except for the effective dates, initial terms, updates to fund names as necessary to reflect previous name changes, and, for certain funds, the addition of a "No Third-Party Beneficiaries" provision. The date of each fund's Current Management Contract, the date on which it was last submitted to a vote of shareholders, and the purpose of the submission are set forth in **Appendix B**.

Set forth below are a general description of the New Management Contracts and a comparison of their terms to those of the Current Management Contracts. The complete terms of each New Management Contract are set forth in Appendix C, as follows:

- Unless your fund is specifically identified in the "bulleted" paragraphs below, you should refer to **Appendix C-1** for a copy of the form of your fund's New Management Contract.
- If you are a shareholder of Putnam Focused International Equity Fund, Putnam Emerging Markets Equity Fund, Putnam International Value Fund, Putnam Small Cap Growth Fund, Putnam International Equity Fund, Putnam Sustainable Leaders Fund, Putnam Large Cap Growth Fund, or Putnam International Capital Opportunities Fund, you should refer to **Appendix C-2** for a copy of the form of your fund's New Management Contract.
- If you are a shareholder of Putnam Core Bond Fund or Putnam Short Duration Bond Fund, you should refer to **Appendix C-3** for a copy of the form of your fund's New Management Contract.
- If you are a shareholder of the Putnam Retirement Advantage Funds or the Putnam Sustainable Retirement Funds (each a series of Putnam Target Date Funds), you should refer to **Appendix C-4** for a copy of the form of your fund's New Management Contract.
- If you are a shareholder of an exchange-traded fund (each a series of Putnam ETF Trust), you should refer to **Appendix C-5** for a copy of the form of your fund's New Management Contract.

Fees. There is no change in the rate of the fees that your fund will pay Putnam Management under its New Management Contract. The current fee schedule for investment management services and administrative services for each fund is set forth in **Appendix B**. The actual fees paid by some funds are subject to expense limitations, which would be unaffected by approval and adoption of a New Management Contract.

Investment Management Services. The New Management Contract for your fund provides that Putnam Management will furnish continuously an investment program for the fund, determining what investments to purchase, hold, sell or exchange and what

portion of the fund's assets will be held uninvested, in compliance with the fund's governing documents, investment objectives, policies and restrictions, and subject to the oversight and control of the Board of Trustees. As indicated above, Putnam Management's responsibilities under the New Management Contracts are identical to those under the Current Management Contracts.

Putnam Management is authorized under your fund's New Management Contract to place orders for the purchase and sale of portfolio investments for your fund with brokers or dealers that Putnam Management selects. Putnam Management must select brokers and dealers, and place orders, using its best efforts to obtain for the funds the most favorable price and execution available, except that Putnam Management may pay higher brokerage commissions if it determines in good faith that the commission is reasonable in relation to the value of brokerage and research services provided by the broker or dealer (a practice commonly known as "soft dollars"). Putnam Management may make this determination in terms of either the particular transaction or Putnam Management's overall responsibilities with respect to your fund and to other clients of Putnam Management for which Putnam Management exercises investment discretion. Putnam Management's use of soft dollars is subject to policies established by the Board of Trustees from time to time and applicable guidance issued by the Securities and Exchange Commission and its staff.

Delegation of Responsibilities. The New Management Contract for your fund expressly provides that Putnam Management may, in its discretion and with the approval of the Board of Trustees (including a majority of the Trustees of the funds who are not "interested persons" as defined in the 1940 Act (the "Independent Trustees")) and, if required, the approval of shareholders, delegate responsibilities under the contract to one or more subadvisers or sub-administrators. The separate costs of employing any subadviser or sub-administrator must be borne by Putnam Management or the subadviser or sub-administrator, not by your fund. Putnam Management is responsible for overseeing the performance of any subadviser or sub-administrator and remains fully responsible to your fund under the New Management Contract regardless of whether it delegates any responsibilities.

At present, Putnam Management has entered into a sub-advisory contract where it may delegate certain responsibilities for the management of each fund, other than Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF, to PIL, an affiliated subadviser. Putnam Management and PIL have further entered into a sub-advisory contract where Putnam Management may delegate certain responsibilities for the management of the funds to which Proposal 2B applies to PAC, an affiliated subadviser. Putnam Management has also entered into a sub-advisory contract delegating certain responsibilities for the management of Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF to PanAgora, which is currently an affiliated subadviser. As a result of the Transaction, the sub-advisory contracts with PIL, PAC, and PanAgora will terminate. The Board of Trustees is recommending that shareholders vote to approve new sub-advisory contracts with each fund's subadviser(s), as is discussed in detail under Proposal 2.

Administrative Services. Like its Current Management Contract, your fund's New Management Contract provides that Putnam Management will manage, supervise and conduct the other (i.e., non-investment) affairs and business of your fund and incidental matters. These administrative services include providing suitable office space for the fund and administrative facilities, such as bookkeeping, clerical personnel and equipment necessary for the efficient conduct of the fund's affairs, including determination of the net asset value of the fund, but excluding shareholder accounting services.

Putnam Management has currently delegated certain administrative, pricing and bookkeeping services to State Street Bank and Trust Company.

Expenses. Like its Current Management Contract, your fund's New Management Contract requires Putnam Management to bear the expenses associated with (i) furnishing all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully, (ii) providing suitable office space for the fund and (iii) providing administrative services.

Like their Current Management Contracts, the New Management Contracts for funds other than Putnam Core Bond Fund, Putnam Short Duration Bond Fund, and each of the exchange-traded funds provide that each of these funds will pay the fees of its Trustees and will reimburse Putnam Management for compensation paid to certain officers of the fund and persons assisting such officers, and all or part of the cost of suitable office space, utilities, support services and equipment used by such officers and persons, as the Board of Trustees may determine.

Like their Current Management Contracts, the New Management Contracts for Putnam Core Bond Fund, Putnam Short Duration Bond Fund, and each of the exchange-traded funds require Putnam Management to bear the expenses of all these funds' organizational and other operating expenses, excluding certain expenses such as 12b-1 fees, brokerage, interest, taxes, investment-related expenses, extraordinary expenses, and acquired fund fees and expenses.

Term and Termination. If approved by shareholders before the consummation of the Transaction, your fund's New Management Contract will go into effect for a two-year period beginning on the date the Transaction is consummated. Thereafter, if not terminated, the New Management Contract will continue in effect from year to year if its continuance is specifically approved at least annually by (i) the Board of Trustees or the shareholders of the fund by the affirmative vote of a majority of the outstanding shares of the fund and (ii) a majority of the Independent Trustees, by vote cast in person at a meeting called for the purpose of voting on approval. The Current Management Contracts have similar provisions for their term and continuance, although the initial term has elapsed in most cases.

Like its Current Management Contract, your fund's New Management Contract provides that it may be terminated at any time by either Putnam Management or the fund by not less than 60 days' written notice to the other party and without the payment of any penalty by Putnam Management or the fund. The fund may terminate the contract by vote of a majority of the Board of Trustees or by the affirmative vote of a "majority of the outstanding voting

securities" of the fund, as defined in the 1940 Act. Your fund's New Management Contract also will terminate automatically in the event of its "assignment."

Proxy Voting. Like their Current Management Contracts, the New Management Contracts for each of the exchange-traded funds require Putnam Management to vote all proxies solicited by or with respect to issuers of securities in which assets of the fund may be invested in accordance with its proxy voting policy. Putnam Management currently provides this service for all funds, whether or not expressly required by a particular fund's Current Management Contract.

Limitation of Liability. Like its Current Management Contract, under your fund's New Management Contract, Putnam Management is not liable to the fund or to any shareholder of the fund for any act or omission in the course of, or connected with, rendering services under the New Management Contract, unless there is willful misfeasance, bad faith or gross negligence on the part of Putnam Management or reckless disregard of its obligations and duties under the New Management Contract.

Like its Current Management Contract, your fund's New Management Contract is executed on behalf of the Trustees as Trustees of the fund and not individually. Also, the fund's obligations arising out of the New Management Contract are limited only to the assets and property of the fund and are not binding on any of the Trustees, officers or shareholders individually.

For each of the mutual funds, the New Management Contract, like the Current Management Contract, contains a notice provision stating that the fund's Declaration of Trust is on file with the Secretary of The Commonwealth of Massachusetts, as required under the Declaration of Trust for each of the mutual funds.

No Third-Party Beneficiaries. The Current Management Contracts for certain, more recently established funds include a provision specifying that there are no third-party beneficiaries of the management contracts. This provision states that no shareholder, or any person other than the named funds and Putnam Management, is a party to the management contract or entitled to any right or benefit arising under or in respect of the management contract. The Current Management Contracts for other funds do not include this "no third-party beneficiaries" provision. The proposed New Management Contracts for all funds will include the "no third-party beneficiaries" provision, consistent with the Current Management Contracts for more recently established funds. This provision will be added to the New Management Contracts for all funds except Putnam Government Money Market Fund, Putnam Ultra Short MAC Series, Putnam Retirement Advantage 2065 Fund, Putnam Retirement Advantage 2060 Fund, Putnam Retirement Advantage 2055 Fund, Putnam Retirement Advantage 2050 Fund, Putnam Retirement Advantage 2045 Fund, Putnam Retirement Advantage 2040 Fund, Putnam Retirement Advantage 2035 Fund, Putnam Retirement Advantage 2030 Fund, Putnam Retirement Advantage 2025 Fund, Putnam Retirement Advantage Maturity Fund, Putnam Sustainable Retirement 2065 Fund, and Putnam Sustainable Retirement 2060 Fund, which already include a "no third-party beneficiaries" provision in their Current Management Contracts.

Amendments; Defined Terms. Like your fund's Current Management Contract, its New Management Contract may only be amended in writing, and any amendment must be approved in a manner consistent with the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretations of the Securities and Exchange Commission or its staff. Similarly, certain terms used in the New Management Contract are used as defined in the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

What did the Board of Trustees consider in evaluating the New Management Contracts?

The Independent Trustees met with their independent legal counsel, as defined in Rule 0-1(a)(6) under the 1940 Act (their "independent legal counsel"), and representatives of Putnam Management and its parent company, Power Corporation of Canada, to discuss the potential Transaction, including the timing and structure of the Transaction and its implications for Putnam Management and the funds, during their regular meeting on November 18, 2022, and the full Board of Trustees further discussed these matters with representatives of Putnam Management at its regular meeting on December 15, 2022. At a special meeting on December 20, 2022, the full Board of Trustees met with representatives of Putnam Management, Power Corporation of Canada, and Franklin Templeton to further discuss the potential Transaction, including Franklin Templeton's strategic plans for Putnam Management's asset management business and the funds, potential sources of synergy between Franklin Templeton and Putnam Management, potential areas of partnership between Power Corporation of Canada and Franklin Templeton, Franklin Templeton's distribution capabilities, Franklin Templeton's existing service provider relationships, and Franklin Templeton's recent acquisitions of other asset management firms.

In order to assist the Independent Trustees in their consideration of the New Management Contracts and other anticipated impacts of the Transaction on the funds and their shareholders, independent legal counsel for the Independent Trustees furnished an initial information request to Franklin Templeton (the "Initial Franklin Request"). At a special meeting of the full Board of Trustees held on January 25, 2023, representatives of Franklin Templeton addressed the firm's responses to the Initial Franklin Request. At the meeting, representatives of Franklin Templeton discussed, among other things, the business and financial condition of Franklin Templeton and its affiliates, Franklin Templeton's U.S. registered fund operations, its recent acquisition history, Franklin Templeton's intentions regarding the operation of Putnam Management and the funds following the completion of the potential Transaction, and expected benefits to the funds and Putnam Management that might result from the Transaction.

The Board of Trustees actively monitored developments with respect to the potential Transaction throughout the period leading up to the public announcement of a final sale agreement on May 31, 2023. The Independent Trustees met to discuss these matters at their regular meetings on January 27, April 20, and May 19, 2023. The full Board of Trustees also discussed developments at their regular meeting on February 23, 2023. Following the public announcement of the Transaction on May 31, 2023,

independent legal counsel for the Independent Trustees furnished a supplemental information request (the "Supplemental Franklin Request") to Franklin Templeton. At the Board of Trustees' regular in-person meeting held on June 22-23, 2023, representatives of Putnam Management and Power Corporation of Canada provided further information regarding, among other matters, the final terms of the Transaction and efforts undertaken to retain Putnam employees. The Contract Committee of the Board of Trustees also met on June 22, 2023 to discuss Franklin Templeton's responses to the Supplemental Franklin Request. Mr. Reynolds, the only Trustee affiliated with Putnam Management, participated in portions of these meetings to provide the perspective of the Putnam organization, but did not otherwise participate in the deliberations of the Independent Trustees or the Contract Committee regarding the potential Transaction.

After the presentations and after reviewing the written materials provided, the Independent Trustees met at their in-person meeting on June 23, 2023 to consider the New Management Contracts for each fund, proposed to become effective upon the closing of the Transaction, and the filing of a preliminary proxy statement. At this meeting and throughout the process, the Independent Trustees also received advice from their independent legal counsel regarding their responsibilities in evaluating the potential Transaction and the New Management Contracts. The Independent Trustees reviewed the terms of the proposed New Management Contracts and the differences between the New Management Contracts and the current management contracts. They noted that the terms of the proposed New Management Contracts were substantially identical to the current management contracts, except for certain changes designed largely to address differences among various of the existing contracts, which had been developed and implemented at different times in the past. (These differences are described elsewhere in this Proxy Statement.)

In considering the approval of the proposed New Management Contracts, the Board of Trustees took into account a number of factors, including:¹

- (i) Franklin Templeton's and Putnam Management's belief that the Transaction will not adversely affect the funds or their shareholders and their belief that the Transaction is likely to result in certain benefits (described below) for the funds and their shareholders;
- (ii) That Franklin Templeton did not intend to make any material change in Putnam Management's senior investment professionals (other than certain changes related to reporting structure and organization of personnel discussed below), including the portfolio managers of the funds, or to the firm's operating locations as a result of the Transaction;
- (iii) That Franklin Templeton intended for Putnam Management's equity investment professionals to continue to operate largely independently from Franklin Templeton, reporting to Franklin Templeton's Head of Public Markets following the Transaction;

¹ All references to Putnam Management in this section describing the Board of Trustees' considerations should be deemed to include references to PIL and PAC as necessary or appropriate in the context.

- (iv) That, while Putnam Management's organizational structure is not expected to change immediately following the Transaction, Franklin Templeton intended to revise Putnam Management's reporting structure in order to include Putnam Management's fixed income investment professionals in Franklin Templeton's fixed income group and to include Putnam Management's GAA investment professionals in Franklin Templeton's investment solutions group, with both Franklin Templeton groups reporting to Franklin Templeton's Head of Public Markets;
 - (v) Franklin Templeton's expectation that there would not be any changes in the investment objectives, strategies, or portfolio holdings of the funds as a result of the Transaction;
 - (vi) That neither Franklin Templeton nor Putnam Management had any current plans to propose changes to the funds' existing management fees or expense limitations, or current plans to make changes to the funds' existing distribution arrangements;
 - (vii) Franklin Templeton's and Putnam Management's representations that, following the Transaction, there is not expected to be any diminution in the nature, quality, and extent of services provided to the funds and their shareholders by Putnam Management and PIL, PAC, and PanAgora, as applicable, including compliance and other non-advisory services;
 - (viii) That PanAgora was not a part of the Transaction and, therefore, PanAgora would remain an indirect, wholly-owned subsidiary of Great-West Lifeco, with no expected material changes in PanAgora's senior investment professionals, including the portfolio managers of the applicable funds;
 - (ix) That Franklin Templeton did not currently plan to change the branding of the funds or to change the lineup of funds in connection with the Transaction but will continue to evaluate how best to position the funds in the market;
 - (x) The possible benefits accruing to the funds and their shareholders as a result of the Transaction, including:
 - a. That the scale of Franklin Templeton's investment operations platform would increase the investment and operational resources available to the funds;
 - b. That the funds would benefit from Franklin Templeton's large retail and institutional global distribution capabilities and significant network of intermediary relationships, which may provide additional opportunities for the funds to increase assets and reduce expenses by spreading expenses over a larger asset base; and
 - c. Potential benefits to shareholders of the funds that could result from the alignment of certain fund features and shareholder benefits with those of other funds sponsored by Franklin Templeton and its affiliates and access to a broader array of investment opportunities;
 - (xi) The financial strength, reputation, experience, and resources of Franklin Templeton and its investment advisory subsidiaries;
 - (xii) Franklin Templeton's expectation that the Transaction would not impact the capabilities or responsibilities of Putnam Management's Investment Division (other than any impact related to reporting structure changes for Putnam Management's equity, fixed income, and GAA investment groups and to including Putnam Management's fixed income and GAA investment professionals in existing Franklin Templeton investment groups, as discussed above) and that any changes to the Investment Division over the longer term would be made in order to achieve perceived operational efficiencies or improvements to the portfolio management process;
 - (xiii) Franklin Templeton's commitment to maintaining competitive compensation arrangements to allow Putnam Management to continue to attract and retain highly qualified personnel and Putnam Management's and Franklin Templeton's efforts to retain personnel, including efforts implemented since the Transaction was announced;
 - (xiv) That the current senior management teams at Putnam Management and Power Corporation of Canada have indicated their strong support of the Transaction and that Putnam Management has recommended that the Board of Trustees approve the New Management Contracts; and
 - (xv) Putnam Management's and Great-West Lifeco's commitment to bear all expenses incurred by the funds in connection with the Transaction, including all costs associated with this proxy solicitation.
- Finally, in considering the proposed New Management Contracts, the Board of Trustees also took into account their concurrent deliberations and conclusions in connection with their annual review of the funds' current management and sub-advisory contracts and the approval of their continuance, effective July 1, 2023, and the extensive materials that they had reviewed in connection with that review process. **Appendix E** contains a summary description of the matters considered by the Board of Trustees in connection with those approvals. The considerations discussed in **Appendix E** and in this section also apply to the Board of Trustees' consideration of the New PIL Sub-Advisory Contract, New PAC Sub-Advisory Contract, New PanAgora Sub-Advisory Contract, and the Interim Management Contracts, Interim PIL Sub-Advisory Contract, Interim PAC Sub-Advisory Contract, and Interim PanAgora Sub-Advisory Contract discussed elsewhere in this Proxy Statement.
- Based upon the foregoing considerations, on June 23, 2023 the Board of Trustees, including all of the Independent Trustees, unanimously approved the proposed New Management Contracts and determined to recommend their approval to the shareholders of the funds.

What is the voting requirement for approving the proposal?

Shareholder approval of your fund's proposed New Management Contract requires the affirmative vote of a "majority of the outstanding voting securities" of the fund, which is defined under the 1940 Act to be *the lesser of* (a) more than 50% of the outstanding shares of the fund, or (b) 67% or more of the shares of the fund present (in person or by proxy) at the special meeting if more than 50% of the outstanding shares of the fund are present

at the meeting in person or by proxy. **The Board of Trustees unanimously recommends that shareholders vote FOR the proposed New Management Contracts.**

2A. APPROVING A NEW SUB-MANAGEMENT CONTRACT BETWEEN PUTNAM MANAGEMENT AND PIL FOR YOUR FUND

Applicable Funds

Proposal 2A applies to all funds other than Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF.

Background Information

Under each Current Management Contract, Putnam Management may, in its discretion and with the approval of the Board of Trustees (including a majority of the Independent Trustees) and, if required, the approval of shareholders, delegate its advisory responsibilities to one or more subadvisers.

At present, Putnam Management has entered into sub-advisory contracts with PIL, an affiliated subadviser (the “Current PIL Sub-Advisory Contracts”), for each fund, other than Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF. Under the Current PIL Sub-Advisory Contracts, Putnam Management may delegate to PIL certain responsibilities for the management of all or a portion of a fund’s assets as determined by Putnam Management (a “PIL Allocated Sleeve”). PIL, which provides a full range of international investment advisory services to institutional clients, is located at 16 St James’s Street, London, England, SW1A 1ER. Pursuant to the Current PIL Sub-Advisory Contracts, Putnam investment professionals who are based in the United Kingdom may serve as portfolio managers of or provide other investment services to a fund, consistent with local regulations. Under the Current PIL Sub-Advisory Contracts, Putnam Management (and not the funds) pays a quarterly sub-advisory fee to PIL for its services at the rates set forth in **Appendix D-1**.

As noted above in Proposal 1, the Transaction will result in an “assignment” of the Current PIL Sub-Advisory Contracts and will cause the Current PIL Sub-Advisory Contracts to terminate in accordance with applicable law.

At an in-person meeting on June 22-23, 2023, the Board of Trustees unanimously approved a proposed new sub-advisory contract between Putnam Management and PIL (the “New PIL Sub-Advisory Contract”) for each applicable fund. Consistent with current law and interpretations of the Securities and Exchange Commission and its staff, it may not be necessary for shareholders to approve the New PIL Sub-Advisory Contract. However, notwithstanding that shareholder approval may not be required, the Board of Trustees has determined to seek shareholder approval of the New PIL Sub-Advisory Contract and to recommend to the shareholders of each applicable fund that they approve the New PIL Sub-Advisory Contract.

If shareholders of your fund approve the New PIL Sub-Advisory Contract before the consummation of the Transaction, the New PIL Sub-Advisory Contract will become effective with respect to your fund upon the consummation of the Transaction. In the event that the Transaction is not consummated, PIL will continue to serve as

a subadviser of your fund pursuant to the terms of the Current PIL Sub-Advisory Contract for your fund.

Impact of the Transaction on the Sub-Advisory Services

Provided to Your Fund

The Transaction is not expected to result in any diminution in the nature, extent or quality of the services provided by PIL to your fund and its shareholders.

The Interim Sub-Advisory Contract

If the shareholders of your fund do not approve the New PIL Sub-Advisory Contract and the Transaction is consummated, an interim sub-advisory contract between Putnam Management and PIL (the “Interim PIL Sub-Advisory Contract”) will take effect for your fund upon the consummation of the Transaction. The Board of Trustees approved the Interim PIL Sub-Advisory Contract on June 23, 2023 to allow PIL to continue providing services to your fund while shareholder approval of the New PIL Sub-Advisory Contract continues to be sought.

Rule 15a-4 under the 1940 Act allows an investment company to enter into an interim management contract with a maximum term of 150 days, without first obtaining shareholder approval, so that the investment company may receive investment management services without interruption following an assignment of a previous management contract.

The terms of the Interim PIL Sub-Advisory Contract are identical to those of the Current PIL Sub-Advisory Contracts, except for the term and escrow provisions described below. The Interim PIL Sub-Advisory Contract for your fund will continue in effect for a term ending on the earlier of 150 days from the closing of the Transaction (the “150-day period”) or, if shareholders of your fund approve the New PIL Sub-Advisory Contract, the effective date of the New PIL Sub-Advisory Contract. The Board of Trustees or a “majority of the outstanding voting securities,” as defined in the 1940 Act, may terminate the Interim PIL Sub-Advisory Contract for your fund on 10 calendar days’ written notice to PIL without the payment of any penalty. Pursuant to Rule 15a-4 under the 1940 Act, compensation earned by PIL under the Interim PIL Sub-Advisory Contract will be held in an interest-bearing escrow account. (As noted below, the funds, including your fund, do not compensate PIL for its services. That compensation is paid by Putnam Management.) If shareholders of your fund approve the New PIL Sub-Advisory Contract before the end of the 150-day period, the amount held in the escrow account under the Interim PIL Sub-Advisory Contract will be paid to PIL. If shareholders of your fund do not approve the New PIL Sub-Advisory Contract prior to the end of the 150-day period, the Board of Trustees will consider what further action to take consistent with their fiduciary duties to the fund, and PIL will be paid the lesser of its costs incurred in performing its services under the Interim PIL Sub-Advisory Contract or the total amount of the escrow account, plus interest earned. The actions considered by the Board of Trustees may include, among other things, determining (to the extent consistent with current law and interpretations of the Securities and Exchange Commission and its staff) that shareholder approval is not required with respect to the New PIL Sub-Advisory Contract, having the fund managed without a sub-adviser, or making other appropriate arrangements.

The New PIL Sub-Advisory Contract; Comparison with the Current PIL Sub-Advisory Contracts

The terms of the New PIL Sub-Advisory Contract (described generally below) are identical to those of the Current PIL Sub-Advisory Contracts, except for the effective date, initial term, and certain non-substantive changes. The start date of each applicable fund's Current PIL Sub-Advisory Contract, the date on which each applicable fund's Current PIL Sub-Advisory Contract was last submitted to a vote of shareholders, and the purpose of the submission are set forth in **Appendix D-1**.

Set forth below are a general description of the New PIL Sub-Advisory Contract and a comparison of its terms to those of the Current PIL Sub-Advisory Contract for your fund. The complete terms of the New PIL Sub-Advisory Contract are set forth in **Appendix F-1**.

Fees. There is no change in the rate of the fees payable to PIL under the New PIL Sub-Advisory Contract. The funds, including your fund, do not compensate PIL for its services. That compensation is paid by Putnam Management. The current fee schedule for investment sub-advisory services provided by PIL for each applicable fund is set forth in **Appendix D-1**.

Investment Sub-Advisory Services. Like the Current PIL Sub-Advisory Contract for your fund, the New PIL Sub-Advisory Contract for your fund provides that PIL will furnish continuously an investment program for a PIL Allocated Sleeve, determining what investments to purchase, hold, sell or exchange and what portion of the PIL Allocated Sleeve assets will be held uninvested, in compliance with the fund's governing documents, investment objectives, policies and restrictions, and subject to the oversight and control of the Board of Trustees and Putnam Management. Putnam Management may also request PIL to assist with purchasing and selling securities for any fund, including the placement of orders with broker-dealers selected in accordance with the sub-advisory contract, even if Putnam Management has not established a PIL Allocated Sleeve for the fund. As indicated above, PIL's responsibilities under the New PIL Sub-Advisory Contract for your fund are identical to those under the Current PIL Sub-Advisory Contract for your fund.

Like the Current PIL Sub-Advisory Contract for your fund, if requested by Putnam Management, PIL is authorized under the New PIL Sub-Advisory Contract to place orders for the purchase and sale of portfolio investments for any PIL Allocated Sleeve of your fund with brokers or dealers that PIL selects. PIL must select brokers and dealers, and place orders, using its best efforts to obtain for the funds the most favorable price and execution available, except that PIL may pay higher brokerage commissions if it determines in good faith that the commission is reasonable in relation to the value of brokerage and research services provided by the broker or dealer (a practice commonly known as "soft dollars") and the services qualify as "minor non-monetary benefits" under the rules of the United Kingdom's Financial Conduct Authority ("FCA"). PIL may make this determination in terms of either the particular transaction or its overall responsibilities for a fund and to other clients of Putnam Management or PIL for which Putnam Management or PIL exercises investment discretion. Putnam Management's and PIL's use of soft dollars is subject to policies established by the Board of Trustees from time to time and applicable guidance issued by the Securities and Exchange Commission and its staff and the FCA.

Expenses. Like the Current PIL Sub-Advisory Contract for your fund, the New PIL Sub-Advisory Contract requires PIL to bear the expenses associated with furnishing all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully.

Term and Termination. If approved by shareholders before the consummation of the Transaction, the New PIL Sub-Advisory Contract for your fund will go into effect for a two-year period beginning on the date the Transaction is consummated. Thereafter, if not terminated, the New PIL Sub-Advisory Contract will continue in effect from year to year if its continuance is specifically approved at least annually by (i) the Board of Trustees or the shareholders of the fund by the affirmative vote of a majority of the outstanding shares of the fund and (ii) a majority of the Independent Trustees, by vote cast in person at a meeting called for the purpose of voting on the contract's approval. The Current PIL Sub-Advisory Contracts have similar provisions for their term and continuance, although the initial term has elapsed in most cases.

Like the Current PIL Sub-Advisory Contract for your fund, the New PIL Sub-Advisory Contract for your fund provides that the contract may be terminated at any time by Putnam Management or PIL with not more than 60 days', nor less than 30 days', written notice to the other party and without the payment of any penalty. Your fund may also terminate the contract with respect to services provided to your fund by vote of a majority of its Trustees or by the affirmative vote of a "majority of the outstanding voting securities" of the fund, as defined in the 1940 Act, with not more than 60 days', nor less than 30 days', written notice to Putnam Management and PIL, and without the payment of any penalty. The New PIL Sub-Advisory Contract also will terminate automatically in the event of its "assignment" or upon the termination of Putnam Management's management contract with a fund.

Limitation of Liability. Like the Current PIL Sub-Advisory Contract for your fund, under the New PIL Sub-Advisory Contract for your fund, PIL is not liable to Putnam Management, your fund or to any shareholder of your fund for any act or omission in the course of, or connected with, rendering services under the New PIL Sub-Advisory Contract, unless there is willful misfeasance, bad faith or gross negligence on the part of PIL or reckless disregard of its obligations and duties under the proposed sub-advisory contract.

Amendments; Defined Terms. Like the Current PIL Sub-Advisory Contract for your fund, any amendment to the New PIL Sub-Advisory Contract must be approved at a meeting by the vote, cast in person at a meeting called for the purpose of voting on the amendment's approval, of a majority of the Independent Trustees. Certain terms used in the New PIL Sub-Advisory Contract are used as defined in the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

What did the Board of Trustees consider in evaluating the New PIL Sub-Advisory Contract?

At the meetings held on June 22-23, 2023, at which the Board of Trustees approved your fund's New Management Contract, the Board of Trustees (including a majority of the Independent Trustees), also approved new sub-advisory contracts with each

of your fund's subadvisers, including the New PIL Sub-Advisory Contract. The Board of Trustees' considerations regarding the New PIL Sub-Advisory Contract are discussed in Proposal 1 above.

What is the voting requirement for approving the proposal?

Shareholder approval of your fund's New PIL Sub-Advisory Contract will be obtained if the affirmative vote of a "majority of the outstanding voting securities" of the fund is received, which is defined under the 1940 Act to be the lesser of (a) more than 50% of the outstanding shares of the fund, or (b) 67% or more of the shares of the fund present (in person or by proxy) at the special meeting if more than 50% of the outstanding shares of the fund are present at the meeting in person or by proxy. **The Board of Trustees unanimously recommends that shareholders vote FOR the New PIL Sub-Advisory Contract.**

2B. APPROVING A NEW SUB-ADVISORY CONTRACT AMONG PUTNAM MANAGEMENT, PIL, AND PAC FOR YOUR FUND

Applicable Funds

Proposal 2B applies only to the following funds:

Putnam Core Bond Fund
Putnam Dynamic Asset Allocation Balanced Fund
Putnam Dynamic Asset Allocation Conservative Fund
Putnam Dynamic Asset Allocation Equity Fund
Putnam Dynamic Asset Allocation Growth Fund
Putnam Emerging Markets Equity Fund
Putnam Focused Equity Fund
Putnam Focused International Equity Fund
Putnam Global Health Care Fund
Putnam Global Technology Fund
Putnam International Capital Opportunities Fund
Putnam International Equity Fund
Putnam International Value Fund
Putnam Multi-Asset Income Fund
Putnam Research Fund
Putnam Short Duration Bond Fund
Putnam VT Emerging Markets Equity Fund
Putnam VT Focused International Equity Fund
Putnam VT Global Asset Allocation Fund
Putnam VT Global Health Care
Putnam VT International Equity Fund
Putnam VT International Value Fund
Putnam VT Research Fund

Background Information

Under each Current Management Contract, Putnam Management may, in its discretion and with the approval of the Board of Trustees (including a majority of the Independent Trustees) and, if required, the approval of shareholders, delegate its advisory responsibilities to one or more subadvisers.

At present, Putnam Management and PIL have entered into a sub-advisory contract with PAC, an affiliated subadviser (the "Current PAC Sub-Advisory Contract"), for each fund to which Proposal 2B applies pursuant to which Putnam Management or PIL, as the case may be, may delegate to PAC certain responsibilities for the management of all or a portion of a fund's assets as determined by Putnam Management or PIL, as the case may be (a "PAC Allocated

Sleeve"). PAC, which provides financial services to institutions and individuals through separately managed accounts and pooled investment vehicles, has its headquarters at 100 Federal Street, Boston, MA 02110, with additional investment management personnel located in Singapore. Pursuant to the Current PAC Sub-Advisory Contract, Putnam investment professionals who are based in Singapore may serve as portfolio managers of or provide other investment services to a fund, consistent with local regulations. Under the Current PAC Sub-Advisory Contract, Putnam Management or PIL, as the case may be (and not the funds), pays a quarterly sub-advisory fee to PAC for its services at the rates set forth in **Appendix D-2**.

As noted above in Proposal 1, the Transaction will result in an "assignment" of the Current PAC Sub-Advisory Contract for each fund and will cause the Current PAC Sub-Advisory Contract for each fund to terminate in accordance with applicable law.

At an in-person meeting on June 22-23, 2023, the Board of Trustees unanimously approved a proposed new sub-advisory contract between Putnam Management, PIL, and PAC (the "New PAC Sub-Advisory Contract"). Consistent with current law and interpretations of the Securities and Exchange Commission and its staff, it may not be necessary for shareholders to approve the New PAC Sub-Advisory Contract. However, notwithstanding that shareholder approval may not be required, the Board of Trustees has determined to seek shareholder approval of the New PAC Sub-Advisory Contract and to recommend to the shareholders of each applicable fund that they approve the New PAC Sub-Advisory Contract for their fund.

If shareholders of your fund approve the New PAC Sub-Advisory Contract before the consummation of the Transaction, the New PAC Sub-Advisory Contract will become effective upon the consummation of the Transaction. In the event that the Transaction is not consummated, PAC will continue to serve a subadviser of your fund pursuant to the terms of the Current PAC Sub-Advisory Contract.

Impact of the Transaction on the Sub-Advisory Services Provided to Your Fund

The Transaction is not expected to result in any diminution in the nature, extent or quality of the services provided by PAC to your fund and its shareholders.

The Interim Sub-Advisory Contract

If Proposal 2B applies to your fund, the shareholders of your fund do not approve the New PAC Sub-Advisory Contract, and the Transaction is consummated, an interim sub-advisory contract among Putnam Management, PIL, and PAC (the "Interim PAC Sub-Advisory Contract") for your fund will take effect upon the consummation of the Transaction. The Board of Trustees approved the Interim PAC Sub-Advisory Contract on June 23, 2023 to allow PAC to continue providing services to a fund while shareholder approval of the New PAC Sub-Advisory Contract continues to be sought.

Rule 15a-4 under the 1940 Act allows an investment company to enter into an interim management contract with a maximum term of 150 days, without first obtaining shareholder approval, so that the investment company may receive investment management

services without interruption following an assignment of a previous management contract.

The terms of the Interim PAC Sub-Advisory Contract are identical to those of the Current PAC Sub-Advisory Contract, except for the term and escrow provisions described below. The Interim PAC Sub-Advisory Contract will continue in effect for a term ending on the earlier of 150 days from the closing of the Transaction (the “150-day period”) or, if shareholders of your fund approve the New PAC Sub-Advisory Contract, the effective date of the New PAC Sub-Advisory Contract. The Board of Trustees or a “majority of the outstanding voting securities,” as defined in the 1940 Act, may terminate the Interim PAC Sub-Advisory Contract on 10 calendar days’ written notice to PAC without the payment of any penalty. Pursuant to Rule 15a-4 under the 1940 Act, compensation earned by PAC under the Interim PAC Sub-Advisory Contract will be held in an interest-bearing escrow account. If shareholders of your fund approve the New PAC Sub-Advisory Contract prior to the end of the 150-day period, the amount held in the escrow account under the Interim PAC Sub-Advisory Contract will be paid to PAC. If shareholders of your fund do not approve the New PAC Sub-Advisory Contract prior to the end of the 150-day period, the Board of Trustees will consider what further action to take consistent with their fiduciary duties to the fund, and PAC will be paid the lesser of its costs incurred in performing its services under the Interim PAC Sub-Advisory Contract or the total amount of the escrow account, plus interest earned. The actions considered by the Board of Trustees may include, among other things, determining (to the extent consistent with current law and interpretations of the Securities and Exchange Commission and its staff) that shareholder approval is not required with respect to the New PAC Sub-Advisory Contract, having the fund managed without a sub-adviser, or making other appropriate arrangements.

The New PAC Sub-Advisory Contract; Comparison with the Current PAC Sub-Advisory Contract

The terms of the New PAC Sub-Advisory Contract (described generally below) are identical to those of the Current PAC Sub-Advisory Contract, except for the effective date and initial term. The start date of the Current PAC Sub-Advisory Contract for each applicable fund, the date on which the Current PAC Sub-Advisory Contract was last submitted to a vote of shareholders of each applicable fund, and the purpose of the submission are set forth in **Appendix D-2**.

Set forth below are a general description of the New PAC Sub-Advisory Contract and a comparison of its terms to those of the Current PAC Sub-Advisory Contract. The complete terms of the New PAC Sub-Advisory Contract are set forth in **Appendix F-2**.

Fees. There is no change in the rate of the fees payable to PAC under the New PAC Sub-Advisory Contract. The funds, including your fund, do not compensate PAC for its services. That compensation is paid by Putnam Management or PIL, as the case may be. The current fee schedule for investment sub-advisory services provided by PAC for each fund is set forth in **Appendix D-2**.

Investment Sub-Advisory Services. Like the Current PAC Sub-Advisory Contract for your fund, the New PAC Sub-Advisory Contract for your fund provides that PAC will furnish continuously an investment program for a PAC Allocated Sleeve, determining

what investments to purchase, hold, sell or exchange and what portion of the PAC Allocated Sleeve assets will be held uninvested, in compliance with the fund’s governing documents, investment objectives, policies and restrictions, and subject to the oversight and control of the Board of Trustees and Putnam Management. Putnam Management or PIL, as the case may be, may also request PAC to assist with purchasing and selling securities for any fund, including the placement of orders with broker-dealers selected in accordance with the sub-advisory contract, even if Putnam Management has not established a PAC Allocated Sleeve for the fund. As indicated above, PAC’s responsibilities under the New PAC Sub-Advisory Contract for your fund are identical to those under the Current PAC Sub-Advisory Contract for your fund.

Like the Current PAC Sub-Advisory Contract, if requested by Putnam Management, PAC is authorized under the New PAC Sub-Advisory Contract to place orders for the purchase and sale of portfolio investments for any PAC Allocated Sleeve of your fund with brokers or dealers that PAC selects. PAC must select brokers and dealers, and place orders, using its best efforts to obtain for the funds the most favorable price and execution available, except that PAC may pay higher brokerage commissions if it determines in good faith that the commission is reasonable in relation to the value of brokerage and research services provided by the broker or dealer (a practice commonly known as “soft dollars”). PAC may make this determination in terms of either the particular transaction or its overall responsibilities with respect to a fund and to other clients of Putnam Management, PIL, or PAC for which Putnam Management, PIL, or PAC exercises investment discretion. Putnam Management’s, PIL’s, and PAC’s use of soft dollars is subject to policies established by the Board of Trustees from time to time and applicable guidance issued by the Securities and Exchange Commission and its staff and, in the case of PIL, the FCA.

Expenses. Like the Current PAC Sub-Advisory Contract for your fund, the New PAC Sub-Advisory Contract requires PAC to bear the expenses associated with furnishing all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully.

Term and Termination. If approved by shareholders before the consummation of the Transaction, the New PAC Sub-Advisory Contract for your fund will go into effect for a two-year period beginning on the date the Transaction is consummated. Thereafter, if not terminated, the New PAC Sub-Advisory Contract will continue in effect from year to year if its continuance is specifically approved at least annually by (i) the Board of Trustees or the shareholders of the fund by the affirmative vote of a majority of the outstanding shares of the fund and (ii) a majority of the Independent Trustees, by vote cast in person at a meeting called for the purpose of voting on the contract’s approval. The Current PAC Sub-Advisory Contract has similar provisions for its term and continuance, although the initial term has elapsed in most cases.

Like the Current PAC Sub-Advisory Contract for your fund, the New PAC Sub-Advisory Contract for your fund provides that the contract may be terminated at any time by Putnam Management, PIL, or PAC with not more than 60 days’, nor less than 30 days’, written notice to the other parties and without the payment of any penalty. Your fund may also terminate the contract with respect to services

provided to your fund by vote of a majority of its Trustees or by the affirmative vote of a “majority of the outstanding voting securities” of the fund, as defined in the 1940 Act, with not more than 60 days’ nor less than 30 days’ written notice to Putnam Management and PIL, and without the payment of any penalty. The New PAC Sub-Advisory Contract also will terminate automatically in the event of its “assignment” or upon the termination of Putnam Management’s management contract with a fund.

Limitation of Liability. Like the Current PAC Sub-Advisory Contract for your fund, under the New PAC Sub-Advisory Contract for your fund, PAC is not liable to Putnam Management, PIL, the fund or to any shareholder of the fund for any act or omission in the course of, or connected with, rendering services under the New PAC Sub-Advisory Contract, unless there is willful misfeasance, bad faith or gross negligence on the part of PAC or reckless disregard of its obligations and duties under the proposed sub-advisory contract.

Amendments; Defined Terms. Like the Current PAC Sub-Advisory Contract for your fund, any amendment to the New PAC Sub-Advisory Contract must be approved at a meeting by the vote, cast in person at a meeting called for the purpose of voting on the amendment’s approval, of a majority of the Independent Trustees. Certain terms used in the New PIL Sub-Advisory Contract are used as defined in the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

What did the Board of Trustees consider in evaluating the New PAC Sub-Advisory Contract?

At the meetings held on June 22-23, 2023, at which the Board of Trustees approved your fund’s New Management Contract, the Board of Trustees (including a majority of the Independent Trustees), also approved new sub-advisory contracts with each of your fund’s subadvisers, including the New PAC Sub-Advisory Contract. The Board of Trustees’ considerations regarding the New PAC Sub-Advisory Contract are discussed in Proposal 1 above.

What is the voting requirement for approving the proposal?

Shareholder approval of your fund’s New PAC Sub-Advisory Contract will be obtained if the affirmative vote of a “majority of the outstanding voting securities” of the fund is received, which is defined under the 1940 Act to be the lesser of (a) more than 50% of the outstanding shares of the fund, or (b) 67% or more of the shares of the fund present (in person or by proxy) at the special meeting if more than 50% of the outstanding shares of the fund are present at the meeting in person or by proxy. **The Board of Trustees unanimously recommends that shareholders vote FOR the New PAC Sub-Advisory Contract.**

2C. APPROVING A NEW SUBADVISORY AGREEMENT BETWEEN PUTNAM MANAGEMENT AND PANAGORA FOR YOUR FUND

Applicable Funds

Proposal 2C applies only to Putnam PanAgora ESG International Equity ETF and Putnam PanAgora ESG Emerging Markets Equity ETF.

Background Information

Under each Current Management Contract, Putnam Management may, in its discretion and with the approval of the Board of Trustees (including a majority of the Independent Trustees) and, if required, the approval of shareholders, delegate its advisory responsibilities to one or more subadvisers.

At present, Putnam Management has entered into a sub-advisory contract with PanAgora, an affiliated subadviser (the “Current PanAgora Sub-Advisory Contract”), for Putnam PanAgora ESG International Equity ETF and Putnam PanAgora ESG Emerging Markets Equity ETF, pursuant to which PanAgora furnishes continuously an investment program for the portion of each fund’s assets determined by Putnam Management (the “Portfolio”). PanAgora, which provides financial services to institutions and individuals through separately managed accounts and pooled investment vehicles, is located at One International Place, 24th Floor, Boston, Massachusetts 02110. Under the Current PanAgora Sub-Advisory Contract, Putnam Management (and not the funds) pays a quarterly sub-advisory fee to PanAgora for its services at the rates set forth in Appendix D-3.

As noted above in *Proposal 1*, Franklin Templeton is not acquiring PanAgora in the Transaction, and PanAgora will remain an indirect, wholly-owned subsidiary of Great-West Lifeco. Although the ultimate parent company of PanAgora is not expected to change as a result of the Transaction, the Current PanAgora Sub-Advisory Contract will nonetheless terminate, according to its terms, upon the termination of the Current Management Contract between Putnam Management and each of Putnam PanAgora ESG International Equity ETF and Putnam PanAgora ESG Emerging Markets Equity ETF.

At an in-person meeting on June 22-23, 2023, the Board of Trustees unanimously approved, and determined to recommend to the shareholders of Putnam PanAgora ESG International Equity ETF and Putnam PanAgora ESG Emerging Markets Equity ETF that they approve, a proposed new sub-advisory contract between Putnam Management and PanAgora (the “New PanAgora Sub-Advisory Contract”).

If shareholders of your fund approve the New PanAgora Sub-Advisory Contract before the consummation of the Transaction, the New PanAgora Sub-Advisory Contract will become effective upon the consummation of the Transaction. In the event that the Transaction is not consummated, PanAgora will continue to serve as subadviser of your fund pursuant to the terms of the Current PanAgora Sub-Advisory Contract.

Impact of the Transaction on the Sub-Advisory Services Provided to Your Fund

The Transaction is not expected to result in any diminution in the nature, extent or quality of the services provided by PanAgora to your fund and its shareholders.

The Interim Sub-Advisory Contract

If the shareholders of your fund do not approve the New PanAgora Sub-Advisory Contract and the Transaction is consummated, an interim management contract between Putnam Management and PanAgora (the “Interim PanAgora Sub-Advisory Contract”) will take

effect upon the closing of the Transaction. The Board of Trustees approved the Interim PanAgora Sub-Advisory Contract on June 23, 2023 to allow PanAgora to continue providing services to a fund while shareholder approval of the New PanAgora Sub-Advisory Contract continues to be sought.

Rule 15a-4 under the 1940 Act allows an investment company to enter into an interim management contract with a maximum term of 150 days, without first obtaining shareholder approval, so that the investment company may receive investment management services without interruption following an assignment of a previous management contract.

The terms of the Interim PanAgora Sub-Advisory Contract are identical to those of the Current PanAgora Sub-Advisory Contract, except for the term and escrow provisions described below. The Interim PanAgora Sub-Advisory Contract will continue in effect for a term ending on the earlier of 150 days from the closing of the Transaction (the “150-day period”) or, if shareholders of your fund approve the New PanAgora Sub-Advisory Contract, the effective date of the New PanAgora Sub-Advisory Contract. The Board of Trustees or a “majority of the outstanding voting securities,” as defined in the 1940 Act, may terminate the Interim PanAgora Sub-Advisory Contract on 10 calendar days’ written notice to PanAgora without the payment of any penalty. Pursuant to Rule 15a-4 under the 1940 Act, compensation earned by PanAgora under the Interim PanAgora Sub-Advisory Contract will be held in an interest-bearing escrow account. If shareholders of your fund approve the New PanAgora Sub-Advisory Contract prior to the end of the 150-day period, the amount held in the escrow account under the Interim PanAgora Sub-Advisory Contract will be paid to PanAgora. If shareholders of your fund do not approve the New PanAgora Sub-Advisory Contract prior to the end of the 150-day period, the Board of Trustees will consider what further action to take consistent with their fiduciary duties to the fund, and PanAgora will be paid the lesser of its costs incurred in performing its services under the Interim PanAgora Sub-Advisory Contract or the total amount of the escrow account, plus interest earned. These actions may include, among other things, negotiating a new management contract with an advisory organization selected by the Board of Trustees, subject to shareholder approval, or having the fund managed without a sub-adviser.

The New PanAgora Sub-Advisory Contract; Comparison with the Current PanAgora Sub-Advisory Contract

The terms of the New PanAgora Sub-Advisory Contract (described generally below) are identical to those of the Current PanAgora Sub-Advisory Contract except for the effective date and initial term. The start date of the Current PanAgora Sub-Advisory Contract for each applicable fund, the date on which the Current PanAgora Sub-Advisory Contract was last submitted to a vote of shareholders for each applicable fund, and the purpose of the submission are set forth in **Appendix D-3**.

Set forth below are a general description of the New PanAgora Sub-Advisory Contract and a comparison of its terms to those of the Current PanAgora Sub-Advisory Contract. The complete terms of the New PanAgora Sub-Advisory Contract are set forth in **Appendix F-3**.

Fees. There is no change in the rate of the fees payable to PanAgora under the New PanAgora Sub-Advisory Contract. The funds do not compensate PanAgora for its services. That compensation is paid by Putnam Management. The current fee schedule for investment sub-advisory services provided by PanAgora for each fund is set forth in **Appendix D-3**.

Investment Sub-Advisory Services. Like the Current PanAgora Sub-Advisory Contract for your fund, the New PanAgora Sub-Advisory Contract provides that PanAgora will furnish continuously an investment program for a Portfolio, determining what investments to purchase, hold, sell or exchange and what portion of Portfolio assets will be held uninvested, in compliance with the fund’s governing documents, investment objectives, policies and restrictions, and subject to the oversight and control of the Board of Trustees and Putnam Management. As indicated above, PanAgora’s responsibilities under the New PanAgora Sub-Advisory Contract are identical to those under the Current PanAgora Sub-Advisory Contract.

PanAgora is authorized under the New PanAgora Sub-Advisory Contract to place orders for the purchase and sale of portfolio investments for each applicable fund with brokers or dealers that PanAgora selects. PanAgora must select brokers and dealers, and place orders, using its best efforts to obtain for the funds the most favorable price and execution available, except that PanAgora may pay higher brokerage commissions if it determines in good faith that the commission is reasonable in relation to the value of brokerage and research services provided by the broker or dealer (a practice commonly known as “soft dollars”). PanAgora’s use of soft dollars is subject to its internal policies in effect from time to time and applicable guidance issued by the Securities and Exchange Commission and its staff.

Expenses. Like the Current PanAgora Sub-Advisory Contract for your fund, the New PanAgora Sub-Advisory Contract requires PanAgora to bear the expenses associated with furnishing all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully.

Term and Termination. If approved by shareholders before the consummation of the Transaction, the New PanAgora Sub-Advisory Contract for your fund will go into effect for a two-year period beginning on the date the Transaction is consummated. Thereafter, if not terminated, the New PanAgora Sub-Advisory Contract will continue in effect from year to year if its continuance is specifically approved at least annually by (i) the Board of Trustees or the shareholders of the fund by the affirmative vote of a majority of the outstanding shares of the fund and (ii) a majority of the Independent Trustees, by vote cast in person at a meeting called for the purpose of voting on the contract’s approval. The Current PanAgora Sub-Advisory Contract has similar provisions for its term and continuance.

Like the Current PanAgora Sub-Advisory Contract, the New PanAgora Sub-Advisory Contract provides that the contract may be terminated at any time by Putnam Management or PanAgora with not more than 60 days’ nor less than 30 days’ written notice to the other party and without the payment of any penalty. Your fund may also terminate the contract with respect to services to

provided to your fund by vote of a majority of its Trustees or by the affirmative vote of a “majority of the outstanding voting securities” of the fund, as defined in the 1940 Act, with not more than 60 days’, nor less than 30 days’, written notice to Putnam Management and PanAgora and without the payment of any penalty. The New PanAgora Sub-Advisory Contract also will terminate automatically in the event of its “assignment” or upon the termination of Putnam Management’s management contract with a fund.

Limitation of Liability. Like the Current PanAgora Sub-Advisory Contract for your fund, under the New PanAgora Sub-Advisory Contract, PanAgora is not liable to Putnam Management, your fund, or to any shareholder of your fund for any act or omission in the course of, or connected with, rendering services under the New PanAgora Sub-Advisory Contract, unless there is willful misfeasance, bad faith or gross negligence on the part of PanAgora or reckless disregard of its obligations and duties under the New PanAgora Sub-Advisory Contract.

Amendments; Defined Terms. Like the Current PanAgora Sub-Advisory Contract for your fund, any amendment to the New PanAgora Sub-Advisory Contract must be approved at a meeting by the vote, cast in person at a meeting called for the purpose of voting on the amendment’s approval, of a majority of the Independent Trustees. Certain terms used in the New PanAgora Sub-Advisory Contract are used as defined in the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

What did the Board of Trustees consider in evaluating the New PanAgora Sub-Advisory Contract?

At the meetings held on June 22-23, 2023, at which the Board of Trustees approved your fund’s New Management Contract, the Board of Trustees (including a majority of the Independent Trustees), also approved new sub-advisory contracts with each of your fund’s subadvisers, including the New PanAgora Sub-Advisory Contract. The Board of Trustees’ considerations regarding the New PanAgora Sub-Advisory Contract are discussed in *Proposal 1* above.

What is the voting requirement for approving the proposal?

Shareholder approval of your fund’s New PanAgora Sub-Advisory Contract requires the affirmative vote of a “majority of the outstanding voting securities” of the fund, which is defined under the 1940 Act to be the lesser of (a) more than 50% of the outstanding shares of the fund, or (b) 67% or more of the shares of the fund present (in person or by proxy) at the special meeting if more than 50% of the outstanding shares of the fund are present at the meeting in person or by proxy. The Board of Trustees unanimously recommends that shareholders vote FOR the New PanAgora Sub-Advisory Contract.

Additional Information Relevant to the Proposals

Potential Conflict of Interest Relating to One of the Independent Trustees. Jennifer Williams Murphy is the founder, controlling member, and Chief Executive Officer of Runa Digital Assets, LLC (“RDA”), the investment manager of Runa Digital Partners, LP (“RDP”), a private investment fund. Ms. Murphy also holds a controlling interest in RDP’s general partner and is a limited partner in RDP. A subsidiary of Franklin Templeton and certain individuals employed by Franklin Templeton or its affiliates have made passive investments as limited partners in RDP (one of whom serves on the advisory board for RDA, which has no governance or oversight authority over RDA), representing in the aggregate approximately 33% of RDP as of May 31, 2023. In addition, if certain conditions are met, Franklin Templeton will be entitled to receive a portion of any incentive compensation allocable to RDP’s general partner. For so long as Franklin Templeton maintains its investment in RDP, Ms. Murphy also has agreed to advise and consult with Franklin Templeton and its affiliates on the market for digital assets. Ms. Murphy provides similar service to other limited partners in RDP that request her advice. Ms. Murphy also is entitled to receive deferred cash compensation in connection with her prior employment by an affiliate of Franklin Templeton, which employment ended at the end of 2021. In light of this potential conflict of interest, Ms. Murphy withdrew from a portion of two meetings of the Independent Trustees, on January 27, 2023 and June 23, 2023, to facilitate an opportunity for further discussion of the Transaction and related matters without her present.

Further Information About Voting and the Special Meetings

Location. As part of our effort to maintain a safe and healthy environment at the special shareholder meetings, each fund and the Trustees are closely monitoring statements issued by the Centers for Disease Control and Prevention ([cdc.gov](https://www.cdc.gov)) regarding the COVID-19 pandemic. For that reason, the Trustees reserve the right to reconsider the date, time and/or means of convening your fund’s meeting. Subject to any restrictions imposed by applicable law, the Trustees may choose to conduct the meeting solely by means of remote communications, or may hold a “hybrid” meeting where some participants attend in person and others attend by means of remote communications. If the Trustees choose to change the date, time and/or means of convening your fund’s meeting, the fund will announce the decision to do so in advance, and details on how to participate will be issued by press release or other public notice and filed with the SEC as additional proxy material. Attendees are also encouraged to review guidance from public health authorities on this issue.

Meeting Quorum and Methods of Tabulation. The shareholders of each fund vote separately with respect to the proposals. Shares of all classes of each fund vote together as a single class. Thirty percent of the shares entitled to vote constitutes a quorum for the transaction of business with respect to any proposal at the special meeting for all funds except the exchange-traded funds, for which shares representing one-third (1/3) or more of the total combined

voting power of all shares of a series entitled to vote constitutes a quorum for the transaction of business.

Votes cast by proxy or in person at the special meeting will be counted by persons your fund appoints as tellers for the meeting. The tellers will count the total number of votes cast “for” approval of a proposal for purposes of determining whether sufficient affirmative votes have been cast. Shares represented by proxies that reflect abstentions will be counted as shares that are present and entitled to vote on the proposals for purposes of determining the presence of a quorum. Abstentions have the effect of votes against the proposals. Because broker-dealers (in the absence of specific authorization from their customers) are not expected to have discretionary authority to vote on the proposals any shares owned beneficially by their customers, there are unlikely to be any “broker non-votes” (i.e., shares held by brokers or nominees as to which (i) instructions have not been received from the beneficial owners or the persons entitled to vote and (ii) the broker or nominee does not have discretionary voting power on a particular matter) at the special shareholder meetings. Broker non-votes would otherwise have the same effect as abstentions (that is, they would be treated as being present and entitled to vote on the proposals for purposes of determining the presence of a quorum, and as if they were votes against the proposals).

The documents that authorize Putnam Fiduciary Trust Company, LLC (“PFTC”) or Putnam Investor Services, Inc. (“Putnam Investor Services”) to act as Trustee or servicing agent for certain individual retirement accounts (including traditional, Roth and SEP IRAs, 403(b)(7) accounts and Coverdell Education Savings Accounts) provide that if an account owner does not submit voting instructions for his or her shares, PFTC or Putnam Investor Services will vote such shares in the same proportions as other shareholders with similar accounts have submitted voting instructions for their shares. Shareholders should be aware that this practice, known as “echo-voting,” may have the effect of increasing the likelihood that a proposal will be acted upon (approved or disapproved) and that PFTC or Putnam Investor Services, each of which is an affiliate of Putnam Management, may benefit indirectly from the approval, in accordance with the Trustees’ recommendations, of the proposals.

When a fund in the Putnam family of funds (a “top-tier fund”) invests in another fund in the Putnam family of funds (an “underlying fund”), the top-tier fund will generally vote any proxies of the underlying fund in a manner consistent with the recommendation of the Trustees of the underlying fund. A top-tier fund does not intend to vote proxies of the underlying fund in the same proportion as all other voting shareholders of the underlying fund (known as “echo voting”) or to “pass-through” proxy voting to the top-tier fund’s shareholders unless otherwise required by applicable law or regulations.

Shareholders who object to any proposal in this Proxy Statement will not be entitled under Massachusetts law or Delaware law, as applicable, or the Agreement and Declaration of Trust of the particular fund to demand payment for, or an appraisal of, their shares.

Voting in Person. Instructions on how to vote and the process for voting will be provided at the special shareholder meetings to

any shareholders who choose to attend the special shareholder meetings to vote in person.

Other business. The Trustees know of no matters other than those described in this Proxy Statement to be brought before the special meetings. If, however, any other matters properly come before the special meetings, proxies will be voted on these matters in accordance with the judgment of the persons named in the enclosed WHITE proxy card(s).

Simultaneous meetings. The special meeting of shareholders of your fund is called to be held at the same time as the special meetings of shareholders of the other funds. It is anticipated that all special meetings of the funds will be held simultaneously. However, if any shareholder at a special meeting objects to the holding of simultaneous meetings and moves for an adjournment of the meeting to a time promptly after the simultaneous meetings, the persons named as proxies will vote in favor of adjournment.

Information for all funds except funds that are series of Putnam Variable Trust

Solicitation of proxies. In addition to soliciting proxies by mail, the Trustees of your fund and employees of Putnam Management and Putnam Investor Services, as well as their agents, may solicit proxies in person, by telephone, or by other means. Your fund may arrange to have a proxy solicitation firm call you to record your voting instructions by telephone. The procedures for voting proxies by telephone are designed to authenticate shareholders’ identities, to allow them to authorize the voting of their shares in accordance with their instructions, and to confirm that their instructions have been properly recorded. Shareholders would be called at the phone number Putnam Management or Putnam Investor Services has in its records for their accounts (or that Putnam Management or Putnam Investor Services obtains from agents acting on behalf of financial intermediaries, in the case of shares held in street name through a bank, broker or other financial intermediary) and would be given an opportunity to authenticate their identities and to authorize the proxies to vote their shares at the special meeting in accordance with their instructions. To ensure that shareholders’ instructions have been recorded correctly, they will also receive a confirmation of their instructions in the mail. A special toll-free number will be available in case the information contained in the confirmation is incorrect. Your fund has been advised by counsel that these procedures are consistent with the requirements of applicable law. If these procedures were subject to a successful legal challenge, such votes would not be counted at the special meeting. Your fund is unaware of any such challenge at this time.

Shareholders have the opportunity to submit their voting instructions over the Internet by using a program provided by a third-party vendor selected by Putnam Management or by automated telephone service. To vote online using the Internet, please access the Internet address listed on the WHITE proxy card and follow the instructions on the Internet site. To record your voting instructions using the automated telephone service, use the toll-free number listed on your WHITE proxy card. The Internet and telephone voting procedures are designed to authenticate shareholder identities, to allow shareholders to give their voting instructions, and to confirm that shareholders’ instructions have been recorded properly.

Revocation of proxies. Giving your proxy, whether by returning the WHITE proxy card(s) or providing voting instructions over the Internet or by telephone, does not affect your right to attend the special meeting and vote in person. Proxies, including proxies given by telephone or over the Internet, may be revoked at any time before they are voted either (i) by a written revocation received by the Clerk of your fund, (ii) by properly executing and submitting a later-dated proxy, (iii) by recording later-dated voting instructions by telephone or via the Internet, or (iv) by attending the special meeting and voting in person. If your shares are held in street name through a bank, broker or other financial intermediary, please check your voting instruction form or contact your bank, broker or other financial intermediary for instructions on how to change or revoke your vote.

Information for funds that are series of Putnam Variable Trust

Voting process. With respect to funds that are series of Putnam Variable Trust only, as of the Record Date, certain insurance companies (each an “Insurance Company”) were shareholders of record of funds that are series of Putnam Variable Trust. Each Insurance Company will vote shares of the fund or funds held by it in accordance with voting instructions received from variable annuity contract and variable life insurance policy owners (collectively, the “Contract Owners”) for whose accounts the shares are held. Accordingly, with respect to funds that are series of Putnam Variable Trust, this Proxy Statement is also intended to be used by each Insurance Company in obtaining these voting instructions from Contract Owners.

Solicitation of proxies. In addition to soliciting proxies and voting instructions by mail, the Trustees of your fund and employees of Putnam Management, Putnam Investor Services, Putnam Retail Management Limited Partnership and the Insurance Companies may solicit voting instructions from Contract Owners in person, by telephone, or by other means. Your fund may arrange to have a proxy solicitation firm call you to record your voting instructions by telephone. The procedures for solicitation of proxies and voting instructions by telephone are designed to authenticate Contract Owners’ identities, to allow them to authorize the voting of their units in accordance with their instructions, and to confirm that their instructions have been properly recorded. Your fund has been advised by counsel that these procedures are consistent with the requirements of applicable law. Contract Owners would be called at the phone number Putnam Management or Putnam Investor Services has in its records for their accounts (or that Putnam Management or Putnam Investor Services obtains from the Insurance Companies) and would be given an opportunity to give their instructions. To ensure that the Contract Owners’ instructions have been recorded correctly, they will also receive a confirmation of their instructions in the mail. A special toll-free number will be available in case the information contained in the confirmation is incorrect. If these procedures were subject to a successful legal challenge, such votes would not be counted at the special meeting. Your fund is unaware of any such challenge at this time.

Contract Owner instructions. Each Contract Owner is entitled to instruct his or her Insurance Company as to how to vote its shares and can do so by marking voting instructions on the ballot enclosed with this Proxy Statement and then signing, dating and

mailing the ballot in the envelope provided. If a ballot is not marked to indicate voting instructions, but is signed, dated and returned, it will be treated as an instruction to vote the shares in accordance with the Trustees’ recommendations. Each Insurance Company will vote the shares for which it receives timely voting instructions from Contract Owners in accordance with those instructions and will vote those shares for which it receives no timely voting instructions for and against approval of a proposal, and as an abstention, in the same proportion as the shares for which it receives voting instructions. Shares attributable to accounts retained by each Insurance Company will be voted in the same proportion as votes cast by Contract Owners. Accordingly, there are not expected to be any “broker non-votes.” One effect of this system of proportional voting is that, if only a small number of Contract Owners provide voting instructions, this small number of Contract Owners may determine the outcome of the vote for the fund.

Contract Owners have the opportunity to submit their voting instructions via the Internet by utilizing a program provided by a third-party vendor selected by Putnam Management or by automated telephone service. To give voting instructions online using the Internet, please access the Internet address listed on the WHITE proxy card and follow the instructions on the Internet site. To record your voting instructions via automated telephone service, use the toll-free number listed on your WHITE proxy card. The Internet and telephone voting procedures are designed to authenticate Contract Owners’ identities, to allow Contract Owners to give their voting instructions, and to confirm that their instructions have been recorded properly.

A Contract Owner who wishes to participate in the meeting in person should contact his or her Insurance Company for further information regarding how to vote at the meeting.

Revocation of instructions. Any Contract Owner giving instructions to an Insurance Company has the power to revoke such instructions by mail by providing superseding instructions. All properly executed instructions received in time for the special meeting will be voted as specified in the instructions.

Revocation of proxies. Proxies, including proxies given by telephone or over the Internet, may be revoked by an Insurance Company at any time before they are voted either (i) by a written revocation received by the Clerk of your fund, (ii) by properly executing a later-dated proxy, (iii) by recording later-dated voting instructions by telephone or via the Internet, or (iv) by attending the special meeting and voting in person.

Information for all funds

Date for receipt of shareholders’ proposals for subsequent meetings of shareholders.

Your fund does not regularly hold an annual shareholder meeting, but may from time to time schedule a special meeting. Each of the exchange-traded funds held a special meeting on January 11, 2023, and Putnam Core Bond Fund held a special meeting on October 19, 2022. For each other fund, the last special meeting was held on June 29, 2022 (and, for a limited number of funds, was adjourned to a later date), except that funds that commenced operations after June 29, 2022 have not yet held any shareholder meeting. In accordance with the regulations of the SEC and the

funds' governing documents, in order to be eligible for inclusion in a fund's proxy statement for a meeting, a shareholder proposal must be received a reasonable time before the fund prints and mails its proxy statement.

The Board Policy and Nominating Committee of the Board of Trustees, which consists only of Independent Trustees, will consider nominees recommended by shareholders of the fund to serve as Trustees. A shareholder must submit the names of any such nominees in writing to the fund, to the attention of the Clerk, at the address of the principal offices of the fund.

If a shareholder who wishes to present a proposal at a special shareholder meeting fails to notify the fund within a reasonable time before the fund mails its proxy statement, the persons named as proxies will have discretionary authority to vote on the shareholder's proposal if it is properly brought before the meeting. If a shareholder makes a timely notification, the proxies may still exercise discretionary voting authority under circumstances consistent with the SEC's proxy rules. All shareholder proposals must also comply with other requirements of the SEC's rules and the funds' Declaration of Trust and Amended and Restated Bylaws.

Postponement and adjournment. To the extent permitted by each fund's Declaration of Trust and Bylaws, any meeting of shareholders may be postponed or cancelled by the Trustees upon public notice prior to the time scheduled for the meeting.

In addition to any ability that the persons named as proxy may have to propose and/or vote on an adjournment of any meeting of shareholders as described below, to the extent permitted by your fund's Declaration of Trust and Bylaws, any meeting of shareholders may, by action of the chair of the meeting, be adjourned from time to time without further notice (other than announcement at the meeting at which the adjournment is taken) with respect to one or more matters to be considered at the meeting to a designated date (which may be more than 120 days after the date initially set for the meeting), time and place, whether or not a quorum is present with respect to the matter. Upon motion of the chair of the meeting, the question of adjournment may, but need not, be submitted to a vote of the shareholders, and in that case, any adjournment with respect to one or more matters must be approved by the vote of holders of a majority of the shares present and entitled to vote with respect to the matter or matters to be adjourned and, if approved, such adjournment shall take place without further notice (other than announcement at the meeting at which the adjournment is taken). If the quorum required for the meeting has not been met, the persons named as proxies may propose adjournment of the meeting and vote all shares that they are entitled to vote in favor of such adjournment. If the quorum required for the meeting has been met, but sufficient votes in accordance with the Trustees' recommendation are not received by the time scheduled for the meeting, the persons named as proxies may also propose adjournment of the meeting with respect to any or all proposals in order to permit solicitation of additional proxies. The persons named as proxies will vote in favor of adjournment those proxies that they are entitled to vote in accordance with the Trustees' recommendation. They will vote against adjournment those proxies required to be voted contrary to the Trustees' recommendation. Unless a proxy is otherwise limited in this regard, any shares present and

entitled to vote at a meeting that are represented by broker non-votes, if any, may, at the discretion of the proxies named therein, be voted in favor of such an adjournment. Adjournments may be proposed for a reasonable period or periods to permit further solicitation of proxies or for any other reason. Putnam Investments (or an affiliate) will bear the costs of any additional solicitation and of any adjourned sessions. Any proposal for which sufficient votes consistent with the Trustees' recommendation have been received may be acted upon and considered final regardless of whether the special meeting is adjourned to permit additional solicitation with respect to any other proposal that may properly come before the meeting.

Expense of the solicitation. For managing the funds' overall proxy campaign, Broadridge Financial Solutions ("Broadridge") will receive a proxy management fee of \$20,000 plus reimbursement for out-of-pocket expenses. Broadridge will also receive fees in connection with assembling, mailing, and transmitting the notice of meeting, proxy statement and related materials on behalf of your fund, tabulating those votes that are received, and any solicitation of additional votes. While the fees received by Broadridge will vary based on the level of additional solicitation necessary to achieve quorum and shareholder approval, the fees paid to Broadridge are estimated to be approximately \$4,080,316. In addition, banks, brokers, or other financial intermediaries holding shares as nominees will be reimbursed, upon request, for their reasonable expenses in sending solicitation materials to the principals of the accounts and tabulating those instructions that are received. While fees paid to banks, brokers, or other financial intermediaries will vary based on the level of additional solicitation necessary to achieve quorum and shareholder approval of the Trustees' recommendations, the aggregate fees across all funds are estimated to be approximately \$4,610,457. Other costs associated with the proxy campaign, which are estimated to be approximately \$565,000, include the expenses of the preparation and printing proxy materials. **All proxy campaign costs are being borne by Putnam Investments (or an affiliate) because the funds are holding a special meeting only to approve new management and sub-advisory contracts in connection with the Transaction.**

Duplicate mailings. As permitted by SEC rules, the funds' practice is to send a single copy of the proxy statement to shareholders who share the same last name and address, unless a shareholder previously has requested otherwise. Separate WHITE proxy cards will be included with the proxy statement for each account registered at that address. If you would prefer to receive your own copy of the proxy statement, please contact Putnam Investor Services by phone at 1-800-225-1581 or by mail at P.O. Box 219697, Kansas City, MO 64121-9697.

Financial information. Your fund's Clerk will furnish to you, upon request and without charge, a copy of the fund's annual report for its most recent fiscal year, and a copy of its semiannual report for any subsequent semiannual period. You may direct these requests to Putnam Investor Services, P.O. Box 219697, Kansas City, MO 64121-9697 or by phone at 1-800-225-1581. You may also access copies of these reports by visiting Putnam's website at putnam.com/individual.

Fund Information (applicable to all funds, unless otherwise noted below)

Putnam Investment Management, LLC. Putnam Investment Management, LLC (“Putnam Management”) is an indirect wholly-owned subsidiary of Putnam Investments, LLC (“Putnam Investments”). The Desmarais Family Residuary Trust, a trust established pursuant to the Last Will and Testament of The Honourable Paul G. Desmarais, indirectly holds approximately 51.35% of the voting rights of Power Corporation of Canada. Power Corporation of Canada is an international management and holding company that focuses on financial services in North America, Europe and Asia. Power Financial Corporation, a wholly-owned subsidiary of Power Corporation of Canada, is an international management and holding company with interests in financial services and asset management businesses in Canada, the United States and Europe. Power Financial Corporation in turn owns, directly and indirectly, voting securities to which are attached approximately 70.63% of the voting rights attached to all of the outstanding voting shares of Great-West Lifeco Inc., an international financial services holding company with interests in life insurance, health insurance, retirement and investment services, asset management and reinsurance businesses. Great-West Lifeco Inc. indirectly owns a majority interest in, and all of the voting shares of, Putnam Investments through a series of subsidiaries, including Putnam Holdings.

The address of each of Putnam Investments and Putnam Management is 100 Federal Street, Boston, Massachusetts 02110. The address of The Desmarais Family Residuary Trust is 759 Victoria Square, Montreal, Quebec H2Y 2J7. The address of Power Corporation of Canada and Power Financial Corporation is 751 Victoria Square, Montreal, Quebec H2Y 2J3. The address of Great-West Lifeco Inc. is 100 Osborne Street North, Winnipeg, Manitoba, R3C 1V3.

Robert L. Reynolds is the President and Chief Executive Officer of Putnam Investments. His address is 100 Federal Street, Boston, MA 02110. It is currently expected that, following the consummation of the Transaction, Mr. Reynolds will continue to serve in various roles at Great-West Lifeco, Power Corporation of Canada, and/or their affiliates, but will no longer serve as President and Chief Executive Officer of Putnam Investments.

Following the Transaction described in this Proxy Statement, Putnam Investments and Putnam Management would become indirect wholly-owned subsidiaries of Franklin Templeton.

Putnam Investments Limited. Putnam Investments Limited (“PIL”) is a registered investment adviser that has been retained by Putnam Management as investment sub-adviser or sub-manager with respect to a portion of the assets of certain funds, and is directly owned by Putnam Advisory Holdings II, LLC, which is a Delaware holding company, and is owned indirectly by Putnam Investments. The directors of PIL, listed along with their principal business occupations at Putnam Investments, are Vivek Gandhi, Portfolio Manager, and Alan G. McCormack, Head of Quantitative Equities and Risk. Vivek Gandhi is also the Chief Executive Officer of PIL. The address of PIL, Vivek Gandhi, and Alan G. McCormack is 16 St. James’s Street, London, SW1A 1ER, U.K. The address of Putnam Advisory Holdings II, LLC is 100 Federal Street, Boston, Massachusetts 02110.

Following the Transaction described in this Proxy Statement, PIL would become an indirect wholly-owned subsidiary of Franklin Templeton.

The Putnam Advisory Company, LLC. The Putnam Advisory Company, LLC (“PAC”), which has also been retained by Putnam Management to serve as sub-adviser for a portion of the assets of certain funds, is directly and wholly-owned by Putnam Advisory Holdings II, LLC, its sole member, which is a Delaware holding company. Putnam Advisory Holdings II, LLC, is an indirect wholly-owned subsidiary of Putnam Investments. The address of PAC is 100 Federal Street, Boston, Massachusetts 02110.

Steven P. McKay is the President of PAC. His address is 100 Federal Street, Boston, MA 02110.

Following the Transaction described in this Proxy Statement, PAC would become an indirect wholly-owned subsidiary of Franklin Templeton.

PanAgora Asset Management, Inc. PanAgora Asset Management, Inc. (“PanAgora”) has also been retained by Putnam Management to serve as sub-adviser for a portion of the assets of certain funds. The voting interests in PanAgora are owned by Power Financial Corporation through a series of subsidiaries (including Putnam Investments). The directors of PanAgora, listed along with their principal business occupations, are Eric Sorensen, Chief Executive Officer and President, PanAgora; Mark Anson, Chief Executive Officer & Chief Investment Officer, Commonfund; R. Jeffrey Orr, President & Chief Executive Officer, Power Corporation of Canada; Robert L. Reynolds, President and Chief Executive Officer, Putnam Investments; Gregory D. Tretiak, Executive Vice President & Chief Financial Officer, Power Corporation of Canada; Margaret Wyrwas, Independent Board Director. The address of PanAgora and each director other than Mr. Reynolds is One International Place, 24th Floor, Boston, Massachusetts 02110.

PanAgora will not become a direct or indirect subsidiary of Franklin Templeton in connection with the Transaction described in this Proxy Statement and will remain an indirect subsidiary of Power Financial Corporation.

Putnam Retail Management Limited Partnership. Putnam Retail Management Limited Partnership (“PRM”), the principal underwriter for the mutual funds, is a limited partnership whose general partner (and minority owner) is Putnam Retail Management GP, Inc. and whose limited partner and majority owner is Putnam U.S. Holdings I, LLC (“Putnam Holdings”), which is also the sole owner of Putnam Retail Management GP, Inc. and an indirect wholly-owned subsidiary of Putnam Investments. The address of each of PRM, Putnam Retail Management GP, Inc. and Putnam Holdings is 100 Federal Street, Boston, Massachusetts 02110.

Following the Transaction described in this Proxy Statement, PRM would become an indirect wholly-owned subsidiary of Franklin Templeton.

Foreside Fund Services, LLC. Foreside Fund Services, LLC (“Fore-side”), located at Three Canal Plaza, Suite 100, Portland, ME 04101, is the principal underwriter of shares of the exchange-traded funds. Foreside is a registered broker-dealer and a member of the Financial Industry Regulatory Authority. Foreside is not affiliated with Putnam Management or any other service provider for the exchange-traded funds.

Putnam Investor Services, Inc. Putnam Investor Services, Inc. (“Putnam Investor Services”) serves as your fund’s investor servicing agent. Putnam Investor Services is an indirect wholly owned subsidiary of Putnam Investments. The address of Putnam Investor Services is 100 Federal Street, Boston, Massachusetts 02110.

Following the Transaction described in this Proxy Statement, Putnam Investor Services would become an indirect wholly-owned subsidiary of Franklin Templeton.

Payments to Putnam Management or its affiliates. Appendix G shows amounts paid to Putnam Management or its affiliates during each fund’s most recent fiscal year ended prior to July 1, 2023 for the services noted. The funds made no other material payments to Putnam Management or its affiliates during the periods shown.

Limitation of Trustee liability. Your fund’s Declaration of Trust provides that the fund will indemnify its Trustees and officers against liabilities and expenses incurred in connection with litigation in which they may be involved because of their offices with the fund, except if it is determined in the manner specified in the Declaration of Trust (i) in the case of the exchange-traded funds, that they have acted with willful misfeasance, bad faith, gross negligence or reckless disregard of the duties involved in the conduct of their office; or (ii) in the case of each other fund, that they have not acted in good faith, have not acted in the reasonable belief that their actions were in the best interests of the fund or at least were not opposed to the best interests of the fund, or had reasonable cause to believe their actions were unlawful in the case of a criminal proceeding, or that such indemnification would relieve any officer or Trustee of any liability to the fund or its shareholders arising by reason of willful misfeasance, bad faith, gross negligence or reckless disregard of his or her duties. Your fund, at its expense, provides liability insurance for the benefit of its Trustees and officers.

Officers and other information. All of the officers of your fund are employees of Putnam Management or its affiliates or serve on the staff of the Office of the Trustees. Because of his positions with Putnam Management or its affiliates, Mr. Reynolds, as well as the other affiliated officers of your fund, will benefit indirectly from the management fees and investor servicing fees paid or allowed by your fund. In addition to Mr. Reynolds, the other officers of your fund are as follows:

Name, Address¹, Year of Birth, Position(s) Held with Fund	Length of Service with the Putnam Funds²	Principal Occupation(s) During Past 5 Years and Position(s) with Fund’s Investment Adviser and Distributor³
Jonathan S. Horwitz⁴ (Born 1955) <i>Executive Vice President, Principal Executive Officer and Compliance Liaison</i>	Since 2004	Executive Vice President, Principal Executive Officer, and Compliance Liaison, The Putnam Funds.
Stephen J. Tate (Born 1974) <i>Vice President and Chief Legal Officer</i>	Since 2021	General Counsel, Putnam Investments, Putnam Management and Putnam Retail Management (2021 – Present). Deputy General Counsel and related positions, Putnam Investments, Putnam Management and Putnam Retail Management (2004-2021).
James F. Clark³ (Born 1974) <i>Vice President and Chief Compliance Officer</i>	Since 2016	Chief Compliance Officer and Chief Risk Officer, Putnam Investments, and Chief Compliance Officer, Putnam Management (2016 – Present). Associate General Counsel, Putnam Investments, Putnam Management and Putnam Retail Management (2003-2015).
Michael J. Higgins⁴ (Born 1976) <i>Vice President, Treasurer, and Clerk</i>	Since 2010	Vice President, Treasurer, and Clerk, The Putnam Funds.
Richard T. Kircher (Born 1962) <i>Vice President and BSA Compliance Officer</i>	Since 2019	Assistant Director, Operational Compliance, Putnam Investments and Putnam Retail Management (2015 – Present). Sr. Manager, Operational Compliance, Putnam Investments and Putnam Retail Management (2004-2015).
Janet C. Smith (Born 1965) <i>Vice President, Principal Financial Officer, Principal Accounting Officer and Assistant Treasurer</i>	Since 2007	Head of Fund Administration Services, Putnam Investments and Putnam Management.
Susan G. Malloy (Born 1957) <i>Vice President and Assistant Treasurer</i>	Since 2007	Head of Accounting, Middle Office, and Control Services, Putnam Investments and Putnam Management.
Mark C. Trenchard (Born 1962) <i>Vice President</i>	Since 2002	Director of Operational Compliance, Putnam Investments and Putnam Retail Management.
Alan G. McCormack⁵ (Born 1964) <i>Vice President and Derivatives Risk Manager</i>	Since 2022	Head of Quantitative Equities and Risk, Putnam Investments.

Name, Address ¹ , Year of Birth, Position(s) Held with Fund	Length of Service with the Putnam Funds ²	Principal Occupation(s) During Past 5 Years and Position(s) with Fund's Investment Adviser and Distributor ³
Martin Lemaire⁵ (Born 1984) <i>Vice President and Derivatives Risk Manager</i>	Since 2022	Risk Manager, Putnam Investments (2020 – Present). Risk Analyst, Putnam Investments (2016 – 2020).
Denere P. Poulack⁴ (Born 1968) <i>Assistant Vice President, Assistant Clerk, and Assistant Treasurer</i>	Since 2004	Assistant Vice President, Assistant Clerk, and Assistant Treasurer, The Putnam Funds

1 The address of each officer is 100 Federal Street, Boston, MA 02110.

2 Each officer serves for an indefinite term, until his or her resignation, retirement, death, or removal.

3 Prior positions and/or officer appointments with the funds or the funds' investment adviser and distributor have been omitted.

4 Officers of the fund indicated are members of the Trustees' independent administrative staff. Compensation for these individuals is fixed by the Trustees and reimbursed to Putnam Management by the funds, except in certain cases where a fund has a unitary fee and/or expense limitation arrangement whereby Putnam Management is responsible for all or a portion of these individuals' compensation.

5 Messrs. McCormack and Lemaire each serve as Vice President and Derivatives Risk Manager for the funds, except Putnam Government Money Market Fund, Putnam Money Market Fund, and Putnam VT Government Money Market Fund.

5% Beneficial Ownership. As of May 31, 2023, to the knowledge of the funds, no person other than those listed on **Appendix K** owned beneficially or of record 5% or more of any class of shares of any fund. Putnam Investments or one of its affiliates (typically Putnam Investment Holdings, LLC) typically provides initial capital sufficient for the operation of new funds. Putnam Investments and its affiliates intend to vote their shares for each of the proposals, in accordance with the Trustees' recommendations. As of the Record Date, these investments represented a majority of the outstanding voting shares of some funds.

Appendix A — Number of Shares Outstanding as of the Record Date

Mutual Funds	Putnam California Tax Exempt Income	Putnam Convertible Securities	Putnam Diversified Income Trust	Putnam Dynamic Asset Allocation Equity	Putnam Dynamic Asset Allocation Conservative	Putnam Dynamic Asset Allocation Growth	Putnam Dynamic Asset Allocation Balanced
Class A	96,263,312.335	16,512,541.101	106,179,715.693	457,112.460	35,024,936.296	88,837,297.005	83,594,973.590
Class B	24,094.250	19,798.395	310,322.699	—	249,401.785	723,214.396	691,911.821
Class C	1,297,012.567	406,266.806	14,595,889.360	—	5,863,147.200	8,777,357.905	9,837,549.959
Class G	—	—	—	—	—	—	—
Class I	—	816.608	—	—	—	—	—
Class M	—	—	10,378,370.000	—	—	—	—
Class N	—	—	—	—	—	—	—
Class P	—	—	—	422,158.123	894,808.018	1,367,745.598	1,631,898.137
Class R	—	114,707.252	326,516.610	—	497,593.042	851,275.277	1,046,709.628
Class R3	—	—	—	—	—	—	—
Class R4	—	—	—	—	—	—	—
Class R5	—	—	—	—	1,176.981	247.890	1,021.008
Class R6	374,756.695	1,241,282.966	7,265,014.823	—	6,928,075.554	17,667,891.600	15,830,282.839
Class Y	12,631,418.493	9,292,596.182	106,681,243.741	—	7,769,205.057	11,349,166.248	16,248,647.423
Mutual Funds	Putnam Emerging Markets Equity	Putnam Core Bond Fund	Putnam Floating Rate Income Fund	Putnam Focused Equity	Putnam Focused International Equity	George Putnam Balanced Fund	Putnam Global Health Care
Class A	16,065,159.550	14,580,369.032	27,385,118.754	16,057,619.837	50,749,475.171	56,680,910.493	23,549,609.074
Class B	64,302.549	23,508.352	68,410.599	183,530.494	184,543.131	175,047.673	213,335.981
Class C	518,545.198	559,146.016	2,675,880.690	1,230,987.488	718,084.764	4,886,352.438	522,187.933
Class G	—	—	—	—	—	—	—
Class I	—	—	—	—	—	—	—
Class M	—	—	—	—	—	2,418,846.769	—
Class N	—	—	—	—	—	—	—
Class P	—	0	—	—	—	—	—
Class R	394,047.878	81,352.964	57,189.484	271,365.452	26,320.147	55,533.273	36,926.048
Class R3	—	—	—	—	—	—	—
Class R4	—	—	—	—	—	—	—
Class R5	—	—	—	—	—	488.747	—
Class R6	2,313,977.629	308,970.279	1,023,181.174	723,580.919	1,642,158.984	4,193,499.528	448,078.923
Class Y	12,754,579.387	19,596,174.804	14,880,388.098	3,806,878.084	2,887,267.663	11,859,431.382	2,335,617.057
Mutual Funds	Putnam Global Income Trust	Putnam Global Technology Fund	Putnam Government Money Market Fund	Putnam Large Cap Growth Fund	Putnam High Yield Fund	Putnam Income Fund	Putnam Multi Asset Income Fund
Class A	7,594,646.838	8,507,502.687	172,914,324.039	118,750,933.670	120,338,486.906	86,998,619.407	14,830,431.002
Class B	10,985.208	—	217,534.345	389,394.037	203,722.513	185,372.084	—
Class C	180,686.067	1,091,248.248	2,270,228.440	2,929,713.072	1,339,921.463	6,395,460.342	1,314,157.913
Class G	—	—	0	—	—	—	—
Class I	—	—	10,773.550	—	—	—	—
Class M	—	—	—	—	7,747,855.000	7,127,600.000	—
Class N	—	—	—	—	—	—	—
Class P	—	—	33,791,575.000	—	—	—	2,053,825.738
Class R	136,636.408	155,971.862	448,243.180	303,147.502	3,539,353.848	1,341,157.465	236,106.346
Class R3	—	—	—	—	—	—	—
Class R4	—	—	—	—	—	—	—
Class R5	2,950.186	—	—	52,482.252	—	599,291.504	1,048.648
Class R6	2,019,795.482	1,606,888.889	—	12,830,859.088	—	30,506,631.309	505,380.469
Class Y	3,289,328.731	6,128,926.666	—	32,490,626.824	38,877,068.978	127,360,532.257	4,229,424.154

Mutual Funds	Putnam Intermediate-Term Municipal Income Fund	Putnam International Capital Opportunities Fund	Putnam International Equity Fund	Putnam International Value Fund	Putnam Large Cap Value Fund	Putnam Money Market Fund	Putnam Mortgage Opportunities Fund
Class A	1,323,944.842	6,844,744.787	23,756,507.895	9,445,544.240	312,985,693.397	770,854,609.410	1,163,448.225
Class B	1,345.943	14,259.431	48,917.192	14,576.987	827,682.343	702,782.264	—
Class C	26,958.251	49,127.499	259,307.326	102,350.505	9,639,529.672	17,371,598.408	180,238.139
Class G	—	—	—	—	—	—	—
Class I	—	—	—	—	—	—	17,358,247.158
Class M	—	—	—	—	—	—	—
Class N	—	—	—	—	—	—	—
Class P	—	—	—	—	—	—	—
Class R	—	171,767.484	43,334.837	187,001.071	2,378,416.376	4,359,545.127	—
Class R3	—	—	—	—	—	—	—
Class R4	—	—	—	—	—	—	—
Class R5	—	—	453.926	—	986,313.529	—	—
Class R6	275,544.293	383,533.059	1,243,403.878	3,104,793.484	99,131,139.194	—	414,011.983
Class Y	1,985,292.940	1,091,961.596	4,515,969.819	15,453,473.812	236,076,789.071	—	21,677,967.498
Mutual Funds	Putnam Mortgage Securities Fund	Putnam Core Equity Fund	Putnam New York Tax Exempt Income Fund	Putnam Retirement Advantage 2025 Fund	Putnam Retirement Advantage 2030 Fund	Putnam Retirement Advantage 2035 Fund	Putnam Retirement Advantage 2040 Fund
Class A	45,652,861.960	69,690,822.088	75,043,814.822	125,861.873	92,411.237	153,835.279	44,338.659
Class B	33,072.483	278,875.842	39,390.993	—	—	—	—
Class C	279,383.017	3,503,709.354	1,826,150.527	5,627.265	12,349.950	1,175.762	2,678.667
Class G	—	—	—	—	—	—	—
Class I	—	—	—	—	—	—	—
Class M	—	—	—	—	—	—	—
Class N	—	—	—	—	—	—	—
Class P	—	—	—	—	—	—	—
Class R	550,425.817	226,487.973	—	1,046.421	1,143.144	1,180.512	1,227.682
Class R3	—	—	—	1,052.226	1,149.794	1,186.171	1,234.806
Class R4	—	—	—	10,359.956	10,558.876	3,162.544	6,078.462
Class R5	—	—	—	1,062.246	1,160.319	1,197.245	1,246.156
Class R6	687,636.044	2,154,788.335	17,523,991.486	1,138,066.783	1,353,705.222	1,466,107.845	948,790.035
Class Y	2,800,657.205	27,895,383.594	8,037,290.018	5,304.028	1,467.145	1,999.266	2,946.533
Mutual Funds	Putnam Retirement Advantage 2045 Fund	Putnam Retirement Advantage 2050 Fund	Putnam Retirement Advantage 2055 Fund	Putnam Retirement Advantage 2060 Fund	Putnam Retirement Advantage 2065 Fund	Putnam Retirement Advantage Maturity Fund	Putnam Research Fund
Class A	53,152.704	32,674.573	25,229.521	36,330.783	22,391.532	66,186.065	8,946,409.059
Class B	—	—	—	—	—	—	30,390.046
Class C	2,847.315	1,286.045	1,292.587	1,252.159	1,827.065	1,026.790	285,005.633
Class G	—	—	—	—	—	—	—
Class I	—	—	—	—	—	—	—
Class M	—	—	—	—	—	—	—
Class N	—	—	—	—	—	—	—
Class P	—	—	—	—	—	—	—
Class R	1,222.886	1,240.215	1,213.698	1,214.641	1,105.254	1,028.973	28,022.818
Class R3	1,229.905	1,247.362	1,220.601	1,219.008	1,107.777	1,030.759	—
Class R4	7,607.982	4,116.850	2,473.480	2,605.935	5,263.371	2,980.115	—
Class R5	1,241.197	1,258.708	1,231.890	1,229.975	1,116.654	1,033.951	—
Class R6	887,930.742	537,747.970	325,989.796	188,865.526	11,804.906	1,218,352.464	597,716.331
Class Y	7,410.539	1,368.683	1,340.754	1,710.470	2,451.334	2,482.692	1,396,797.382

Mutual Funds	Putnam Sustainable Retirement 2025 Fund	Putnam Sustainable Retirement 2030 Fund	Putnam Sustainable Retirement 2035 Fund	Putnam Sustainable Retirement 2040 Fund	Putnam Sustainable Retirement 2045 Fund	Putnam Sustainable Retirement 2050 Fund	Putnam Sustainable Retirement 2055 Fund
Class A	1,224,958.977	1,198,339.204	1,093,045.068	847,503.027	686,529.781	437,337.244	513,789.645
Class B	6,742.653	4,200.056	9,005.700	17,191.426	17,222.125	4,868.752	4,439.034
Class C	70,262.309	43,844.268	69,684.791	52,761.580	55,399.655	61,664.239	59,731.862
Class G	—	—	—	—	—	—	—
Class I	—	—	—	—	—	—	—
Class M	—	—	—	—	—	—	—
Class N	—	—	—	—	—	—	—
Class P	—	—	—	—	—	—	—
Class R	32,746.305	24,120.979	29,320.483	7,666.570	3,498.239	8,983.294	6,241.557
Class R3	186,969.511	268,289.362	214,603.715	121,264.132	119,081.932	105,951.639	262,992.493
Class R4	67,548.011	130,030.571	37,193.234	29,394.633	30,304.267	13,748.692	33,803.487
Class R5	536.442	457.882	431.490	436.267	450.212	637.309	1,012.435
Class R6	325,449.287	524,388.804	462,447.153	317,596.294	200,898.417	294,763.595	220,055.611
Class Y	9,032,912.086	8,321,719.360	6,394,002.621	6,880,932.888	4,656,046.017	4,916,801.807	3,502,948.455
Mutual Funds	Putnam Sustainable Retirement 2060 Fund	Putnam Sustainable Retirement 2065 Fund	Putnam Sustainable Retirement Maturity Fund	Putnam Short Duration Bond Fund	Putnam Short-Term Investment Fund	Putnam Short-Term Municipal Income Fund	Putnam Small Cap Growth Fund
Class A	126,633.978	17,640.937	1,531,055.934	54,767,929.958	—	2,983,830.625	7,502,776.921
Class B	1,474.695	25,453.242	5,022.042	28,287.759	—	—	36,679.903
Class C	28,745.757	1,095.205	59,384.817	1,787,376.770	—	35,939.230	310,150.085
Class G	—	—	—	—	3,433,907.970	—	—
Class I	—	—	—	—	—	—	—
Class M	—	—	—	—	—	—	—
Class N	—	—	—	—	—	—	—
Class P	—	—	—	—	2,354,162,817.300	—	—
Class R	1,504.720	1,100.500	34,320.090	52,288.619	—	—	326,117.484
Class R3	4,943.338	1,105.976	99,426.593	—	—	—	—
Class R4	6,887.939	1,109.227	10,902.488	—	—	—	—
Class R5	986.722	17,853.073	651.260	—	—	—	—
Class R6	140,183.779	1,109.463	103,003.723	751,827.522	—	480,863.842	2,790,654.155
Class Y	1,083,430.099	1,531,055.934	11,416,536.666	80,272,381.305	—	9,613,757.376	8,409,025.440
Mutual Funds	Putnam Small Cap Value Fund	Putnam Massachusetts Tax Exempt Income Fund	Putnam Pennsylvania Tax Exempt Income Fund	Putnam New Jersey Tax Exempt Income Fund	Putnam Minnesota Tax Exempt Income Fund	Putnam Ohio Tax Exempt Income Fund	Putnam Strategic Intermediate Municipal Fund
Class A	10,427,458.073	14,717,371.242	11,360,577.772	11,511,303.798	6,621,998.011	7,305,275.647	15,875,027.043
Class B	8,711.734	8,944.872	5,795.620	12,298.167	8,112.638	15,093.273	3,008.843
Class C	740,419.789	475,035.089	572,092.614	694,776.543	429,483.742	197,955.014	615,590.260
Class G	—	—	—	—	—	—	—
Class I	—	—	—	—	—	—	—
Class M	—	—	—	—	—	—	—
Class N	—	—	—	—	—	—	—
Class P	—	—	—	—	—	—	—
Class R	65,099.444	—	—	—	—	—	—
Class R3	—	—	—	—	—	—	—
Class R4	—	—	—	—	—	—	—
Class R5	—	—	—	—	—	—	—
Class R6	1,571,799.954	85,084.253	62,846.940	85,730.211	573,114.013	249,656.257	978,710.617
Class Y	5,518,511.744	13,511,117.326	1,396,410.457	2,888,058.746	12,063,951.343	2,360,533.728	57,860,601.008

Mutual Funds	Putnam Sustainable Future Fund	Putnam Sustainable Leaders Fund	Putnam Tax Exempt Income Fund	Putnam Tax-Free High Yield Fund	Putnam Ultra Short Duration Income Fund
Class A	16,379,850.707	48,226,062.544	73,262,715.445	44,205,499.900	303,221,600.747
Class B	5,231.533	165,200.152	26,003.416	60,818.463	—
Class C	454,938.429	419,916.924	995,906.411	1,297,966.952	1,184,945.389
Class G	—	—	—	—	—
Class I	—	—	—	—	—
Class M	—	—	—	—	—
Class N	—	—	—	—	1,067,538.176
Class P	—	—	—	—	—
Class R	402,025.676	13,748.708	—	—	447,829.163
Class R3	—	—	—	—	—
Class R4	—	—	—	—	—
Class R5	—	—	—	—	—
Class R6	1,298,613.106	852,190.979	929,101.285	168,800.838	50,780,055.022
Class Y	3,195,497.343	3,323,897.564	8,582,142.015	15,279,238.471	707,156,685.338

Mutual Funds	Putnam Ultra Short MAC Series
	1,015,938.574

Exchange-Traded Funds	Putnam Focused Large Cap Growth ETF	Putnam Focused Large Cap Value ETF	Putnam Sustainable Leaders ETF	Putnam Sustainable Future ETF	Putnam BDC Income ETF	Putnam BioRevolution™ ETF
	1,275,000.000	6,379,000.000	14,225,000.000	8,325,000.000	1,150,000.000	175,000,000

Exchange-Traded Funds	Putnam Emerging Markets Ex-China ETF	Putnam ESG Core Bond ETF	Putnam ESG High Yield ETF	Putnam ESG Ultra Short ETF	Putnam PanAgora ESG Emerging Markets Equity ETF	Putnam PanAgora ESG International Equity ETF
No Classes	150,000.000	9,550,000.000	2,125,000.000	2,525,000.000	975,000.000	6,175,000.000

Funds with Class IA/IB Shares	Putnam VT Diversified Income Fund	Putnam VT Emerging Markets Equity Fund	Putnam VT Focused International Equity Fund	Putnam VT George Putnam Balanced Fund	Putnam VT Global Asset Allocation Fund
Class IA	9,670,318.871	994,405.616	10,704,856.398	4,872,731.853	4,113,278.399
Class IB	15,736,166.390	384,621.812	1,352,413.618	11,925,388.809	1,884,076.321
Funds with Class IA/IB Shares	Putnam VT Global Health Care Fund	Putnam VT Government Money Market Fund	Putnam VT Large Cap Growth Fund	Putnam VT High Yield Fund	Putnam VT Income Fund
Class IA	2,702,554.238	38,852,237.130	57,470,104.739	18,261,495.254	10,245,881.787
Class IB	7,441,216.465	29,379,800.440	18,504,524.305	8,618,035.094	8,463,332.329
Funds with Class IA/IB Shares	Putnam VT International Equity Fund	Putnam VT International Value Fund	Putnam VT Large Cap Value Fund	Putnam VT Mortgage Securities Fund	Putnam VT Core Equity Fund
Class IA	4,848,333.886	3,397,187.065	33,686,894.870	2,507,444.416	4,280,510.461
Class IB	10,087,963.693	5,752,985.187	25,915,053.742	2,311,680.904	3,999,151.756
Funds with Class IA/IB Shares	Putnam VT Research Fund	Putnam VT Small Cap Growth Fund	Putnam VT Small Cap Value Fund	Putnam VT Sustainable Leaders Fund	Putnam VT Sustainable Future Fund
Class IA	720,923.687	826,975.540	3,722,058.915	17,476,500.517	1,513,851.708
Class IB	1,605,008.845	872,177.264	7,563,796.230	4,055,683.618	567,135.495

Appendix B — Current Management Contracts with Putnam Management — Dates, Approvals and Fees

The following table contains certain information regarding the Current Management Contracts between Putnam Management and each fund. Pursuant to the applicable management contract, all funds other than the exchange-traded funds, Putnam Retirement Advantage Funds, Putnam Sustainable Retirement Funds, and each of Putnam Mortgage Opportunities Fund, Putnam Core Bond Fund, Putnam Short Duration Bond Fund, and Putnam Short Term Investment Fund pay a management fee to Putnam Management according to a rate that is based on the average of the aggregate net assets of all mutual funds sponsored by Putnam Management, excluding fund assets that are invested in other funds in the Putnam family of funds to the extent necessary to avoid “double-counting” of such net assets (“Total Open-End Mutual Fund Average Net Assets”), as set forth below.

The exchange-traded funds, Putnam Retirement Advantage Funds, Putnam Sustainable Retirement Funds, and each of Putnam Mortgage Opportunities Fund, Putnam Core Bond Fund, Putnam Short Duration Bond Fund, and Putnam Short Term Investment Fund pays a management fee to Putnam Management according to a rate that is based on the average of the net assets of the fund.

The management fee for each of Putnam Focused International Equity Fund, Putnam Emerging Markets Equity Fund, Putnam International Value Fund, Putnam Small Cap Growth Fund, Putnam International Equity Fund, Putnam Sustainable Leaders Fund, Putnam Large Cap Growth Fund, and Putnam International Capital Opportunities Fund is increased or decreased by a performance adjustment. For these funds, the monthly management fee consists of a monthly base fee (calculated as indicated in the table below) plus or minus a performance adjustment for the month, which is determined based on performance over the thirty-six month period then ended. Each month, the performance adjustment is calculated by multiplying the performance adjustment rate and the fund’s average net assets over the performance period and dividing the result by twelve. The resulting dollar amount is added to (or subtracted from) the base fee for that month. The performance adjustment rate is equal to 0.03 multiplied by the difference between the fund’s annualized performance (measured by the fund’s class A shares) and the annualized performance of the fund’s benchmark (indicated in the table below) each measured over the performance period. Each fund’s performance adjustment is capped by a maximum and minimum annualized performance adjustment rate (indicated in the table below). The monthly base fee is determined based on the fund’s average net assets for the month, while the performance adjustment is determined based on the fund’s average net assets over the thirty-six month performance period.

Until August 31, 2024, the management fee for Putnam Core Bond Fund may be increased or decreased by a performance adjustment, as noted in the table below. The applicable base fee is increased or decreased for each month by an amount based on the performance of the fund. The amount of the increase or decrease is calculated monthly based on a performance adjustment rate that is equal to 0.04 multiplied by the difference between the fund’s annualized performance (measured by the fund’s class A shares) and the annualized performance of the ICE BofA U.S. Treasury Bill Index plus 3.00% over the thirty-six month period then ended (the performance period). The maximum annualized performance adjustment rate is +/- 0.12%. Each month, the performance adjustment rate is multiplied by the fund’s average net assets over the performance period and the result is divided by twelve. The resulting dollar amount is added to, or subtracted from, the base fee for that month. The monthly base fee is determined based on the fund’s average net assets for the month, while the performance adjustment is determined based on the fund’s average net assets over the thirty-six month performance period.

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
George Putnam Balanced Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.680% 0.630% 0.580% 0.530% 0.480% 0.460% 0.450% 0.445%
Putnam BDC Income ETF	January 18, 2023	June 23, 2023	September 23, 2022	Organization of fund	All assets*	0.75%
Putnam BioRevolution™ ETF	January 18, 2023	June 23, 2023	September 23, 2022	Organization of fund	All assets*	0.70%
Putnam California Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.590% 0.540% 0.490% 0.440% 0.390% 0.370% 0.360% 0.355%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Convertible Securities Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.780% 0.730% 0.680% 0.630% 0.580% 0.560% 0.550% 0.545%
Putnam Core Bond Fund	March 1, 2023	June 23, 2023	October 19, 2022	Fee structure change	March 1, 2023 through August 31, 2024 Benchmark: Hurdle: Maximum Performance Adjustment Rate: Minimum Performance Adjustment Rate: September 1, 2024 and thereafter	The lesser of (i) 0.39% and (ii) 0.60%, subject to the following performance adjustments ICE BofA U.S. Treasury Bill Index 3.00% 0.12% -0.12% 0.39%
Putnam Core Equity Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.710% 0.660% 0.610% 0.560% 0.510% 0.490% 0.480% 0.475%
Putnam Diversified Income Trust	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.700% 0.650% 0.600% 0.550% 0.500% 0.480% 0.470% 0.465%
Putnam Dynamic Asset Allocation Balanced Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.680% 0.630% 0.580% 0.530% 0.480% 0.460% 0.450% 0.4455%
Putnam Dynamic Asset Allocation Conservative Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.680% 0.630% 0.580% 0.530% 0.480% 0.460% 0.450% 0.4455%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Dynamic Asset Allocation Equity Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.750% 0.700% 0.650% 0.600% 0.550% 0.530% 0.520% 0.515%
Putnam Dynamic Asset Allocation Growth Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.750% 0.700% 0.650% 0.600% 0.550% 0.530% 0.520% 0.515%
Putnam Emerging Markets Equity Fund	January 24, 2020	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter Benchmark: Hurdle Maximum Performance Adjustment Rate: Minimum Performance Adjustment Rate:	1.080% 1.030% 0.980% 0.930% 0.880% 0.860% 0.850% 0.845% MSCI Emerging Markets Index (Net Dividends)** N/A 0.21% -0.21%
Putnam Emerging Markets ex-China ETF	January 18, 2023	June 23, 2023	September 23, 2022	Organization of fund	All assets*	0.85%
Putnam ESG Core Bond ETF	January 18, 2023	June 23, 2023	January 18, 2023	Organization of fund	All assets*	0.35%
Putnam ESG High Yield ETF	January 18, 2023	June 23, 2023	January 18, 2023	Organization of fund	All assets*	0.55%
Putnam ESG Ultra Short ETF	January 18, 2023	June 23, 2023	January 18, 2023	Organization of fund	All assets*	0.25%
Putnam Floating Rate Income Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.720% 0.670% 0.620% 0.570% 0.520% 0.500% 0.490% 0.485%
Putnam Focused Equity Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.780% 0.730% 0.680% 0.630% 0.580% 0.560% 0.550% 0.545%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Focused International Equity Fund	April 1, 2021	June 23, 2023	April 1, 2021	Fee structure change	First \$5 billion 0.850% Next \$5 billion 0.800% Next \$10 billion 0.750% Next \$10 billion 0.700% Next \$50 billion 0.650% Next \$50 billion 0.630% Next \$100 billion 0.620% Any excess thereafter 0.615% Benchmark: MSCI ACWI-Ex USA Index (Net Dividends)** Hurdle: N/A Maximum Performance Adjustment Rate: 0.15% Minimum Performance Adjustment Rate: -0.15%	
Putnam Focused Large Cap Growth ETF	April 20, 2021	June 23, 2023	May 24, 2021	Organization of fund	All assets*	0.55%
Putnam Focused Large Cap Value ETF	April 20, 2021	June 23, 2023	May 24, 2021	Organization of fund	All assets*	0.55%
Putnam Global Health Care Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.780% Next \$5 billion 0.730% Next \$10 billion 0.680% Next \$10 billion 0.630% Next \$50 billion 0.580% Next \$50 billion 0.560% Next \$100 billion 0.550% Any excess thereafter 0.545%	
Putnam Global Income Trust	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.700% Next \$5 billion 0.650% Next \$10 billion 0.600% Next \$10 billion 0.550% Next \$50 billion 0.500% Next \$50 billion 0.480% Next \$100 billion 0.470% Any excess thereafter 0.465%	
Putnam Global Technology Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.780% Next \$5 billion 0.730% Next \$10 billion 0.680% Next \$10 billion 0.630% Next \$50 billion 0.580% Next \$50 billion 0.560% Next \$100 billion 0.550% Any excess thereafter 0.545%	
Putnam Government Money Market Fund	February 27, 2014	June 23, 2023	October 16, 2015	Organization of fund	First \$5 billion 0.440% Next \$5 billion 0.390% Next \$10 billion 0.340% Next \$10 billion 0.290% Next \$50 billion 0.240% Next \$50 billion 0.220% Next \$100 billion 0.210% Any excess thereafter 0.205%	
Putnam High Yield Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.720% Next \$5 billion 0.670% Next \$10 billion 0.620% Next \$10 billion 0.570% Next \$50 billion 0.520% Next \$50 billion 0.500% Next \$100 billion 0.490% Any excess thereafter 0.485%	

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.550% 0.500% 0.450% 0.400% 0.350% 0.330% 0.320% 0.315%
Putnam Intermediate-Term Municipal Income Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.590% 0.540% 0.490% 0.440% 0.390% 0.370% 0.360% 0.355%
Putnam International Capital Opportunities Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter Benchmark: Hurdle: Maximum Performance Adjustment Rate: Minimum Performance Adjustment Rate:	1.080% 1.030% 0.980% 0.930% 0.880% 0.860% 0.850% 0.845% S&P Developed/ Ex-U.S. SmallCap Index N/A 0.21% -0.21%
Putnam International Equity Fund	January 25, 2019	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter Benchmark: Hurdle: Maximum Performance Adjustment Rate: Minimum Performance Adjustment Rate:	0.850% 0.800% 0.750% 0.700% 0.650% 0.630% 0.620% 0.615% MSCI EAFE Index (Net Dividends)** N/A 0.15% -0.15%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam International Value Fund	January 24, 2020	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.850% Next \$5 billion 0.800% Next \$10 billion 0.750% Next \$10 billion 0.700% Next \$50 billion 0.650% Next \$50 billion 0.630% Next \$100 billion 0.620% Any excess thereafter 0.615% Benchmark: MSCI EAFE Value Index (Net Dividends)** Hurdle: N/A Maximum Performance Adjustment Rate: 0.15% Minimum Performance Adjustment Rate: -0.15%	
Putnam Large Cap Growth Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.710% Next \$5 billion 0.660% Next \$10 billion 0.610% Next \$10 billion 0.560% Next \$50 billion 0.510% Next \$50 billion 0.490% Next \$100 billion 0.480% Any excess thereafter 0.475% Benchmark: Russell 1000 Growth Index Hurdle: N/A Maximum Performance Adjustment Rate: 0.12% Minimum Performance Adjustment Rate: -0.12%	
Putnam Large Cap Value Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.630% Next \$5 billion 0.580% Next \$10 billion 0.530% Next \$10 billion 0.480% Next \$50 billion 0.430% Next \$50 billion 0.410% Next \$100 billion 0.400% Any excess thereafter 0.395%	
Putnam Massachusetts Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.590% Next \$5 billion 0.540% Next \$10 billion 0.490% Next \$10 billion 0.440% Next \$50 billion 0.390% Next \$50 billion 0.370% Next \$100 billion 0.360% Any excess thereafter 0.355%	

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Minnesota Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.590% 0.540% 0.490% 0.440% 0.390% 0.370% 0.360% 0.355%
Putnam Money Market Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.440% 0.390% 0.340% 0.290% 0.240% 0.220% 0.210% 0.205%
Putnam Mortgage Opportunities Fund	March 20, 2015	June 23, 2023	March 20, 2015	Organization of fund	First \$500 million Next \$500 million Any excess thereafter	0.550% 0.500% 0.450%
Putnam Mortgage Securities Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.630% 0.580% 0.530% 0.480% 0.430% 0.410% 0.400% 0.395%
Putnam New Jersey Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.590% 0.540% 0.490% 0.440% 0.390% 0.370% 0.360% 0.355%
Putnam New York Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.590% 0.540% 0.490% 0.440% 0.390% 0.370% 0.360% 0.355%
Putnam Ohio Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.590% 0.540% 0.490% 0.440% 0.390% 0.370% 0.360% 0.355%
Putnam PanAgora ESG Emerging Markets Equity ETF	January 18, 2023	June 23, 2023	January 18, 2023	Organization of fund	All assets*	0.60%
Putnam PanAgora ESG International Equity ETF	January 18, 2023	June 23, 2023	January 18, 2023	Organization of fund	All assets*	0.49%
Putnam Pennsylvania Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.590% 0.540% 0.490% 0.440% 0.390% 0.370% 0.360% 0.355%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Research Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.710% 0.660% 0.620% 0.560% 0.510% 0.490% 0.480% 0.475%
Putnam Retirement Advantage 2025 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	0.45% 0.45% 0.45% 0.45% 0.44% 0.44% 0.44% 0.44% 0.44% 0.43% 0.43% 0.43% 0.43% 0.43% 0.42% 0.42% 0.42% 0.42% 0.42% 0.41% 0.41% 0.41% 0.41% 0.41% 0.40% 0.40% 0.40% 0.40% 0.40% 0.40% 0.39% 0.39% 0.39% 0.39% 0.39% 0.38% 0.38% 0.38% 0.38% 0.37% 0.37% 0.37% 0.37% 0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2030 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2035 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2040 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2045 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2050 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2055 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2060 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Retirement Advantage 2065 Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	45 years to target date	0.45%
					44	0.45%
					43	0.45%
					42	0.45%
					41	0.45%
					40	0.44%
					39	0.44%
					38	0.44%
					37	0.44%
					36	0.44%
					35	0.43%
					34	0.43%
					33	0.43%
					32	0.43%
					31	0.43%
					30	0.42%
					29	0.42%
					28	0.42%
					27	0.42%
					26	0.42%
					25	0.41%
					24	0.41%
					23	0.41%
					22	0.41%
					21	0.41%
					20	0.40%
					19	0.40%
					18	0.40%
					17	0.40%
					16	0.40%
					15	0.39%
					14	0.39%
					13	0.39%
					12	0.39%
					11	0.39%
					10	0.38%
					9	0.38%
					8	0.38%
					7	0.38%
					6	0.38%
					5	0.37%
					4	0.37%
					3	0.37%
					2	0.37%
					1	0.37%
Putnam Retirement Advantage Maturity Fund	January 4, 2021	June 23, 2023	December 31, 2019	Organization of fund	All assets	0.36%
Putnam Short Duration Bond Fund	August 1, 2018	June 23, 2023	May 20, 2018	Fee structure change	All assets	0.37%
Putnam Short Term Investment Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	All assets	0.25%
Putnam Short-Term Municipal Income Fund	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion	0.440%
					Next \$5 billion	0.390%
					Next \$10 billion	0.340%
					Next \$10 billion	0.290%
					Next \$50 billion	0.240%
					Next \$50 billion	0.220%
					Next \$100 billion	0.210%
					Any excess thereafter	0.205%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Small Cap Growth Fund	January 24, 2020	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.780% Next \$5 billion 0.730% Next \$10 billion 0.680% Next \$10 billion 0.630% Next \$50 billion 0.580% Next \$50 billion 0.560% Next \$100 billion 0.550% Any excess thereafter 0.545% Benchmark: Russell 2000 Growth Index Hurdle: N/A Maximum Performance Adjustment Rate: 0.18% Minimum Performance Adjustment Rate: -0.18%	
Putnam Small Cap Value Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.780% Next \$5 billion 0.730% Next \$10 billion 0.680% Next \$10 billion 0.630% Next \$50 billion 0.580% Next \$50 billion 0.560% Next \$100 billion 0.550% Any excess thereafter 0.545%	
Putnam Strategic Intermediate Municipal Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.590% Next \$5 billion 0.540% Next \$10 billion 0.490% Next \$10 billion 0.440% Next \$50 billion 0.390% Next \$50 billion 0.370% Next \$100 billion 0.360% Any excess thereafter 0.355%	
Putnam Sustainable Future ETF	April 20, 2021	June 23, 2023	May 24, 2021	Organization of fund	All assets*	0.64%
Putnam Sustainable Future Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion 0.710% Next \$5 billion 0.660% Next \$10 billion 0.610% Next \$10 billion 0.560% Next \$50 billion 0.510% Next \$50 billion 0.490% Next \$100 billion 0.480% Any excess thereafter 0.475%	
Putnam Sustainable Leaders ETF	April 20, 2021	June 23, 2023	May 24, 2021	Organization of fund	All assets*	0.59%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Leaders Fund	August 1, 2019	June 23, 2023	July 17, 2019	Fee structure change	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter Benchmark: Hurdle: Maximum Performance Adjustment Rate: Minimum Performance Adjustment Rate:	0.710% 0.660% 0.610% 0.560% 0.510% 0.490% 0.480% 0.475% S&P 500 Index N/A 0.12% -0.12%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2025 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2030 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2035 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2040 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2045 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2050 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2055 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2060 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Sustainable Retirement 2065 Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	45 years to target date	0.55%
					44	0.55%
					43	0.55%
					42	0.55%
					41	0.54%
					40	0.54%
					39	0.54%
					38	0.54%
					37	0.54%
					36	0.54%
					35	0.53%
					34	0.53%
					33	0.53%
					32	0.53%
					31	0.53%
					30	0.52%
					29	0.52%
					28	0.52%
					27	0.52%
					26	0.52%
					25	0.51%
					24	0.51%
					23	0.51%
					22	0.51%
					21	0.51%
					20	0.50%
					19	0.50%
					18	0.50%
					17	0.50%
					16	0.50%
					15	0.49%
					14	0.49%
					13	0.49%
					12	0.49%
					11	0.49%
					10	0.48%
					9	0.48%
					8	0.48%
					7	0.48%
					6	0.48%
					5	0.47%
					4	0.47%
					3	0.47%
					2	0.47%
					1	0.47%
Putnam Sustainable Retirement Maturity Fund	January 4, 2021	June 23, 2023	February 27, 2014	Change of control of Putnam Management	All assets	0.46%
Putnam Tax Exempt Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion	0.590%
					Next \$5 billion	0.540%
					Next \$10 billion	0.490%
					Next \$10 billion	0.440%
					Next \$50 billion	0.390%
					Next \$50 billion	0.370%
					Next \$100 billion	0.360%
					Any excess thereafter	0.355%
Putnam Tax-Free High Yield Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion	0.630%
					Next \$5 billion	0.580%
					Next \$10 billion	0.530%
					Next \$10 billion	0.480%
					Next \$50 billion	0.430%
					Next \$50 billion	0.410%
					Next \$100 billion	0.400%
					Any excess thereafter	0.395%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam Ultra Short Duration Income Fund	April 4, 2023	June 23, 2023	March 7, 2014	Approval of new management contract following change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.440% 0.390% 0.340% 0.290% 0.240% 0.220% 0.210% 0.205%
Putnam Ultra Short MAC Series	April 4, 2023	June 23, 2023	February 27, 2014	Change of control of Putnam Management	-	0.00%***
Putnam VT Core Equity Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.710% 0.660% 0.610% 0.560% 0.510% 0.490% 0.480% 0.475%
Putnam VT Diversified Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.700% 0.650% 0.600% 0.550% 0.500% 0.480% 0.470% 0.465%
Putnam VT Emerging Markets Equity Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	1.080% 1.030% 0.980% 0.930% 0.880% 0.860% 0.850% 0.845%
Putnam VT Focused International Equity Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.850% 0.800% 0.750% 0.700% 0.650% 0.630% 0.620% 0.615%
Putnam VT George Putnam Balanced Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.680% 0.630% 0.580% 0.530% 0.480% 0.460% 0.450% 0.445%
Putnam VT Global Asset Allocation Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.750% 0.700% 0.650% 0.600% 0.550% 0.530% 0.520% 0.515%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam VT Global Health Care Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.780% 0.730% 0.680% 0.630% 0.580% 0.560% 0.550% 0.545%
Putnam VT Government Money Market Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.440% 0.390% 0.340% 0.290% 0.240% 0.220% 0.210% 0.205%
Putnam VT High Yield Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.720% 0.670% 0.620% 0.570% 0.520% 0.500% 0.490% 0.485%
Putnam VT Income Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.550% 0.500% 0.450% 0.400% 0.350% 0.330% 0.320% 0.315%
Putnam VT International Equity Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.720% 0.670% 0.620% 0.570% 0.520% 0.500% 0.490% 0.485%
Putnam VT International Value Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.850% 0.800% 0.750% 0.700% 0.650% 0.630% 0.620% 0.615%
Putnam VT Large Cap Growth Fund	February 27, 2014	June 23, 2023	October 24, 2016	Fee structure change	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.710% 0.660% 0.610% 0.560% 0.510% 0.490% 0.480% 0.475%
Putnam VT Large Cap Value Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.630% 0.580% 0.530% 0.480% 0.430% 0.410% 0.400% 0.395%

Fund	Date of Current Management Contract	Date Current Management Contract Last Approved by Board of Trustees	Date Current Management Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Management Contract to Shareholder Vote	Management Fee Schedule	
Putnam VT Mortgage Securities Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.550% 0.500% 0.450% 0.400% 0.350% 0.330% 0.320% 0.315%
Putnam VT Research Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.710% 0.660% 0.620% 0.560% 0.510% 0.490% 0.480% 0.475%
Putnam VT Small Cap Growth Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.780% 0.730% 0.680% 0.630% 0.580% 0.560% 0.550% 0.545%
Putnam VT Small Cap Value Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.780% 0.730% 0.680% 0.630% 0.580% 0.560% 0.550% 0.545%
Putnam VT Sustainable Future Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.710% 0.660% 0.610% 0.560% 0.510% 0.490% 0.480% 0.475%
Putnam VT Sustainable Leaders Fund	February 27, 2014	June 23, 2023	February 27, 2014	Change of control of Putnam Management	First \$5 billion Next \$5 billion Next \$10 billion Next \$10 billion Next \$50 billion Next \$50 billion Next \$100 billion Any excess thereafter	0.710% 0.660% 0.610% 0.560% 0.510% 0.490% 0.480% 0.475%

* The fund pays Putnam Management an annual management fee which covers investment management services and all of the fund's organizational and other operating expenses with certain exceptions, including but not limited to: payments (if any) under distribution plans, interest and borrowing expenses, taxes, brokerage commissions and other transaction costs, fund proxy expenses, litigation expenses, extraordinary expenses and acquired fund fees and expenses. This fee structure is sometimes referred to as an "all in" or "unitary" management fee.

** MSCI publishes two versions of this index reflecting the reinvestment of dividends using two different methodologies: gross dividends and net dividends. While both versions reflect reinvested dividends, they differ with respect to the manner in which taxes associated with dividend payments are treated. In calculating the net dividends version, MSCI incorporates reinvested dividends applying the withholding tax rate applicable to foreign non-resident institutional investors that do not benefit from double taxation treaties. Putnam Management believes that the net dividends version better reflects the returns U.S. investors might expect were they to invest directly in the component securities of the index.

*** Putnam Management does not charge a management fee to the fund; however, the fund is part of separately managed account investment programs, and Putnam Management is compensated directly or indirectly by wrap program sponsors or wrap account clients for separately managed account advisory services.

Appendix C – New Management Contracts with Putnam Management

Appendix C-1 – Form of New Management Contract

For the following funds only:

George Putnam Balanced Fund
Putnam California Tax Exempt Income Fund
Putnam Convertible Securities Fund
Putnam Core Equity Fund
Putnam Diversified Income Trust
Putnam Dynamic Asset Allocation Balanced Fund
Putnam Dynamic Asset Allocation Conservative Fund
Putnam Dynamic Asset Allocation Equity Fund
Putnam Dynamic Asset Allocation Growth Fund
Putnam Floating Rate Income Fund
Putnam Focused Equity Fund
Putnam Global Health Care Fund
Putnam Global Income Trust
Putnam Global Technology Fund
Putnam Government Money Market Fund
Putnam High Yield Fund
Putnam Income Fund
Putnam Intermediate-Term Municipal Income Fund
Putnam Large Cap Value Fund
Putnam Massachusetts Tax Exempt Income Fund
Putnam Minnesota Tax Exempt Income Fund
Putnam Money Market Fund
Putnam Mortgage Opportunities Fund
Putnam Mortgage Securities Fund
Putnam Multi-Asset Income Fund
Putnam New Jersey Tax Exempt Income Fund
Putnam New York Tax Exempt Income Fund
Putnam Ohio Tax Exempt Income Fund
Putnam Pennsylvania Tax Exempt Income Fund
Putnam Research Fund
Putnam Short Term Investment Fund
Putnam Short-Term Municipal Income Fund
Putnam Small Cap Value Fund
Putnam Strategic Intermediate Municipal Fund
Putnam Sustainable Future Fund
Putnam Tax Exempt Income Fund
Putnam Tax-Free High Yield Fund
Putnam Ultra Short Duration Income Fund
Putnam Ultra Short MAC Series
Putnam VT Core Equity Fund
Putnam VT Diversified Income Fund
Putnam VT Emerging Markets Equity Fund
Putnam VT Focused International Equity Fund
Putnam VT George Putnam Balanced Fund
Putnam VT Global Asset Allocation Fund
Putnam VT Global Health Care Fund
Putnam VT Government Money Market Fund
Putnam VT High Yield Fund
Putnam VT Income Fund
Putnam VT International Equity Fund
Putnam VT International Value Fund
Putnam VT Large Cap Growth Fund
Putnam VT Large Cap Value Fund
Putnam VT Mortgage Securities Fund
Putnam VT Research Fund
Putnam VT Small Cap Growth Fund
Putnam VT Small Cap Value Fund
Putnam VT Sustainable Future Fund
Putnam VT Sustainable Leaders Fund

FORM OF NEW MANAGEMENT CONTRACT

This Management Contract is dated as of [•] between [NAME OF TRUST/FUND], a Massachusetts business trust (the “Fund”), and PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the “Manager”).

In consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY MANAGER TO FUND.

(a) The Manager, at its expense, will furnish continuously an investment program for the Fund or, in the case of a Fund that has divided its shares into two or more series under Section 18(f)(2) of the Investment Company Act of 1940, as amended (the “1940 Act”), each series of the Fund identified from time to time on Schedule A to this Contract (each reference in this Contract to “a Fund” or to “the Fund” is also deemed to be a reference to any existing series of

the Fund, as appropriate in the particular context), will determine what investments will be purchased, held, sold or exchanged by the Fund and what portion, if any, of the assets of the Fund will be held uninvested and will, on behalf of the Fund, make changes in such investments. Subject always to the control of the Trustees of the Fund and except for the functions carried out by the officers and personnel referred to in Section 1(d), the Manager will also manage, supervise and conduct the other affairs and business of the Fund and matters incidental thereto. In the performance of its duties, the Manager will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of the Fund and the stated investment objectives, policies and restrictions of the Fund, will use its best efforts to safeguard and promote the welfare of the Fund and to comply with other policies which the Trustees may from time to time determine and will exercise the same care and diligence expected of the Trustees.

(b) The Manager, at its expense, except as such expense is paid by the Fund as provided in Section 1(d), will furnish (1) all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully; (2) suitable office space for the Fund; and (3) administrative facilities, including bookkeeping, clerical personnel and equipment necessary for the efficient conduct of the affairs of the Fund, including determination of the net asset value of the Fund, but excluding shareholder accounting services. Except as otherwise provided in Section 1(d), the Manager will pay the compensation, if any, of the officers of the Fund.

(c) The Manager, at its expense, will place all orders for the purchase and sale of portfolio investments for the Fund's account with brokers or dealers selected by the Manager. In the selection of such brokers or dealers and the placing of such orders, the Manager will use its best efforts to obtain for the Fund the most favorable price and execution available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Manager, bearing in mind the Fund's best interests at all times, will consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. Subject to such policies as the Trustees of the Fund may determine, the Manager will not be deemed to have acted unlawfully or to have breached any duty created by this Contract or otherwise solely by reason of its having caused the Fund to pay a broker or dealer that provides brokerage and research services to the Manager an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Manager determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or the Manager's overall responsibilities with respect to the Fund and to other clients of the Manager as to which the Manager exercises investment discretion. The Manager agrees that in connection with purchases or sales of portfolio investments for the Fund's account, neither the Manager nor any officer, director, employee or agent of the Manager shall act as a principal or receive any commission other than as provided in Section 3.

(d) The Fund will pay or reimburse the Manager for the compensation in whole or in part of such officers of the Fund and persons assisting them as may be determined from time to time by the Trustees of the Fund. The Fund will also pay or reimburse the Manager for all or part of the cost of suitable office space, utilities, support services and equipment attributable to such officers and persons as may be determined in each case by the Trustees of the Fund. The Fund will pay the fees, if any, of the Trustees of the Fund.

(e) The Manager will not be obligated to pay any expenses of or for the Fund not expressly assumed by the Manager pursuant to this Section 1 other than as provided in Section 3.

(f) Subject to the prior approval of a majority of the Trustees, including a majority of the Trustees who are not "interested persons" and, to the extent required by the 1940 Act and the rules and regulations under the 1940 Act, subject to any applicable guidance or interpretation of the Securities and Exchange Commission or its staff, by the shareholders of the Fund, the Manager may, from time to time, delegate to a sub-adviser or sub-administrator any of the Manager's duties under this Contract, including the management of all or a portion of the assets being managed. In all instances, however, the Manager must oversee the provision of delegated services, the Manager must bear the separate costs of employing any sub-adviser or sub-administrator, and no delegation will relieve the Manager of any of its obligations under this Contract.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of the Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Manager, and in any person controlled by or under common control with the Manager, and that the Manager and any person controlled by or under common control with the Manager may have an interest in the Fund. It is also understood that the Manager and any person controlled by or under common control with the Manager may have advisory, management, service or other contracts with other organizations and persons and may have other interests and business.

3. COMPENSATION TO BE PAID BY THE FUND TO THE MANAGER.

The Fund will pay to the Manager as compensation for the Manager's services rendered, for the facilities furnished and for the expenses borne by the Manager pursuant to paragraphs (a), (b), and (c) of Section 1, a fee, based on the Fund's Average Net Assets, computed and paid monthly at the annual rates set forth on Schedule B attached to this Contract, as from time to time amended. The Fund's "Average Net Assets" means the average of all of the determinations of the Fund's net asset value at the close of business on each business day during each month while this Contract is in effect. The fee is payable for each month within 15 days after the close of the month.

The fees payable by the Fund to the Manager pursuant to this Section 3 will be reduced by any commissions, fees, brokerage or similar payments received by the Manager or any affiliated person of the Manager in connection with the purchase and sale of portfolio investments of the Fund, less any direct expenses approved by the Trustees incurred by the Manager or any affiliated person of the Manager in connection with obtaining such payments.

In the event that expenses of the Fund for any fiscal year exceed the expense limitation on investment company expenses imposed by any statute or regulatory authority of any jurisdiction in which shares of the Fund are qualified for offer or sale, the compensation due the Manager for such fiscal year will be reduced by the amount of excess by a reduction or refund thereof. In the event that the expenses of the Fund exceed any expense limitation which the Manager may, by written notice to the Fund, voluntarily declare to be effective subject to such terms and conditions as the Manager may prescribe in such notice, the compensation due the Manager will be reduced, and if necessary, the Manager will

assume expenses of the Fund, to the extent required by the terms and conditions of such expense limitation.

If the Manager serves for less than the whole of a month, the foregoing compensation will be prorated.

4. ASSIGNMENT TERMINATES THIS CONTRACT; AMENDMENTS OF THIS CONTRACT.

This Contract will automatically terminate, without the payment of any penalty, in the event of its assignment, provided that no delegation of responsibilities by the Manager pursuant to Section 1(f) will be deemed to constitute an assignment. No provision of this Contract may be changed, waived, discharged or terminated orally, but only by an instrument in writing signed by the party against which enforcement of the change, waiver, discharge or termination is sought. No amendment of this Contract is effective until approved in a manner consistent with the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

5. EFFECTIVE PERIOD AND TERMINATION OF THIS CONTRACT.

This Contract is effective upon its execution and will remain in full force and effect as to a Fund continuously thereafter (unless terminated automatically as set forth in Section 4 or terminated in accordance with the following paragraph) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter so long as its continuance is approved at least annually by (i) the Trustees, or the shareholders by the affirmative vote of a majority of the outstanding shares of the respective Fund, and (ii) a majority of the Trustees who are not interested persons of the Fund or of the Manager, by vote cast in person at a meeting called for the purpose of voting on such approval.

Either party hereto may at any time terminate this Contract as to a Fund by not less than 60 days' written notice delivered or mailed by registered mail, postage prepaid, to the other party. Action with respect to a Fund may be taken either (i) by vote of a majority of the Trustees or (ii) by the affirmative vote of a majority of the outstanding shares of the respective Fund.

Termination of this Contract pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Contract, the "affirmative vote of a majority of the outstanding shares" of a Fund means the affirmative vote, at a duly called and held meeting of shareholders of the respective Fund, (a) of the holders of 67% or more of the shares of the Fund present (in person or by proxy) and entitled to vote at the meeting, if the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting are present in person or by proxy or (b) of the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting, whichever is less.

For the purposes of this Contract, the terms "affiliated person," "control," "interested person" and "assignment" have their respective meanings defined in the 1940 Act, subject, however, to the rules and regulations under the 1940 Act and any applicable guidance

or interpretation of the Securities and Exchange Commission or its staff; the term "approve at least annually" will be construed in a manner consistent with the 1940 Act and the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; and the term "brokerage and research services" has the meaning given in the Securities Exchange Act of 1934 and the rules and regulations under the Securities Exchange Act of 1934 and under any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

7. NON-LIABILITY OF MANAGER.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Manager, or reckless disregard of its obligations and duties hereunder, the Manager shall not be subject to any liability to the Fund or to any shareholder of the Fund for any act or omission in the course of, or connected with, rendering services hereunder.

8. NO THIRD-PARTY BENEFICIARIES.

No shareholder or any person other than the Fund and the Manager is a party to this Contract or shall be entitled to any right or benefit arising under or in respect of this Contract; there are no third-party beneficiaries of this Contract. Without limiting the generality of the foregoing, nothing in this Contract is intended to, or shall be read to, (i) create in any shareholder or person other than the Fund in question (including without limitation any shareholder in any Fund) any direct, indirect, derivative, or other rights against the Manager, or (ii) create or give rise to any duty or obligation on the part of the Manager (including without limitation any fiduciary duty) to any shareholder or person other than the Fund, and all of the rights, duties, and obligations referred to in the foregoing clauses (i) and (ii) are hereby expressly excluded from this Contract.

9. LIMITATION OF LIABILITY OF THE TRUSTEES, OFFICERS, AND SHAREHOLDERS.

A copy of the Agreement and Declaration of Trust of the Fund is on file with the Secretary of The Commonwealth of Massachusetts, and notice is hereby given that this instrument is executed on behalf of the Trustees of the Fund as Trustees and not individually and that the obligations of or arising out of this instrument are not binding upon any of the Trustees, officers or shareholders individually but are binding only upon the assets and property of the respective Fund.

[The remainder of this page intentionally left blank.]

IN WITNESS WHEREOF, [NAME OF TRUST/FUND] and PUTNAM INVESTMENT MANAGEMENT, LLC have each caused this instrument to be signed on its behalf by its President or a Vice President thereunto duly authorized, all as of the day and year first above written.

[Name of Trust/Fund]

By: _____

Name:

Title:

[Name of Trust/Fund]

By: _____

Name:

Title:

Schedule A

[List of Funds]

Schedule B

[FEE SCHEDULE: See **Appendix B** to this proxy statement for each fund's detailed fee information. The management fee for each fund under the proposed new management contract is identical to that for each fund under the fund's previous management contract.]

Appendix C-2 – Form of New Management Contract

For the following funds only:

Putnam Focused International Equity Fund

Putnam Emerging Markets Equity Fund

Putnam International Value Fund

Putnam Small Cap Growth Fund

Putnam International Equity Fund

Putnam Sustainable Leaders Fund

Putnam Large Cap Growth Fund

Putnam International Capital Opportunities Fund

FORM OF NEW MANAGEMENT CONTRACT

This Management Contract is dated as of [•] between [NAME OF TRUST/FUND], a Massachusetts business trust (the "Fund"), and PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the "Manager").

In consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY MANAGER TO FUND.

(a) The Manager, at its expense, will furnish continuously an investment program for the Fund or, in the case of a Fund that has divided its shares into two or more series under Section 18(f)(2) of the Investment Company Act of 1940, as amended (the "1940 Act"), each series of the Fund identified from time to time on Schedule A to this Contract (each reference in this Contract to "a Fund" or to "the Fund" is also deemed to be a reference to any existing series of the Fund, as appropriate in the particular context), will determine what investments will be purchased, held, sold or exchanged by the Fund and what portion, if any, of the assets of the Fund will be held uninvested and will, on behalf of the Fund, make changes in such investments. Subject always to the control of the Trustees of the Fund and except for the functions carried out by the officers and personnel referred to in Section 1(d), the Manager will also manage, supervise and conduct the other affairs and business of the Fund and matters incidental thereto. In the performance of its duties, the Manager will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of the Fund and the stated investment objectives, policies and restrictions of the Fund, will use its best efforts to safeguard and promote the welfare of the

Fund and to comply with other policies which the Trustees may from time to time determine and will exercise the same care and diligence expected of the Trustees.

(b) The Manager, at its expense, except as such expense is paid by the Fund as provided in Section 1(d), will furnish (1) all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully; (2) suitable office space for the Fund; and (3) administrative facilities, including bookkeeping, clerical personnel and equipment necessary for the efficient conduct of the affairs of the Fund, including determination of the net asset value of the Fund, but excluding shareholder accounting services. Except as otherwise provided in Section 1(d), the Manager will pay the compensation, if any, of the officers of the Fund.

(c) The Manager, at its expense, will place all orders for the purchase and sale of portfolio investments for the Fund's account with brokers or dealers selected by the Manager. In the selection of such brokers or dealers and the placing of such orders, the Manager will use its best efforts to obtain for the Fund the most favorable price and execution available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Manager, bearing in mind the Fund's best interests at all times, will consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. Subject to such policies as the Trustees of the Fund may determine, the Manager will not be deemed to have acted unlawfully or to have breached any duty created by this Contract or otherwise solely by reason of its having caused the Fund to pay a broker or dealer that provides brokerage and research services to the Manager an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Manager determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or the Manager's overall responsibilities with respect to the Fund and to other clients of the Manager as to which the Manager exercises investment discretion. The Manager agrees that in connection with purchases or sales of portfolio investments for the Fund's account, neither the Manager nor any officer, director, employee or agent of the Manager shall act as a principal or receive any commission other than as provided in Section 3.

(d) The Fund will pay or reimburse the Manager for the compensation in whole or in part of such officers of the Fund and persons assisting them as may be determined from time to time by the Trustees of the Fund. The Fund will also pay or reimburse the Manager for all or part of the cost of suitable office space, utilities, support services and equipment attributable to such officers and persons as may be determined in each case by the Trustees of the Fund. The Fund will pay the fees, if any, of the Trustees of the Fund.

(e) The Manager will not be obligated to pay any expenses of or for the Fund not expressly assumed by the Manager pursuant to this Section 1 other than as provided in Section 3.

(f) Subject to the prior approval of a majority of the Trustees, including a majority of the Trustees who are not “interested persons” and, to the extent required by the 1940 Act and the rules and regulations under the 1940 Act, subject to any applicable guidance or interpretation of the Securities and Exchange Commission or its staff, by the shareholders of the Fund, the Manager may, from time to time, delegate to a sub-adviser or sub-administrator any of the Manager’s duties under this Contract, including the management of all or a portion of the assets being managed. In all instances, however, the Manager must oversee the provision of delegated services, the Manager must bear the separate costs of employing any sub-adviser or sub-administrator, and no delegation will relieve the Manager of any of its obligations under this Contract.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of the Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Manager, and in any person controlled by or under common control with the Manager, and that the Manager and any person controlled by or under common control with the Manager may have an interest in the Fund. It is also understood that the Manager and any person controlled by or under common control with the Manager may have advisory, management, service or other contracts with other organizations and persons and may have other interests and business.

3. COMPENSATION TO BE PAID BY THE FUND TO THE MANAGER.

The Fund will pay to the Manager as compensation for the Manager’s services rendered, for the facilities furnished and for the expenses borne by the Manager pursuant to paragraphs (a), (b), and (c) of Section 1, a Base Fee, computed and paid monthly on the Average Net Assets of the Fund at the annual rates set forth on Schedule B attached to this Contract, as from time to time amended, subject to adjustment as set forth on Schedule C attached to this Contract, as from time to time amended. The Fund’s “Average Net Assets” means the average of all of the determinations of the Fund’s net asset value at the close of business on each business day during each period for which such computation is made. The Base Fee, as adjusted, is payable for each month within 15 days after the close of the month.

The fees payable by the Fund to the Manager pursuant to this Section 3 will be reduced by any commissions, fees, brokerage or similar payments received by the Manager or any affiliated person of the Manager in connection with the purchase and sale of portfolio investments of the Fund, less any direct expenses approved by the Trustees incurred by the Manager or any affiliated person of the Manager in connection with obtaining such payments.

In the event that expenses of the Fund for any fiscal year exceed the expense limitation on investment company expenses imposed by any statute or regulatory authority of any jurisdiction in which shares of the Fund are qualified for offer or sale, the compensation due the Manager for such fiscal year will be reduced by the amount of excess by a reduction or refund thereof. In the event

that the expenses of the Fund exceed any expense limitation which the Manager may, by written notice to the Fund, voluntarily declare to be effective subject to such terms and conditions as the Manager may prescribe in such notice, the compensation due the Manager will be reduced, and if necessary, the Manager will assume expenses of the Fund, to the extent required by the terms and conditions of such expense limitation.

If the Manager serves for less than the whole of a month, the foregoing compensation will be prorated.

4. ASSIGNMENT TERMINATES THIS CONTRACT; AMENDMENTS OF THIS CONTRACT.

This Contract will automatically terminate, without the payment of any penalty, in the event of its assignment, provided that no delegation of responsibilities by the Manager pursuant to Section 1(f) will be deemed to constitute an assignment. No provision of this Contract may be changed, waived, discharged or terminated orally, but only by an instrument in writing signed by the party against which enforcement of the change, waiver, discharge or termination is sought. No amendment of this Contract is effective until approved in a manner consistent with the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

5. EFFECTIVE PERIOD AND TERMINATION OF THIS CONTRACT.

This Contract is effective upon its execution and will remain in full force and effect as to a Fund continuously thereafter (unless terminated automatically as set forth in Section 4 or terminated in accordance with the following paragraph) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter so long as its continuance is approved at least annually by (i) the Trustees, or the shareholders by the affirmative vote of a majority of the outstanding shares of the respective Fund, and (ii) a majority of the Trustees who are not interested persons of the Fund or of the Manager, by vote cast in person at a meeting called for the purpose of voting on such approval.

Either party hereto may at any time terminate this Contract as to a Fund by not less than 60 days’ written notice delivered or mailed by registered mail, postage prepaid, to the other party. Action with respect to a Fund may be taken either (i) by vote of a majority of the Trustees or (ii) by the affirmative vote of a majority of the outstanding shares of the respective Fund.

Termination of this Contract pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Contract, the “affirmative vote of a majority of the outstanding shares” of a Fund means the affirmative vote, at a duly called and held meeting of shareholders of the respective Fund, (a) of the holders of 67% or more of the shares of the Fund present (in person or by proxy) and entitled to vote at the meeting, if the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting are present in person or by proxy or (b) of the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting, whichever is less.

For the purposes of this Contract, the terms “affiliated person,” “control,” “interested person” and “assignment” have their respective meanings defined in the 1940 Act, subject, however, to the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; the term “approve at least annually” will be construed in a manner consistent with the 1940 Act and the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; and the term “brokerage and research services” has the meaning given in the Securities Exchange Act of 1934 and the rules and regulations under the Securities Exchange Act of 1934 and under any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

7. NON-LIABILITY OF MANAGER.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Manager, or reckless disregard of its obligations and duties hereunder, the Manager shall not be subject to any liability to the Fund or to any shareholder of the Fund for any act or omission in the course of, or connected with, rendering services hereunder.

8. NO THIRD-PARTY BENEFICIARIES.

No shareholder or any person other than the Fund and the Manager is a party to this Contract or shall be entitled to any right or benefit arising under or in respect of this Contract; there are no third-party beneficiaries of this Contract. Without limiting the generality of the foregoing, nothing in this Contract is intended to, or shall be read to, (i) create in any shareholder or person other than the Fund in question (including without limitation any shareholder in any Fund) any direct, indirect, derivative, or other rights against the Manager, or (ii) create or give rise to any duty or obligation on the part of the Manager (including without limitation any fiduciary duty) to any shareholder or person other than the Fund, and all of the rights, duties, and obligations referred to in the foregoing clauses (i) and (ii) are hereby expressly excluded from this Contract.

9. LIMITATION OF LIABILITY OF THE TRUSTEES, OFFICERS, AND SHAREHOLDERS.

A copy of the Agreement and Declaration of Trust of the Fund is on file with the Secretary of The Commonwealth of Massachusetts, and notice is hereby given that this instrument is executed on behalf of the Trustees of the Fund as Trustees and not individually and that the obligations of or arising out of this instrument are not binding upon any of the Trustees, officers or shareholders individually but are binding only upon the assets and property of the respective Fund.

[The remainder of this page intentionally left blank.]

IN WITNESS WHEREOF, [NAME OF TRUST/FUND] and PUTNAM INVESTMENT MANAGEMENT, LLC have each caused this instrument to be signed on its behalf by its President or a Vice President thereunto duly authorized, all as of the day and year first above written.

[Name of Trust/Fund]

By: _____

Name:

Title:

PUTNAM INVESTMENT MANAGEMENT, LLC

By: _____

Name:

Title:

Schedule A

[List of Funds]

Schedule B

[FEE SCHEDULE: See **Appendix B** to this proxy statement for each fund’s detailed fee information. The management fee for each fund under the proposed new management contract is identical to that for each fund under the fund’s previous management contract.]

Schedule C

Putnam Sustainable Leaders Fund

The Fund’s Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Average Net Assets of the Fund for the Performance Period and dividing the result by twelve.

Performance Period. The Performance Period is equal to the thirty-six month period ending at the end of the month for which the fee adjustment is being computed.

Performance Adjustment Rate. The Performance Adjustment Rate is equal to the product of 0.03 multiplied by the difference, positive or negative, obtained by subtracting (i) the Investment Record of the Benchmark for the Performance Period from (ii) the Investment Performance of the Measuring Class for the Performance Period; provided that the Performance Adjustment Rate for the Fund may not exceed the Maximum Performance Adjustment Rate set forth on Schedule B or be less than the Minimum Performance Adjustment Rate set forth on Schedule B.

Investment Performance and Investment Record. These terms are used as defined in Rule 205-1 under the Investment Advisers Act of 1940, as amended, and shall each be computed on an annualized basis for any Performance Period greater than one year.

Benchmark. The Fund’s initial Benchmark is set forth in Schedule B. If the Trustees determine that another appropriate index of securities prices should be substituted as the Benchmark, the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the “Replacement Benchmark”) without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the

Performance Period prior to the effective date of the Replacement Benchmark. The Fund's initial Replacement Benchmark is set forth in Schedule B, together with its effective date of incorporation into the calculation of any adjustment to the Fund's Base Fee. Any further Replacement Benchmark, and its effective date of incorporation into the calculation of any adjustment to the Fund's Base Fee, will also be identified on Schedule B.

Measuring Class. The "Measuring Class" of shares of the Fund initially is Class A shares of the Fund. If the Trustees determine that a different class of shares of the Fund is the most appropriate for use in calculating the Performance Adjustment, the Trustees may change, with the consent of the Manager, the class of shares used as the Measuring Class without shareholder approval, unless shareholder approval of such change is otherwise required by applicable law. If a different class of shares ("Replacement Measuring Class") is substituted in calculating the Performance Adjustment, the use of that Replacement Measuring Class of shares for purposes of calculating the Performance Adjustment may apply to the entire Performance Period so long as the Replacement Measuring Class was outstanding at the beginning of such period. If the Replacement Measuring Class of shares was not outstanding for all or a portion of the Performance Period, it may only be used in calculating that portion of the Performance Adjustment attributable to the period during which the Replacement Measuring Class was outstanding and any previous portion of the Performance Period will be calculated using the Measuring Class.

Notwithstanding any other provisions in this Schedule C, the computation of the Performance Adjustment Rate, the Investment Performance of the Measuring Class and the Investment Record of the Benchmark will be made in accordance with the Investment Advisers Act of 1940, as amended, and any applicable rules thereunder.

Putnam Focused International Equity Fund

The Fund's Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Average Net Assets of the Fund for the Performance Period and dividing the result by twelve. Effective upon the closing of the merger of Putnam Global Consumer Fund, Putnam Global Financials Fund, Putnam Global Sector Fund and Putnam Global Utilities Fund (collectively, the "Target Funds") into the Fund (the "Merger Closing Date"), the Fund's Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Combined Average Net Assets of the Fund for the Performance Period and dividing the result by twelve (such adjusted fee, the "Current Management Fee"); provided, however, that if the use of the Combined Average Net Assets in calculating the Current Management Fee results in the Fund paying a higher management fee than would have been paid using the Average Net Assets of the Fund for periods prior to the Merger Closing Date, Average Net Assets shall be used for purposes of this calculation.

Combined Average Net Assets. Combined Average Net Assets means the average of all of the determinations of (i) the sum of the net asset value of the Target Funds and the Fund at the close

of business on each business day during any portion of a Performance Period prior to the Merger Closing Date; and (ii) the Fund's net asset value at the close of business on each business day during any portion of a Performance Period on or after the Merger Closing Date.

Performance Period. The Performance Period is equal to the thirty-six month period ending at the end of the month for which the fee adjustment is being computed.

Performance Adjustment Rate. The Performance Adjustment Rate is equal to the product of 0.03 multiplied by the difference, positive or negative, obtained by subtracting (i) the Investment Record of the Benchmark for the Performance Period from (ii) the Investment Performance of the Measuring Class for the Performance Period; provided that the Performance Adjustment Rate for the Fund may not exceed the Maximum Performance Adjustment Rate set forth on Schedule B or be less than the Minimum Performance Adjustment Rate set forth on Schedule B.

Investment Performance and Investment Record. These terms are used as defined in Rule 205-1 under the Investment Advisers Act of 1940, as amended, and shall each be computed on an annualized basis for any Performance Period greater than one year.

Benchmark. The Fund's initial Benchmark is set forth in Schedule B. If the Trustees determine that another appropriate index of securities prices should be substituted as the Benchmark, the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the "Replacement Benchmark") without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the Performance Period prior to the effective date of the Replacement Benchmark. The Fund's initial Replacement Benchmark is set forth in Schedule B, together with its effective date of incorporation into the calculation of any adjustment to the Fund's Base Fee. Any further Replacement Benchmark, and its effective date of incorporation into the calculation of any adjustment to the Fund's Base Fee, will also be identified on Schedule B.

Measuring Class. The "Measuring Class" of shares of the Fund initially is Class A shares of the Fund. If the Trustees determine that a different class of shares of the Fund is the most appropriate for use in calculating the Performance Adjustment, the Trustees may change, with the consent of the Manager, the class of shares used as the Measuring Class without shareholder approval, unless shareholder approval of such change is otherwise required by applicable law. If a different class of shares ("Replacement Measuring Class") is substituted in calculating the Performance Adjustment, the use of that Replacement Measuring Class of shares for purposes of calculating the Performance Adjustment may apply to the entire Performance Period so long as the Replacement Measuring Class was outstanding at the beginning of such period. If the Replacement Measuring Class of shares was not outstanding for all or a portion of the Performance Period, it may only be used in calculating that portion of the Performance Adjustment attributable to the period during which the Replacement Measuring Class was

outstanding and any previous portion of the Performance Period will be calculated using the Measuring Class.

Notwithstanding any other provisions in this Schedule C, the computation of the Performance Adjustment Rate, the Investment Performance of the Measuring Class and the Investment Record of the Benchmark will be made in accordance with the Investment Advisers Act of 1940, as amended, and any applicable rules thereunder.

Putnam Emerging Markets Equity Fund, Putnam International Value Fund, and Putnam Small Cap Growth Fund

PUTNAM EMERGING MARKETS EQUITY FUND, PUTNAM INTERNATIONAL VALUE FUND, AND PUTNAM SMALL CAP GROWTH FUND: The Fund's Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Average Net Assets of the Fund for the Performance Period and dividing the result by twelve.

PUTNAM EMERGING MARKETS EQUITY FUND: Commencing on the business day (the "Effective date") following the closing date of the merger of Putnam International Growth Fund ("International Growth Fund") into Putnam Emerging Markets Equity Fund, Putnam Emerging Markets Equity Fund's Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Combined Average Net Assets of the Fund for the Performance Period and dividing the result by twelve (such adjusted fee, the "Current Management Fee"); provided, however, that if the use of the Combined Average Net Assets in calculating the Current Management Fee results in the Fund paying a higher management fee than would have been paid using the Average Net Assets of the Fund for periods prior to the Effective Date, Average Net Assets shall be used for purposes of this calculation. Combined Average Net Assets means the average of all of the determinations of (i) the sum of the net asset value of International Growth Fund and Putnam Emerging Markets Equity Fund at the close of business on each business day during any portion of a Performance Period prior to the Effective Date; and (ii) Putnam Emerging Markets Equity Fund's net asset value at the close of business on each business day during any portion of a Performance Period on or after the Effective Date.

PUTNAM EMERGING MARKETS EQUITY FUND, PUTNAM INTERNATIONAL VALUE FUND, AND PUTNAM SMALL CAP GROWTH FUND: **Performance Period.** The Performance Period is equal to the shorter of (i) the period from January 1, 2010 to the end of the month for which the fee adjustment is being computed or (ii) the thirty-six month period then ended.

PUTNAM EMERGING MARKETS EQUITY FUND, PUTNAM INTERNATIONAL VALUE FUND, AND PUTNAM SMALL CAP GROWTH FUND: **Performance Adjustment Rate.** The Performance Adjustment Rate is equal to the product of 0.03 multiplied by the difference, positive or negative, obtained by subtracting (i) the Investment Record of the Benchmark for the Performance Period from (ii) the Investment Performance of the Measuring Class for the Performance Period; provided that the Performance Adjustment Rate for the Fund may not exceed the Maximum Performance

Adjustment Rate set forth on Schedule B or be less than the Minimum Performance Adjustment Rate set forth on Schedule B.

PUTNAM EMERGING MARKETS EQUITY FUND, PUTNAM INTERNATIONAL VALUE FUND, AND PUTNAM SMALL CAP GROWTH FUND: **Investment Performance and Investment Record.** These terms are used as defined in Rule 205-1 under the Investment Advisers Act of 1940, as amended, and shall each be computed on an annualized basis for any Performance Period greater than one year.

PUTNAM EMERGING MARKETS EQUITY FUND AND PUTNAM SMALL CAP GROWTH FUND: **Benchmark.** The Fund's initial Benchmark is set forth in Schedule B. If the Trustees determine that another appropriate index of securities prices should be substituted as the Benchmark, the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the "Replacement Benchmark") without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the Performance Period prior to the effective date of the Replacement Benchmark.

PUTNAM INTERNATIONAL VALUE FUND: **Benchmark.** The Fund's initial Benchmark is set forth in Schedule B. If the Trustees determine that another appropriate index of securities prices should be substituted as the Benchmark, the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the "Replacement Benchmark") without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the Performance Period prior to the effective date of the Replacement Benchmark.

The Fund's initial Replacement Benchmark is set forth in Schedule B, together with its effective date of incorporation into the calculation of any adjustment to the Fund's Base Fee. Any further Replacement Benchmark, and its effective date of incorporation into the calculation of any adjustment to the Fund's Base Fee, will also be identified on Schedule B.

PUTNAM EMERGING MARKETS EQUITY FUND, PUTNAM INTERNATIONAL VALUE FUND, AND PUTNAM SMALL CAP GROWTH FUND: **Measuring Class.** The "Measuring Class" of shares of the Fund initially is Class A shares of the Fund. If the Trustees determine that a different class of shares of the Fund is the most appropriate for use in calculating the Performance Adjustment, the Trustees may change, with the consent of the Manager, the class of shares used as the Measuring Class without shareholder approval, unless shareholder approval of such change is otherwise required by applicable law. If a different class of shares ("Replacement Measuring Class") is substituted in calculating the Performance Adjustment, the use of that Replacement Measuring Class of shares for purposes of calculating the Performance Adjustment may apply to the entire Performance Period so long as the Replacement Measuring Class was outstanding at the beginning of such period. If the Replacement

Measuring Class of shares was not outstanding for all or a portion of the Performance Period, it may only be used in calculating that portion of the Performance Adjustment attributable to the period during which the Replacement Measuring Class was outstanding and any previous portion of the Performance Period will be calculated using the Measuring Class.

Notwithstanding any other provisions in this Schedule C, the computation of the Performance Adjustment Rate, the Legacy Performance Adjustment Rate, the Investment Performance of the Measuring Class and the Investment Record of the Benchmark will be made in accordance with the Investment Advisers Act of 1940, as amended, and any applicable rules thereunder.

Putnam International Equity Fund

The Fund's Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Average Net Assets of the Fund for the Performance Period and dividing the result by twelve. Effective upon the closing of the merger of Putnam Europe Equity Fund (the "Europe Equity Fund") into the Fund (the "Merger Closing Date"), the Fund's Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Combined Average Net Assets of the Fund for the Performance Period and dividing the result by twelve (such adjusted fee, the "Current Management Fee"); provided, however, that if the use of the Combined Average Net Assets in calculating the Current Management Fee results in the Fund paying a higher management fee than would have been paid using the Average Net Assets of the Fund for periods prior to the Merger Closing Date, Average Net Assets shall be used for purposes of this calculation.

Combined Average Net Assets. Combined Average Net Assets means the average of all of the determinations of (i) the sum of the net asset value of Europe Equity Fund and the Fund at the close of business on each business day during any portion of a Performance Period prior to the Merger Closing Date; and (ii) the Fund's net asset value at the close of business on each business day during any portion of a Performance Period on or after the Merger Closing Date.

Performance Period. The Performance Period is equal to the shorter of (i) the period from January 1, 2010 to the end of the month for which the fee adjustment is being computed or (ii) the thirty-six month period then ended.

Performance Adjustment Rate. The Performance Adjustment Rate is equal to the product of 0.03 multiplied by the difference, positive or negative, obtained by subtracting (i) the Investment Record of the Benchmark for the Performance Period from (ii) the Investment Performance of the Measuring Class for the Performance Period; provided that the Performance Adjustment Rate for the Fund may not exceed the Maximum Performance Adjustment Rate set forth on Schedule B or be less than the Minimum Performance Adjustment Rate set forth on Schedule B.

Investment Performance and Investment Record. These terms are used as defined in Rule 205-1 under the Investment Advisers Act of 1940, as amended, and shall each be computed on an annualized basis for any Performance Period greater than one year.

Benchmark. The Fund's initial Benchmark is set forth in Schedule B. If the Trustees determine that another appropriate index of securities prices should be substituted as the Benchmark, the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the "Replacement Benchmark") without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the Performance Period prior to the effective date of the Replacement Benchmark.

Measuring Class. The "Measuring Class" of shares of the Fund initially is Class A shares of the Fund. If the Trustees determine that a different class of shares of the Fund is the most appropriate for use in calculating the Performance Adjustment, the Trustees may change, with the consent of the Manager, the class of shares used as the Measuring Class without shareholder approval, unless shareholder approval of such change is otherwise required by applicable law. If a different class of shares ("Replacement Measuring Class") is substituted in calculating the Performance Adjustment, the use of that Replacement Measuring Class of shares for purposes of calculating the Performance Adjustment may apply to the entire Performance Period so long as the Replacement Measuring Class was outstanding at the beginning of such period. If the Replacement Measuring Class of shares was not outstanding for all or a portion of the Performance Period, it may only be used in calculating that portion of the Performance Adjustment attributable to the period during which the Replacement Measuring Class was outstanding and any previous portion of the Performance Period will be calculated using the Measuring Class.

Notwithstanding any other provisions in this Schedule C, the computation of the Performance Adjustment Rate, the Investment Performance of the Measuring Class and the Investment Record of the Benchmark will be made in accordance with the Investment Advisers Act of 1940, as amended, and any applicable rules thereunder.

Putnam Large Cap Growth Fund and Putnam International Capital Opportunities Fund

The Fund's Base Fee computed in accordance with Schedule B will be adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Performance Adjustment Rate to the Average Net Assets of the Fund for the Performance Period and dividing the result by twelve.

Performance Period. The Performance Period is equal to the shorter of (i) the period from January 1, 2010 to the end of the month for which the fee adjustment is being computed or (ii) the thirty-six month period then ended.

Performance Adjustment Rate. The Performance Adjustment Rate is equal to the product of 0.03 multiplied by the difference, positive or negative, obtained by subtracting (i) the Investment Record of the Benchmark for the Performance Period from (ii) the Investment Performance of the Measuring Class for the Performance Period; provided that the Performance Adjustment Rate for the Fund may not exceed the Maximum Performance Adjustment Rate

set forth on Schedule B or be less than the Minimum Performance Adjustment Rate set forth on Schedule B.

Investment Performance and Investment Record. These terms are used as defined in Rule 205-1 under the Investment Advisers Act of 1940, as amended, and shall each be computed on an annualized basis for any Performance Period greater than one year.

Benchmark. The Fund's initial Benchmark is set forth in Schedule B. If the Trustees determine that another appropriate index of securities prices should be substituted as the Benchmark, the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the "Replacement Benchmark") without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the Performance Period prior to the effective date of the Replacement Benchmark.

Measuring Class. The "Measuring Class" of shares of the Fund initially is Class A shares of the Fund. If the Trustees determine that a different class of shares of the Fund is the most appropriate for use in calculating the Performance Adjustment, the Trustees may change, with the consent of the Manager, the class of shares used as the Measuring Class without shareholder approval, unless shareholder approval of such change is otherwise required by applicable law. If a different class of shares ("Replacement Measuring Class") is substituted in calculating the Performance Adjustment, the use of that Replacement Measuring Class of shares for purposes of calculating the Performance Adjustment may apply to the entire Performance Period so long as the Replacement Measuring Class was outstanding at the beginning of such period. If the Replacement Measuring Class of shares was not outstanding for all or a portion of the Performance Period, it may only be used in calculating that portion of the Performance Adjustment attributable to the period during which the Replacement Measuring Class was outstanding and any previous portion of the Performance Period will be calculated using the Measuring Class.

Notwithstanding any other provisions in this Schedule C, the computation of the Performance Adjustment Rate, the Investment Performance of the Measuring Class and the Investment Record of the Benchmark will be made in accordance with the Investment Advisers Act of 1940, as amended, and any applicable rules thereunder.

Appendix C-3 – Form of New Management Contract

For the following funds only:

Putnam Core Bond Fund

Putnam Short Duration Bond Fund

FORM OF NEW MANAGEMENT CONTRACT

This Management Contract is dated as of [•] between [NAME OF TRUST/FUND], a Massachusetts business trust (the "Fund"), and

PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the "Manager").

In consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY MANAGER TO FUND.

(a) The Manager, at its expense, will furnish continuously an investment program for the Fund or, in the case of a Fund that has divided its shares into two or more series under Section 18(f)(2) of the Investment Company Act of 1940, as amended (the "1940 Act"), each series of the Fund identified from time to time on Schedule A to this Contract (each reference in this Contract to "a Fund" or to "the Fund" is also deemed to be a reference to any existing series of the Fund, as appropriate in the particular context), will determine what investments will be purchased, held, sold or exchanged by the Fund and what portion, if any, of the assets of the Fund will be held uninvested and will, on behalf of the Fund, make changes in such investments. Subject always to the control of the Trustees of the Fund and except for the functions carried out by the officers and personnel referred to in Section 1(d), the Manager will also manage, supervise and conduct the other affairs and business of the Fund and matters incidental thereto. In the performance of its duties, the Manager will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of the Fund and the stated investment objectives, policies and restrictions of the Fund, will use its best efforts to safeguard and promote the welfare of the Fund and to comply with other policies which the Trustees may from time to time determine and will exercise the same care and diligence expected of the Trustees.

(b) The Manager, at its expense, except as such expense is paid by the Fund as provided in Section 1(d), will furnish (1) all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully; (2) suitable office space for the Fund; and (3) administrative facilities, including bookkeeping, clerical personnel and equipment necessary for the efficient conduct of the affairs of the Fund, including determination of the net asset value of the Fund, but excluding shareholder accounting services. Except as otherwise provided in Section 1(d), the Manager will pay the compensation, if any, of the officers of the Fund.

(c) The Manager, at its expense, will place all orders for the purchase and sale of portfolio investments for the Fund's account with brokers or dealers selected by the Manager. In the selection of such brokers or dealers and the placing of such orders, the Manager will use its best efforts to obtain for the Fund the most favorable price and execution available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Manager, bearing in mind the Fund's best interests at all times, will consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. Subject to such policies as the Trustees of the Fund may determine, the Manager will not

be deemed to have acted unlawfully or to have breached any duty created by this Contract or otherwise solely by reason of its having caused the Fund to pay a broker or dealer that provides brokerage and research services to the Manager an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Manager determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or the Manager's overall responsibilities with respect to the Fund and to other clients of the Manager as to which the Manager exercises investment discretion. The Manager agrees that in connection with purchases or sales of portfolio investments for the Fund's account, neither the Manager nor any officer, director, employee or agent of the Manager shall act as a principal or receive any commission other than as provided in Section 3.

(d) In consideration of the fees payable by the Fund to the Manager pursuant to Section 3, the Manager will also pay, or reimburse the Fund for, all of the Fund's organizational and other operating expenses, excluding only fees payable under distribution plans adopted pursuant to Rule 12b-1 under the 1940 Act, any downward adjustment to the Fund's fee (as provided in Section 3), brokerage, interest, taxes, investment-related expenses, extraordinary expenses, and acquired fund fees and expenses.

(e) Subject to the prior approval of a majority of the Trustees, including a majority of the Trustees who are not "interested persons" and, to the extent required by the 1940 Act and the rules and regulations under the 1940 Act, subject to any applicable guidance or interpretation of the Securities and Exchange Commission or its staff, by the shareholders of the Fund, the Manager may, from time to time, delegate to a sub-adviser or sub-administrator any of the Manager's duties under this Contract, including the management of all or a portion of the assets being managed. In all instances, however, the Manager must oversee the provision of delegated services, the Manager must bear the separate costs of employing any sub-adviser or sub-administrator, and no delegation will relieve the Manager of any of its obligations under this Contract.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of the Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Manager, and in any person controlled by or under common control with the Manager, and that the Manager and any person controlled by or under common control with the Manager may have an interest in the Fund. It is also understood that the Manager and any person controlled by or under common control with the Manager may have advisory, management, service or other contracts with other organizations and persons and may have other interests and business.

3. COMPENSATION TO BE PAID BY THE FUND TO THE MANAGER.

The Fund will pay to the Manager as compensation for the Manager's services rendered, for the facilities furnished and for the expenses borne by the Manager pursuant to paragraphs (a), (b), and

(c) of Section 1, a fee, computed and paid monthly on the Average Net Assets of the Fund at the annual rate set forth on Schedule B attached to this Contract, as from time to time amended, provided, however, that for the period beginning on the date of this Contract and ending on [November 30, 2019]¹ [August 31, 2024]² (the "Interim Period") the fee based on the Fund's Average Net Assets, computed and paid monthly to the Manager, shall be calculated as set forth on Schedule C attached to this Contract, as from time to time amended. The Fund's "Average Net Assets" means the average of all of the determinations of the Fund's net asset value at the close of business on each business day during each period for which such computation is made. The fee is payable for each month within 15 days after the close of the month.

The fees payable by the Fund to the Manager pursuant to this Section 3 will be reduced by any commissions, fees, brokerage or similar payments received by the Manager or any affiliated person of the Manager in connection with the purchase and sale of portfolio investments of the Fund, less any direct expenses approved by the Trustees incurred by the Manager or any affiliated person of the Manager in connection with obtaining such payments.

In the event that expenses of the Fund for any fiscal year exceed the expense limitation on investment company expenses imposed by any statute or regulatory authority of any jurisdiction in which shares of the Fund are qualified for offer or sale, the compensation due the Manager for such fiscal year will be reduced by the amount of excess by a reduction or refund thereof. In the event that the expenses of the Fund exceed any expense limitation which the Manager may, by written notice to the Fund, voluntarily declare to be effective subject to such terms and conditions as the Manager may prescribe in such notice, the compensation due the Manager will be reduced, and if necessary, the Manager will assume expenses of the Fund, to the extent required by the terms and conditions of such expense limitation.

If the Manager serves for less than the whole of a month, the foregoing compensation will be prorated.

4. ASSIGNMENT TERMINATES THIS CONTRACT; AMENDMENTS OF THIS CONTRACT.

This Contract will automatically terminate, without the payment of any penalty, in the event of its assignment, provided that no delegation of responsibilities by the Manager pursuant to Section 1(f) will be deemed to constitute an assignment. No provision of this Contract may be changed, waived, discharged or terminated orally, but only by an instrument in writing signed by the party against which enforcement of the change, waiver, discharge or termination is sought. No amendment of this Contract is effective until approved in a manner consistent with the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

¹ Bracketed language applies only to Putnam Short Duration Bond Fund. The Interim Period for Putnam Short Duration Bond Fund has concluded, and the fund is no longer subject to performance adjustments contemplated in Schedule C of this contract.

² Bracketed language applies only to Putnam Core Bond Fund..

5. EFFECTIVE PERIOD AND TERMINATION OF THIS CONTRACT.

This Contract is effective upon its execution and will remain in full force and effect as to a Fund continuously thereafter (unless terminated automatically as set forth in Section 4 or terminated in accordance with the following paragraph) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter so long as its continuance is approved at least annually by (i) the Trustees, or the shareholders by the affirmative vote of a majority of the outstanding shares of the respective Fund, and (ii) a majority of the Trustees who are not interested persons of the Fund or of the Manager, by vote cast in person at a meeting called for the purpose of voting on such approval.

Either party hereto may at any time terminate this Contract as to a Fund by not less than 60 days' written notice delivered or mailed by registered mail, postage prepaid, to the other party. Action with respect to a Fund may be taken either (i) by vote of a majority of the Trustees or (ii) by the affirmative vote of a majority of the outstanding shares of the respective Fund.

Termination of this Contract pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Contract, the "affirmative vote of a majority of the outstanding shares" of a Fund means the affirmative vote, at a duly called and held meeting of shareholders of the respective Fund, (a) of the holders of 67% or more of the shares of the Fund present (in person or by proxy) and entitled to vote at the meeting, if the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting are present in person or by proxy or (b) of the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting, whichever is less.

For the purposes of this Contract, the terms "affiliated person," "control," "interested person" and "assignment" have their respective meanings defined in the 1940 Act, subject, however, to the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; the term "approve at least annually" will be construed in a manner consistent with the 1940 Act and the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; and the term "brokerage and research services" has the meaning given in the Securities Exchange Act of 1934 and the rules and regulations under the Securities Exchange Act of 1934 and under any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

7. NON-LIABILITY OF MANAGER.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Manager, or reckless disregard of its obligations and duties hereunder, the Manager shall not be subject to any liability to the Fund or to any shareholder of the Fund for any act or omission in the course of, or connected with, rendering services hereunder.

8. NO THIRD-PARTY BENEFICIARIES.

No shareholder or any person other than the Fund and the Manager is a party to this Contract or shall be entitled to any right or benefit arising under or in respect of this Contract; there are no third-party beneficiaries of this Contract. Without limiting the generality of the foregoing, nothing in this Contract is intended to, or shall be read to, (i) create in any shareholder or person other than the Fund in question (including without limitation any shareholder in any Fund) any direct, indirect, derivative, or other rights against the Manager, or (ii) create or give rise to any duty or obligation on the part of the Manager (including without limitation any fiduciary duty) to any shareholder or person other than the Fund, and all of the rights, duties, and obligations referred to in the foregoing clauses (i) and (ii) are hereby expressly excluded from this Contract.

9. LIMITATION OF LIABILITY OF THE TRUSTEES, OFFICERS, AND SHAREHOLDERS.

A copy of the Agreement and Declaration of Trust of the Fund is on file with the Secretary of The Commonwealth of Massachusetts, and notice is hereby given that this instrument is executed on behalf of the Trustees of the Fund as Trustees and not individually and that the obligations of or arising out of this instrument are not binding upon any of the Trustees, officers or shareholders individually but are binding only upon the assets and property of the respective Fund.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, [NAME OF TRUST/FUND] and PUTNAM INVESTMENT MANAGEMENT, LLC have each caused this instrument to be signed on its behalf by its President or a Vice President thereunto duly authorized, all as of the day and year first above written.

[Name of Trust/Fund]

By: _____

Name:

Title:

PUTNAM INVESTMENT MANAGEMENT, LLC

By: _____

Name:

Title:

Schedule A

[List of Funds]

Schedule B

[FEE SCHEDULE: See **Appendix B** to this proxy statement for each fund's detailed fee information. The management fee for each fund under the proposed new management contract is identical to that for each fund under the fund's previous management contract.]

Schedule C

Putnam Short Duration Bond Fund

Benchmark: ICE BofAML U.S. Treasury Bill Index (GOBA)

Hurdle: 1.00%

Maximum Performance Adjustment Rate: 0.04%

Minimum Performance Adjustment Rate: -0.04%

During the Interim Period, the Fund's fee computed in accordance with Schedule B will be adjusted, on a monthly basis, downward by an amount computed by applying the Performance Adjustment Rate to the Average Net Assets of the Fund for the Performance Period and dividing the result by twelve, if the result of the computation is negative. If the result of the computation is positive, the Fund will pay the fee provided in Schedule B.

Performance Period. The Performance Period is equal to the shorter of (i) the period from the date the Fund commenced operations to the end of the month for which the fee adjustment is being computed or (ii) the thirty-six month period then ended.

Performance Adjustment Rate. The Performance Adjustment Rate is equal to the product of 0.04 multiplied by the difference, positive or negative, obtained by subtracting (i) the sum of the Investment Record of the Benchmark for the Performance Period plus the Hurdle from (ii) the Investment Performance of the Measuring Class for the Performance Period; provided that the Performance Adjustment Rate for the Fund may not exceed the Maximum Performance Adjustment Rate set forth on Schedule B or be less than the Minimum Performance Adjustment Rate set forth on Schedule B.

Investment Performance and Investment Record. These terms are used as defined in Rule 205-1 under the Investment Advisers Act of 1940, as amended, and shall each be computed on an annualized basis for any Performance Period greater than one year.

Hurdle. The Fund's Hurdle is set forth in Schedule B.

Benchmark. The Fund's initial Benchmark is set forth in Schedule B. If the Trustees determine that another appropriate index of securities prices should be substituted as the Benchmark, the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the "Replacement Benchmark") without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the Performance Period prior to the effective date of the Replacement Benchmark.

Measuring Class. The "Measuring Class" of shares of the Fund initially is Class A shares of the Fund. If the Trustees determine that a different class of shares of the Fund is the most appropriate for use in calculating the Performance Adjustment, the Trustees may change, with the consent of the Manager, the class of shares used as the Measuring Class without shareholder approval, unless shareholder approval of such change is otherwise required by applicable law. If a different class of shares ("Replacement Measuring Class")

is substituted in calculating the Performance Adjustment, the use of that Replacement Measuring Class of shares for purposes of calculating the Performance Adjustment may apply to the entire Performance Period so long as the Replacement Measuring Class was outstanding at the beginning of such period. If the Replacement Measuring Class of shares was not outstanding for all or a portion of the Performance Period, it may only be used in calculating that portion of the Performance Adjustment attributable to the period during which the Replacement Measuring Class was outstanding and any previous portion of the Performance Period will be calculated using the Measuring Class.

Notwithstanding any other provisions in this Schedule C, the computation of the Performance Adjustment Rate, the Investment Performance of the Measuring Class and the Investment Record of the Benchmark will be made in accordance with the Investment Advisers Act of 1940, as amended, and any applicable rules thereunder.

Putnam Core Bond Fund

Legacy Base Fee:

0.60% of Average Net Assets

Legacy Benchmark: ICE BofA U.S. Treasury Bill Index (GOBA)

Legacy Hurdle: 3.00%

Legacy Maximum Performance Adjustment Rate: 0.12%

Legacy Minimum Performance Adjustment Rate: -0.12%

During the Interim Period, the Fund will pay the lesser of the Fund's fee computed in accordance with Schedule B and the Legacy Management Fee (as defined below).

Legacy Management Fee. The Legacy Management Fee is an amount equal to the Legacy Base Fee, adjusted, on a monthly basis, upward or downward, as the case may be, by an amount computed by applying the Legacy Performance Adjustment Rate to the Average Net Assets of the Fund for the Performance Period and dividing the result by twelve.

Performance Period. The Performance Period is equal to the thirty-six month period then ended.

Legacy Performance Adjustment Rate. The Legacy Performance Adjustment Rate is equal to the product of 0.04 multiplied by the difference, positive or negative, obtained by subtracting (i) the sum of the Investment Record of the Legacy Benchmark for the Performance Period plus the Legacy Hurdle from (ii) the Investment Performance of the Measuring Class for the Performance Period; provided that the Legacy Performance Adjustment Rate for the Fund may not exceed the Legacy Maximum Performance Adjustment Rate set forth above or be less than the Legacy Minimum Performance Adjustment Rate set forth above.

Investment Performance and Investment Record. These terms are used as defined in Rule 205-1 under the Investment Advisers Act of 1940, as amended, and shall each be computed on an annualized basis for any Performance Period greater than one year.

Legacy Benchmark. The Fund's Legacy Benchmark is set forth above. If the Trustees determine that another appropriate index of securities prices should be substituted as the Legacy Benchmark,

the Trustees may determine, with the consent of the Manager, to use such other appropriate index of securities prices for purposes of this Schedule C (the “Replacement Benchmark”) without shareholder approval, unless shareholder approval of the change is otherwise required by applicable law. Any Replacement Benchmark will be applied prospectively to determine the amount of the Performance Adjustment. The Legacy Benchmark will continue to be used to determine the amount of the Performance Adjustment for that part of the Performance Period prior to the effective date of the Replacement Benchmark.

Measuring Class. The “Measuring Class” of shares of the Fund initially is Class A shares of the Fund. If the Trustees determine that a different class of shares of the Fund is the most appropriate for use in calculating the Performance Adjustment, the Trustees may change, with the consent of the Manager, the class of shares used as the Measuring Class without shareholder approval, unless shareholder approval of such change is otherwise required by applicable law. If a different class of shares (“Replacement Measuring Class”) is substituted in calculating the Performance Adjustment, the use of that Replacement Measuring Class of shares for purposes of calculating the Performance Adjustment may apply to the entire Performance Period so long as the Replacement Measuring Class was outstanding at the beginning of such period. If the Replacement Measuring Class of shares was not outstanding for all or a portion of the Performance Period, it may only be used in calculating that portion of the Performance Adjustment attributable to the period during which the Replacement Measuring Class was outstanding and any previous portion of the Performance Period will be calculated using the Measuring Class.

Notwithstanding any other provisions in this Schedule C, the computation of the Legacy Performance Adjustment Rate, the Investment Performance of the Measuring Class and the Investment Record of the Legacy Benchmark will be made in accordance with the Investment Advisers Act of 1940, as amended, and any applicable rules thereunder.

Appendix C-4 – Form of New Management Contract

For the following funds only:

Putnam Retirement Advantage 2025 Fund
Putnam Retirement Advantage 2030 Fund
Putnam Retirement Advantage 2035 Fund
Putnam Retirement Advantage 2040 Fund
Putnam Retirement Advantage 2045 Fund
Putnam Retirement Advantage 2050 Fund
Putnam Retirement Advantage 2055 Fund
Putnam Retirement Advantage 2060 Fund
Putnam Retirement Advantage 2065 Fund
Putnam Retirement Advantage Maturity Fund
Putnam Sustainable Retirement 2025 Fund
Putnam Sustainable Retirement 2030 Fund
Putnam Sustainable Retirement 2035 Fund
Putnam Sustainable Retirement 2040 Fund
Putnam Sustainable Retirement 2045 Fund
Putnam Sustainable Retirement 2050 Fund

Putnam Sustainable Retirement 2055 Fund
Putnam Sustainable Retirement 2060 Fund
Putnam Sustainable Retirement 2065 Fund
Putnam Sustainable Retirement Maturity Fund

FORM OF NEW MANAGEMENT CONTRACT

This Management Contract is dated as of [•] between [NAME OF TRUST/FUND], a Massachusetts business trust (the “Fund”), and PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the “Manager”).

In consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY MANAGER TO FUND.

(a) The Manager, at its expense, will furnish continuously an investment program for the Fund or, in the case of a Fund that has divided its shares into two or more series under Section 18(f)(2) of the Investment Company Act of 1940, as amended (the “1940 Act”), each series of the Fund identified from time to time on Schedule A to this Contract (each reference in this Contract to “a Fund” or to “the Fund” is also deemed to be a reference to any existing series of the Fund, as appropriate in the particular context), will determine what investments will be purchased, held, sold or exchanged by the Fund and what portion, if any, of the assets of the Fund will be held uninvested and will, on behalf of the Fund, make changes in such investments. Subject always to the control of the Trustees of the Fund and except for the functions carried out by the officers and personnel referred to in Section 1(d), the Manager will also manage, supervise and conduct the other affairs and business of the Fund and matters incidental thereto. In the performance of its duties, the Manager will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of the Fund and the stated investment objectives, policies and restrictions of the Fund, will use its best efforts to safeguard and promote the welfare of the Fund and to comply with other policies which the Trustees may from time to time determine and will exercise the same care and diligence expected of the Trustees.

(b) The Manager, at its expense, except as such expense is paid by the Fund as provided in Section 1(d), will furnish (1) all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully; (2) suitable office space for the Fund; and (3) administrative facilities, including bookkeeping, clerical personnel and equipment necessary for the efficient conduct of the affairs of the Fund, including determination of the net asset value of the Fund, but excluding shareholder accounting services. Except as otherwise provided in Section 1(d), the Manager will pay the compensation, if any, of the officers of the Fund.

(c) The Manager, at its expense, will place all orders for the purchase and sale of portfolio investments for the Fund’s account with brokers or dealers selected by the Manager. In the selection of such brokers or dealers and the placing of such orders, the Manager will use its best efforts to obtain for the Fund the most favorable price and execution available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Manager, bearing in mind the Fund’s best interests

at all times, will consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. Subject to such policies as the Trustees of the Fund may determine, the Manager will not be deemed to have acted unlawfully or to have breached any duty created by this Contract or otherwise solely by reason of its having caused the Fund to pay a broker or dealer that provides brokerage and research services to the Manager an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Manager determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or the Manager's overall responsibilities with respect to the Fund and to other clients of the Manager as to which the Manager exercises investment discretion. The Manager agrees that in connection with purchases or sales of portfolio investments for the Fund's account, neither the Manager nor any officer, director, employee or agent of the Manager shall act as a principal or receive any commission other than as provided in Section 3.

(d) The Fund will pay or reimburse the Manager for the compensation in whole or in part of such officers of the Fund and persons assisting them as may be determined from time to time by the Trustees of the Fund. The Fund will also pay or reimburse the Manager for all or part of the cost of suitable office space, utilities, support services and equipment attributable to such officers and persons as may be determined in each case by the Trustees of the Fund. The Fund will pay the fees, if any, of the Trustees of the Fund.

(e) The Manager will not be obligated to pay any expenses of or for the Fund not expressly assumed by the Manager pursuant to this Section 1 other than as provided in Section 3.

(f) Subject to the prior approval of a majority of the Trustees, including a majority of the Trustees who are not "interested persons" and, to the extent required by the 1940 Act and the rules and regulations under the 1940 Act, subject to any applicable guidance or interpretation of the Securities and Exchange Commission or its staff, by the shareholders of the Fund, the Manager may, from time to time, delegate to a sub-adviser or sub-administrator any of the Manager's duties under this Contract, including the management of all or a portion of the assets being managed. In all instances, however, the Manager must oversee the provision of delegated services, the Manager must bear the separate costs of employing any sub-adviser or sub-administrator, and no delegation will relieve the Manager of any of its obligations under this Contract.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of the Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Manager, and in any person controlled by or under common control with the Manager, and that the Manager and any person controlled by or under common control with the Manager may have an interest in

the Fund. It is also understood that the Manager and any person controlled by or under common control with the Manager may have advisory, management, service or other contracts with other organizations and persons and may have other interests and business.

3. COMPENSATION TO BE PAID BY THE FUND TO THE MANAGER.

The Fund will pay to the Manager as compensation for the Manager's services rendered, for the facilities furnished and for the expenses borne by the Manager pursuant to paragraphs (a), (b), and (c) of Section 1, a fee, based on the Fund's Average Net Assets, computed and paid monthly at the annual rates set forth on Schedule B (with respect to the Sustainable Retirement Funds) and Schedule C (with respect to the Retirement Advantage Funds), each as attached to this Contract, as from time to time amended.

"Average Net Assets" means the average of all of the determinations of the Fund's net asset value at the close of business on each business day during each month while this Contract is in effect. The fee is payable for each month within 30 days after the close of the month.

The fees payable by the Fund to the Manager pursuant to this Section 3 will be reduced by any commissions, fees, brokerage or similar payments received by the Manager or any affiliated person of the Manager in connection with the purchase and sale of portfolio investments of the Fund, less any direct expenses approved by the Trustees incurred by the Manager or any affiliated person of the Manager in connection with obtaining such payments.

In the event that expenses of the Fund for any fiscal year exceed the expense limitation on investment company expenses imposed by any statute or regulatory authority of any jurisdiction in which shares of the Fund are qualified for offer or sale, the compensation due the Manager for such fiscal year will be reduced by the amount of excess by a reduction or refund thereof. In the event that the expenses of the Fund exceed any expense limitation which the Manager may, by written notice to the Fund, voluntarily declare to be effective subject to such terms and conditions as the Manager may prescribe in such notice, the compensation due the Manager will be reduced, and if necessary, the Manager will assume expenses of the Fund, to the extent required by the terms and conditions of such expense limitation.

If the Manager serves for less than the whole of a month, the foregoing compensation will be prorated.

4. ASSIGNMENT TERMINATES THIS CONTRACT; AMENDMENTS OF THIS CONTRACT.

This Contract will automatically terminate, without the payment of any penalty, in the event of its assignment, provided that no delegation of responsibilities by the Manager pursuant to Section 1(f) will be deemed to constitute an assignment. No provision of this Contract may be changed, waived, discharged or terminated orally, but only by an instrument in writing signed by the party against which enforcement of the change, waiver, discharge or termination is sought. No amendment of this Contract is effective until approved in a manner consistent with the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

5. EFFECTIVE PERIOD AND TERMINATION OF THIS CONTRACT.

This Contract is effective upon its execution and will remain in full force and effect as to a Fund continuously thereafter (unless terminated automatically as set forth in Section 4 or terminated in accordance with the following paragraph) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter so long as its continuance is approved at least annually by (i) the Trustees, or the shareholders by the affirmative vote of a majority of the outstanding shares of the respective Fund, and (ii) a majority of the Trustees who are not interested persons of the Fund or of the Manager, by vote cast in person at a meeting called for the purpose of voting on such approval.

Either party hereto may at any time terminate this Contract as to a Fund by not less than 60 days' written notice delivered or mailed by registered mail, postage prepaid, to the other party. Action with respect to a Fund may be taken either (i) by vote of a majority of the Trustees or (ii) by the affirmative vote of a majority of the outstanding shares of the respective Fund.

Termination of this Contract pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Contract, the "affirmative vote of a majority of the outstanding shares" of a Fund means the affirmative vote, at a duly called and held meeting of shareholders of the respective Fund, (a) of the holders of 67% or more of the shares of the Fund present (in person or by proxy) and entitled to vote at the meeting, if the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting are present in person or by proxy or (b) of the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting, whichever is less.

For the purposes of this Contract, the terms "affiliated person," "control," "interested person" and "assignment" have their respective meanings defined in the 1940 Act, subject, however, to the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; the term "approve at least annually" will be construed in a manner consistent with the 1940 Act and the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; and the term "brokerage and research services" has the meaning given in the Securities Exchange Act of 1934 and the rules and regulations under the Securities Exchange Act of 1934 and under any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

7. NON-LIABILITY OF MANAGER.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Manager, or reckless disregard of its obligations and duties hereunder, the Manager shall not be subject to any liability to the Fund or to any shareholder of the Fund for any act or omission in the course of, or connected with, rendering services hereunder.

8. NO THIRD-PARTY BENEFICIARIES

No shareholder or any person other than the Fund and the Manager is a party to this Contract or shall be entitled to any right or benefit arising under or in respect of this Contract; there are no third-party beneficiaries of this Contract. Without limiting the generality of the foregoing, nothing in this Contract is intended to, or shall be read to, (i) create in any shareholder or person other than the Fund in question (including without limitation any shareholder in any Fund) any direct, indirect, derivative, or other rights against the Manager, or (ii) create or give rise to any duty or obligation on the part of the Manager (including without limitation any fiduciary duty) to any shareholder or person other than the Fund, and all of the rights, duties, and obligations referred to in the foregoing clauses (i) and (ii) are hereby expressly excluded from this Contract.

9. LIMITATION OF LIABILITY OF THE TRUSTEES, OFFICERS, AND SHAREHOLDERS.

A copy of the Agreement and Declaration of Trust of the Fund is on file with the Secretary of The Commonwealth of Massachusetts, and notice is hereby given that this instrument is executed on behalf of the Trustees of the Fund as Trustees and not individually and that the obligations of or arising out of this instrument are not binding upon any of the Trustees, officers or shareholders individually but are binding only upon the assets and property of the respective Fund.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, [NAME OF TRUST/FUND] and PUTNAM INVESTMENT MANAGEMENT, LLC have each caused this instrument to be signed on its behalf by its President or a Vice President thereunto duly authorized, all as of the day and year first above written.

[Name of Trust/Fund]

By: _____

Name:

Title:

PUTNAM INVESTMENT MANAGEMENT, LLC

By: _____

Name:

Title:

Schedule A

[List of Funds]

Schedule B

[FEE SCHEDULE: See **Appendix B** to this proxy statement for the Putnam Sustainable Retirement Funds' detailed fee information. The management fee for each fund under the proposed new management contract is identical to that for each fund under the fund's previous management contract.]

[FEE SCHEDULE: See **Appendix B** to this proxy statement for the Putnam Retirement Advantage Funds' detailed fee information. The management fee for each fund under the proposed new management contract is identical to that for each fund under the fund's previous management contract.]

Appendix C-5 – Form of New Management Contract

For the following funds only:

Putnam BDC Income ETF

Putnam BioRevolution™ ETF

Putnam Emerging Markets ex-China ETF

Putnam ESG Core Bond ETF

Putnam ESG High Yield ETF

Putnam ESG Ultra Short ETF

Putnam Focused Large Cap Growth ETF

Putnam Focused Large Cap Value ETF

Putnam PanAgora ESG Emerging Markets Equity ETF

Putnam PanAgora ESG International Equity ETF

Putnam Sustainable Future ETF

Putnam Sustainable Leaders ETF

FORM OF NEW MANAGEMENT CONTRACT

This Management Contract (the "Contract") is dated as of [•] between [NAME OF TRUST/FUND], a Delaware statutory trust (the "Fund"), and PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the "Manager").

In consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY MANAGER TO FUND.

(a) The Manager, at its expense, will furnish continuously an investment program for the Fund or, in the case of a Fund that has divided its shares into two or more series under Section 18(f)(2) of the Investment Company Act of 1940, as amended (the "1940 Act"), each series of the Fund identified from time to time on Schedule A to this Contract (each reference in this Contract to "a Fund" or to "the Fund" is also deemed to be a reference to any existing series of the Fund, as appropriate in the particular context), will determine what investments will be purchased, held, sold or exchanged by the Fund and what portion, if any, of the assets of the Fund will be held uninvested and will, on behalf of the Fund, make changes in such investments. Subject always to the control of the Trustees of the Fund [and except for the functions carried out by such officers of the Fund and persons assisting them as may be determined from time to time by the Trustees,]¹ the Manager will also manage, supervise and conduct the other affairs and business of the Fund and matters incidental thereto. In the performance of its duties,

the Manager will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of the Fund and the stated investment objectives, policies and restrictions of the Fund, will use its best efforts to safeguard and promote the welfare of the Fund and to comply with other policies which the Trustees may from time to time determine.

(b) The Manager, at its expense, except as such expense is paid by the Fund as provided in Section 1(e), will furnish (1) all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully; (2) suitable office space for the Fund; and (3) administrative facilities, including bookkeeping, clerical personnel and equipment necessary for the efficient conduct of the affairs of the Fund, including determination of the net asset value of the Fund, but excluding shareholder accounting services. The Manager will pay the compensation, if any, of the officers of the Fund.

(c) The Manager, at its expense, will place all orders for the purchase and sale of portfolio investments for the Fund's account with brokers or dealers selected by the Manager. In the selection of such brokers or dealers and the placing of such orders, the Manager will use its best efforts to obtain for the Fund the most favorable price and execution available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Manager, bearing in mind the Fund's best interests at all times, will consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. Subject to such policies as the Trustees of the Fund may determine, the Manager will not be deemed to have acted unlawfully or to have breached any duty created by this Contract or otherwise solely by reason of its having caused the Fund to pay a broker or dealer that provides brokerage and research services to the Manager an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Manager determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or the Manager's overall responsibilities with respect to the Fund and to other clients of the Manager as to which the Manager exercises investment discretion. The Manager agrees that in connection with purchases or sales of portfolio investments for the Fund's account, neither the Manager nor any officer, director, employee or agent of the Manager shall act as a principal or receive any commission other than as permitted by the 1940 Act and the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

(d) The Manager will vote all proxies solicited by or with respect to issuers of securities in which assets of a Fund may be invested from time to time in accordance with its proxy voting policy in effect from time to time.

¹ Bracketed language only for Putnam BDC Income ETF, Putnam BioRevolution™ ETF, Putnam Emerging Markets ex-China ETF, Putnam ESG Core Bond ETF, Putnam ESG High Yield ETF, Putnam ESG Ultra Short ETF, Putnam PanAgora ESG International Equity ETF, and Putnam PanAgora ESG Emerging Markets Equity ETF.

(e) In consideration of the fees payable by the Fund to the Manager pursuant to Section 3, the Manager will also pay all expenses incurred by the Fund, or reimburse the Fund for, all of the Fund's organizational and other operating expenses, excluding only (i) interest and taxes (including, but not limited to, income, excise, transfer and withholding taxes); (ii) expenses of the Fund incurred with respect to the acquisition and disposition of portfolio securities, commodities or other financial instruments and the execution of portfolio transactions, including brokerage commissions; (iii) expenses incurred in connection with any distribution plan adopted by the Fund in compliance with Rule 12b-1 under the 1940 Act, including distribution fees; (iv) expenses of printing and mailing proxy materials to shareholders of the Fund; (v) all other expenses incidental to holding meetings of the Fund's shareholders, including proxy solicitations therefor; (vi) litigation expenses (including, but not limited to, any indemnification obligation, attorneys' fees, expenses, costs, judgments, amounts paid in settlement, fines, penalties, fees of expert witnesses, document production fees, and all other liabilities whatsoever incurred or paid by the Fund or a person indemnified by the Fund); (vii) the fee payable to the Manager hereunder; (viii) any extraordinary expenses (which, for the avoidance of doubt, do not include expenses related to the organization of any subsidiary for a Fund or the ongoing corporate expenses of maintaining such subsidiary) and (ix) acquired fund fees and expenses. The Manager shall promptly inform the Trustees of any expenses, or category of expenses, determined to be "extraordinary expenses" for purposes of this Section 1(e).

(f) Subject to the prior approval of a majority of the Trustees, including a majority of the Trustees who are not "interested persons" and, to the extent required by the 1940 Act and the rules and regulations under the 1940 Act, subject to any applicable guidance or interpretation of the Securities and Exchange Commission or its staff, by the shareholders of the Fund, the Manager may, from time to time, delegate to a sub-adviser or sub-administrator any of the Manager's duties under this Contract, including the management of all or a portion of the assets being managed. In all instances, however, the Manager must oversee the provision of delegated services, the Manager must bear the separate costs of employing any sub-adviser or sub-administrator, and no delegation will relieve the Manager of any of its obligations under this Contract.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of the Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Manager, and in any person controlled by or under common control with the Manager, and that the Manager and any person controlled by or under common control with the Manager may have an interest in the Fund. It is also understood that the Manager and any person controlled by or under common control with the Manager may have advisory, management, service or other contracts with other organizations and persons and may have other interests and business.

3. COMPENSATION TO BE PAID BY THE FUND TO THE MANAGER.

The Fund will pay to the Manager as compensation for the Manager's services rendered, for the facilities furnished and for

the expenses borne by the Manager pursuant to paragraphs (a), (b), and (c) of Section 1, a fee, based on the Fund's Average Net Assets, computed and paid monthly at the annual rates set forth on Schedule B attached to this Contract, as from time to time amended. The Fund's "Average Net Assets" means the average of all of the determinations of the Fund's net asset value at the close of business on each business day during each period for which such computation is made. The fee is payable for each month within 15 days after the close of the month.

If the Manager serves for less than the whole of a month, the foregoing compensation will be prorated.

4. ASSIGNMENT TERMINATES THIS CONTRACT; AMENDMENTS OF THIS CONTRACT.

This Contract will automatically terminate, without the payment of any penalty, in the event of its assignment, provided that no delegation of responsibilities by the Manager pursuant to Section 1(f) will be deemed to constitute an assignment. No provision of this Contract may be changed, waived, discharged or terminated orally, but only by an instrument in writing signed by the party against which enforcement of the change, waiver, discharge or termination is sought. No amendment of this Contract is effective until approved in a manner consistent with the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

5. EFFECTIVE PERIOD AND TERMINATION OF THIS CONTRACT.

This Contract is effective upon its execution and will remain in full force and effect as to a Fund continuously thereafter (unless terminated automatically as set forth in Section 4 or terminated in accordance with the following paragraph) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter so long as its continuance is approved at least annually by (i) the Trustees, or the shareholders by the affirmative vote of a majority of the outstanding shares of the respective Fund, and (ii) a majority of the Trustees who are not interested persons of the Fund or of the Manager in a manner consistent with the 1940 Act, the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

Either party hereto may at any time terminate this Contract as to a Fund by not less than 60 days' written notice delivered or mailed by registered mail, postage prepaid, to the other party. Action with respect to a Fund may be taken either (i) by vote of a majority of the Trustees or (ii) by the affirmative vote of a majority of the outstanding shares of the respective Fund.

Termination of this Contract pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Contract, the "affirmative vote of a majority of the outstanding shares" of a Fund means the affirmative vote, at a duly called and held meeting of shareholders of the respective Fund, (a) of the holders of 67% or more of the shares of the Fund present (in person or by proxy) and entitled to vote at the meeting, if the holders of more than 50% of the outstanding shares of the

Fund entitled to vote at the meeting are present in person or by proxy or (b) of the holders of more than 50% of the outstanding shares of the Fund entitled to vote at the meeting, whichever is less.

For the purposes of this Contract, the terms “affiliated person,” “control,” “interested person” and “assignment” have their respective meanings defined in the 1940 Act, subject, however, to the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; the term “approve at least annually” will be construed in a manner consistent with the 1940 Act and the rules and regulations under the 1940 Act and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff; and the term “brokerage and research services” has the meaning given in the Securities Exchange Act of 1934 and the rules and regulations under the Securities Exchange Act of 1934 and under any applicable guidance or interpretation of the Securities and Exchange Commission or its staff.

7. NON-LIABILITY OF MANAGER.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Manager, or reckless disregard of its obligations and duties hereunder, the Manager shall not be subject to any liability to the Fund or to any shareholder of the Fund for any act or omission in the course of, or connected with, rendering services hereunder.

8. NO THIRD-PARTY BENEFICIARIES.

No shareholder or any person other than the Fund and the Manager is a party to this Contract or shall be entitled to any right or benefit arising under or in respect of this Contract; there are no third-party beneficiaries of this Contract. Without limiting the generality of the foregoing, nothing in this Contract is intended to, or shall be read to, (i) create in any shareholder or person other than the Fund in question (including without limitation any shareholder in any Fund) any direct, indirect, derivative, or other rights against the Manager, or (ii) create or give rise to any duty or obligation on the part of the Manager (including without limitation any fiduciary duty) to any shareholder or person other than the Fund, and all of the rights, duties, and obligations referred to in the foregoing clauses (i) and (ii) are hereby expressly excluded from this Contract.

9. LIMITATION OF LIABILITY OF THE TRUSTEES, OFFICERS, AND SHAREHOLDERS.

Notice is hereby given that this instrument is executed on behalf of the Trustees of the Fund as Trustees and not individually and that the obligations of or arising out of this instrument are not binding upon any of the Trustees, officers or shareholders individually but are binding only upon the assets and property of the respective Fund.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, [NAME OF TRUST/FUND] and PUTNAM INVESTMENT MANAGEMENT, LLC have each caused this instrument to be signed on its behalf by its President or a Vice President thereunto duly authorized, all as of the day and year first above written.

[Name of Trust/Fund]

By: _____

Name:

Title:

PUTNAM INVESTMENT MANAGEMENT, LLC

By: _____

Name:

Title:

Schedule A

[List of Funds]

Schedule B

[FEE SCHEDULE: See **Appendix B** to this proxy statement for each fund’s detailed fee information. The management fee for each fund under the proposed new management contract is identical to that for each fund under the fund’s previous management contract.]

Appendix D — Current Sub-Advisory Contracts — Dates, Approvals and Fees

Appendix D-1 — Current Sub-Advisory Contracts with Putnam Investments Limited (“PIL”) — Dates, Approvals and Fees

Fund	Date of Current Sub-Advisory Contract	Date Current Sub-Advisory Contract Last Approved by Board of Trustees	Date Current Sub-Advisory Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Sub-Advisory Contract to Shareholder Vote	Sub-Advisory Fee
Putnam BDC Income ETF, Putnam BioRevolution™ ETF, and Putnam Emerging Markets ex-China ETF	January 18, 2023	June 23, 2023	September 23, 2022	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL
Putnam ESG Core Bond ETF, Putnam ESG High Yield ETF, and Putnam ESG Ultra Short ETF	January 18, 2023	June 23, 2023	January 18, 2023	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL
Putnam Focused Large Cap Growth ETF and Putnam Focused Large Cap Value ETF	January 18, 2023	June 23, 2023	May 24, 2021	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL
Putnam Government Money Market Fund	July 1, 2022	June 23, 2023	October 16, 2015	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Mortgage Opportunities Fund	July 1, 2022	June 23, 2023	March 20, 2015	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Multi-Asset Income Fund	July 1, 2022	June 23, 2023	November 22, 2019	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Retirement Advantage 2025 Fund, Putnam Retirement Advantage 2030 Fund, Putnam Retirement Advantage 2035 Fund, Putnam Retirement Advantage 2040 Fund, Putnam Retirement Advantage 2045 Fund, Putnam Retirement Advantage 2050 Fund, Putnam Retirement Advantage 2055 Fund, and Putnam Retirement Advantage 2060 Fund	July 1, 2022	June 23, 2023	December 31, 2019	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.

Fund	Date of Current Sub-Advisory Contract	Date Current Sub-Advisory Contract Last Approved by Board of Trustees	Date Current Sub-Advisory Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Sub-Advisory Contract to Shareholder Vote	Sub-Advisory Fee
Putnam Retirement Advantage 2065 Fund	July 1, 2022	June 23, 2023	December 31, 2020	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Sustainable Future ETF and Putnam Sustainable Leaders ETF	January 18, 2023	June 23, 2023	May 24, 2021	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Sustainable Retirement 2065 Fund	July 1, 2022	June 23, 2023	January 1, 2021	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Ultra Short Duration Income Fund	July 1, 2022	June 23, 2023	N/A*	N/A*	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Ultra Short MAC Series	July 1, 2022	June 23, 2023	April 4, 2023	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
Putnam Sustainable Retirement 2060 Fund	July 1, 2022	June 23, 2023	June 19, 2015	Organization of fund	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.
All funds other than Putnam PanAgora ESG International Equity ETF, Putnam PanAgora ESG Emerging Markets Equity ETF, and the funds listed above	July 1, 2022	June 23, 2023	N/A*	N/A*	0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.

* Consistent with law and interpretations of the Securities and Exchange Commission staff, it was not necessary for shareholders to approve the sub-advisory contract with PIL at the time it was entered into.

Appendix D-2 — Current Sub-Advisory Contracts with The Putnam Advisory Company, LLC (“PAC”) — Dates, Approvals and Fees

Fund	Date of Current Sub-Advisory Contract	Date Current Sub-Advisory Contract Last Approved by Board of Trustees	Date Current Sub-Advisory Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Sub-Advisory Contract to Shareholder Vote	Sub-Advisory Fee
Putnam Dynamic Asset Allocation Balanced Fund Putnam Dynamic Asset Allocation Conservative Fund Putnam Dynamic Asset Allocation Equity Fund Putnam Dynamic Asset Allocation Growth Fund Putnam Emerging Markets Equity Fund Putnam Focused Equity Fund Putnam Focused International Equity Fund Putnam Global Health Care Fund Putnam Global Technology Fund Putnam International Capital Opportunities Fund Putnam International Equity Fund Putnam International Value Fund Putnam Research Fund Putnam Short Duration Bond Fund Putnam VT Emerging Markets Equity Fund Putnam VT Focused International Equity Fund Putnam VT Global Asset Allocation Fund Putnam VT Global Health Care Putnam VT International Equity Fund Putnam VT International Value Fund Putnam VT Research Fund	July 1, 2022	June 23, 2023	N/A*	N/A*	0.25% per annum of average net asset value of the assets in equity and asset allocation portion of each fund managed by PAC and 0.20% per annum of average aggregate net asset value of the assets in fixed income portion of each fund managed by PAC.
Putnam Multi-Asset Income Fund	July 1, 2022	June 23, 2023	November 22, 2019	Organization of fund	0.25% per annum of average net asset value of the assets in equity and asset allocation portion of the fund managed by PAC and 0.20% per annum of average aggregate net asset value of the assets in fixed income portion of the fund managed by PAC.

* Consistent with law and interpretations of the Securities and Exchange Commission staff, it was not necessary for shareholders to approve the sub-advisory contract with PAC at the time it was entered into.

Appendix D-3 — Current Sub-Advisory Contracts with PanAgora Asset Management, Inc. (“PanAgora”) — Dates, Approvals and Fees

Fund	Date of Current Sub-Advisory Contract	Date Current Sub-Advisory Contract Last Approved by Board of Trustees	Date Current Sub-Advisory Contract Last Submitted to Shareholder Vote	Purpose of Last Submission of Current Sub-Advisory Contract to Shareholder Vote	Sub-Advisory Fee
Putnam PanAgora ESG Emerging Markets Equity ETF	January 18, 2023	June 23, 2023	September 23, 2022	Organization of fund	0.21% of average aggregate net asset value of the portion of the fund managed by PanAgora.
Putnam PanAgora ESG International Equity ETF	January 18, 2023	June 23, 2023	September 23, 2022	Organization of fund	0.17% of average aggregate net asset value of the portion of the fund managed by PanAgora.

Appendix E — Description of Contract Approval Process

The discussion below summarizes the principal factors considered by the Trustees in approving the continuance of the current management contracts (the “Current Management Contracts”) in June 2023.

General conclusions

The Board of Trustees of The Putnam Funds (the “funds”) oversees the management of each fund and, as required by law, determines annually whether to approve the continuance of your fund’s management contract with Putnam Investment Management, LLC (“Putnam Management”) and, as applicable, the sub-management contract with respect to your fund between Putnam Management and its affiliate, Putnam Investments Limited (“PIL”), the sub-advisory contract among Putnam Management, PIL, and another affiliate, The Putnam Advisory Company (“PAC”), and the sub-advisory contract between Putnam Management and its affiliate, PanAgora Asset Management, Inc. (“PanAgora”). The Board, with the assistance of its Contract Committee, requests and evaluates all information it deems reasonably necessary under the circumstances in connection with its annual contract review. The Contract Committee consists solely of Trustees who are not “interested persons” (as this term is defined in the Investment Company Act of 1940, as amended (the “1940 Act”)) of the funds (“Independent Trustees”).

At the outset of the review process, members of the Board’s independent staff and independent legal counsel, as defined in Rule 0-1(a)(6) under the 1940 Act (the Board’s “independent legal counsel”), considered any possible changes to the annual contract review materials furnished to the Contract Committee during the course of the previous year’s review and, as applicable, identified those changes to Putnam Management. Following these discussions and in consultation with the Contract Committee, the Independent Trustees’ independent legal counsel requested that Putnam Management and its affiliates, including PanAgora, furnish specified information, together with any additional information that Putnam Management and PanAgora considered relevant, to the Contract Committee. Over the course of several months ending in June 2023, the Contract Committee met on a number of occasions with representatives of Putnam Management, and separately in executive session, to consider the information that Putnam Management and PanAgora provided. Throughout this process, the Contract Committee was assisted by the members of the Board’s independent staff and by independent legal counsel for the funds and the Independent Trustees.

At the Trustees’ June 2023 meeting, the Contract Committee met in executive session to discuss and consider its recommendations with respect to the continuance of the contracts. At that meeting, the Contract Committee also met in executive session with the other Independent Trustees to review a summary of the key financial, performance and other data that the Contract Committee considered in the course of its review. The Contract Committee recommended, and the Independent Trustees approved, the continuance of your fund’s management, sub-management

and sub-advisory contracts, as applicable, effective July 1, 2023. (Because PIL and PAC are affiliates of Putnam Management and Putnam Management remains fully responsible for all services provided by PIL and PAC, the Trustees did not attempt to evaluate PIL or PAC as separate entities, and all subsequent references to Putnam Management below should be deemed to include reference to PIL and PAC as necessary or appropriate in the context.)

The Independent Trustees’ approvals were based on the following conclusions:

- That the fee schedule in effect for your fund represented reasonable compensation in light of the nature and quality of the services being provided to the fund, the fees paid by competitive funds, the costs incurred by Putnam Management and PanAgora, as applicable, in providing services to the fund and the application of certain reductions and waivers noted below; and
- That the fee schedule in effect for your fund represented an appropriate sharing between fund shareholders and Putnam Management and PanAgora, as applicable, of any economies of scale as may exist in the management of the fund at current asset levels.

These conclusions were based on a comprehensive consideration of all information provided to the Trustees and were not the result of any single factor. Some of the factors that figured particularly in the Trustees’ deliberations and how the Trustees considered these factors are described below, although individual Trustees may have evaluated the information presented differently, giving different weights to various factors. It is also important to recognize that the management arrangements for the Putnam mutual funds and closed-end funds are the result of many years of review and discussion between the Independent Trustees and Putnam Management, that some aspects of the arrangements may receive greater scrutiny in some years than others and that the Trustees’ conclusions may be based, in part, on their consideration of fee arrangements in previous years. For example, with certain exceptions primarily involving newer funds (including the exchange-traded funds) or repositioned funds, the current fee arrangements under the vast majority of the funds’ management contracts were first implemented at the beginning of 2010 following extensive review by the Contract Committee and discussions with representatives of Putnam Management, as well as approval by shareholders. The Board of Trustees also took into account their concurrent deliberations and conclusions, and the materials that they had reviewed, in connection with their approval on June 23, 2023 of interim and new management, sub-management and sub-advisory contracts for the funds, which had been proposed in light of the transaction announced on May 31, 2023 and described elsewhere in this Proxy Statement, which will cause the funds’ current management and sub-advisory contracts to terminate in accordance with applicable law or the terms of each contract.

Management fee schedules and total expenses

The Trustees reviewed the management fee schedules in effect for all funds, including fee levels and any breakpoints. Under their management contracts, the vast majority of mutual funds have

the benefit of breakpoints in their management fee schedules that provide shareholders with reduced fee levels as assets under management in the Putnam family of funds increase. The Trustees also reviewed the total expenses of each Putnam fund, recognizing that in most cases management fees represented the major, but not the sole, determinant of total costs to fund shareholders. (Two mutual funds and each of the exchange-traded funds have implemented so-called “all-in” or unitary management fees covering substantially all routine fund operating costs.)

In reviewing fees and expenses, the Trustees generally focus their attention on material changes in circumstances – for example, changes in assets under management, changes in a fund’s investment strategy, changes in Putnam Management’s operating costs or profitability, or changes in competitive practices in the fund industry – that suggest that consideration of fee changes might be warranted. The Trustees concluded that the circumstances did not indicate that changes to the management fee schedule for any fund would be appropriate at this time.

In addition, certain funds’ management contracts provide that a fund’s management fees will be adjusted up or down depending upon whether the fund’s performance is better or worse than the performance of an appropriate index of securities prices specified in the management contract. In the course of reviewing investment performance, the Trustees examined the operation of those funds’ performance fees and concluded that these fees were operating effectively to align further Putnam Management’s economic interests with those of each fund’s shareholders.

As in the past, the Trustees also focused on the competitiveness of each fund’s total expense ratio. The Trustees noted that two mutual funds and the exchange-traded funds are subject to unitary management fees, as noted above, and that none of the exchange-traded funds have a contractual expense limitation at present. The Trustees, Putnam Management and the funds’ investor servicing agent, Putnam Investor Services, Inc. (“PSERV”), have implemented certain expense limitations for the mutual funds. These expense limitations were: (i) a contractual expense limitation applicable to specified mutual funds of 25 basis points on investor servicing fees and expenses and (ii) a contractual expense limitation applicable to specified mutual funds of 20 basis points on so-called “other expenses” (i.e., all expenses exclusive of management fees, distribution fees, investor servicing fees, investment-related expenses, interest, taxes, brokerage commissions, acquired fund fees and expenses and extraordinary expenses). These expense limitations attempt to maintain competitive expense levels for the funds. Most funds had sufficiently low expenses that these expense limitations were not operative during their fiscal years ending in 2022. Putnam Management and PSERV’s commitment to these expense limitation arrangements, which were intended to support an effort to have the mutual fund expenses meet competitive standards, was an important factor in the Trustees’ decision to approve the continuance of the mutual funds’ management, sub-management and sub-advisory contracts, as applicable.

The Trustees reviewed comparative fee and expense information for competitive funds, which indicated that, in a custom group of competitive funds selected by Broadridge Financial Solutions, Inc.

(“Broadridge”), each Putnam fund ranked in particular percentiles in management fees and total expenses (excluding any applicable 12b-1 fees) as of December 31, 2022. The fee and expense data reported by Broadridge as of December 31, 2022 reflected the most recent fiscal year-end data available in Broadridge’s database at that time.

In connection with their review of fund management fees and total expenses, the Trustees also reviewed the costs of the services provided and the profits realized by Putnam Management and its affiliates, including PanAgora, from their contractual relationships with the funds. This information included trends in revenues, expenses and profitability of Putnam Management and its affiliates relating to the investment management, investor servicing and distribution services provided to the funds, as applicable. In this regard, the Trustees also reviewed an analysis of the revenues, expenses and profitability of Putnam Management and its affiliates, allocated on a fund-by-fund basis, with respect to (as applicable) the funds’ management, distribution and investor servicing contracts. For each fund, the analysis presented information about revenues, expenses and profitability in 2022 for each of the applicable agreements separately and for the agreements taken together on a combined basis. The Trustees concluded that, at current asset levels, the fee schedules in place for each of the funds, including the fee schedule for your fund, represented reasonable compensation for the services being provided and represented an appropriate sharing between fund shareholders, Putnam Management and PanAgora, as applicable, of any economies of scale as may exist in the management of the funds at that time.

The information examined by the Trustees in connection with their annual contract review for the funds included information regarding services provided and fees charged by Putnam Management and its affiliates to other clients, including collective investment trusts offered in the defined contribution and defined benefit retirement plan markets, sub-advised mutual funds, private funds sponsored by affiliates of Putnam Management, model-only separately managed accounts and Putnam Management’s manager-traded separately managed account programs. This information included, in cases where a product’s investment strategy corresponds with a fund’s strategy, comparisons of those fees with fees charged to the funds, as well as an assessment of the differences in the services provided to these clients as compared to the services provided to the funds. The Trustees observed that the differences in fee rates between these clients and the funds are by no means uniform when examined by individual asset sectors, suggesting that differences in the pricing of investment management services to these types of clients may reflect, among other things, historical competitive forces operating in separate marketplaces. The Trustees considered the fact that in many cases fee rates across different asset classes are higher on average for 1940 Act-registered funds than for other clients, and the Trustees also considered the differences between the services that Putnam Management provides to the funds and those that it provides to its other clients. The Trustees did not rely on these comparisons to any significant extent in concluding that the management fees paid by your fund are reasonable.

Investment performance

The quality of the investment process provided by Putnam Management represented a major factor in the Trustees' evaluation of the quality of services provided by Putnam Management under your fund's management contract. The Trustees were assisted in their review of Putnam Management's investment process and performance by the work of the investment oversight committees of the Trustees and the full Board of Trustees, which meet on a regular basis with individual portfolio managers and with senior management of Putnam Management's Investment Division throughout the year. The Trustees concluded that Putnam Management generally provides a high-quality investment process — based on the experience and skills of the individuals assigned to the management of fund portfolios, the resources made available to them and in general Putnam Management's ability to attract and retain high-quality personnel — but also recognized that this does not guarantee favorable investment results for every fund in every time period.

The Trustees considered that, in the aggregate, peer-relative and benchmark-relative Putnam fund performance was generally encouraging in 2022 against a backdrop of volatile equity and fixed income markets, driven by factors such as Russia's invasion of Ukraine, increased tensions with China, disruptions in energy markets and broader supply chains, rising inflation and the significant tightening of monetary policy by the Board of Governors of the Federal Reserve in an effort to combat inflation. The Trustees further noted that, in the face of these numerous economic headwinds, corporate earnings and employment data had been generally robust throughout 2022. For the one-year period ended December 31, 2022, the Trustees noted that the Putnam funds, on an asset-weighted basis, ranked in the 41st percentile of their peers as determined by Lipper Inc. ("Lipper") and, on an asset-weighted-basis, outperformed their benchmarks by 1.3% gross of fees over the one-year period. The Committee also noted that the funds' aggregate performance over longer-term periods continued to be strong, with the funds, on an asset-weighted basis, ranking in the 34th, 27th and 22nd percentiles of their Lipper peers over the three-year, five-year and ten-year periods ended December 31, 2022, respectively. The Trustees further noted that the funds, in the aggregate, outperformed their benchmarks on a gross basis for each of the three-year, five-year and ten-year periods. The Trustees also considered the Morningstar Inc. ratings assigned to the funds and that 40 funds were rated four or five stars at the end of 2022, which represented an increase of 15 funds year-over-year. The Trustees also considered that seven funds were five-star rated at the end of 2022, which was a year-over-year decrease of two funds, and that 83% of the funds' aggregate assets were in four- or five-star rated funds at year end.

In addition to the performance of the individual Putnam funds, the Trustees considered, as they had in prior years, the performance of The Putnam Fund complex versus competitor fund complexes, as reported in the Barron's/Lipper Fund Families survey (the "Survey"). The Trustees noted that the Survey ranks mutual fund companies based on their performance across a variety of asset types, and that The Putnam Fund complex had performed exceptionally well in 2022. In this regard, the Trustees considered that the funds had ranked 9th out of 49 fund companies, 3rd out

of 49 fund companies and 2nd out of 47 fund companies for the one-year, five-year and ten-year periods, respectively. The Trustees also noted that The Putnam Fund complex had been the only fund family to rank in the top ten in all three time periods. They also noted, however, the disappointing investment performance of some Putnam funds for periods ended December 31, 2022 and considered information provided by Putnam Management regarding the factors contributing to the underperformance and, where relevant, actions being taken to improve the performance of these particular funds. The Trustees indicated their intention to continue to monitor the performance of those funds.

For purposes of the Trustees' evaluation of the Putnam funds' investment performance, the Trustees generally focus on a competitive industry ranking of each fund's total net return over a one-year, three-year and five-year period. For a number of Putnam funds with relatively unique investment mandates for which Putnam Management informed the Trustees that meaningful competitive performance rankings are not considered to be available, the Trustees evaluated performance based on their total gross and net returns and comparisons of those returns to the returns of selected investment benchmarks.

The Trustees also considered Putnam Management's continued efforts to support fund performance through certain initiatives, including structuring compensation for portfolio managers to enhance accountability for fund performance, emphasizing accountability in the portfolio management process and affirming its commitment to a fundamental-driven approach to investing.

Brokerage and soft-dollar allocations; distribution and investor servicing

The Trustees considered various potential benefits that Putnam Management and PanAgora, as applicable, may receive in connection with the services they provide under the management and sub-advisory contracts, as applicable, with your fund. These include benefits related to brokerage allocation and the use of soft dollars, whereby a portion of the commissions paid by a fund for brokerage may be used to acquire research services that are expected to be useful to Putnam Management or PanAgora, as applicable, in managing the assets of the fund and of other clients. Subject to policies established by the Trustees, soft dollars generated by these means are used predominantly to acquire brokerage and research services (including third-party research and market data) that enhance the investment capabilities and supplement the internal research efforts of Putnam Management or PanAgora, as applicable. The Trustees indicated their continued intent to monitor regulatory and industry developments in this area with the assistance of their Brokerage Committee. In addition, with the assistance of their Brokerage Committee, the Trustees indicated their continued intent to monitor the allocation of the funds' brokerage in order to ensure that the principle of seeking best price and execution remains paramount in the portfolio trading process.

Putnam Management may also receive benefits from payments made to Putnam Management's affiliates by the mutual funds for distribution services and investor services. In conjunction with the review of the funds' management, sub-management and sub-advisory contracts, the Trustees reviewed the mutual funds'

investor servicing agreement with PSERV and the mutual funds' distributor's contract and distribution plans with Putnam Retail Management Limited Partnership ("PRM"), both of which are affiliates of Putnam Management. The Trustees concluded that the fees payable by the mutual funds to PSERV and PRM for such services were fair and reasonable in relation to the nature and quality of such services, the fees paid by competitive funds and the costs incurred by PSERV and PRM in providing such services. Furthermore, the Trustees were of the view that the investor services provided by PSERV were required for the operation of the mutual funds, and that they were of a quality at least equal to those provided by other providers.

Appendix F – New Sub-Advisory Contracts

Appendix F-1 – Form of New Sub-Advisory Contract with PIL

For all funds other than Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF.

FORM OF SUB-MANAGEMENT CONTRACT

This Sub-Management Contract is dated as of [•] between PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the “Manager”) and PUTNAM INVESTMENTS LIMITED, a company organized under the laws of England and Wales (the “Sub-Manager”).

WHEREAS, the Manager is the investment manager of each of the investment companies registered under the United States Investment Company Act of 1940, as amended, that are identified on Schedule A hereto, as it may from time to time be amended by the Manager (the “Funds”), and a registered investment adviser under the United States Investment Advisers Act of 1940, as amended;

WHEREAS, the Sub-Manager is licensed as an investment manager by the Financial Conduct Authority of the United Kingdom (the “FCA”); and

WHEREAS, the Manager desires to engage the Sub-Manager from time to time to manage all or a portion of certain of the Funds:

NOW THEREFORE, in consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY SUB-MANAGER.

(a) The Sub-Manager, at its expense, will furnish continuously an investment program for all or a portion of any Fund the management of which is allocated from time to time by the Manager to the Sub-Manager (an “Allocated Sleeve”). The Manager shall, in its sole discretion, determine which Funds will have an Allocated Sleeve and the amount of assets allocated from time to time to each such Allocated Sleeve; provided that, with respect to any Fund, the Trustees of such Fund must have approved the use of the Sub-Manager prior to the creation of an Allocated Sleeve for such Fund. The Sub-Manager will determine what investments shall be purchased, held, sold or exchanged by any Allocated Sleeve and what portion, if any, of the assets of the Allocated Sleeve shall be held uninvested and shall, on behalf of the Fund, make changes in the Fund’s investments held in such Allocated Sleeve.

(b) The Manager may also, at its discretion, request the Sub-Manager to provide assistance with purchasing and selling securities for any Fund, including the placement of orders with broker-dealers selected in accordance with Section 1(d), even if the Manager has not established an Allocated Sleeve for such Fund.

(c) The Sub-Manager at its expense will furnish all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully.

(d) If requested by the Manager, the Sub-Manager shall place all orders for the purchase and sale of portfolio investments for

any Allocated Sleeve with brokers or dealers selected by the Sub-Manager. In the selection of such brokers or dealers and the placing of such orders, the Sub-Manager shall use its best efforts to obtain for the related Fund the most favorable price and execution available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Sub-Manager, bearing in mind the Fund’s best interests at all times, shall consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. To the extent permitted by applicable law and subject to such policies as the Trustees of the Funds may determine, the Sub-Manager shall not be deemed to have acted unlawfully or to have breached any duty created by this Contract or otherwise solely by reason of its having caused a Fund to pay a broker or dealer that provides brokerage and research services to the Manager or the Sub-Manager an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Sub-Manager determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or its overall responsibilities with respect to the Fund and to other clients of the Manager or the Sub-Manager as to which the Manager or the Sub-Manager exercises investment discretion. The Sub-Manager agrees that in connection with purchases or sales of portfolio investments for any Fund, neither the Sub-Manager nor any officer, director, employee or agent of the Sub-Manager shall act as a principal or receive any commission other than as provided in Section 3.

(e) The Sub-Manager shall not be obligated to pay any expenses of or for the Manager or any Fund not expressly assumed by the Sub-Manager pursuant to this Section 1.

(f) In the performance of its duties, the Sub-Manager will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of each applicable Fund and such Fund’s stated investment objectives, policies and restrictions, and will use its best efforts to safeguard and promote the welfare of such Fund and to comply with other policies which the Manager or the Trustees may from time to time determine and shall exercise the same care and diligence expected of the Manager.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of a Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Sub-Manager, and in any person controlled by or under common control with the Sub-Manager, and that the Sub-Manager and any person controlled by or under common control with the Sub-Manager may have an interest in such Fund. It is also understood that the Sub-Manager and any person controlled by or under common

control with the Sub-Manager have and may have advisory, management, service or other contracts with other organizations and persons, and may have other interests and business.

3. COMPENSATION.

Except as provided below, the Manager will pay to the Sub-Manager as compensation for the Sub-Manager's services rendered, a fee, computed and paid quarterly at the annual rate of 0.25% per annum of average aggregate net asset value of the assets in equity and asset allocation Allocated Sleeves and 0.20% per annum of average aggregate net asset value of the assets in fixed income Allocated Sleeves of Funds identified on Schedule A.

Such average net asset value shall be determined by taking an average of all of the determinations of such net asset value during a quarter at the close of business on each business day during such quarter while this Contract is in effect. Such fee shall be payable for each quarter within 30 days after the close of such quarter. The Sub-Manager shall look only to the Manager for payment of its fees. No Fund shall have any responsibility for paying any fees due the Sub-Manager.

With respect to each of Putnam Master Intermediate Income Trust and Putnam Premier Income Trust, the Manager will pay to the Sub-Manager as compensation for the Sub-Manager's services rendered, a fee, computed and paid quarterly at the annual rate of 0.20% of Average Weekly Assets in Allocated Sleeves. "Average Weekly Assets" means the average of the weekly determinations of the difference between the total assets of the Fund (including any assets attributable to leverage for investment purposes) attributable to an Allocated Sleeve and the total liabilities of the Fund (excluding liabilities incurred in connection with leverage for investment purposes) attributable to such Allocated Sleeve, determined at the close of the last business day of each week, for each week which ends during the quarter. Such fee shall be payable for each quarter within 30 days after the close of such quarter. As used in this Section 3, "leverage for investment purposes" means any incurrence of indebtedness the proceeds of which are to be invested in accordance with the Fund's investment objective. For purposes of calculating Average Weekly Assets, liabilities associated with any instruments or transactions used to leverage the Fund's portfolio for investment purposes (whether or not such instruments or transactions are "covered" within the meaning of the Investment Company Act of 1940 and the rules and regulations thereunder, giving effect to any interpretations of the Securities and Exchange Commission and its staff) are not considered liabilities. For purposes of calculating Average Weekly Assets, the total assets of the Fund will be deemed to include (a) any proceeds from the sale or transfer of an asset (the "Underlying Asset") of the Fund to a counterparty in a reverse repurchase or dollar roll transaction and (b) the value of such Underlying Asset as of the relevant measuring date.

In the event that the Manager's management fee from either of Putnam Master Intermediate Income Trust or Putnam Premier Income Trust is reduced pursuant to the investment management contract between such Fund and the Manager because during any Measurement Period (as defined below) the amount of interest payments and fees with respect to indebtedness or other obligation of the Fund incurred for investment leverage purposes,

plus additional expenses attributable to any such leverage for investment purposes, exceeds the portion of the Fund's net income and net short-term capital gains (but not long-term capital gains) accruing during such Measurement Period as a result of the fact that such indebtedness or other obligation was outstanding during the Measurement Period, the fee payable to the Sub-Manager with respect to such Fund shall be reduced in the same proportion as the fee paid to the Manager with respect to such Fund is so reduced. "Measurement Period" shall be any period for which payments of interest or fees (whether designated as such or implied) are payable in connection with any indebtedness or other obligation of the Fund incurred for investment purposes.

If the Sub-Manager shall serve for less than the whole of a quarter, the foregoing compensation shall be prorated.

4. ASSIGNMENT TERMINATES THIS CONTRACT; AMENDMENTS OF THIS CONTRACT.

This Contract shall automatically terminate without the payment of any penalty, in the event of its assignment; and this Contract shall not be amended with respect to any Allocated Sleeve unless such amendment be approved at a meeting by the vote, cast in person at a meeting called for the purpose of voting on such approval, of a majority of the Trustees of the related Fund who are not interested persons of such Fund or of the Manager.

5. EFFECTIVE PERIOD AND TERMINATION OF THIS CONTRACT.

This Contract shall become effective upon its execution, and shall remain in full force and effect continuously thereafter (unless terminated automatically as set forth in Section 4) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter until terminated as follows:

(a) Either party hereto or, with respect to any Allocated Sleeve, the related Fund may at any time terminate this Contract by not more than sixty days' nor less than thirty days' written notice delivered or mailed by registered mail, postage prepaid, to the other party, or

(b) With respect to any Allocated Sleeve, if (i) the Trustees of the related Fund or the shareholders by the affirmative vote of a majority of the outstanding shares of such Fund, and (ii) a majority of the Trustees of such Fund who are not interested persons of such Fund or of the Manager, by vote cast in person at a meeting called for the purpose of voting on such approval, do not specifically approve at least annually the continuance of this Contract, then this Contract shall automatically terminate at the close of business on the anniversary of its execution, or upon the expiration of one year from the effective date of the last such continuance, whichever is later, or

(c) With respect to any Allocated Sleeve, automatically upon termination of the Manager's investment management contract with the related Fund.

Action by a Fund under (a) above may be taken either (i) by vote of a majority of its Trustees, or (ii) by the affirmative vote of a majority of the outstanding shares of such Fund.

Termination of this Contract pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Contract, the “affirmative vote of a majority of the outstanding shares of a Fund” means the affirmative vote, at a duly called and held meeting of shareholders of such Fund, (a) of the holders of 67% or more of the shares of such Fund present (in person or by proxy) and entitled to vote at such meeting, if the holders of more than 50% of the outstanding shares of such Fund entitled to vote at such meeting are present in person or by proxy, or (b) of the holders of more than 50% of the outstanding shares of such Fund entitled to vote at such meeting, whichever is less.

For the purposes of this Contract, the terms “affiliated person,” “control,” “interested person” and “assignment” shall have their respective meanings defined in the United States Investment Company Act of 1940 and the Rules and Regulations thereunder (the “1940 Act”), subject, however, to such exemptions as may be granted by the Securities and Exchange Commission under said Act; the term “specifically approve at least annually” shall be construed in a manner consistent with the 1940 Act, and the Rules and Regulations thereunder; and the term “brokerage and research services” shall have the meaning given in the United States Securities Exchange Act of 1934 and the Rules and Regulations thereunder.

7. NON-LIABILITY OF SUB-MANAGER.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Sub-Manager, or reckless disregard of its obligations and duties hereunder, the Sub-Manager shall not be subject to any liability to the Manager, any Fund or to any shareholder of any Fund, for any act or omission in the course of, or connected with, rendering services hereunder.

8. ADDITIONAL PROVISIONS.

(a) The Sub-Manager represents that it is regulated by the FCA in the conduct of its investment business. The Sub-Manager has in operation a written procedure in accordance with FCA rules for the effective consideration and proper handling of complaints from customers. Any complaint by the Manager or any Fund should be sent to the Compliance Officer of the Sub-Manager. The Manager and any Fund is also entitled to make any complaints about the Sub-Manager to the Financial Ombudsman Service established by the FCA. The Manager and any Fund may also request a statement describing its rights to compensation in the event of the Sub-Manager’s inability to meet its liabilities.

(b) The Manager represents that it and each Fund are “Professional Customers” in the meaning of the FCA’s rules.

(c) Although each Fund is not a party hereto and shall have no responsibility for the Manager’s or the Sub-Manager’s obligations hereunder, each Fund is named as explicit third party beneficiary of the parties’ agreements hereunder.

IN WITNESS WHEREOF, PUTNAM INVESTMENTS LIMITED and PUTNAM INVESTMENT MANAGEMENT, LLC have each caused this instrument to be signed in duplicate on its behalf by an officer duly authorized, all as of the day and year first above written.

PUTNAM INVESTMENTS LIMITED

By: _____

Name:

Title:

PUTNAM INVESTMENT MANAGEMENT, LLC

By: _____

Name:

Title:

Schedule A

[List of Funds]

Appendix F-2 – Form of New Sub-Advisory Contract with PAC

For the following funds only:

Putnam Core Bond Fund
Putnam Dynamic Asset Allocation Balanced Fund
Putnam Dynamic Asset Allocation Conservative Fund
Putnam Dynamic Asset Allocation Equity Fund
Putnam Dynamic Asset Allocation Growth Fund
Putnam Emerging Markets Equity Fund
Putnam Focused Equity Fund
Putnam Focused International Equity Fund
Putnam Global Health Care Fund
Putnam Global Technology Fund
Putnam International Capital Opportunities Fund
Putnam International Equity Fund
Putnam International Value Fund
Putnam Multi-Asset Income Fund
Putnam Research Fund
Putnam Short Duration Bond Fund
Putnam VT Emerging Markets Equity Fund
Putnam VT Focused International Equity Fund
Putnam VT Global Asset Allocation Fund
Putnam VT Global Health Care
Putnam VT International Equity Fund
Putnam VT International Value Fund
Putnam VT Research Fund

FORM OF NEW SUB-ADVISORY CONTRACT

This Sub-Advisory Contract is dated as of [•] between and among PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the “Manager”), PUTNAM INVESTMENTS LIMITED, a company organized under the laws of England and Wales (“PIL”), and THE PUTNAM ADVISORY COMPANY, LLC, a Delaware limited liability company (the “Sub-Advisor”).

WHEREAS, the Manager is the investment manager of each of the investment companies registered under the United States Investment Company Act of 1940, as amended, that are identified on Schedule A hereto, as they may from time to time be amended by the Manager (the “Funds”), and a registered investment adviser under the United States Investment Advisers Act of 1940, as amended;

WHEREAS, PIL is a registered investment adviser under the United States Investment Advisers Act of 1940, as amended, is licensed as an investment manager by the Financial Conduct Authority of the United Kingdom (the “FCA”) and is a sub-manager of each of the Funds pursuant to that certain Sub-Management Contract dated as of [•] (the “PIL Sub-Management Contract”), between the Manager and PIL whereby the Manager has contracted with PIL for the management of certain portions of each of the Funds (each, a “PIL-Advised Sleeve”);

WHEREAS, the Sub-Advisor is a registered investment adviser under the United States Investment Advisers Act of 1940, as amended, and is an investment adviser authorized to provide discretionary investment advice and management in Singapore;

WHEREAS, the Manager and PIL currently engage the Sub-Advisor from time to time to provide discretionary investment management services from the Sub-Advisor’s office in Singapore with respect to all or a portion of certain of the Funds:

NOW THEREFORE, in consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY SUB-ADVISOR.

(a) The Sub-Advisor, at its expense, will furnish continuously an investment program for that portion of any Fund identified on Schedule A the management of which is allocated from time to time by the Manager or PIL to the Sub-Advisor (an “Allocated Sleeve”). The Manager or PIL, as the case may be, shall, in its sole discretion, determine which Funds will have an Allocated Sleeve and the amount of assets allocated from time to time to each such Allocated Sleeve; provided that, with respect to any Fund, the Trustees of such Fund must have approved the use of the Sub-Advisor prior to the creation of an Allocated Sleeve for such Fund. The Sub-Advisor will determine what investments shall be purchased, held, sold or exchanged by any Allocated Sleeve and what portion, if any, of the assets of the Allocated Sleeve shall be held uninvested and shall, on behalf of the Fund, make changes in the Fund’s investments held in such Allocated Sleeve.

(b) The Manager may, and in the case of a PIL-Advised Sleeve, PIL may, each at its discretion, also request the Sub-Advisor to provide assistance with purchasing and selling securities for any Fund, including the placement of orders with broker-dealers selected in accordance with Section 1(c), even if the Manager or PIL, as the case may be, has not established an Allocated Sleeve for such Fund.

(c) If requested by the Manager, the Sub-Advisor shall place all orders for the purchase and sale of portfolio investments for any Allocated Sleeve with brokers or dealers selected by the Sub-Advisor. In the selection of such brokers or dealers and the placing of such orders, the Sub-Advisor shall use its best efforts to obtain for the related Fund the most favorable price and execution

available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Sub-Advisor, bearing in mind the Fund’s best interests at all times, shall consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. Subject to such policies as the Trustees of the Funds may determine, the Sub-Advisor shall not be deemed to have acted unlawfully or to have breached any duty created by this Contract or otherwise solely by reason of its having caused a Fund to pay a broker or dealer that provides brokerage and research services to the Manager or, in the case of a PIL-Advised Sleeve, PIL, or the Sub-Advisor an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Sub-Advisor determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or its overall responsibilities with respect to the Fund and to other clients of the Manager or PIL, as the case may be, or the Sub-Advisor as to which the Manager or PIL, as the case may be, or the Sub-Advisor exercises investment discretion. The Sub-Advisor agrees that in connection with purchases or sales of portfolio investments for any Fund, neither the Sub-Advisor nor any officer, director, employee or agent of the Sub-Advisor shall act as a principal or receive any commission other than as provided in Section 3.

(d) The Sub-Advisor at its expense will furnish all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully.

(e) The Sub-Advisor shall not be obligated to pay any expenses of or for the Manager, PIL or any Fund not expressly assumed by the Sub-Advisor pursuant to this Section 1.

(f) In the performance of its duties, the Sub-Advisor will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of each applicable Fund and such Fund’s stated investment objectives, policies and restrictions, and will use its best efforts to safeguard and promote the welfare of such Fund and to comply with other policies which the Manager, PIL or the Trustees may from time to time determine and shall exercise the same care and diligence expected of the Manager and PIL.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of a Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Sub-Advisor, and in any person controlled by or under common control with the Sub-Advisor, and that the Sub-Advisor and any person controlled by or under common control with the Sub-Advisor may have an interest in such Fund. It is also understood that the Sub-Advisor and any person controlled by or under common control with the Sub-Advisor have and may have advisory, management, service

or other contracts with other organizations and persons, and may have other interests and business.

3. COMPENSATION.

Except as provided below, the Manager or PIL, as the case may be, will pay to the Sub-Advisor as compensation for the Sub-Advisor's services rendered a fee, computed and paid quarterly at the annual rate of 0.25% per annum of average net asset value of the assets in equity and asset allocation Allocated Sleeves and 0.20% per annum of average aggregate net asset value of the assets in fixed income Allocated Sleeves of Funds identified on Schedule A.

Such average net asset value shall be determined by taking an average of all of the determinations of such net asset value during a quarter at the close of business on each business day during such quarter while this Contract is in effect. Such fee shall be payable for each quarter within 30 days after the close of such quarter. The Sub-Advisor shall look only to the Manager or PIL, as the case may be, for payment of its fees. No Fund shall have any responsibility for paying any fees due the Sub-Advisor.

If the Sub-Advisor shall serve for less than the whole of a quarter, the foregoing compensation shall be prorated.

4. ASSIGNMENT TERMINATES THIS CONTRACT; AMENDMENTS OF THIS CONTRACT.

This Contract shall automatically terminate, without the payment of any penalty, in the event of its assignment; and this Contract shall not be amended with respect to any Allocated Sleeve unless such amendment be approved at a meeting by the vote, cast in person at a meeting called for the purpose of voting on such approval, of a majority of the Trustees of the related Fund who are not interested persons of such Fund or of the Manager.

5. EFFECTIVE PERIOD AND TERMINATION OF THIS CONTRACT.

This Contract shall become effective upon its execution, and shall remain in full force and effect continuously thereafter (unless terminated automatically as set forth in Section 4) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter until terminated as follows:

(a) Any party hereto or, with respect to any Allocated Sleeve, the related Fund may at any time terminate this Contract by not more than sixty days' nor less than thirty days' written notice delivered or mailed by registered mail, postage prepaid, to the other parties, or

(b) With respect to any Allocated Sleeve, if (i) the Trustees of the related Fund or the shareholders by the affirmative vote of a majority of the outstanding shares of such Fund, and (ii) a majority of the Trustees of such Fund who are not interested persons of such Fund or of the Manager, by vote cast in person at a meeting called for the purpose of voting on such approval, do not specifically approve at least annually the continuance of this Contract, then this Contract shall automatically terminate at the close of business on the anniversary of its execution, or upon the expiration of one year from the effective date of the last such continuance, whichever is later, or

(c) With respect to any Allocated Sleeve, automatically upon termination of the Manager's investment management contract with the related Fund, or with respect to any Allocated Sleeve for which PIL has contracted with the Sub-Advisor to provide services

under this Contract, automatically upon termination of the PIL Sub-Management Contract.

Action by a Fund under (a) above may be taken either (i) by vote of a majority of its Trustees, or (ii) by the affirmative vote of a majority of the outstanding shares of such Fund.

Termination of this Contract pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Contract, the "affirmative vote of a majority of the outstanding shares of a Fund" means the affirmative vote, at a duly called and held meeting of shareholders of such Fund, (a) of the holders of 67% or more of the shares of such Fund present (in person or by proxy) and entitled to vote at such meeting, if the holders of more than 50% of the outstanding shares of such Fund entitled to vote at such meeting are present in person or by proxy, or (b) of the holders of more than 50% of the outstanding shares of such Fund entitled to vote at such meeting, whichever is less.

For the purposes of this Contract, the terms "affiliated person," "control," "interested person" and "assignment" shall have their respective meanings defined in the United States Investment Company Act of 1940 and the Rules and Regulations thereunder (the "1940 Act"), subject, however, to such exemptions as may be granted by the Securities and Exchange Commission under said Act; and the term "specifically approve at least annually" shall be construed in a manner consistent with the 1940 Act, and the Rules and Regulations thereunder.

7. NON-LIABILITY OF SUB-ADVISOR.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Sub-Advisor, or reckless disregard of its obligations and duties hereunder, the Sub-Advisor shall not be subject to any liability to the Manager, PIL, any Fund or to any shareholder of any Fund, for any act or omission in the course of, or connected with, rendering services hereunder.

8. ADDITIONAL PROVISIONS.

(a) PIL represents that it is regulated by the FCA in the conduct of its investment business. PIL has in operation a written procedure in accordance with FCA rules for the effective consideration and proper handling of complaints from customers. Any complaint by the Manager or any Fund should be sent to the Compliance Officer of PIL. The Manager and any Fund is also entitled to make any complaints about PIL to the Financial Ombudsman Service established by the FCA. The Manager and any Fund may also request a statement describing its rights to compensation in the event of PIL's inability to meet its liabilities.

(b) The Manager represents that it and each Fund are "Professional Customers" in the meaning of the FCA's rules.

(c) Although each Fund is not a party hereto and shall have no responsibility for the Manager's, PIL's or the Sub-Advisor's obligations hereunder, each Fund is named as explicit third party beneficiary of the parties' agreements hereunder.

In witness whereof, PUTNAM INVESTMENT MANAGEMENT, LLC, PUTNAM INVESTMENTS LIMITED and THE PUTNAM ADVISORY COMPANY, LLC have each caused this instrument to be signed on

its behalf by an officer duly authorized, all as of the day and year first above written.

PUTNAM INVESTMENTS LIMITED

By: _____

Name:

Title:

PUTNAM INVESTMENT MANAGEMENT, LLC

By: _____

Name:

Title:

THE PUTNAM ADVISORY COMPANY, LLC

By: _____

Name:

Title:

Schedule A

[List of Funds]

Appendix F-3 – Form of New Sub-Advisory Contract with PanAgora

For Putnam PanAgora ESG Emerging Markets Equity ETF and Putnam PanAgora ESG International Equity ETF only.

FORM OF NEW SUBADVISORY AGREEMENT

This Subadvisory Agreement between PUTNAM INVESTMENT MANAGEMENT, LLC, a Delaware limited liability company (the “Adviser”) and PANAGORA ASSET MANAGEMENT, INC., a Delaware corporation (the “Subadviser”) is dated as of [•].

WHEREAS, the Adviser is the investment adviser of each of the investment companies registered under the United States Investment Company Act of 1940, as amended (the “1940 Act”), that are identified on Schedule A hereto, as it may from time to time be amended by written agreement of the Adviser and the Subadviser (the “Funds”), and a registered investment adviser under the United States Investment Advisers Act of 1940, as amended (the “Advisers Act”);

WHEREAS, the Subadviser is a registered investment adviser under the Advisers Act; and

WHEREAS, the Adviser desires to engage the Subadviser to act as investment subadviser to the Funds:

NOW THEREFORE, in consideration of the mutual covenants herein contained, it is agreed as follows:

1. SERVICES TO BE RENDERED BY SUBADVISER.

(a) The Subadviser, at its expense, will furnish continuously an investment program for that portion of each Fund (a “Portfolio”),

subject to the supervision of the Adviser and the Board of Trustees of the Funds (the “Board of Trustees”) and the terms of this Agreement. The Adviser shall, in its sole discretion, determine the amount of Fund assets allocated from time to time to each such Portfolio and the Subadviser acknowledges that there is no guarantee that any Portfolio will be of any particular size and that a Portfolio may be sized at zero in the Adviser’s sole discretion; provided that, with respect to each Fund, the Board of Trustees must have approved the use of the Subadviser prior to the creation of a Portfolio for such Fund. The Subadviser will determine what investments shall be purchased, held, sold or exchanged by any Portfolio and what portion, if any, of the assets of the Portfolio shall be held uninvested and shall, on behalf of the Fund, make changes in the Fund’s investments held in such Portfolio.

(b) The Subadviser, at its expense, will furnish all necessary investment and management facilities, including salaries of personnel, required for it to execute its duties faithfully.

(c) The Subadviser will make its officers and employees available to the Adviser and the Board of Trustees from time to time at reasonable times to review and consult with the Adviser and the Board of Trustees regarding the investment program of each Portfolio. The Subadviser will furnish to the Board of Trustees and the Adviser such reports and records regarding the Portfolio and the Subadviser as the Adviser or the Board of Trustees may reasonably request from time to time. The Subadviser (i) will make recommendations when reasonably requested, in accordance with procedures established by the Adviser and the Board of Trustees, for the fair value of securities held by the Portfolio for which market quotations are not readily available for purposes of enabling the Fund’s custodian to calculate the Fund’s net asset value; (ii) will provide such information regarding the Subadviser’s evaluation of the liquidity of portfolio securities in the Portfolio as the Adviser and the Board of Trustees may reasonably request to address the requirements of the Fund’s liquidity risk management program; (iii) will provide such information regarding derivatives transactions engaged in by the Portfolio as the Adviser and the Board of Trustees may reasonably request to address the requirements of the Fund’s derivatives risk management program; and (iv) will, upon reasonable notice, review written references to the Subadviser, its investment program for the Portfolios, and the Portfolios, whether in a prospectus, statement of additional information, shareholder report, sales material or otherwise.

(d) The Subadviser shall provide the Adviser with the Subadviser’s written policies and procedures (“Compliance Policies”) as required by Rule 206(4)-7 under the Advisers Act. The Subadviser shall promptly submit to the Adviser: (i) any material changes to the Compliance Policies related to the services provided by the Subadviser to the Portfolios, (ii) notification of the commencement of a regulatory examination of the Subadviser by any relevant regulatory authority and documentation describing the results of any such examination and of any periodic testing of the Compliance Policies, (iii) documentation of a formal review of the Subadviser’s Compliance Policies and (iv) notification of any material compliance matter that relates to the services provided by the Subadviser to the Portfolios including, but not limited to, any material violation of the Compliance Policies relating to the services provided by the Subadviser to the Portfolios or of the Subadviser’s Code of Ethics,

and (v) any breach of fiduciary duty or violation of the federal securities laws relating to the services provided by the Subadviser to the Portfolios. The Subadviser shall provide the Adviser with any certifications, information and access to personnel and resources (including those resources that will permit testing of the Compliance Policies by the Adviser) that the Adviser may reasonably request to enable the Portfolios to comply with Rule 38a-1 under the 1940 Act. The Subadviser also agrees to provide such other information relating to the Subadviser's compliance program as may be reasonably requested by the Portfolios, the Funds' Chief Compliance Officer, or his or her authorized representative.

(e) The Subadviser shall place all orders for the purchase and sale of portfolio investments for any Portfolio with brokers or dealers selected by the Subadviser. In the selection of such brokers or dealers and the placing of such orders, the Subadviser shall use its best efforts to obtain for the related Fund the most favorable price and execution available, except to the extent it may be permitted to pay higher brokerage commissions for brokerage and research services as described below. In using its best efforts to obtain for the Fund the most favorable price and execution available, the Subadviser, bearing in mind the Fund's best interests at all times, shall consider all factors it deems relevant, including by way of illustration, price, the size of the transaction, the nature of the market for the security, the amount of the commission, the timing of the transaction taking into account market prices and trends, the reputation, experience and financial stability of the broker or dealer involved and the quality of service rendered by the broker or dealer in other transactions. Subject to such policies as the Trustees of the Funds may determine, the Subadviser shall not be deemed to have acted unlawfully or to have breached any duty created by this Agreement or otherwise solely by reason of its having caused a Fund to pay a broker or dealer that provides brokerage and research services to the Adviser or the Subadviser an amount of commission for effecting a portfolio investment transaction in excess of the amount of commission another broker or dealer would have charged for effecting that transaction, if the Subadviser determines in good faith that such amount of commission was reasonable in relation to the value of the brokerage and research services provided by such broker or dealer, viewed in terms of either that particular transaction or its overall responsibilities with respect to the Fund and to other clients of the Subadviser as to which the Subadviser exercises investment discretion. The Subadviser agrees that in connection with purchases or sales of portfolio investments for any Fund, neither the Subadviser nor any officer, director, employee or agent of the Subadviser shall act as a principal or receive any commission other than as provided in Section 3.

(f) In the performance of its duties, the Subadviser will comply with the provisions of the Agreement and Declaration of Trust and By-Laws of each applicable Fund, the Fund's stated investment objectives, policies and restrictions, any additional operating policies or procedures that the Adviser communicates to the Subadviser in writing, and applicable law, and will use its best efforts to safeguard and promote the welfare of the Fund and to comply with other policies which the Adviser or the Trustees may from time to time determine and communicate to the Subadviser, and shall exercise the same care and diligence expected of the Adviser.

(g) The Subadviser will maintain all accounts, books and records with respect to the Portfolios as are required: (i) by subparagraphs (b)(5), (6), (7), (9), (10) and (11) and paragraph (f) of Rule 31a-1 under the 1940 Act; and (ii) of an investment adviser of a registered investment company pursuant to the Advisers Act and the rules thereunder. The Subadviser will keep the books and records relating to the Portfolios required to be maintained by the Subadviser under this Agreement and shall timely furnish to the Adviser all information related to the Subadviser's services under this Agreement needed by the Adviser to keep the other books and records of a Fund required by Rule 31a-1 under the 1940 Act. The Subadviser agrees that all records it maintains on behalf of a Fund are property of the Fund and the Subadviser will surrender promptly to a fund any such records upon the Fund's request.

(h) The Subadviser shall not be obligated to pay any expenses of or for the Adviser or any Fund not expressly assumed by the Subadviser pursuant to this Section 1.

(i) The Subadviser acknowledges that the Adviser will vote the shares of all securities that are held in a Portfolio.

(j) The Subadviser shall not be responsible for the preparation or filing of any other reports required of a Portfolio or a Fund by any governmental or regulatory agency, except as expressly agreed to in writing.

(k) The Adviser will be primarily responsible for taking action on behalf of the Trust in any contemplated or actual legal proceedings, including, but not limited to, bankruptcies, tax reclaims or class actions, involving the issuers of securities held or formerly held as part or all of the Portfolios. The Subadviser agrees to provide reasonable assistance when requested by the Trust or the Adviser with respect to any such contemplated or actual legal proceedings, including, but not limited to, bankruptcies, tax reclaims or class actions, involving the issuers of securities held or formerly held as part or all of the Portfolio.

2. OTHER AGREEMENTS, ETC.

It is understood that any of the shareholders, Trustees, officers and employees of a Fund may be a shareholder, director, officer or employee of, or be otherwise interested in, the Subadviser, and in any person controlled by or under common control with the Subadviser, and that the Subadviser and any person controlled by or under common control with the Subadviser may have an interest in such Fund. It is also understood that the Subadviser and any person controlled by or under common control with the Subadviser have and may have advisory, management, service or other contracts with other organizations and persons, and may have other interests and business, including proprietary interests in managed accounts and/or in Portfolio investments. It is further understood that the Subadviser shall have no obligation to acquire for a Portfolio a position in any investment which a proprietary or affiliated account may acquire if, due to the timing of cash flows or other externalities, or in the reasonable determination of the Subadviser and consistent with its internal policies, such investment is not advisable for the Portfolio.

3. COMPENSATION.

The Adviser will pay to the Subadviser, as compensation for the Subadviser's services rendered, a fee, at the annual rate set forth in Schedule B of average aggregate net asset value of the assets in a Portfolio; provided, however, that the Subadviser may voluntarily waive all or a portion of such fees by written notice to the Adviser.

Such average net asset value shall be determined by taking an average of all of the determinations of such net asset value during a quarter at the close of business on each business day of a Fund during such quarter while this Agreement is in effect. Such fee shall be payable for each quarter within 30 days after the close of such quarter. The Subadviser shall look only to the Adviser for payment of its fees. No Fund shall have any responsibility for paying any fees due the Subadviser.

If the Subadviser shall serve for less than the whole of a quarter, the foregoing compensation shall be prorated.

4. ASSIGNMENT TERMINATES THIS AGREEMENT; AMENDMENTS OF THIS AGREEMENT.

This Agreement shall automatically terminate without the payment of any penalty, in the event of its assignment, as that term is used in the 1940 Act and the rules thereunder; and this Agreement shall not be amended with respect to any Fund unless such amendment be approved (a) at a meeting by the vote, cast in person at a meeting called for the purpose of voting on such approval, of a majority of the Trustees of the Fund who are not interested persons of the Fund or of the Adviser or Subadviser; and (b) to the extent required by the 1940 Act or the rules and regulations thereunder, and any applicable guidance or interpretation of the Securities and Exchange Commission or its staff, by the affirmative vote of the outstanding shares of the Fund.

5. EFFECTIVE PERIOD AND TERMINATION OF THIS AGREEMENT.

This Agreement shall become effective upon its execution, and shall remain in full force and effect continuously thereafter (unless terminated automatically as set forth in Section 4) for an initial period of two years from the date of this Contract, and will continue in effect from year to year thereafter until terminated as follows:

(a) Either party or, with respect to any Portfolio, the related Fund may at any time terminate this Agreement by not more than sixty days' nor less than thirty days' written notice delivered or mailed by registered mail, postage prepaid, to the other party, or

(b) With respect to any Portfolio, if (i) the Trustees of the related Fund or the shareholders by the affirmative vote of a majority of the outstanding shares of such Fund, and (ii) a majority of the Trustees of such Fund who are not interested persons of such Fund or of the Adviser, by vote cast in person at a meeting called for the purpose of voting on such approval, do not specifically approve at least annually the continuance of this Agreement, then this Agreement shall automatically terminate at the close of business on the anniversary of its execution, or upon the expiration of one year from the effective date of the last such continuance, whichever is later, or

(c) With respect to any Fund, automatically upon termination of the Adviser's investment management contract with the Fund.

Action by a Fund under (a) above may be taken either (i) by vote of a majority of its Trustees, or (ii) by the affirmative vote of a majority of the outstanding shares of such Fund.

Termination of this Agreement pursuant to this Section 5 will be without the payment of any penalty.

6. CERTAIN DEFINITIONS.

For the purposes of this Agreement, the "affirmative vote of a majority of the outstanding shares of a Fund" means the affirmative vote, at a duly called and held meeting of shareholders of such Fund, (a) of the holders of 67% or more of the shares of such Fund present (in person or by proxy) and entitled to vote at such meeting, if the holders of more than 50% of the outstanding shares of such Fund entitled to vote at such meeting are present in person or by proxy, or (b) of the holders of more than 50% of the outstanding shares of such Fund entitled to vote at such meeting, whichever is less.

For the purposes of this Agreement, the terms "affiliated person," "control," "interested person" and "assignment" shall have their respective meanings defined in the 1940 Act, subject, however, to such exemptions as may be granted by the Securities and Exchange Commission under the 1940 Act; the term "specifically approve at least annually" shall be construed in a manner consistent with the 1940 Act, and the Rules and Regulations thereunder; and the term "brokerage and research services" shall have the meaning given in the United States Securities Exchange Act of 1934 and the Rules and Regulations thereunder.

7. NON-LIABILITY OF SUBADVISER.

In the absence of willful misfeasance, bad faith or gross negligence on the part of the Subadviser, or reckless disregard of its obligations and duties hereunder, the Subadviser shall not be subject to any liability to the Adviser, any Fund or to any shareholder of any Fund, for any act or omission in the course of, or connected with, rendering services hereunder.

8. USE OF NAME

The Subadviser consents to and grants a non-exclusive license for the use by the Funds, in their names or otherwise, of the name "PanAgora" (the "PanAgora Name") and any derivatives thereof, as well as any logos that are now or shall hereafter be associated with the PanAgora Name, which are the valuable property of the Subadviser. In the event that this Agreement is terminated and the Subadviser no longer acts as subadviser to the Funds, the Subadviser reserves the right to withdraw such license from the Funds, the uses of the PanAgora Name and logos or any such name or logo misleadingly implying a continuing relationship between a Fund and the Adviser or any of its affiliates.

9. APPLICABLE LAW

This Agreement is made in The Commonwealth of Massachusetts, and it is to be governed by and construed and administered according to the laws of said Commonwealth. Should any part of this Agreement be held or made invalid by a court decision, statute, rule or otherwise, the remainder of this Agreement shall not be affected thereby.

10. FORUM FOR ADJUDICATION OF DISPUTES.

Absent the consent in writing of all parties, the sole and exclusive forum for any action, suit, or proceeding under, arising out of, or relating to this Agreement shall be either the federal courts sitting within the City of Boston in The Commonwealth of Massachusetts or the Business Litigation Session of the Massachusetts Superior Court in Suffolk County.

11. ADDITIONAL PROVISIONS.

(a) The Subadviser will promptly notify the Adviser in writing of the occurrence of any of the following events:

- i. Any breach of this Agreement;
- ii. Any of the representations and warranties of the Subadviser contained herein becomes untrue after the execution of this Agreement;
- iii. Any proposed assignment of this Agreement;
- iv. Any change in the Subadviser's financial condition that could impact its abilities to perform its duties pursuant to this Agreement;
- v. The Subadviser becomes aware of any material fact respecting or relating to the Subadviser or the investment strategies of a Fund that is not contained in a Fund's Registration Statement on Form N-1A, as amended and supplemented from time to time, regarding the Fund, or any amendment or supplement thereto, but that is required to be disclosed therein, and of any statement respecting or relating to the Subadviser, the Subadviser's investment strategies or a Fund contained therein that becomes untrue in any material respect;
- vi. Any event that would disqualify the Subadviser from serving as an investment adviser of an investment company pursuant to Section 9(a) of the 1940 Act or other applicable law, rule or regulation or if the Subadviser becomes aware that it is or likely may become subject to any statutory disqualification pursuant to Section 9(b) of the 1940 Act or otherwise that prevents the Subadviser from serving as an investment adviser or performing its duties pursuant to this Agreement;
- vii. The Subadviser fails to be registered as an investment adviser under the Advisers Act or under the laws of any jurisdiction in which the Subadviser is required to be registered as an investment adviser in order to perform its obligations under the Agreement; and
- viii. The Subadviser is served or otherwise becomes aware of any action, suit, proceeding, inquiry or investigation at law or in equity, before or by any court, public board or body involving the affairs of any Fund.

(b) The Subadviser is deemed to be an independent contractor and will, unless otherwise expressly provided or authorized by the Fund or the Adviser, have no authority to act for or represent any Fund in any way or otherwise be deemed an agent of any Fund.

(c) Although each Fund is not a party hereto and shall have no responsibility for the Adviser's or the Subadviser's obligations

hereunder, each Fund is named as explicit third party beneficiary of the parties' agreements hereunder. No shareholder or any person other than the Adviser and the Subadviser is a party to this Agreement, and no shareholder or any person other than the Funds, the Adviser, and the Subadviser shall be entitled to any right or benefit arising under or in respect of this Agreement; there are no third-party beneficiaries of this Agreement other than the Funds. Without limiting the generality of the foregoing, nothing in this Agreement is intended, or shall be read, (i) to create in any shareholder or person other than the Fund in question (including without limitation any shareholder in any Fund) any direct, indirect, derivative, or other rights against the Adviser or Subadviser, or (ii) to create or give rise to any duty or obligation on the part of the Adviser or Subadviser (including without limitation any fiduciary duty) to any shareholder or person other than the Fund, and all of the rights, duties, and obligations referred to in the foregoing clauses (i) and (ii) are hereby expressly excluded from this Agreement.

(d) The Subadviser represents and warrants that it is either registered with the Commodity Futures Trading Commission ("CFTC") as a commodity trading advisor and is a member of the National Futures Association ("NFA"), or is not required to be registered with the CFTC or to be a member of the NFA.

(e) The Adviser represents that each Fund is a "qualified eligible person" ("QEP") as defined in CFTC Rule 4.7 ("CFTC Rule 4.7"), and the Trust will promptly notify the Sub-Adviser if the Fund ceases to be a QEP, and hereby consents to each Fund being treated as an "exempt account" under CFTC Rule 4.7.

PURSUANT TO AN EXEMPTION FROM THE COMMODITY FUTURES TRADING COMMISSION IN CONNECTION WITH ACCOUNTS OF QUALIFIED ELIGIBLE PERSONS, THIS ACCOUNT DOCUMENT IS NOT REQUIRED TO BE, AND HAS NOT BEEN, FILED WITH THE COMMISSION. THE COMMODITY FUTURES TRADING COMMISSION DOES NOT PASS UPON THE MERITS OF PARTICIPATING IN A TRADING PROGRAM OR UPON THE ADEQUACY OR ACCURACY OF COMMODITY TRADING ADVISOR DISCLOSURE. CONSEQUENTLY, THE COMMODITY FUTURES TRADING COMMISSION HAS NOT REVIEWED OR APPROVED THIS TRADING PROGRAM OR THIS ACCOUNT DOCUMENT.

IN WITNESS WHEREOF, PANAGORA ASSET MANAGEMENT, INC. and PUTNAM INVESTMENT MANAGEMENT, LLC have each caused this instrument to be signed in duplicate on its behalf by an officer duly authorized, all as of the day and year first above written.

PUTNAM INVESTMENT MANAGEMENT, LLC

By: _____

Name:

Title:

PANAGORA ASSET MANAGEMENT, INC.

By: _____

Name:

Title:

Schedule A

[List of Funds]

Schedule B

[FEE SCHEDULE: See Appendix D-3 to this proxy statement for each fund's detailed fee information. The fee for each fund under the proposed new sub-advisory contract is identical to that for each fund under the fund's previous sub-advisory contract.]

Appendix G — Fees Paid to Adviser and its Affiliates

The following table indicates amounts paid by each fund to Putnam Management or an affiliate of Putnam Management during the fund's most recently completed fiscal year ended 6/30/2023 or earlier. No fund paid commissions to an affiliated broker for the fund's most recently completed fiscal year ended 6/30/2023 or earlier.

Fund	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fees paid to Putnam Investor Services, Inc. for serving as investor servicing agent in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fees paid to Putnam Retail Management Limited Partnership pursuant to distribution plans in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fiscal Year End
George Putnam Balanced Fund	\$9,649,895	\$2,346,680	\$5,115,624	7/31/2022
Putnam BDC Income ETF ^{^(1)}	\$66,336	N/A	N/A	4/30/2023
Putnam BioRevolution™ ETF ^{^(1)}	\$18,638	N/A	N/A	4/30/2023
Putnam California Tax Exempt Income Fund	\$4,238,566	\$499,892	\$2,265,234	9/30/2022
Putnam Convertible Securities Fund	\$4,983,681	\$872,870	\$1,327,026	10/31/2022
Putnam Core Bond Fund†	\$1,852,175	\$0#	\$369,378	10/31/2022
Putnam Core Equity Fund	\$16,818,325	\$4,381,181	\$6,540,004	4/30/2023
Putnam Diversified Income Trust	\$10,325,369	\$2,934,276	\$3,751,107	9/30/2022
Putnam Dynamic Asset Allocation Balanced Fund	\$12,869,313	\$2,674,060	\$5,615,524	9/30/2022
Putnam Dynamic Asset Allocation Conservative Fund	\$4,985,532	\$2,019,458	\$1,043,315	9/30/2022
Putnam Dynamic Asset Allocation Equity Fund	\$122,781	\$6,939	— ⁽²⁾	5/31/2023
Putnam Dynamic Asset Allocation Growth Fund	\$16,569,054	\$3,277,521	\$6,310,638	9/30/2022
Putnam Emerging Markets Equity Fund	\$3,462,237	\$1,012,649	\$772,737	8/31/2022
Putnam Emerging Markets ex-China ETF ^{(1),(3)}	-	-	-	-
Putnam ESG Core Bond ETF ^{*,(1)}	\$337,530	N/A	N/A	4/30/2023
Putnam ESG High Yield ETF ^{*,(1)}	\$131,259	N/A	N/A	4/30/2023
Putnam ESG Ultra Short ETF ^{*,(1)}	\$67,876	N/A	N/A	4/30/2023
Putnam Floating Rate Income Fund	\$2,373,648	\$526,656	\$824,829	2/28/2023
Putnam Focused Equity Fund	\$4,204,152	\$1,334,762	\$2,068,440	8/31/2022
Putnam Focused International Equity Fund	\$5,137,382	\$1,475,297	\$2,097,061	10/31/2022
Putnam Focused Large Cap Growth ETF ⁽¹⁾	\$52,889	N/A	N/A	8/31/2022
Putnam Focused Large Cap Value ETF ⁽¹⁾	\$124,660	N/A	N/A	8/31/2022
Putnam Global Health Care Fund	\$9,964,341	\$2,266,867	\$3,938,410	8/31/2022
Putnam Global Income Trust	\$361,202	\$393,912	\$281,804	10/31/2022
Putnam Global Technology Fund	\$5,937,180	\$1,467,921	\$1,772,665	8/31/2022
Putnam Government Money Market Fund	\$270,821	\$91,565	\$0	9/30/2022
Putnam High Yield Fund	\$5,707,743	\$1,637,642	\$2,217,854	11/30/2022
Putnam Income Fund	\$7,237,895	\$4,163,286	\$2,361,121	10/31/2022
Putnam Intermediate-Term Municipal Income Fund	\$0	\$30,036	\$35,397	11/30/2022
Putnam International Capital Opportunities Fund	\$3,298,784	\$694,473	\$815,450	8/31/2022
Putnam International Equity Fund	\$4,714,570	\$1,516,625	\$1,446,025	6/30/2023
Putnam International Value Fund	\$1,349,234	\$539,618	\$282,421	6/30/2023
Putnam Large Cap Growth Fund	\$44,218,429	\$12,443,482	\$17,783,703	7/31/2022
Putnam Large Cap Value Fund	\$81,857,390	\$23,039,868	\$27,485,885	10/31/2022
Putnam Massachusetts Tax Exempt Income Fund	\$1,063,088	\$162,496	\$415,113	5/31/2023
Putnam Minnesota Tax Exempt Income Fund	\$677,076	\$151,037	\$186,091	5/31/2023
Putnam Money Market Fund	\$853,071	\$1,025,706	\$0	9/30/2022
Putnam Mortgage Opportunities Fund	\$1,329,063	\$357,545	\$44,659	5/31/2023
Putnam Mortgage Securities Fund	\$2,291,472	\$1,103,550	\$1,410,240	9/30/2022
Putnam Multi-Asset Income Fund±	\$0	\$239	\$0 ⁽⁴⁾	8/31/2022
Putnam New Jersey Tax Exempt Income Fund	\$551,851	\$85,591	\$308,253	5/31/2023
Putnam New York Tax Exempt Income Fund	\$3,814,829	\$527,386	\$1,835,353	11/30/2022
Putnam Ohio Tax Exempt Income Fund	\$368,621	\$70,437	\$183,752	5/31/2023
Putnam PanAgora ESG Emerging Markets Equity ETF ^{*,(1)}	\$24,549	N/A	N/A	4/30/2023

Fund	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fees paid to Putnam Investor Services, Inc. for serving as investor servicing agent in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fees paid to Putnam Retail Management Limited Partnership pursuant to distribution plans in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fiscal Year End
Putnam PanAgora ESG International Equity ETF ^{*(1)}	\$131,762	N/A	N/A	4/30/2023
Putnam Pennsylvania Tax Exempt Income Fund	\$518,631	\$90,022	\$310,117	5/31/2023
Putnam Research Fund	\$2,575,226	\$721,820	\$1,095,551	7/31/2022
Putnam Retirement Advantage 2025 Fund	\$0	\$5,012	\$4,725	8/31/2022
Putnam Retirement Advantage 2030 Fund	\$0	\$3,742	\$1,368	8/31/2022
Putnam Retirement Advantage 2035 Fund	\$0	\$3,985	\$1,552	8/31/2022
Putnam Retirement Advantage 2040 Fund	\$0	\$2,133	\$528	8/31/2022
Putnam Retirement Advantage 2045 Fund	\$0	\$2,538	\$1,070	8/31/2022
Putnam Retirement Advantage 2050 Fund	\$0	\$1,258	\$361	8/31/2022
Putnam Retirement Advantage 2055 Fund	\$0	\$938	\$466	8/31/2022
Putnam Retirement Advantage 2060 Fund	\$0	\$513	\$473	8/31/2022
Putnam Retirement Advantage 2065 Fund	\$0	\$219	\$281	8/31/2022
Putnam Retirement Advantage Maturity Fund	\$0	\$4,028	\$1,451	8/31/2022
Putnam Short Duration Bond Fund	\$7,627,121	\$0 [#]	\$2,896,610	10/31/2022
Putnam Short Term Investment Fund	\$0	\$234,206	N/A	7/31/2022
Putnam Short-Term Municipal Income Fund	\$0	\$35,951	\$70,920	11/30/2022
Putnam Small Cap Growth Fund	\$6,328,302	\$1,590,988	\$1,232,459	6/30/2023
Putnam Small Cap Value Fund	\$1,833,710	\$537,777	\$464,482	2/28/2023
Putnam Strategic Intermediate Municipal Fund	\$1,345,073	\$202,215	\$607,078	7/31/2022
Putnam Sustainable Future ETF ⁽¹⁾	\$50,027	N/A	N/A	8/31/2022
Putnam Sustainable Future Fund	\$2,028,874	\$632,104	\$814,529	4/30/2023
Putnam Sustainable Leaders ETF ⁽¹⁾	\$40,305	N/A	N/A	8/31/2022
Putnam Sustainable Leaders Fund	\$25,410,586	\$7,324,554	\$12,022,538	6/30/2023
Putnam Sustainable Retirement 2025 Fund	\$0	\$247,651	\$92,921	7/31/2022
Putnam Sustainable Retirement 2030 Fund	\$0	\$301,510	\$90,257	7/31/2022
Putnam Sustainable Retirement 2035 Fund	\$0	\$222,448	\$89,337	7/31/2022
Putnam Sustainable Retirement 2040 Fund	\$0	\$238,116	\$64,433	7/31/2022
Putnam Sustainable Retirement 2045 Fund	\$0	\$149,292	\$54,656	7/31/2022
Putnam Sustainable Retirement 2050 Fund	\$0	\$110,047	\$39,785	7/31/2022
Putnam Sustainable Retirement 2055 Fund	\$0	\$49,989	\$29,882	7/31/2022
Putnam Sustainable Retirement 2060 Fund	\$0	\$9,199	\$5,711	7/31/2022
Putnam Sustainable Retirement 2065 Fund	\$0	\$340	\$1,519	7/31/2022
Putnam Sustainable Retirement Maturity Fund	\$0	\$344,433	\$95,156	7/31/2022
Putnam Tax Exempt Income Fund	\$3,403,360	\$564,225	\$1,816,324	9/30/2022
Putnam Tax-Free High Yield Fund	\$3,832,823	\$581,625	\$1,797,274	7/31/2022
Putnam Ultra Short Duration Income Fund	\$30,889,654	\$8,941,727	\$5,756,547	7/31/2022
Putnam Ultra Short MAC Series ⁽³⁾	-	-	-	-
Putnam VT Core Equity Fund	\$795,912	\$101,731	\$183,969	12/31/2022
Putnam VT Diversified Income Fund	\$740,221	\$104,490	\$254,250	12/31/2022
Putnam VT Emerging Markets Equity Fund	\$114,236	\$17,098	\$18,121	12/31/2022
Putnam VT Focused International Equity Fund	\$1,088,498	\$119,544	\$48,432	12/31/2022
Putnam VT George Putnam Balanced Fund	\$1,121,719	\$151,612	\$378,186	12/31/2022
Putnam VT Global Asset Allocation Fund	\$590,112	\$76,270	\$87,056	12/31/2022
Putnam VT Global Health Care Fund	\$960,913	\$108,804	\$275,783	12/31/2022
Putnam VT Government Money Market Fund	\$114,654	\$23,611	\$81,949	12/31/2022
Putnam VT High Yield Fund	\$806,386	\$101,164	\$103,304	12/31/2022
Putnam VT Income Fund	\$690,812	\$124,698	\$205,599	12/31/2022
Putnam VT International Equity Fund	\$1,416,722	\$144,222	\$340,224	12/31/2022
Putnam VT International Value Fund	\$566,876	\$57,693	\$124,442	12/31/2022
Putnam VT Large Cap Growth Fund	\$5,019,811	\$641,785	\$544,684	12/31/2022

Fund	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fees paid to Putnam Investor Services, Inc. for serving as investor servicing agent in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fees paid to Putnam Retail Management Limited Partnership pursuant to distribution plans in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Fiscal Year End
Putnam VT Large Cap Value Fund	\$7,298,845	\$1,091,765	\$1,548,124	12/31/2022
Putnam VT Mortgage Securities Fund	\$0	\$24,283	\$41,750	12/31/2022
Putnam VT Research Fund	\$351,778	\$44,929	\$104,625	12/31/2022
Putnam VT Small Cap Growth Fund	\$147,049	\$19,915	\$35,591	12/31/2022
Putnam VT Small Cap Value Fund	\$780,429	\$88,430	\$208,497	12/31/2022
Putnam VT Sustainable Future Fund	\$138,316	\$21,043	\$18,532	12/31/2022
Putnam VT Sustainable Leaders Fund	\$4,502,964	\$575,526	\$372,689	12/31/2022

[^] Management fee is not annualized, but instead represents the actual fees paid from the fund's commencement on September 29, 2022 through its fiscal year end on April 30, 2023.

^{*} Management fee is not annualized, but instead represents the actual fees paid from the fund's commencement on January 19, 2023 through its fiscal year end on April 30, 2023.

[#] In return for the management fee, Putnam Management provides the fund with investment management and bears the fund's organizational and operating expenses, excluding performance fee adjustments, distribution and service (12b-1) fees, brokerage, interest, taxes, investment-related expenses, extraordinary expenses, and acquired fund fees and expenses. This fee structure is sometimes referred to as an "all in" or "unitary" management fee.

[†] Management fees reflect the management fee rate under the fund's prior management contract. The fund's current management contract took effect after the conclusion of the October 31, 2022 fiscal year.

[±] Management fees reflect the management fee rate under the fund's prior management contract (for the period from September 1, 2021 through June 30, 2022) and the fund's current management contract (for the period from July 1, 2022 through August 31, 2022).

⁽¹⁾ The fund pays Putnam Management an annual management fee which covers investment management services and all of the fund's organizational and other operating expenses with certain exceptions, including but not limited to: payments (if any) under distribution plans, interest and borrowing expenses, taxes, brokerage commissions and other transaction costs, fund proxy expenses, litigation expenses, extraordinary expenses and acquired fund fees and expenses. This fee structure is sometimes referred to as an "all in" or "unitary" management fee.

⁽²⁾ Although the fund's distribution and service (12b-1) plan provides for payments on class A shares, no payments under the plan have yet been authorized by the Trustees.

⁽³⁾ As of June 30, 2023, the fund has not experienced a fiscal year-end since commencement of its operations.

⁽⁴⁾ Although the fund's class A, class C, and class R shares bear 12b-1 fees, these share classes were not outstanding during the fund's most recently completed fiscal year ended August 31, 2022.

This page intentionally left blank.

Appendix H — Other Funds Advised by Adviser and Subadvisers

The following table contains certain information regarding funds for which Putnam Management, PIL, PAC, and/or PanAgora provides investment advisory services, including funds in the Putnam family of funds and funds that are not in the Putnam family of funds, and that may have similar investment objective and policies to your fund.

Funds not in the Putnam Family of Funds

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/Sub-Advisory Fee Schedule	
Guardian Diversified Research VIP Fund	Putnam Management (Subadviser)	\$253,603,000	Sub-Advisory Fee (as an annual percentage of average daily net assets of the series)	0.30%
Empower Core Strategies: US Equity Fund	Putnam Management (Subadviser)	\$254,476,000	Sub-Advisory Fee (of average daily net asset value on fund account assets) First \$250 million Next \$250 million Over \$500 million	0.40% 0.35% 0.25%
Empower Large Cap Value Fund	Putnam Management (Subadviser)	\$1,480,406,989	Sub-Advisory Fee (of average daily net asset value on fund account assets) First \$250 million Next \$250 million Over \$500 million	0.40% 0.35% 0.25%
Empower High Yield Bond Fund	Putnam Management (Subadviser)	\$502,545,332	Sub-Advisory Fee (on all assets)	0.35%
Russell Investment Company – Multi Asset Growth Strategy Fund	Putnam Management (Money Manager)	\$709,555,000	Management fee	0.60%
Russell Multi-Strategy Income Fund	Putnam Management (Money Manager)	\$398,696,000	Management fee	0.50%
SA Putnam Asset Allocation Diversified Growth Portfolio	Putnam Management (Subadviser)	\$181,929,617	Sub-Advisory Fee (of average daily net assets of the portfolio) Up to first \$150 million On the next \$150 million Over \$300 million	0.55% 0.50% 0.40%
SA Putnam International Growth and Income Portfolio	Putnam Management (Subadviser)	\$348,762,820	Sub-Advisory Fee (of average daily net assets of the portfolio) Up to first \$150 million On the next \$150 million Over \$300 million	0.65% 0.55% 0.45%

Funds in the Putnam Family of Funds

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/Sub-Advisory Fee Schedule	
George Putnam Balanced Fund	Adviser: Putnam Management Subadviser(s): PIL	\$1,722,419,409	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam BDC Income ETF ⁽¹⁾	Adviser: Putnam Management Subadviser(s): PIL	\$29,358,933	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam BioRevolution™ ETF ⁽¹⁾	Adviser: Putnam Management Subadviser(s): PIL	\$4,803,421	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam California Tax Exempt Income	Adviser: Putnam Management Subadviser(s): PIL	\$815,014,310	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Convertible Securities	Adviser: Putnam Management Subadviser(s): PIL	\$662,990,983	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Core Bond Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$359,707,194	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Core Equity Fund	Adviser: Putnam Management Subadviser(s): PIL	\$3,194,655,360	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Diversified Income Trust	Adviser: Putnam Management Subadviser(s): PIL	\$1,590,934,468	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$472,667	No	Capital appreciation.
	\$98,097	No	Long-term capital growth.
	\$4,500,252	No	Long-term capital growth.
	\$1,911,069	No	High Current Income with capital appreciation as a secondary objective when consistent with the primary objective.
	\$5,149,466	No	Long-term total return, with lower volatility than equity markets.
	\$2,577,197	No	High Current Income and as a secondary objective, long-term capital growth.
	\$788,282	No	Capital Appreciation.
	\$1,783,345	No	Growth of capital and secondarily, current income.

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$9,649,895	Yes	Capital growth and current income.
	\$66,336	No	Current income.
	\$18,638	No	Long term capital appreciation.
	\$4,238,566	Yes	As high a level of current income, exempt from federal income tax and California personal income tax as we believe to be consistent with preservation of capital.
	\$4,983,681	Yes	Current income and capital appreciation, with equal emphasis. Conservation of capital is a secondary objective.
	\$1,852,175	No	High current income consistent with what Putnam Management believes to be prudent risk.
	\$16,818,325	Yes	Capital appreciation.
	\$10,325,369	Yes	As high a level of current income as Putnam Management believes is consistent with preservation of capital.

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/Sub-Advisory Fee Schedule	
Putnam Dynamic Asset Allocation Equity	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$9,788,386	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Dynamic Asset Allocation Conservative	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$814,874,322	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Dynamic Asset Allocation Balanced	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$2,083,215,782	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Dynamic Asset Allocation Growth	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$2,328,307,910	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Emerging Markets Equity	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$375,507,421	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Emerging Markets ex-China ETF	Adviser: Putnam Management Subadviser(s): PIL	\$6,391,960 ⁽³⁾	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam ESG Core Bond ETF ⁽²⁾	Adviser: Putnam Management Subadviser(s): PIL	\$466,144,573	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam ESG High Yield ETF ⁽²⁾	Adviser: Putnam Management Subadviser(s): PIL	\$104,842,443	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam ESG Ultra Short ETF ⁽²⁾	Adviser: Putnam Management Subadviser(s): PIL	\$125,536,412	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Floating Rate Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$370,752,546	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Focused Equity	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$610,869,021	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Focused International Equity	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$662,264,740	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Focused Large Cap Growth ETF	Adviser: Putnam Management Subadviser(s): PIL	\$10,517,459	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Focused Large Cap Value ETF	Adviser: Putnam Management Subadviser(s): PIL	\$47,365,113	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Global Health Care	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$1,499,244,336	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Global Income Trust	Adviser: Putnam Management Subadviser(s): PIL	\$147,729,985	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Global Technology Fund	Adviser: Putnam Management Subadviser(s): PIL	\$720,506,915	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Government Money Market Fund	Adviser: Putnam Management Subadviser(s): PIL	\$209,280,106	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam High Yield Fund	Adviser: Putnam Management Subadviser(s): PIL	\$949,966,476	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$1,964,125,994	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Intermediate-Term Municipal Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$33,717,343	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam International Capital Opportunities Fund	Adviser: Putnam Management Subadviser(s): PIL	\$282,310,264	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam International Equity Fund	Adviser: Putnam Management Subadviser(s): PIL	\$660,510,953	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam International Value Fund	Adviser: Putnam Management Subadviser(s): PIL	\$214,505,605	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$122,781	Yes	Long-term growth
	\$4,985,532	Yes	Total return consistent with preservation of capital.
	\$12,869,313	Yes	Total return.
	\$16,569,054	Yes	Capital appreciation.
	\$3,462,237	Yes	Long-term capital appreciation
	\$0 ⁽⁴⁾	No	Long term capital appreciation.
	\$337,530	No	High current income is consistent with what Putnam Management believes to be prudent risk.
	\$131,259	No	High current income. Capital growth is a secondary goal when consistent with achieving high current income.
	\$67,876	No	As high a rate of current income as Putnam Management believes is consistent with preservation of capital and maintenance of liquidity.
	\$2,373,648	Yes	High income. Preservation of capital is a secondary objective.
	\$4,204,152	Yes	Capital appreciation.
	\$5,137,382	Yes	Capital appreciation.
	\$52,889	No	Capital appreciation.
	\$124,660	No	Capital growth and current income.
	\$9,964,341	Yes	Capital appreciation.
	\$361,202	Yes	High current income. Preservation of capital and long-term total return are secondary objectives, but only to the extent consistent with the objective of seeking high current income.
	\$5,937,180	Yes	Capital appreciation.
	\$270,281	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital and maintenance of liquidity.
	\$5,707,743	Yes	High current income. Capital growth is a secondary goal when consistent with achieving high current income.
	\$7,237,895	Yes	High current income consistent with what Putnam Management believes to be prudent risk.
	\$0	Yes	As high a level of current income exempt from federal income tax as we believe is consistent with preservation of capital.
	\$3,298,784	Yes	Long-term capital appreciation.
	\$4,714,570	Yes	Capital appreciation.
	\$1,349,234	Yes	Capital growth. Current income is a secondary objective.

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/Sub-Advisory Fee Schedule	
Putnam Large Cap Growth Fund	Adviser: Putnam Management Subadviser(s): PIL	\$7,735,334,853	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Large Cap Value Fund	Adviser: Putnam Management Subadviser(s): PIL	\$17,823,515,712	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Managed Municipal Income Trust	Adviser: Putnam Management Subadviser(s): PIL	\$289,259,002	<p>Management Fee (Putnam Management):</p> <p>Based on the average net assets of the fund, the lesser of (i) 0.55%, or (ii) the following:</p> <p>First \$500 million: 0.65% Next \$500 million: 0.55% Next \$500 million: 0.50% Next \$5 billion: 0.45% Next \$5 billion: 0.425% Next \$5 billion: 0.405% Next \$5 billion: 0.39% Any excess thereafter: 0.38%</p> <p>Subject to possible fee reduction⁽⁵⁾</p> <p>Sub-Advisory Fee (PIL):</p> <p>0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.</p>	
Putnam Massachusetts Tax Exempt Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$253,056,045	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Master Intermediate Income Trust	Adviser: Putnam Management Subadviser(s): PIL	\$176,942,354	<p>Management Fee (Putnam Management):</p> <p>Based on the average net assets of the fund:</p> <p>First \$500 million: 0.75% Next \$500 million: 0.65% Next \$500 million: 0.60% Next \$5 billion: 0.55% Next \$5 billion: 0.525% Next \$5 billion: 0.505% Next \$5 billion: 0.49% Next \$5 billion: 0.48% Next \$5 billion: 0.47% Next \$5 billion: 0.46% Next \$5 billion: 0.45% Next \$5 billion: 0.44% Next \$8.5 billion: 0.43% Any excess thereafter: 0.42%</p> <p>Sub-Advisory Fee (PIL):</p> <p>0.20% of Average Weekly Assets in Allocated Sleeves.</p> <p>“Average Weekly Assets” means the average of the weekly determinations of the difference between the total assets of the fund (including any assets attributable to leverage for investment purposes) attributable to the portion of the fund managed by PIL and the total liabilities of the fund (excluding liabilities incurred in connection with leverage for investment purposes) attributable to such portion of the fund managed by PIL.</p>	
Putnam Minnesota Tax Exempt Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$169,370,648	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$44,218,429	Yes	Capital appreciation.
	\$81,857,390	Yes	Capital growth and current income.
	\$2,506,222	No	High level of current income exempt from federal income tax.
	\$1,063,088	Yes	As high a level of current income exempt from federal income tax and Massachusetts personal income tax as Putnam Management believes is consistent with preservation of capital.
	\$1,446,776	No	Equal emphasis high current income and relative stability of net asset value by allocating its investments among the U.S. investment grade sector, high-yield sector, and international sector.
	\$677,076	Yes	As high a level of current income exempt from federal income tax and Minnesota personal income tax as Putnam Management believes is consistent with preservation of capital.

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/ Sub-Advisory Fee Schedule	
Putnam Money Market Fund	Adviser: Putnam Management Subadviser(s): PIL	\$777,820,212	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Mortgage Opportunities Fund	Adviser: Putnam Management Subadviser(s): PIL	\$361,100,119	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Mortgage Securities Fund	Adviser: Putnam Management Subadviser(s): PIL	\$483,909,282	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Multi-Asset Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$17,223,679	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Municipal Opportunities Trust	Adviser: Putnam Management Subadviser(s): PIL	\$377,416,229	Management Fee (Putnam Management): Based on the average net assets of the fund, the lesser of (i) 0.55%, or (ii) the following: First \$500 million: 0.65% Next \$500 million: 0.55% Next \$500 million: 0.50% Next \$5 billion: 0.45% Next \$5 billion: 0.425% Next \$5 billion: 0.405% Next \$5 billion: 0.39% Any excess thereafter: 0.38% Subject to possible fee reduction ⁽⁵⁾ Sub-Advisory Fee (PIL): 0.25% of the average net assets of the equity and asset allocation portion of the fund managed by PIL and 0.20% of the average net assets of the fixed income portion of the fund managed by PIL.	
Putnam New Jersey Tax Exempt Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$129,604,272	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam New York Tax Exempt Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$814,629,351	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Ohio Tax Exempt Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$83,119,425	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam PanAgora ESG Emerging Markets Equity ETF ⁽²⁾	Adviser: Putnam Management Subadviser(s): PanAgora	\$18,469,091	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PanAgora): see Appendix D-3	
Putnam PanAgora ESG International Equity ETF ⁽²⁾	Adviser: Putnam Management Subadviser(s): PanAgora	\$128,687,709	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PanAgora): see Appendix D-3	
Putnam Pennsylvania Tax Exempt Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$114,922,094	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$853,071	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital and maintenance of liquidity.
	\$1,329,063	Yes	Maximize total return consistent with what Putnam Management believes to be prudent risk. Total return is composed of capital appreciation and income.
	\$2,291,472	Yes	As high a level of current income as Putnam Management believes is consistent with preservation of capital
	\$0	Yes	Total return consistent with conservation of capital. Within the fund's total return orientation, the fund seeks to provide current income, along with long-term Capital appreciation.
	\$2,377,721	No	As high a level of current income exempt from federal income tax as we believe to be consistent with preservation of capital.
	\$551,851	Yes	As high a level of current income exempt from federal income tax and New Jersey personal income tax as Putnam Management believes is consistent with preservation of capital.
	\$3,814,829	Yes	As high a level of current income exempt from federal income tax and New York State and City personal income taxes as Putnam Management believes is consistent with preservation of capital.
	\$368,621	Yes	As high a level of current income exempt from federal income tax and Ohio personal income tax as Putnam Management believes is consistent with preservation of capital.
	\$24,549	No	Long term capital appreciation.
	\$131,762	No	Long term capital appreciation.
	\$518,631	Yes	As high a level of current income exempt from federal income tax and Pennsylvania personal income tax as Putnam Management believes is consistent with preservation of capital.

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/Sub-Advisory Fee Schedule	
Putnam Premier Income Trust	Adviser: Putnam Management Subadviser(s): PIL	\$409,600,320	<p>Management Fee (Putnam Management):</p> <p>Based on the average net assets of the fund:</p> <p>First \$500 million: 0.75% Next \$500 million: 0.65% Next \$500 million: 0.60% Next \$5 billion: 0.55% Next \$5 billion: 0.525% Next \$5 billion: 0.505% Next \$5 billion: 0.49% Next \$5 billion: 0.48% Next \$5 billion: 0.47% Next \$5 billion: 0.46% Next \$5 billion: 0.45% Next \$5 billion: 0.44% Next \$8.5 billion: 0.43% Any excess thereafter: 0.42%</p> <p>Sub-Advisory Fee (PIL):</p> <p>0.20% of Average Weekly Assets in Allocated Sleeves.</p> <p>“Average Weekly Assets” means the average of the weekly determinations of the difference between the total assets of the fund (including any assets attributable to leverage for investment purposes) attributable to the portion of the fund managed by PIL and the total liabilities of the fund (excluding liabilities incurred in connection with leverage for investment purposes) attributable to such portion of the fund managed by PIL.</p>	
Putnam Research Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$442,001,421	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p> <p>Sub-Advisory Fee (PAC): see Appendix D-2</p>	
Putnam Retirement Advantage 2025 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$12,633,256	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2030 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$12,306,506	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2035 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$13,014,418	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2040 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$7,179,714	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2045 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$8,372,876	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2050 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$4,407,301	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2055 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$3,161,687	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2060 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$1,245,072	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	
Putnam Retirement Advantage 2065 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$174,853	<p>Management Fee (Putnam Management): see Appendix B</p> <p>Sub-Advisory Fee (PIL): see Appendix D-1</p>	

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$3,308,316	No	High current income consistent with the preservation of capital by allocating its investments among the U.S. government sector, high yield sector and international sector of the fixed-income securities market.
	\$2,575,226	Yes	Capital appreciation.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/Sub-Advisory Fee Schedule	
Putnam Retirement Advantage Maturity Fund	Adviser: Putnam Management Subadviser(s): PIL	\$12,715,429	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Short Duration Bond Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$1,756,894,516	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam Short-Term Investment Fund	Adviser: Putnam Management Subadviser(s): PIL	\$2,088,859,397	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Short-Term Municipal Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$81,024,783	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Small Cap Growth Fund	Adviser: Putnam Management Subadviser(s): PIL	\$693,377,250	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Small Cap Value Fund	Adviser: Putnam Management Subadviser(s): PIL	\$277,889,128	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Strategic Intermediate Municipal Fund	Adviser: Putnam Management Subadviser(s): PIL	\$532,082,622	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Future ETF	Adviser: Putnam Management Subadviser(s): PIL	\$6,796,226	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Future Fund	Adviser: Putnam Management Subadviser(s): PIL	\$354,231,500	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Leaders ETF	Adviser: Putnam Management Subadviser(s): PIL	\$6,044,094	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Leaders Fund	Adviser: Putnam Management Subadviser(s): PIL	\$4,896,750,740	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2025 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$202,233,333	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2030 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$238,632,192	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2035 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$186,772,319	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2040 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$192,071,965	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2045 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$127,664,646	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2050 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$88,062,084	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2055 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$43,430,139	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2060 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$11,168,594	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement 2065 Fund	Adviser: Putnam Management Subadviser(s): PIL	\$410,814	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Sustainable Retirement Maturity Fund	Adviser: Putnam Management Subadviser(s): PIL	\$249,329,329	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Tax Exempt Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$652,421,966	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Tax-Free High Yield Fund	Adviser: Putnam Management Subadviser(s): PIL	\$732,424,137	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$0	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital.
	\$7,627,121	No	As high a rate of current income as Putnam Management believes is consistent with preservation of capital.
	\$0	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital and maintenance of liquidity.
	\$0	Yes	As high a level of current income exempt from federal income tax as Putnam Management believes is consistent with preservation of capital.
	\$6,328,302	Yes	Capital appreciation.
	\$1,833,710	Yes	Capital appreciation.
	\$1,345,073	Yes	As high a level of current income exempt from federal income tax as Putnam Management believes is consistent with preservation of capital.
	\$50,027	No	Long-term capital appreciation.
	\$2,028,874	Yes	Long-term capital appreciation.
	\$40,305	No	Long-term capital appreciation.
	\$25,410,586	Yes	Long-term capital appreciation.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	Capital appreciation and current income consistent with a decreasing emphasis on capital appreciation and an increasing emphasis on current income as it approaches its target date.
	\$0	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital.
	\$3,403,360	Yes	As high a level of current income exempt from federal income tax as Putnam Management believes to be consistent with preservation of capital.
	\$3,832,823	Yes	High current income exempt from federal income tax..

Fund	Adviser / Subadviser(s) to Fund	Net Assets as of the End of the Most Recent Fiscal Year (\$)	Current Management Fee/Sub-Management Fee/Sub-Advisory Fee Schedule	
Putnam Ultra Short Duration Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$12,634,275,889	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam Ultra Short MAC Series	Adviser: Putnam Management Subadviser(s): PIL	\$10,103,863 ⁽³⁾	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Core Equity Fund	Adviser: Putnam Management Subadviser(s): PIL	\$128,805,217	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Diversified Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$117,117,759	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Emerging Markets Equity Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$21,434,733	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam VT Focused International Equity Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$155,328,348	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam VT George Putnam Balanced Fund	Adviser: Putnam Management Subadviser(s): PIL	\$200,447,176	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Global Asset Allocation Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$97,078,833	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam VT Global Health Care Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$158,483,114	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam VT Government Money Market Fund	Adviser: Putnam Management Subadviser(s): PIL	\$72,846,124	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT High Yield Fund	Adviser: Putnam Management Subadviser(s): PIL	\$131,881,648	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Income Fund	Adviser: Putnam Management Subadviser(s): PIL	\$156,911,296	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT International Equity Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$203,165,314	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam VT International Value Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$85,493,181	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam VT Large Cap Growth Fund	Adviser: Putnam Management Subadviser(s): PIL	\$771,079,243	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Large Cap Value Fund	Adviser: Putnam Management Subadviser(s): PIL	\$1,545,778,030	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Mortgage Securities Fund	Adviser: Putnam Management Subadviser(s): PIL	\$30,681,439	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Research Fund	Adviser: Putnam Management Subadviser(s): PIL, PAC	\$63,102,088	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1 Sub-Advisory Fee (PAC): see Appendix D-2	
Putnam VT Small Cap Growth Fund	Adviser: Putnam Management Subadviser(s): PIL	\$25,139,774	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Small Cap Value Fund	Adviser: Putnam Management Subadviser(s): PIL	\$111,034,270	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Sustainable Future Fund	Adviser: Putnam Management Subadviser(s): PIL	\$25,140,799	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	
Putnam VT Sustainable Leaders Fund	Adviser: Putnam Management Subadviser(s): PIL	\$738,492,955	Management Fee (Putnam Management): see Appendix B Sub-Advisory Fee (PIL): see Appendix D-1	

(1) The fund's reported net assets and management fee paid reflect the period from the fund's launch on September 29, 2022 through its fiscal year end on April 30, 2023.

(2) The fund's reported net assets and management fee paid reflect the period from the fund's launch on January 19, 2023 through its fiscal year end on April 30, 2023.

(3) The net assets figure is based on assets as of June 30, 2023 since the fund has not experienced a fiscal year-end since commencement of its operations.

	Amount of Management Fee Paid in the Most Recent Fiscal Year (after applicable waivers and reimbursements, if any) (\$)	Has compensation been waived, reduced or otherwise agreed to be reduced under any applicable contract?	Current Investment Objective
	\$30,889,654	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital and maintenance of liquidity.
	\$0 ⁽⁴⁾	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital and maintenance of liquidity.
	\$795,912	Yes	Capital appreciation.
	\$740,221	Yes	As high a level of current income as Putnam Management believes is consistent with preservation of capital.
	\$114,236	Yes	Long-term capital appreciation.
	\$1,088,498	Yes	Capital Appreciation.
	\$1,121,719	Yes	Provide a balanced investment composed of a well-diversified portfolio of stocks and bonds which produce both capital growth and current income.
	\$590,112	Yes	Long-term return consistent with preservation of capital.
	\$960,913	Yes	Capital appreciation.
	\$114,654	Yes	As high a rate of current income as Putnam Management believes is consistent with preservation of capital and maintenance of liquidity.
	\$806,386	Yes	High current income.
	\$690,812	Yes	High current income consistent with what Putnam Management believes to be prudent risk.
	\$1,416,722	Yes	Capital appreciation.
	\$566,876	Yes	Capital growth. Current income is a secondary objective.
	\$5,019,811	Yes	Capital appreciation.
	\$7,298,845	Yes	Capital growth and current income.
	\$0	Yes	As high a level of current income as Putnam Management believes is consistent with preservation of capital.
	\$351,778	Yes	Capital appreciation.
	\$147,049	Yes	Capital Appreciation.
	\$780,429	Yes	Capital Appreciation.
	\$138,316	Yes	Long-term capital appreciation.
	\$4,502,964	Yes	Long-term capital appreciation.

(4) The fund's management fee paid reflects the period from the fund's commencement of operations through June 30, 2023 since the fund has not experienced a fiscal year-end since commencement of its operations.

(5) If dividends payable on preferred shares during any dividend payment period plus any expenses attributable to preferred shares for that period exceed the fund's gross income attributable to the proceeds of the preferred shares during that period, then the fee payable to Putnam Management for that period will be reduced by the amount of the excess (but not more than the effective management fee rate under the contract multiplied by the liquidation preference of the preferred shares outstanding during the period). Any amount in excess of the fee payable to Putnam Management for a given period will be used to reduce any subsequent fee payable to Putnam Management, as may be necessary.

Appendix I — Officers and Trustees of the Funds

The following table contains information about each officer or trustee of the funds who is an officer, employee, director, general partner or shareholder of Putnam Management, PIL, PAC, and/or PanAgora.

Name	Position(s) with Funds	Position(s) with Adviser and/or Subadviser(s) (indicate position and entity)
Robert L. Reynolds	Trustee, President	President, Putnam Management; Director, PanAgora Asset Management, Inc.
Stephen J. Tate	Vice President and Chief Legal Officer	Secretary, Putnam Advisory Company; Chief Legal Officer, General Counsel and Secretary, Putnam Management
James F. Clark	Vice President and Chief Compliance Officer	Chief Compliance Officer and Chief Risk Officer, Putnam Investments; Chief Compliance Officer, Code of Ethics Officer, and Assistant Secretary, Putnam Advisory Company, Putnam Management, and Putnam Investments Limited.
Janet C. Smith	Vice President, Principal Financial Officer, Principal Accounting Officer, and Assistant Treasurer	Head of Fund Administration Services, Putnam Investments and Putnam Management.
Susan G. Malloy	Vice President and Assistant Treasurer	Head of Accounting, Middle Office, and Control Services, Putnam Investments and Putnam Management.
Alan G. McCormack¹	Vice President and Derivatives Risk Manager	Director, Putnam Investments Limited; Head of Quantitative Equities and Risk, Putnam Investments.
Richard T. Kircher	Vice President and BSA Compliance Officer	Assistant Director, Operational Compliance, Putnam Investments.
Mark C. Trenchard	Vice President	Director of Operational Compliance, Putnam Investments.
Martin Lemaire¹	Vice President and Derivatives Risk Manager	Risk Manager, Putnam Investments.

(1) Messrs. McCormack and Lemaire each serve as Vice President and Derivatives Risk Manager for the funds, except Putnam Government Money Market Fund, Putnam Money Market Fund, and Putnam VT Government Money Market Fund.

Appendix J — Management Ownership of Fund Shares

Individual Ownership

The following tables show the number of shares beneficially owned by each Trustee and named executive officer in each fund as of May 31, 2023. Where the number of shares beneficially owned exceeds 1% percent of the class owned, the percentage is included in parentheses below.

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
George Putnam Balanced Fund		
A	GEORGE PUTNAM III	32,471.156
R6	CATHARINE BOND HILL	5,141.816448
	MARIE PILLAI	79.218175
	JANET C. SMITH	25,103.658
	STEPHEN J. TATE	1,225.387
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	4,467.4460
	KATINKA I. DOMOTORFFY	150.5950
	CATHARINE BOND HILL	208.4580
	KENNETH R. LEIBLER	216.8070
	JENNIFER WILLIAMS MURPHY	53.2100
	GEORGE PUTNAM III	113,144.8730 (1.07%)
	ROBERT L. REYNOLDS	164.4040
	MANOJ P. SINGH	206.9530
	MONA K. SUTPHEN	231.2230
Putnam BDC Income ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	68.0000
	KATINKA I. DOMOTORFFY	37.0000
	CATHARINE BOND HILL	34.0000
	KENNETH R. LEIBLER	36.0000
	MARIE PILLAI	72.3600
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	38.0000
	MONA K. SUTPHEN	34.0000
Putnam BioRevolution™ ETF		
	LIAQUAT A. AHAMED	2,000.0000 (1.14%)
	BARBARA M. BAUMANN	75.0000
	KATINKA I. DOMOTORFFY	37.0000
	CATHARINE BOND HILL	38.0000
	KENNETH R. LEIBLER	36.0000
	MARIE PILLAI	36.6570
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	38.0000
	MONA K. SUTPHEN	34.0000
Putnam California Tax Exempt Income Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	165.1430
	KATINKA I. DOMOTORFFY	149.187
	CATHARINE BOND HILL	119.5770
	KENNETH R. LEIBLER	198.5450
	GEORGE PUTNAM III	2,894.2580
	ROBERT L. REYNOLDS	179.2310
	MANOJ P. SINGH	117.6350
	MONA K. STUTPHEN	126.6350

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Convertible Securities Fund		
R6	MARIE PILLAI	73.497537
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	242.1040
	KATINKA I. DOMOTORFFY	224.5760
	CATHARINE BOND HILL	177.1610
	KENNETH R. LEIBLER	272.8050
	JENNIFER WILLIAMS MURPHY	48.0810
	GEORGE PUTNAM III	30,000.7570
	ROBERT L. REYNOLDS	255.4280
	MANOJ P. SINGH	157.4980
	MONA K. STUTPHEN	39.3810
Putnam Core Bond Fund		
R6	BARBARA M. BAUMANN	9,923.784876 (5.30%)
	MARIE PILLAI	193.397857
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	166.4120
	KATINKA I. DOMOTORFFY	157.0660
	CATHARINE BOND HILL	124.7890
	KENNETH R. LEIBLER	168.0120
	GEORGE PUTNAM III	1,675.0800
	ROBERT L. REYNOLDS	39,134.6470
	MANOJ P. SINGH	122.4000
	MONA K. SUTPHEN	119.3680
Putnam Core Equity Fund		
R6	LIAQUAT A. AHAMED	7,898.276804
	CATHARINE BOND HILL	5,218.139524
	JONATHAN S. HORWITZ	7,854.038
	MARIE PILLAI	319.930817
Y	LIAQUAT A. AHAMED	227.3790
	BARBARA M. BAUMANN	18,591.0260
	KATINKA I. DOMOTORFFY	319.4240
	CATHARINE BOND HILL	123.8720
	KENNETH R. LEIBLER	568.3000
	JENNIFER WILLIAMS MURPHY	38.0900
	GEORGE PUTNAM III	12,077.1030
	ROBERT L. REYNOLDS	332.5870
	MANOJ P. SINGH	123.8720
	MONA K. SUTPHEN	93.3280
Putnam Diversified Income Trust		
R6	BARBARA M. BAUMANN	7,805.878996
	KATINKA I. DOMOTORFFY	17,125.27052
	MARIE PILLAI	294.114566
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	9,463.6240
	KATINKA I. DOMOTORFFY	171.5630
	CATHARINE BOND HILL	123.3840
	KENNETH R. LEIBLER	538.0920
	JENNIFER WILLIAMS MURPHY	188.6000
	GEORGE PUTNAM III	15,475.5560
	ROBERT L. REYNOLDS	143,197.4370
	MANOJ P. SINGH	121.9110
	MONA K. SUTPHEN	169.8600

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Dynamic Asset Allocation Balanced		
R6	MARIE PILLAI	115.160568
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	2,534.4140
	KATINKA I. DOMOTORFFY	173.0060
	CATHARINE BOND HILL	134.1760
	KENNETH R. LEIBLER	213.9220
	GEORGE PUTNAM III	6,290.6400
	ROBERT L. REYNOLDS	199.0070
	MANOJ P. SINGH	125.0340
	MONA K. SUTPHEN	65.5220
Putnam Dynamic Asset Allocation Conservative		
R6	MARIE PILLAI	166.299802
	JANET C. SMITH	646.928
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	166.8330
	KATINKA I. DOMOTORFFY	157.9980
	CATHARINE BOND HILL	123.6220
	KENNETH R. LEIBLER	196.0840
	GEORGE PUTNAM III	8,830.2660
	ROBERT L. REYNOLDS	181.7360
	MANOJ P. SINGH	119.6070
	MONA K. SUTPHEN	92.7550
Putnam Dynamic Asset Allocation Equity		
A	ROBERT L. REYNOLDS	443.1060
Putnam Dynamic Asset Allocation Growth		
R6	MARIE PILLAI	96.173971
Y	LIAQUAT A. AHAMED	100.000
	BARBARA M. BAUMANN	2,386.3780
	KATINKA I. DOMOTORFFY	187.2460
	CATHARINE BOND HILL	133.0540
	KENNETH R. LEIBLER	220.2230
	GEORGE PUTNAM III	35,568.6550
	ROBERT L. REYNOLDS	204.6940
	MANOJ P. SINGH	120.4200
	MONA K. SUTPHEN	54.7750
Putnam Emerging Markets Equity		
R6	KATINKA I. DOMOTORFFY	7,471.788155
	MARIE PILLAI	804.132355
	ROBERT L. REYNOLDS	4,527.201021
	JANET C. SMITH	11,376.467
Y	LIAQUAT A. AHAMED	7,197.8180
	BARBARA M. BAUMANN	336.8260
	KATINKA I. DOMOTORFFY	305.0240
	CATHARINE BOND HILL	295.0380
	KENNETH R. LEIBLER	351.4810
	GEORGE PUTNAM III	25,165.6590
	ROBERT L. REYNOLDS	40,996.2680
	MANOJ P. SINGH	292.6480
	MONA K. SUTPHEN	310.9530
Putnam ESG Core Bond ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	41.0000
	KATINKA I. DOMOTORFFY	21.0000
	CATHARINE BOND HILL	21.0000

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
	KENNETH R. LEIBLER	21.0000
	MARIE PILLAI	20.0900
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	21.0000
	MONA K. SUTPHEN	19.0000
Putnam ESG High Yield ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	40.000
	KATINKA I. DOMOTORFFY	21.0000
	CATHARINE BOND HILL	21.0000
	KENNETH R. LEIBLER	20.0000
	MARIE PILLAI	20.0520
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	21.0000
	MONA K. SUTPHEN	19.0000
Putnam ESG Ultra Short ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	40.0000
	KATINKA I. DOMOTORFFY	20.0000
	CATHARINE BOND HILL	20.0000
	KENNETH R. LEIBLER	20.0000
	MARIE PILLAI	19.9380
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	21.0000
	MONA K. SUTPHEN	18.0000
Putnam Floating Rate Income Fund		
R6	JONATHAN S. HORWITZ	0.037
	MARIE PILLAI	208.233862
	STEPHEN J. TATE	0.160
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	176.1980
	KATINKA I. DOMOTORFFY	156.7030
	CATHARINE BOND HILL	121.9670
	KENNETH R. LEIBLER	217.1010
	JENNIFER WILLIAMS MURPHY	136.3080
	GEORGE PUTNAM III	15,960.8350
	ROBERT L. REYNOLDS	189.8370
	MANOJ P. SINGH	120.5120
	MONA K. SUTPHEN	133.2140
Putnam Focused Equity		
A	GEORGE PUTNAM III	10,304.0490
R6	BARBARA M. BAUMANN	188.496912
	KATINKA I. DOMOTORFFY	1,836.577819
	JONATHAN S. HORWITZ	7,921.147 (1.08%)
	MARIE PILLAI	63.770037
Y	LIAQUAT A. AHAMED	414.9650
	BARBARA M. BAUMANN	5,212.8380
	KATINKA I. DOMOTORFFY	699.4590
	CATHARINE BOND HILL	548.6270
	KENNETH R. LEIBLER	858.5620
	GEORGE PUTNAM III	42,792.9310 (1.10%)
	ROBERT L. REYNOLDS	55,380.2860 (1.42%)
	MANOJ P. SINGH	415.8170
	MONA K. SUTPHEN	74.8590

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Focused International Equity		
A	GEORGE PUTNAM III	31,052.2080
R6	KATINKA I. DOMOTORFFY	6,435.323937
	MARIE PILLAI	668.494797
	JANET C. SMITH	7,618.444
Y	LIAQUAT A. AHAMED	490.3010
	BARBARA M. BAUMANN	4,822.9140
	KATINKA I. DOMOTORFFY	992.2040
	CATHARINE BOND HILL	670.8520
	KENNETH R. LEIBLER	1,239.5970
	GEORGE PUTNAM III	179,738.0210 (5.78%)
	ROBERT L. REYNOLDS	49,708.2270 (1.60%)
	MANOJ P. SINGH	138.7440
	MONA K. SUTPHEN	63.0180
Putnam Focused Large Cap Growth ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	93.0000
	KATINKA I. DOMOTORFFY	44.0000
	CATHARINE BOND HILL	46.0000
	KENNETH R. LEIBLER	43.0000
	JENNIFER WILLIAMS MURPHY	50.0000
	MARIE PILLAI	42.4800
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	45.0000
	MONA K. SUTPHEN	40.0000
Putnam Focused Large Cap Value ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	71.0000
	KATINKA I. DOMOTORFFY	37.0000
	CATHARINE BOND HILL	36.0000
	KENNETH R. LEIBLER	36.0000
	JENNIFER WILLIAMS MURPHY	45.0000
	MARIE PILLAI	36.3110
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	40.0000
	MONA K. SUTPHEN	34.0000
Putnam Global Health Care		
R6	LIAQUAT A. AHAMED	3899.136097
	KATINKA I. DOMOTORFFY	1544.118944
	MARIE PILLAI	154.687819
	JANET C. SMITH	168.500
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	320.0510
	KATINKA I. DOMOTORFFY	257.3840
	CATHARINE BOND HILL	147.1580
	KENNETH R. LEIBLER	453.6040
	JENNIFER WILLIAMS MURPHY	17.9990
	GEORGE PUTNAM III	15,811.7110
	ROBERT L. REYNOLDS	321.1010
	MANOJ P. SINGH	115.4240
	MONA K. SUTPHEN	33.3770

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Global Income Trust		
Class R6	MARIE PILLAI	160.181069
	JANET C. SMITH	154.577
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	149.4040
	KATINKA I. DOMOTORFFY	133.5070
	CATHARINE BOND HILL	110.0680
	KENNETH R. LEIBLER	198.9460
	GEORGE PUTNAM III	7,627.6670
	ROBERT L. REYNOLDS	70,302.1100 (2.04%)
	MANOJ P. SINGH	109.4080
	MONA K. SUTPHEN	84.0980
Putnam Global Technology Fund		
R6	KATINKA I. DOMOTORFFY	1,059.48
	CATHARINE BOND HILL	1,025.02
	JONATHAN S. HORWITZ	13,672.64
	MARIE PILLAI	210.52213
Y	LIAQUAT A. AHAMED	135.5700
	BARBARA M. BAUMANN	5,797.9050
	KATINKA I. DOMOTORFFY	281.5860
	CATHARINE BOND HILL	221.2900
	KENNETH R. LEIBLER	324.5840
	GEORGE PUTNAM III	3,619.9000
	ROBERT L. REYNOLDS	324.5840
	MANOJ P. SINGH	144.0640
	MONA K. SUTPHEN	88.7090
Putnam Government Money Market Fund		
A	LIAQUAT A. AHAMED	102.7400
	BARBARA M. BAUMANN	171,825.5100
	KATINKA I. DOMOTORFFY	129.470
	CATHARINE BOND HILL	104.6400
	JONATHAN S. HORWITZ	381,623.680
	KENNETH R. LEIBLER	102.7400
	MARIE PILLAI	1621.95
	GEORGE PUTNAM III	13,140.4200
	ROBERT L. REYNOLDS	1026.1400
	MANOJ P. SINGH	104.2500
	MONA K. SUTPHEN	1,030.0500
	STEPHEN J. TATE	63,530.170
Putnam High Yield Fund		
R6	MARIE PILLAI	297.064237
	JANET C. SMITH	734.451
	STEPHEN J. TATE	11,648.376
Y	LIAQUAT A. AHAMED	220.9310
	BARBARA M. BAUMANN	444.6120
	KATINKA I. DOMOTORFFY	380.1260
	CATHARINE BOND HILL	123.4470
	KENNETH R. LEIBLER	603.4160
	JENNIFER WILLIAMS MURPHY	197.4950
	GEORGE PUTNAM III	21,431.5870
	ROBERT L. REYNOLDS	88,213.1670
	MANOJ P. SINGH	121.8760
	MONA K. SUTPHEN	171.2160

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Income Fund		
R6	MARIE PILLAI	288.258753
	ROBERT L. REYNOLDS	31604.89745
	JANET C. SMITH	699.335
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	171.7500
	KATINKA I. DOMOTORFFY	157.6340
	CATHARINE BOND HILL	126.7200
	KENNETH R. LEIBLER	223.5770
	JENNIFER WILLIAMS MURPHY	188.2470
	GEORGE PUTNAM III	17,094.3410
	ROBERT L. REYNOLDS	1,848,621.4550 (1.43%)
	MANOJ P. SINGH	125.5680
	MONA K. SUTPHEN	157.0480
Putnam Intermediate-Term Municipal Income Fund		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	132.2970
	KATINKA I. DOMOTORFFY	123.7760
	CATHARINE BOND HILL	112.7650
	KENNETH R. LEIBLER	173.8860
	GEORGE PUTNAM III	1,467.0260
	ROBERT L. REYNOLDS	104.6360
	MANOJ P. SINGH	112.2150
	MONA K. SUTPHEN	194.2470
Putnam International Capital Opportunities Fund		
R6	KATINKA I. DOMOTORFFY	2480.657622
	MARIE PILLAI	43.56473
	JANET C. SMITH	88.242
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	159.7180
	KATINKA I. DOMOTORFFY	151.4530
	CATHARINE BOND HILL	134.2670
	KENNETH R. LEIBLER	175.8420
	GEORGE PUTNAM III	2,967.2910
	ROBERT L. REYNOLDS	160.3360
	MANOJ P. SINGH	121.7820
	MONA K. SUTPHEN	23.5050
Putnam International Equity Fund		
R6	BARBARA M. BAUMANN	2707.657709
	KATINKA I. DOMOTORFFY	1964.053302
	MARIE PILLAI	66.655681
	JANET C. SMITH	424.978
	STEPHEN J. TATE	1015.531
	LIAQUAT A. AHAMED	209.6670
	BARBARA M. BAUMANN	4,499.3160
	KATINKA I. DOMOTORFFY	288.0030
	CATHARINE BOND HILL	264.8740
	KENNETH R. LEIBLER	406.1720
	GEORGE PUTNAM III	10,461.8770
	ROBERT L. REYNOLDS	16,190.6500
	MANOJ P. SINGH	119.7570
	MONA K. SUTPHEN	198.7950

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam International Value Fund		
R6	MARIE PILLAI	791.417836
	JANET C. SMITH	208.905
	STEPHEN J. TATE	2,026.917
Y	LIAQUAT A. AHAMED	2,000.0000
	BARBARA M. BAUMANN	143.4250
	KATINKA I. DOMOTORFFY	132.0920
	CATHARINE BOND HILL	120.6150
	KENNETH R. LEIBLER	191.3750
	GEORGE PUTNAM III	4,329.2200
	ROBERT L. REYNOLDS	143.9080
	MANOJ P. SINGH	115.2030
	MONA K. SUTPHEN	417.0240
Putnam Large Cap Growth Fund		
A	GEORGE PUTNAM III	12,281.4200
R6	BARBARA M. BAUMANN	5,543.993891
	JONATHAN S. HORWITZ	14,143.296
	JANET C. SMITH	11,379.505
	KATINKA I. DOMOTORFFY	1071.161422
	CATHARINE BOND HILL	3214.603321
	MARIE PILLAI	214.597042
	ROBERT L. REYNOLDS	5492.413256
Y	LIAQUAT A. AHAMED	1,239.9960
	BARBARA M. BAUMANN	4,214.8350
	KATINKA I. DOMOTORFFY	363.8770
	CATHARINE BOND HILL	124.6950
	KENNETH R. LEIBLER	356.8310
	JENNIFER WILLIAMS MURPHY	24.0040
	GEORGE PUTNAM III	82,759.6910
	ROBERT L. REYNOLDS	100,059.8180
	MANOJ P. SINGH	124.6950
	MONA K. SUTPHEN	57.2670
Putnam Large Cap Value Fund		
A	GEORGE PUTNAM III	32,643.53
R6	LIAQUAT A. AHAMED	8,274.13
	BARBARA M. BAUMANN	4,447.03
	KATINKA I. DOMOTORFFY	3,213.78
	CATHARINE BOND HILL	4,132.30
	JONATHAN S. HORWITZ	2,762.13
	MANOJ P. SINGH	888.498656
Y	LIAQUAT A. AHAMED	3,254.4850
	BARBARA M. BAUMANN	9,143.9460
	KATINKA I. DOMOTORFFY	344.2540
	CATHARINE BOND HILL	135.4500
	KENNETH R. LEIBLER	1,074.5260
	JENNIFER WILLIAMS MURPHY	39.8680
	GEORGE PUTNAM III	167,152.3660
	ROBERT L. REYNOLDS	133,650.6320
	MANOJ P. SINGH	128.5400
	MONA K. SUTPHEN	187.2410

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Massachusetts Tax Exempt Income Fund		
A	GEORGE PUTNAM III	8,315.5450
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	149.3980
	KATINKA I. DOMOTORFFY	136.2380
	CATHARINE BOND HILL	111.6190
	KENNETH R. LEIBLER	177.1680
	GEORGE PUTNAM III	2,162.4020
	ROBERT L. REYNOLDS	161.0770
	MANOJ P. SINGH	110.7750
	MONA K. SUTPHEN	104.5360
Putnam Minnesota Tax Exempt Income Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	146.7670
	KATINKA I. DOMOTORFFY	135.2980
	CATHARINE BOND HILL	111.4630
	KENNETH R. LEIBLER	170.7050
	GEORGE PUTNAM III	2,184.0920
	ROBERT L. REYNOLDS	156.4550
	MANOJ P. SINGH	110.7310
	MONA K. SUTPHEN	109.0250
Putnam Money Market Fund		
A	LIAQUAT A. AHAMED	18,551.5000
	BARBARA M. BAUMANN	1,073.9600
	KATINKA I. DOMOTORFFY	20,215.8400
	CATHARINE BOND HILL	4,716.9900
	KENNETH R. LEIBLER	56.1100
	GEORGE PUTNAM III	775,037.6400
	ROBERT L. REYNOLDS	83,587.4900
	MANOJ P. SINGH	227.9600
	MONA K. SUTPHEN	2,065.8100
Putnam Mortgage Opportunities Fund		
R6	MARIE PILLAI	188.097847
Y	LIAQUAT A. AHAMED	120.8670
	BARBARA M. BAUMANN	120.8670
	KATINKA I. DOMOTORFFY	120.8670
	CATHARINE BOND HILL	120.4450
	KENNETH R. LEIBLER	120.8670
	GEORGE PUTNAM III	1,487.5880
	ROBERT L. REYNOLDS	119.1340
	MANOJ P. SINGH	120.8670
	MONA K. SUTPHEN	124.0090
Putnam Mortgage Securities Fund		
R6	BARBARA M. BAUMANN	9,089.208287 (1.32%)
	MARIE PILLAI	182.444022
Y	LIAQUAT A. AHAMED	166.5510
	BARBARA M. BAUMANN	322.1990
	KATINKA I. DOMOTORFFY	265.0480
	CATHARINE BOND HILL	133.9520
	KENNETH R. LEIBLER	318.9530
	GEORGE PUTNAM III	9,769.9320
	ROBERT L. REYNOLDS	351.0920
	MANOJ P. SINGH	132.2660
	MONA K. SUTPHEN	99.9150

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Multi Asset Income Fund		
R6	MARIE PILLAI	166.732724
Y	LIAQUAT A. AHAMED	179.3550
	BARBARA M. BAUMANN	292.4180
	KATINKA I. DOMOTORFFY	781.8040
	CATHARINE BOND HILL	118.8120
	KENNETH R. LEIBLER	297.6370
	GEORGE PUTNAM III	2,694.7780
	ROBERT L. REYNOLDS	46,878.0400 (1.05%)
	MANOJ P. SINGH	114.5130
	MONA K. SUTPHEN	109.7900
Putnam New Jersey Tax Exempt Income Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	154.0010
	KATINKA I. DOMOTORFFY	140.7930
	CATHARINE BOND HILL	113.8320
	KENNETH R. LEIBLER	180.5460
	GEORGE PUTNAM III	2,225.9500
	ROBERT L. REYNOLDS	164.8330
	MANOJ P. SINGH	112.8790
	MONA K. SUTPHEN	109.3360
Putnam New York Tax Exempt Income Fund		
A	KENNETH R. LEIBLER	158.1330
	GEORGE PUTNAM III	2,097.5420
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	153.3110
	KATINKA I. DOMOTORFFY	139.5670
	CATHARINE BOND HILL	113.0280
	KENNETH R. LEIBLER	181.4220
	GEORGE PUTNAM III	2,513.9330
	ROBERT L. REYNOLDS	164.6750
	MANOJ P. SINGH	112.2340
	MONA K. SUTPHEN	118.5720
Putnam Ohio Tax Exempt Income Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	149.8870
	KATINKA I. DOMOTORFFY	137.5000
	CATHARINE BOND HILL	113.0870
	KENNETH R. LEIBLER	175.8650
	GEORGE PUTNAM III	2,221.4720
	ROBERT L. REYNOLDS	160.6920
	MANOJ P. SINGH	112.3610
	MONA K. SUTPHEN	113.1810
Putnam PanAgora ESG Emerging Markets Equity ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	104.0000
	KATINKA I. DOMOTORFFY	52.0000
	CATHARINE BOND HILL	52.0000
	KENNETH R. LEIBLER	51.0000
	MARIE PILLAI	51.9480
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	53.0000
	MONA K. SUTPHEN	49.0000

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam PanAgora ESG International Equity ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	100.0000
	KATINKA I. DOMOTORFFY	49.0000
	CATHARINE BOND HILL	50.0000
	KENNETH R. LEIBLER	47.0000
	MARIE PILLAI	48.3230
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	50.0000
	MONA K. SUTPHEN	45.000
Putnam Pennsylvania Tax Exempt Income Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	151.0740
	KATINKA I. DOMOTORFFY	138.2700
	CATHARINE BOND HILL	112.5660
	KENNETH R. LEIBLER	176.7040
	GEORGE PUTNAM III	2,227.1930
	ROBERT L. REYNOLDS	161.8120
	MANOJ P. SINGH	111.7220
	MONA K. SUTPHEN	109.5030
Putnam Research Fund		
R6	KATINKA I. DOMOTORFFY	1254.782636
	MARIE PILLAI	255.911468
	ROBERT L. REYNOLDS	7293.757638 (1.19%)
	STEPHEN J. TATE	980.543
Y	LIAQUAT A. AHAMED	243.7670
	BARBARA M. BAUMANN	162.1070
	KATINKA I. DOMOTORFFY	158.7050
	CATHARINE BOND HILL	130.1570
	KENNETH R. LEIBLER	165.9490
	GEORGE PUTNAM III	2,906.3430
	ROBERT L. REYNOLDS	163.4640
	MANOJ P. SINGH	130.1570
	MONA K. SUTPHEN	74.3720
Putnam Retirement Advantage 2030 Fund		
Y	BARBARA M. BAUMANN	108.2020 (7.38%)
Putnam Retirement Advantage 2035 Fund		
Y	MONA K. SUTPHEN	104.2400 (5.21%)
Putnam Retirement Advantage 2040 Fund		
R6	MARIE PILLAI	179.795742
Putnam Retirement Advantage 2050 Fund		
Y	LIAQUAT A. AHAMED	109.8420 (8.03%)
Putnam Retirement Advantage Maturity Fund		
Y	KATINKA I. DOMOTORFFY	104.019 (4.20%)
	CATHARINE BOND HILL	103.702 (4.19%)
	KENNETH R. LEIBLER	5.2020
	GEORGE PUTNAM III	1,019.3920 (41.15%)
	ROBERT L. REYNOLDS	107.8700 (4.35%)
	MANOJ P. SINGH	105.417 (4.26%)

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Short Duration Bond Fund		
R6	MARIE PILLAI	167.646479
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	131.1760
	KATINKA I. DOMOTORFFY	125.7500
	CATHARINE BOND HILL	111.9150
	KENNETH R. LEIBLER	131.6300
	JENNIFER WILLIAMS MURPHY	107.2900
	GEORGE PUTNAM III	1,315.7720
	ROBERT L. REYNOLDS	131.6300
	MANOJ P. SINGH	110.5220
	MONA K. SUTPHEN	101.7690
Putnam Short-Term Municipal Income Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	612.3070
	KATINKA I. DOMOTORFFY	113.7350
	CATHARINE BOND HILL	107.6400
	KENNETH R. LEIBLER	160.1280
	GEORGE PUTNAM III	1,360.5940
	ROBERT L. REYNOLDS	104.2100
	MANOJ P. SINGH	107.2130
	MONA K. SUTPHEN	101.4900
Putnam Small Cap Growth Fund		
R6	MARIE PILLAI	176.314715
	ROBERT L. REYNOLDS	1150.06627
	STEPHEN J. TATE	449.179
Y	LIAQUAT A. AHAMED	126.8740
	BARBARA M. BAUMANN	2,107.7010
	KATINKA I. DOMOTORFFY	185.9770
	CATHARINE BOND HILL	122.9020
	KENNETH R. LEIBLER	225.4340
	GEORGE PUTNAM III	12,824.0230
	ROBERT L. REYNOLDS	182.7060
	MANOJ P. SINGH	122.9020
	MONA K. SUTPHEN	63.0540
Putnam Small Cap Value Fund		
R6	KATINKA I. DOMOTORFFY	3,222.296232
	MARIE PILLAI	117.016152
	JANET C. SMITH	7,080.607
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	198.1390
	KATINKA I. DOMOTORFFY	203.4980
	CATHARINE BOND HILL	111.0920
	KENNETH R. LEIBLER	330.7930
	GEORGE PUTNAM III	7,075.1090
	ROBERT L. REYNOLDS	201.6160
	MANOJ P. SINGH	111.0920
	MONA K. SUTPHEN	267.4010

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Strategic Intermediate Municipal Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	162.5460
	KATINKA I. DOMOTORFFY	148.0370
	CATHARINE BOND HILL	119.4740
	KENNETH R. LEIBLER	190.8850
	GEORGE PUTNAM III	1,522.0160
	ROBERT L. REYNOLDS	174.3300
	MANOJ P. SINGH	117.4010
	MONA K. SUTPHEN	209.1030
Putnam Sustainable Future ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	112.0000
	KATINKA I. DOMOTORFFY	57.0000
	CATHARINE BOND HILL	56.0000
	KENNETH R. LEIBLER	54.0000
	JENNIFER WILLIAMS MURPHY	60.0000
	MARIE PILLAI	57.0150
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	60.0000
	MONA K. SUTPHEN	53.0000
Putnam Sustainable Future Fund		
R6	LIAQUAT A. AHAMED	14,061.58236 (1.08%)
	KATINKA I. DOMOTORFFY	2,869.396557
	MARIE PILLAI	98.316318
	ROBERT L. REYNOLDS	4,299.65718
	JANET C. SMITH	26,648.493 (2.05%)
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	7,543.0140
	KATINKA I. DOMOTORFFY	289.4010
	CATHARINE BOND HILL	132.0690
	KENNETH R. LEIBLER	300.2760
	GEORGE PUTNAM III	7,283.4830
	ROBERT L. REYNOLDS	223.3960
	MANOJ P. SINGH	132.0690
	MONA K. SUTPHEN	232.9650
Putnam Sustainable Leaders ETF		
	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	90.0000
	KATINKA I. DOMOTORFFY	44.0000
	CATHARINE BOND HILL	45.0000
	KENNETH R. LEIBLER	42.0000
	JENNIFER WILLIAMS MURPHY	50.0000
	MARIE PILLAI	44.4440
	GEORGE PUTNAM III	200.0000
	MANOJ P. SINGH	45.0000
	MONA K. SUTPHEN	41.0000

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Sustainable Leaders Fund		
A	GEORGE PUTNAM III	6,290.1050
R6	KATINKA I. DOMOTORFFY	452.081696
	MARIE PILLAI	92.416595
	ROBERT L. REYNOLDS	2404.765787
	JANET C. SMITH	8040.587
	STEPHEN J. TATE	118.552
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	1,899.6590
	KATINKA I. DOMOTORFFY	213.6860
	CATHARINE BOND HILL	34.1620
	KENNETH R. LEIBLER	250.1970
	JENNIFER WILLIAMS MURPHY	10.7140
	GEORGE PUTNAM III	43,359.7430 (1.31%)
	ROBERT L. REYNOLDS	16,203.4360
	MANOJ P. SINGH	98.3860
	MONA K. SUTPHEN	43.3300
Putnam Sustainable Retirement 2025 Fund		
Y	LIAQUAT A. AHAMED	100.0000
	GEORGE PUTNAM III	2,311.1070
Putnam Sustainable Retirement 2030 Fund		
R6	JANET C. SMITH	21,537.533 (4.13%)
Putnam Sustainable Retirement 2030 Fund		
Y	BARBARA M. BAUMANN	141.1530
Putnam Sustainable Retirement 2035 Fund		
Y	MONA K. SUTPHEN	41.2410
Putnam Sustainable Retirement 2040 Fund		
R6	MARIE PILLAI	68.132176
Y	ROBERT L. REYNOLDS	524.6050
Putnam Sustainable Retirement 2055 Fund		
Y	GEORGE PUTNAM III	909.8340
Putnam Sustainable Retirement Maturity Fund		
Y	BARBARA M. BAUMANN	178.9660
	KATINKA I. DOMOTORFFY	138.5870
	CATHARINE BOND HILL	120.7430
	KENNETH R. LEIBLER	311.2660
	GEORGE PUTNAM III	1,342.360
	ROBERT L. REYNOLDS	139.7070
	MANOJ P. SINGH	118.2980
Putnam Tax Exempt Income Fund		
A	KENNETH R. LEIBLER	162.311
	GEORGE PUTNAM III	1,490.32
Y	LIAQUAT A. AHAMED	310.9810
	BARBARA M. BAUMANN	496.3990
	KATINKA I. DOMOTORFFY	452.9270
	CATHARINE BOND HILL	118.2030
	KENNETH R. LEIBLER	587.1430
	GEORGE PUTNAM III	12,391.9950
	ROBERT L. REYNOLDS	534.5740
	MANOJ P. SINGH	116.8840
	MONA K. SUTPHEN	120.7950

Class	Shareholder Name and Address	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Tax-Free High Yield Fund		
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	175.8490
	KATINKA I. DOMOTORFFY	156.5520
	CATHARINE BOND HILL	120.5010
	KENNETH R. LEIBLER	216.9980
	GEORGE PUTNAM III	5,773.1420
	ROBERT L. REYNOLDS	193.7890
	MANOJ P. SINGH	119.2840
	MONA K. SUTPHEN	81.4260
Putnam Ultra Short Duration Income Fund		
R6	JONATHAN S. HORWITZ	0.004
	MARIE PILLAI	162.0203
Y	LIAQUAT A. AHAMED	100.0000
	BARBARA M. BAUMANN	75,777.8390
	KATINKA I. DOMOTORFFY	114.9140
	CATHARINE BOND HILL	108.0760
	KENNETH R. LEIBLER	127.4200
	JENNIFER WILLIAMS MURPHY	102.4900
	GEORGE PUTNAM III	1,386.1440
	ROBERT L. REYNOLDS	115.5530
	MANOJ P. SINGH	107.4050
	MONA K. SUTPHEN	102.8840
	STEPHEN J. TATE	18,857.273
Putnam VT Global Asset Allocation Fund		
IA	GEORGE PUTNAM III	442.33

Aggregate Ownership

The following table shows the number of shares beneficially owned by the Trustees and executive officers, as a group, in each fund, as of May 31, 2023. Where the number of shares beneficially owned exceeds 1% percent of the class owned, the percentage is included in parentheses below.

Fund and Share Class	Shares Beneficially Owned (Percentage of Class Owned if >1%)
George Putnam Balanced Fund – Class A	32,471.156
George Putnam Balanced Fund – Class R6	31,550.0796
George Putnam Balanced Fund – Class Y	118,943.9690 (1.13%)
Putnam BDC Income ETF	619.3600
Putnam BioRevolution™ ETF	2,494.6570 (1.43%)
Putnam California Tax Exempt Income Fund – Class Y	4,050.2110
Putnam Convertible Securities Fund – Class R6	73.497537
Putnam Convertible Securities Fund – Class Y	31,517.7910
Putnam Core Bond Fund – Class R6	10,117.18273 (5.41%)
Putnam Core Bond Fund – Class Y	41,767.7740
Putnam Core Equity Fund – Class R6	21,290.3851
Putnam Core Equity Fund – Class Y	32,494.981
Putnam Diversified Income Trust – Class R6	25,225.2641
Putnam Diversified Income Trust – Class Y	169,550.0270
Putnam Dynamic Asset Allocation Balanced Fund – Class R6	115.160568
Putnam Dynamic Asset Allocation Balanced Fund – Class Y	9,835.7210
Putnam Dynamic Asset Allocation Conservative Fund – Class R6	813.2278
Putnam Dynamic Asset Allocation Conservative Fund – Class Y	9,968.9010
Putnam Dynamic Asset Allocation Equity Fund – Class A	443.1060
Putnam Dynamic Asset Allocation Growth Fund – Class R6	96.173971
Putnam Dynamic Asset Allocation Growth Fund – Class Y	38,975.4450
Putnam Emerging Markets Equity Fund – Class R6	24,179.5885 (1.04%)
Putnam Emerging Markets Equity Fund – Class Y	75,251.7150
Putnam ESG Core Bond ETF	464.0900
Putnam ESG High Yield ETF	462.0520
Putnam ESG Ultra Short ETF	458.9380
Putnam Floating Rate Income Fund – Class R6	208.430862
Putnam Floating Rate Income Fund – Class Y	17,312.6750
Putnam Focused Equity Fund – Class A	10,304.0490
Putnam Focused Equity Fund – Class R6	10,009.9918 (1.36%)
Putnam Focused Equity Fund – Class Y	106,398.3440 (2.73%)
Putnam Focused International Equity Fund – Class A	31,052.208
Putnam Focused International Equity Fund – Class R6	14,722.2627
Putnam Focused International Equity Fund – Class Y	237,863.8780 (7.65%)
Putnam Focused Large Cap Growth ETF	703.4800
Putnam Focused Large Cap Value ETF	635.3110
Putnam Global Health Care Fund – Class R6	5,766.44286 (1.26%)
Putnam Global Health Care Fund – Class Y	17,577.8090

Fund and Share Class	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Global Income Trust – Class Y	78,815.2080 (2.28%)
Putnam Global Income Trust – Class R6	314.758069
Putnam Global Technology Fund – Class R6	2,295.025205
Putnam Global Technology Fund – Class Y	10,938.1920
Putnam Government Money Market Fund – Class A	570,811.19
Putnam High Yield Fund – Class R6	12,679.8912
Putnam High Yield Fund – Class Y	111,907.873
Putnam Income Fund – Class R6	32,592.511
Putnam Income Fund – Class Y	1,866,966.34 (1.44%)
Putnam Intermediate-Term Municipal Income Fund – Class Y	2,520.8480
Putnam International Capital Opportunities Fund – Class R6	2,612.46435
Putnam International Capital Opportunities Fund – Class Y	3,994.1940
Putnam International Equity Fund – Class R6	6,178.87769
Putnam International Equity Fund – Class Y	32,639.1110
Putnam International Value Fund – Class R6	3,943.3228
Putnam International Value Fund – Class Y	7,592.8620
Putnam Large Cap Growth Fund – Class A	12,281.4200
Putnam Large Cap Growth Fund – Class R6	41,059.5699
Putnam Large Cap Growth Fund – Class Y	189,325.709
Putnam Large Cap Value Fund – Class A	32,643.5320
Putnam Large Cap Value Fund – Class R6	23,717.8691
Putnam Large Cap Value Fund – Class Y	315,111.3080
Putnam Massachusetts Tax Exempt Income Fund – Class A	8,315.5450
Putnam Massachusetts Tax Exempt Income Fund – Class Y	3,213.2130
Putnam Minnesota Tax Exempt Income Fund – Class Y	3,224.5360
Putnam Money Market Fund – Class A	905,533.3000
Putnam Mortgage Opportunities Fund – Class R6	188.097847
Putnam Mortgage Opportunities Fund – Class Y	2,455.5110
Putnam Mortgage Securities Fund – Class R6	9,271.652309 (1.35%)
Putnam Mortgage Securities Fund – Class Y	11,559.9080
Putnam Multi Asset Income Fund – Class R6	166.732724 (1.16%)
Putnam Multi Asset Income Fund – Class Y	51,467.1470
Putnam New Jersey Tax Exempt Income Fund – Class Y	3,302.1700
Putnam New York Tax Exempt Income Fund – Class A	2,255.6750
Putnam New York Tax Exempt Income Fund – Class Y	3,596.7420
Putnam Ohio Tax Exempt Income Fund – Class Y	3,284.0450
Putnam PanAgora ESG Emerging Markets Equity ETF	712.9480
Putnam PanAgora ESG International Equity ETF	689.3230
Putnam Pennsylvania Tax Exempt Income Fund – Class Y	3,288.8440
Putnam Research Fund – Class R6	9,784.99474 (1.60%)
Putnam Research Fund – Class Y	4,135.0210
Putnam Retirement Advantage 2030 Fund – Class Y	108.2020 (7.38%)
Putnam Retirement Advantage 2035 Fund – Class Y	104.2400 (5.21%)
Putnam Retirement Advantage 2040 Fund – Class R6	179.795742
Putnam Retirement Advantage 2050 Fund – Class Y	109.8420 (8.03%)
Putnam Retirement Advantage Maturity Fund	1,445.6020 (58.35%)

Fund and Share Class	Shares Beneficially Owned (Percentage of Class Owned if >1%)
Putnam Short Duration Bond Fund – Class R6	167.646479
Putnam Short Duration Bond Fund – Class Y	2,367.4540
Putnam Short-Term Municipal Income Fund – Class Y	2,767.3170
Putnam Small Cap Growth Fund – Class R6	1,775.55998
Putnam Small Cap Growth Fund – Class Y	15,961.5730
Putnam Small Cap Value Fund – Class R6	10,419.919
Putnam Small Cap Value Fund – Class Y	8,598.7400
Putnam Strategic Intermediate Municipal Fund – Class Y	2,743.7920
Putnam Sustainable Future ETF	809.0150
Putnam Sustainable Future Fund – Class R6	47,977.4454 (3.69%)
Putnam Sustainable Future Fund – Class Y	16,236.6730
Putnam Sustainable Leaders ETF	701.4440
Putnam Sustainable Leaders Fund – Class R6	10,989.8511 (1.29%)
Putnam Sustainable Leaders Fund – Class Y	62,213.313 (1.87%)
Putnam Sustainable Leaders Fund – Class A	6,290.1050
Putnam Sustainable Retirement 2025 Fund – Class Y	2,411.1070
Putnam Sustainable Retirement 2030 Fund – Class R6	21,537.533 (4.13%)
Putnam Sustainable Retirement 2030 Fund – Class Y	141.1530
Putnam Sustainable Retirement 2035 Fund – Class Y	41.2410
Putnam Sustainable Retirement 2040 Fund – Class R6	68.132176
Putnam Sustainable Retirement 2040 Fund – Class Y	524.6050
Putnam Sustainable Retirement 2055 Fund – Class Y	909.8340
Putnam Sustainable Retirement Maturity Fund – Class Y	2,349.8730
Putnam Tax Exempt Income Fund – Class A	1,652.6330
Putnam Tax Exempt Income Fund – Class Y	15,129.9010
Putnam Tax-Free High Yield Fund – Class Y	6,937.5410
Putnam Ultra Short Duration Income Fund – Class R6	162.0243
Putnam Ultra Short Duration Income Fund – Class Y	96,899.9980
Putnam VT Global Asset Allocation Fund – Class IA	442.33

Appendix K — 5% Beneficial Ownership

Although the exchange-traded funds do not have information concerning the beneficial ownership held in the names of Depository Trust Company participant brokers (“DTC Participants”), to the best knowledge of the funds, as of May 31, 2023, the following DTC Participants and affiliates of Putnam Management owned of record 5% or more of the outstanding shares of the funds.

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam BDC Income ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	800,000	74.4816%
	NATIONAL FINANCIAL SERVICES LLC 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-1995	131,819	12.2622%
Putnam BioRevolution™ ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	125,000	71.4286%
	NATIONAL FINANCIAL SERVICES LLC 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-1995	27,708	15.8331%
Putnam Emerging Markets ex-China ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	140,000	93.33%
	NATIONAL FINANCIAL SERVICES LLC 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-1995	9,875	6.58%
Putnam ESG Core Bond ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	9,119,048	97.7914%
Putnam High Yield ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	2,025,554	96.4545%
Putnam Ultra Short ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	2,401,750	96.07%
Putnam Focused Large Cap Growth ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	925,000	75.51%
	NATIONAL FINANCIAL SERVICES LLC 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-1995	88,501	7.22%
	CETERA INVESTMENT SERVICES 230 HAMMES DR MT PLEASANT, WI 53406-3116	81,954	6.69%
Putnam Focused Large Cap Value ETF			
	NATIONAL FINANCIAL SERVICES LLC 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-1995	3,220,463	56.2134%
	TDAMERITRADE HOLDING CORPORATION PO BOX 2226 OMAHA, NB 68103-2226	1,099,883	19.1985%
	PERSHING LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	432,036	7.5412%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam PanAgora ESG Emerging Markets Equity ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	9,119,048	97.7914%
Putnam PanAgora ESG International Equity ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	6,146,647	99.5408%
Putnam Sustainable Future ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	8,442,848	97.6052%
Putnam Sustainable Leaders ETF			
	STATE STREET BANK & TRUST CO. 1 LINCOLN STREET BOSTON, MA 02111-2901	200,000	72.7273%
	NATIONAL FINANCIAL SERVICES LLC 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-1995	56,479	20.5378%

As of May 31, 2023, to the knowledge of the funds, no person owned beneficially or of record 5% or more of any class of shares of any of the mutual funds, except as shown in the table below.

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
George Putnam Balanced Fund			
A	EDWARD D JONES & CO. FOR THE BENEFIT OF CUSTOMERS 1255 MANCHESTER RD. ST. LOUIS, MO 63131-3729	5,169,777.680	9.06%
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL. JERSEY CITY, NJ 07310-2010	4,213,808.086	7.39%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	3,310,225.380	5.80%
B	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	3,219,621.138	5.64%
B	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	24,930.187	12.34%
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	19,779.398	9.79%
B	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL. JERSEY CITY, NJ 07310-2010	16,030.159	7.94%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
George Putnam Balanced Fund cont.			
B	LPL FINANCIAL -- OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	12,512.472	6.20%
B	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST. PETERSBURG, FL 33716-1100	12,023.242	5.95%
B	CHARLES SCHWAB & CO. INC. CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	11,693.003	5.79%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	900,906.103	18.29%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST. PETERSBURG, FL 33716-1100	669,779.006	13.60%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	549,309.338	11.15%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	535,080.300	10.86%
C	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	466,309.881	9.47%
C	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL. JERSEY CITY, NJ 07310-2010	453,306.841	9.20%
M	STATE STREET BANK TTEE ADP ACCESS PRODUCT 1 LINCOLN ST. BOSTON, MA 02111-2901	2,428,757.666	100.00%
R	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST. PETERSBURG, FL 33716-1100	16,938.788	29.68%
R	STATE STREET BANK TTEE ADP ACCESS PRODUCT 1 LINCOLN ST. BOSTON, MA 02111-2901	15,849.955	27.78%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R	ASCENSUS TRUST COMPANY FBO SAP SOUTH WALES FIRE DISTRICT #1 PO BOX 10758 FARGO, ND 58106-0758	8,254.919	14.47%
R	MID ATLANTIC TRUST COMPANY FBO KATOPODY LLC 401(K) PROFIT SHARING 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH, PA 15222-4228	6,412.950	11.24%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	488.747	100.00%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	1,544,943.540	38.47%
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,000,123.980	24.90%
R6	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	686,273.662	17.09%
R6	GREAT-WEST TRUST COMPANY, LLC -- EMPLOYEE BENEFITS CLIENTS 401(K) PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	361,457.218	9.00%
Y	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,447,819.216	13.74%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST. PETERSBURG, FL 33716-1100	1,387,185.572	13.17%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	1,351,824.329	12.83%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	939,902.840	8.92%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	857,771.957	8.14%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK, NY 10004-1932	757,412.289	7.19%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
George Putnam Balanced Fund cont.			
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL. JERSEY CITY, NJ 07310-2010	738,877.412	7.01%
Y	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	581,311.747	5.52%
Y	CHARLES SCHWAB & CO. INC. CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	547,623.486	5.20%
Putnam California Tax Exempt Income Fund			
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	12,135,421.772	12.44%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	11,766,613.443	12.06%
A	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	10,103,930.905	10.36%
A	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	6,996,034.417	7.17%
B	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	13,706.014	56.24%
B	VIOLETA L DE VERA & VICKY L DE VERA JT WROS TOD LILY KWAN SUBJECT TO STA TOD RULES 307 PEACH BLOSSOM LN TEHACHAPI CA 93561-2437	6,196.361	25.43%
B	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	1,379.282	5.66%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	387,057.441	29.05%
C	J.P. MORGAN SECURITIES LLC. FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT BROOKLYN NY 11245-0003	129,886.793	9.75%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	129,438.073	9.71%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	120,435.335	9.04%
C	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	81,693.625	6.13%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	70,608.320	5.30%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	375,862.840	97.67%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	2,236,944.861	17.82%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	1,918,193.858	15.28%
Y	MERRILL LYNCH FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	1,831,051.120	14.59%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,088,462.955	8.67%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	936,463.525	7.46%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	791,409.978	6.30%
Y	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	778,587.945	6.20%
Y	TD AMERITRADE INC FBO OUR CUSTOMERS PO BOX 2226 OMAHA NE 68103-2226	667,877.150	5.32%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	665,066.321	5.30%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Convertible Securities Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	1,663,692.577	9.90%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,310,859.901	7.80%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	976,200.023	5.81%
B	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	4,302.376	18.61%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	2,585.827	11.19%
B	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	2,221.032	9.61%
B	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	1,810.515	7.83%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,793.131	7.76%
B	RANDY C SCHMIDT 5555 OAKLAND RD BALTIMORE MD 21227-2822	1,519.844	6.57%
B	RBC CAPITAL MARKETS, LLC MUTUAL FUND OMNIBUS PROCESSING OMNIBUS ATTN MUTUAL FUND OPS MANAGER 250 NICOLLET MALL STE 1400 MINNEAPOLIS MN 55401-7554	1,405.179	6.08%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	77,246.409	17.95%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	63,307.185	14.71%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	63,289.500	14.70%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	36,328.020	8.44%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	32,147.347	7.47%
C	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	29,611.100	6.88%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	22,826.495	5.30%
C	STATE STREET BK & TR TTEE &/ORCUST ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	45,564.088	40.01%
R	MATRIX TRUST COMPANY AS AGENT FOR NEWPORT TRUST COMPANY CORNERSTONE MEDICAL GROUP, P.C. 401(K) PS PLAN & TRUST 35 IRON POINT CIRCLE FOLSOM CA 95630-8587	21,036.780	18.47%
R	ASCENSUS TRUST COMPANY FBO CORELATION INC 401(K) PLAN 214940 PO BOX 10758 FARGO ND 58106-0758	10,705.424	9.40%
R	VOYA INSTITUTIONAL TRUST COMPANY VOYA FINANCIAL 1 ORANGE WAY WINDSOR CT 06095-4773	9,236.118	8.11%
R	ASCENSUS TRUST COMPANY FBO COST EFFECTIVE COMPUTER SYSTEMS, INC 686097 PO BOX 10758 FARGO ND 58106-0758	8,154.584	7.16%
R	EMPOWER TRUST COMPANY, LLC FBO EMPOWER BENEFIT GRAND FATHERED PLAN 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	6,180.376	5.43%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	396,563.097	31.13%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	87,689.853	6.88%
Y	MERRILL LYNCH FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	1,423,178.280	15.11%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Convertible Securities Fund cont.			
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	1,336,689.602	14.19%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	979,873.341	10.41%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	639,570.396	6.79%
Y	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	561,332.392	5.96%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	535,109.924	5.68%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	525,141.900	5.58%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	507,310.505	5.39%
I	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON MA 02110-1802	813.870	100.00%
Putnam Core Bond Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	2,064,164.005	15.53%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	1,217,719.927	9.16%
A	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	938,417.073	7.06%
A	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT -- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	821,279.862	6.18%
A	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	766,761.204	5.77%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	765,234.368	5.76%
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	11,201.907	34.97%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	5,566.057	17.38%
B	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT -- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,924.875	9.13%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	106,828.829	18.92%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	85,165.142	15.08%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	56,812.428	10.06%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	55,087.262	9.76%
C	LPL FINANCIAL -- OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	54,462.943	9.65%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	42,668.418	7.56%
R	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	34,839.798	64.47%
R	MID ATLANTIC TRUST COMPANY FBO IMAGE ONE UNIFORMS, INC 401(K) PROF 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH PA 15222-4228	7,170.953	13.27%
R	ASCENSUS TRUST COMPANY ALLEN R SCHILLER #482733 PO BOX 10577 FARGO ND 58106-0577	3,328.987	6.16%
R6	EMPOWER TRUST COMPANY, LLC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	175,297.051	93.68%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	10,117.176	5.41%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Core Bond Fund cont.			
R6	BARBARA BAUMANN C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	9,923.785	5.30%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	2,274,662.940	19.51%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,989,276.492	17.06%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	1,873,038.247	16.07%
Y	TD AMERITRADE INC FBO OUR CUSTOMERS PO BOX 2226 OMAHA NE 68103-2226	767,808.856	6.59%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	613,445.050	5.26%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	605,925.590	5.20%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	599,639.846	5.14%
Putnam Core Equity Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	5,346,968.830	7.61%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	4,522,861.823	6.44%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	3,957,797.552	5.63%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	3,634,119.259	5.17%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	42,163.669	12.97%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	37,647.649	11.58%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	34,916.365	10.74%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	22,977.596	7.07%
B	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	21,357.717	6.57%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	614,705.270	17.09%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	589,843.869	16.40%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	355,413.047	9.88%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	278,621.069	7.75%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	243,515.988	6.77%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	201,292.349	5.60%
R	STATE STREET BANK FBO ADP ACCESS 1 LINCOLN ST BOSTON MA 02111-2901	73,953.243	33.06%
R	ASCENSUS TRUST COMPANY FBO E. FRANK EARLEY III, PC INDIVIDUAL 131936 PO BOX 10758 FARGO ND 58106-0758	25,375.882	11.35%
R	ASCENSUS TRUST COMPANY FBO DELATTE & EDWARDS APLC 401K 131069 PO BOX 10758 FARGO ND 58106-0758	22,461.746	10.04%
R	ASCENSUS TRUST COMPANY FBO CITY OF LEAGUE CITY 457 PLAN 69004 PO BOX 10758 FARGO ND 58106-0758	16,222.961	7.25%
R	PAI TRUST COMAPNY INC ROBERT SORRENTINO, DMD 401(K) P/S P 1300 ENTERPRISE DR DE PERE WI 54115-4934	13,118.039	5.87%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Core Equity Fund cont.			
R	J LUKE A HOUSTON V ROGERS JR TTEE F REEVES HARDWARE COMPANY INC 401K C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	13,009.324	5.82%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	1,094,659.880	49.71%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	633,268.087	28.76%
R6	EMPOWER TRUST COMPANY, LLC FBO RECORDKEEPING FOR VARIOUS BENEFIT P 8525 E ORCHARD RD C/O MUTUAL FUND TRADING GREENWOOD VILLAGE CO 80111-5002	113,338.939	5.15%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	3,807,294.127	14.25%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	3,507,870.646	13.13%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,421,284.586	12.80%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,860,727.425	10.71%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,313,320.514	8.66%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	1,940,969.447	7.26%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	1,339,563.244	5.01%
Putnam Diversified Income Trust			
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	11,559,525.956	10.72%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	9,571,306.553	8.88%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
A	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	8,042,581.891	7.46%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	7,741,512.931	7.18%
A	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	6,531,117.360	6.06%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	6,455,748.206	5.99%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD	6,314,889.742	5.86%
B	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	6,268,259.956	5.81%
B	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	122,613.737	33.91%
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	72,002.578	19.91%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	24,268.269	6.71%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	22,542.823	6.23%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	21,416.141	5.92%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,902,643.293	18.61%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1901	2,443,172.116	15.66%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Diversified Income Trust cont.			
C	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	2,254,797.954	14.46%
C	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	970,338.831	6.22%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	955,815.619	6.13%
M	SMBC NIKKO SECURITIES INC. FBO SUMITOMO MITSUI BANKING CORP 3-1, MARUNOUCHI 3-CHOME CHIYODA-KU, TOKYO 100-8325 JAPAN	928,854.410	5.96%
M	SMBC NIKKO SECURITIES INC. 3-1, MARUNOUCHI 3-CHOME CHIYODA-KU, TOKYO 100-8325 JAPAN	925,617.389	5.93%
R	CAPITAL BANK & TRUST CO TRUSTEE FBO ROLSTON HOGSTROM INC 401K PROFIT SHARING PLAN C/O FASCORE 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	842,267.675	5.40%
R	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	7,439,900.000	71.13%
R	MATRIX TRUST COMPANY CUST FBO MILLWRIGHT HOLDINGS LLC 401K 717 17TH ST STE 1300 DENVER CO 80202-3304	3,019,750.000	28.87%
R	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1901	102,041.298	30.63%
R	JIM HOFMAN FBO ADVANCED TRAINING AND REHAB LL 401(K) 14515 NORTH OUTER 40 RD CHESTERFIELD MO 63017-5791	81,494.024	24.46%
R	LESLIE LEW & PETER RUGG TTEE FBO ELOQUENCE CORP 401K C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	34,382.924	10.32%
R6	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	27,165.088	8.15%
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE, CO 80111-5002	19,014.535	5.71%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	MERRILL LYNCH FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	17,361.304	5.21%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	2,062,984.392	31.92%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	1,767,287.655	27.35%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	15,554,221.883	13.50%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1901	15,242,318.906	13.23%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	14,612,554.232	12.68%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	13,729,363.593	11.92%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	12,656,258.913	10.99%
Putnam Dynamic Asset Allocation Balanced Fund			
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	6,684,717.623	7.93%
A	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	5,692,423.324	6.75%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	5,484,698.777	6.51%
A	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	4,485,853.330	5.32%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	120,180.025	15.76%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Dynamic Asset Allocation Balanced Fund cont.			
B	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	109,378.324	14.34%
B	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	101,159.799	13.27%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCOUNT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	1,998,494.173	19.47%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO #41999970 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	1,790,458.248	17.44%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	950,513.342	9.26%
C	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	833,764.809	8.12%
C	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	755,374.793	7.36%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST. PETERSBURG, FL 33716-1100	532,807.007	5.19%
P	PUTNAM SUSTAINABLE RETIREMENT 2035 FUND – CLASS R6 SHARES C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	827,611.356	48.80%
P	PUTNAM SUSTAINABLE RETIREMENT 2030 FUND – CLASS R6 SHARES C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	488,599.762	28.81%
P	PUTNAM SUSTAINABLE RETIREMENT 2040 FUND – CLASS R6 SHARES C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	182,575.948	10.77%
R	STATE STREET BANK TTEE ADP ACCESS 1 LINCOLN ST. BOSTON, MA 02111-2901	695,663.584	65.03%
R	ASCENSUS TRUST COMPANY FBO EXCEPTIONAL CARE FOR CHILDREN 403B 690855 PO BOX 10758 FARGO, ND 58106-0758	92,674.524	8.66%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R5	GREAT-WEST TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	945.671	100.00%
R6	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	4,985,164.997	31.22%
R6	GREAT-WEST TRUST COMPANY LLC TTEE SAN DIEGO COUNTY SCHOOLS FRINGE 457 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,450,250.460	9.08%
R6	STATE STREET BANK & TRUST CO ADP ACCESS PRODUCT ONE LINCOLN ST. BOSTON, MA 02111-2901	1,367,586.139	8.56%
R6	VOYA RETIREMENT INSURANCE & ANNUITY VOYA FINANCIAL 1 ORANGE WAY WINDSOR, CT 06095-4773	1,014,162.489	6.35%
R6	GREAT-WEST TRUST COMPANY LLC TTEE SAN DIEGO COUNTY SCHOOLS FRINGE 403 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE, CO 80111-5002	986,684.308	6.18%
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	2,711,272.391	14.59%
Y	EMPOWER TRUST COMPANY, LLC GREAT WEST IRA ADVANTAGE 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	2,524,125.387	13.58%
Y	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	2,435,874.446	13.10%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	1,701,342.221	9.15%
Y	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	1,102,285.790	5.93%
Y	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,087,530.855	5.85%
Putnam Dynamic Asset Allocation Conservative Fund			
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	2,894,431.729	8.19%
A	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	2,331,119.290	6.59%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Dynamic Asset Allocation Conservative Fund cont.			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3710	2,022,084.366	5.72%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	1,808,450.274	5.12%
B	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	50,737.134	17.91%
B	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	32,229.042	11.38%
B	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK, NY 10004-1965	29,964.982	10.58%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	29,855.787	10.54%
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS. MN 55402-2405	27,547.741	9.73%
B	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN. FUND ADMINISTRATION 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	21,323.835	7.53%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCOUNT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	1,327,978.467	21.35%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS. MN 55402-2405	882,394.605	14.19%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	855,679.710	13.76%
C	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	600,945.406	9.66%
C	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	412,568.601	6.63%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
P	PUTNAM SUSTAINABLE RETIREMENT 2025 FUND – CLASS R6 SHARES C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	480,955.881	50.24%
P	PUTNAM SUSTAINABLE RETIREMENT 2030 FUND – CLASS R6 SHARES C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	381,372.397	39.84%
P	PUTNAM SUSTAINABLE RETIREMENT 2025 FUND – CLASS A SHARES C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	53,248.783	5.56%
R	STATE STREET BANK TTEE CUST FBO ADP ACCESS 1 LINCOLN ST. BOSTON, MA 02111-2901	359,592.000	74.10%
R	MATRIX TRUST COMPANY AS AGENT FOR MISSISSIPPI COAST TRANSPORTATION AU 717 17TH ST STE 1300 DENVER, CO 80202-3304	42,097.139	8.67%
R	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN. FUND ADMINISTRATION 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	24,524.793	5.05%
R5	GREAT-WEST TRUST COMPANY LLC EMPLOYEE BENEFITS CLIENTS 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,097.205	100.00%
R6	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,873,658.986	26.36%
R6	GREAT-WEST TRUST COMPANY LLC TTEE SAN DIEGO COUNTY SCHOOLS FRINGE 403 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE, CO 80111-5002	854,617.526	12.02%
R6	GREAT-WEST TRUST COMPANY LLC TTEE SAN DIEGO COUNTY SCHOOLS FRINGE 457 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE, CO 80111-5002	842,043.978	11.85%
R6	NFS LLC FBO FIOC AS AGENT FOR QUALIFIED EMPLOYEE BENEFIT PLANS 401K SINOPIC FUNDS 100 MAGELLAN WAY #KW1C COVINGTON, KY 41015-1987	578,252.158	8.13%
R6	VOYA RETIREMENT INSURANCE & ANNUITY VOYA FINANCIAL 1 ORANGE WAY WINDSOR, CT 06095-4773	513,295.837	7.22%
R6	STATE STREET BANK & TRUST CO ADP ACCESS PRODUCT ONE LINCOLN ST. BOSTON, MA 02111-2901	492,705.116	6.93%
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	411,663.478	5.79%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Dynamic Asset Allocation Conservative Fund cont.			
Y	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS PLANS 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	4,525,059.483	33.70%
Y	EMPOWER TRUST COMPANY, LLC GREAT WEST IRA ADVANTAGE EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,850,761.099	13.79%
Y	NFS LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	1,555,355.344	11.59%
Y	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,251,700.408	9.32%
Y	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	1,015,468.711	7.56%
Putnam Dynamic Asset Allocation Equity			
A	PUTNAM INVESTMENTS, LLC 100 FEDERAL ST BOSTON MA 02110-1802	456,669.354	99.90%
P	PUTNAM RETIRE ADV 2055 FUND CLASS R6 FUND 7508 C/O PUTNAM INVESTMENTS, 100 FEDERAL STREET, BOSTON, MA 02110	128,966.286	30.77%
P	PUTNAM RETIRE ADV 2060 FUND CLASS R6 FUND 7509 C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	102,134.604	24.37%
P	PUTNAM RETIRE ADV 2050 FUND CLASS R6 FUND 7507 C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	98,142.994	23.42%
P	PUTNAM RETIRE ADV 2060 FUND CLASS A FUND 7009 C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	22,586.507	5.39%
Putnam Emerging Markets Equity Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,154,660.926	7.09%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	1,137,697.488	6.99%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	1,105,791.566	6.79%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	984,619.197	6.05%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	15,272.826	22.62%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	11,840.549	17.54%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	4,908.616	7.27%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	109,761.903	20.51%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	45,445.855	8.49%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	44,224.920	8.26%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	32,052.655	5.99%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	30,326.948	5.67%
R	NATIONAL FINANCIAL SERVICES LLC 499 WASHINGTON BLVD JERSEY CITY NJ 07310-1995	22,712.482	5.47%
R	MID ATLANTIC TRUST COMPANY FBO OB-GYN ASSOCIATES OF TURLOCK A 401(k) 1251 WATERFRONT PL STE 525 PITTSBURGH PA 15222-4228	21,290.399	5.13%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	1,310,037.392	56.67%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	500,434.842	21.65%
R6	GREAT-WEST TRUST COMPANY LLC TTEE EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	275,010.882	11.90%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	3,414,520.847	26.62%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Emerging Markets Equity Fund cont.			
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,037,980.867	15.89%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,730,141.470	13.49%
Y	RBC CAPITAL MARKETS, LLC MUTUAL FUND OMNIBUS PROCESSING OMNIBUS ATTN: MUTUAL FUND OPS MANAGER 250 NICOLLET MALL STE 1400 MINNEAPOLIS MN 55401-7554	1,558,033.823	12.15%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	1,208,374.590	9.42%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	1,111,838.065	8.67%
Putnam Floating Rate Income Fund			
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK, NY 10004-1965	3,642,441.909	13.95%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	3,285,252.057	12.58%
A	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	2,494,771.127	9.55%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	2,310,284.516	8.85%
B	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	27,487.555	34.20%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	9,585.647	11.93%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	7,477.436	9.30%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	6,454.817	8.03%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	386,740.760	14.48%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS, MO 63103-2523	285,473.883	10.69%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	283,280.316	10.60%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	220,776.476	8.26%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	212,480.416	7.95%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK, NY 10004-1965	162,336.165	6.08%
C	J.P. MORGAN SECURITIES LLC. FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT BROOKLYN, NY 11245-0003	141,980.235	5.32%
R	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	12,905.388	23.06%
R	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK, NY 10004-1965	10,364.296	18.52%
R	PAI TRUST COMPANY INC JASWAL PROFESSIONAL SERVICES CORP 1300 ENTERPRISE DR DE PERE, WI 54115-4934	8,578.484	15.33%
R	ASCENSUS TRUST COMPANY FBO VANTAGE TECHNOLOGIES USA 401(K) PLAN PO BOX 10758 FARGO, ND 58106-0577	7,171.603	12.81%
R	ASCENSUS TRUST COMPANY FBO MAID BRIGADE 401(K) SAFE HARBOR PLAN PO BOX 10758 FARGO, ND 58106-0577	7,087.573	12.66%
R	MID ATLANTIC TRUST COMPANY FBO SONOMA FEDERAL CREDIT UNION 401K PROFIT SHARING PLAN & TRUST 1251 WATERFRONT PL STE 525 PITTSBURGH, PA 15222-4228	6,050.021	10.81%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Floating Rate Income Fund cont.			
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG, CO 80111-5002	370,324.896	49.72%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS, MO 63131-3710	310,074.666	41.63%
R6	GREAT WEST TR CO LLC FBO PFTC FBO PUTNAM DEFERRED COMPENSATION PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG, CO 80111-5002	46,884.314	6.29%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	2,166,306.776	14.97%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	1,970,021.781	13.61%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK, NY 10004-1965	1,911,429.148	13.21%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS, MO 63103-2523	1,728,791.074	11.95%
Y	MERRILL LYNCH FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE, FL 32246-6484	1,561,724.267	10.79%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	1,231,591.714	8.51%
Y	UBS WM USA OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN, NJ 07086-6761	929,252.856	6.42%
Putnam Focused Equity Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ, 07310-1995	1,865,418.881	11.48%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ, 07399-0001	1,516,115.935	9.33%
A	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA, 92121-3091	1,171,194.344	7.21%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
A	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN, 55402-2405	1,147,480.055	7.06%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO, 63103-2523	1,074,863.983	6.62%
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY, 10004-1901	879,771.401	5.41%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ, 07310-1995	34,239.034	15.74%
B	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA, 92121-3091	31,254.242	14.37%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN, 55402-2405	27,231.780	12.52%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ, 07399-0001	23,880.055	10.98%
B	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	14,728.527	6.77%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ, 07399-0001	153,665.716	11.46%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA, 92121-3091	142,140.863	10.60%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ, 07310-1995	134,306.443	10.01%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN, 55402-2405	133,411.289	9.95%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO, 63103-2523	126,204.368	9.41%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY, 10004-1901	106,557.489	7.94%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Focused Equity Fund cont.			
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL, 33716-1100	92,545.672	6.90%
R	ASCENSUS TRUST COMPANY FBO PATRICIA PAVLOS DDS PA 401(K) PLAN 192612 PO BOX 10758 FARGO, ND 58106-0758	28,403.735	10.35%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO, 80111-5002	648,783.252	88.37%
R6	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR STE 300 FT WASHINGTON PA 19034-3275	48,836.125	6.65%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO, 63103-2523	448,514.836	11.49%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN, 55402-2405	441,051.434	11.30%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ, 07399-0001	392,749.258	10.06%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ, 07310-1995	386,973.150	9.92%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL, 33716-1100	323,350.372	8.28%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA, 92121-3091	321,302.099	8.23%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN, NJ 07086-6761	240,822.174	6.17%
Putnam Focused International Equity Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,122,822.727	6.08%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	3,093,491.052	6.03%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,788,733.127	5.43%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	31,833.273	15.68%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	17,140.196	8.44%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	15,684.454	7.73%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	221,754.051	29.29%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	54,615.791	7.21%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	45,345.696	5.99%
R	VOYA INSTITUTIONAL TRUST COMPANY VOYA FINANCIAL 1 ORANGE WAY WINDSOR CT 06095-4773	5,913.583	20.40%
R	FIIOC FBO GEORGE WASHINGTON MEMORIAL PARK PROFIT SHARING 401(K) PLAN 100 MAGELLAN WAY COVINGTON KY 41015-1987	3,427.265	11.82%
R	MID ATLANTIC TRUST COMPANY FBO DUTCHESS CARS LLC 401(K) PROFIT SHA 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH PA 15222-4228	2,944.737	10.16%
R	ASCENSUS TRUST COMPANY FBO TRANSCEND S 401K PLAN 692659 PO BOX 10577 FARGO ND 58106-0577	2,556.251	8.82%
R	MID ATLANTIC TRUST COMPANY FBO DAL POS ARCHITECTS LLC 401(K) PROFIT 1251 WATERFRONT PL STE 525 PITTSBURGH PA 15222-4228	2,146.998	7.41%
R	ASCENSUS TRUST COMPANY FBO LUCAS INVESTMENT PLAN 690765 PO BOX 10758 FARGO ND 58106-0758	1,667.812	5.75%
R6	EMPOWER TRUST COMPANY, LLC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	841,279.469	51.86%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	324,048.404	19.98%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Focused International Equity Fund cont.			
R6	EMPOWER TRUST COMPANY, LLC FBO RECORDKEEPING FOR VARIOUS BENEFIT P 8525 E ORCHARD RD C/O MUTUAL FUND TRADING GREENWOOD VILLAGE CO 80111-5002	137,337.165	8.47%
Y	EMPOWER TRUST COMPANY, LLC FBO GREAT WEST IRA ADVANTAGE C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	371,968.963	11.97%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	299,397.140	9.64%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	240,376.922	7.74%
Y	EMPOWER TRUST COMPANY, LLC FBO RECORDKEEPING FOR VARIOUS BENEFIT P 8525 E ORCHARD RD C/O MUTUAL FUND TRADING GREENWOOD VILLAGE CO 80111-5002	226,578.161	7.29%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	205,511.569	6.61%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	166,154.140	5.35%
Y	GEORGE PUTNAM, III C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	179,738.021	5.78%
Putnam Global Income Trust			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	2,082,698.383	26.85%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	627,649.612	8.09%
B	PUTNAM FIDUCIARY TRUST CO CUST FBO CLEAR CREEK ISD 403(B) PLAN A/C HARRIET H HAYES 2017 SANDY COAST CIR LEAGUE CITY TX 77573-6619	2,979.928	27.09%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,608.959	23.72%
B	PUTNAM FIDUCIARY TRUST CO CUST SUZANNE L CICALI IRA ROLLOVER PLAN PO BOX 120 BARTON VT 05822-0120	1,200.243	10.91%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,132.295	10.29%
B	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR STE 300 FT WASHINGTON PA 19034-3275	973.484	8.85%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	54,107.627	29.60%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	21,837.435	11.95%
C	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	13,388.928	7.33%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	12,614.970	6.90%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	12,189.533	6.67%
R	CHARLES SCHWAB TRUST BANK CUST UMB BANK FBO PLAN MEMBER QUALIFIED 2423 E LINCOLN DR # 108004 PHOENIX AZ 85016-1215	31,524.553	23.23%
R	D L GOFF & D V NELSON GOFF TTEE FBO MEDICAL & RADIATION PHYSICS INC 401 C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE CO 80111-5002	24,345.804	17.94%
R	ASCENSUS TRUST COMPANY FBO LOUISIANA FOREST SEED 401(K) PLAN 23687 PO BOX 10758 FARGO ND 58106-0758	24,312.691	17.91%
R	MID ATLANTIC TRUST COMPANY FBO HRONOPOULOS 401(K) PROFIT SHARING P 1251 WATERFRONT PL STE 525 PITTSBURGH PA 15222-4228	8,153.508	6.01%
R5	GREAT-WEST TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,799.795	62.10%
R6	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,098.516	37.90%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	738,616.090	35.11%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Global Income Trust cont.			
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	243,090.379	11.55%
R6	DCGT TRUSTEE & OR CUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES, IA 50392-0001	203,031.644	9.65%
R6	GREAT-WEST TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	129,370.989	6.15%
R6	STATE STREET BK & TR TTEE &/OR CUST ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	129,195.003	6.14%
R6	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	972,203.641	28.16%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	334,796.316	9.70%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	318,280.816	9.22%
Y	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	288,646.424	8.36%
Y	T ROWE PRICE RET PLAN SRVCS INC FBO IDAHO POWER COMPANY EMPLOYEE SAVINGS PLAN 4515 PAINTERS MILL RD OWINGS MILLS MD 21117-4903	210,955.131	6.11%
Y	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	2,082,698.383	26.85%
Putnam Global Technology Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	2,225,284.672	26.76%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	655,183.361	7.88%
C	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO, CA 94104-4151	590,440.831	7.10%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	557,149.492	6.70%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS, MO 63103-2523	204,448.419	18.48%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	149,377.366	13.50%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	116,368.578	10.52%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	108,927.460	9.85%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	84,885.873	7.67%
R	STATE STREET BANK FBO ADP ACCESS 1 LINCOLN ST BOSTON, MA 02111-2901	36,038.146	26.02%
R	FIIOC FBO ASPHALT CUTBACKS CASH OR DEFERRED PROFIT SHARING PLAN 100 MAGELLAN WAY COVINGTON KY 41015-1987	16,476.346	11.89%
R	VOYA INSTITUTIONAL TRUST COMPANY VOYA FINANCIAL 1 ORANGE WAY WINDSOR, CT 06095-4773	14,372.591	10.38%
R	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO, CA 94104-4151	10,076.891	7.27%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG, CO 80111-5002	423,024.404	27.72%
R6	GREAT-WEST TRUST COMPANY LLC TTEE EMPLOYEE BENEF ITS CLIENTS 401K C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO, 80111-5002	234,504.553	15.37%
R6	DCGT TRUSTEE & OR CUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES, IA 50392-0001	172,199.326	11.28%
R6	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	119,673.374	7.84%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Global Technology Fund cont.			
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	1,340,499.936	23.42%
Y	EMPOWER TRUST COMPANY, LLC GREAT WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	763,949.885	13.35%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	654,414.348	11.43%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	647,256.893	11.31%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	554,432.768	9.69%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS, MO 63103-2523	392,485.846	6.86%
Putnam Government Money Market Fund			
A	GREAT-WEST TRUST COMPANY, LLC - THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD # 2T2 GREENWOOD VLG, CO 80111-5002	29,892,008.338	17.49%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	14,045,906.253	8.22%
A	PUTNAM 529 FOR AMERICA 100 FEDERAL STREET BOSTON, MA 02110	13,691,150.990	8.01%
A	RBC CAPITAL MARKETS, LLC MUTUAL FUND OMNIBUS PROCESSING OMNIBUS ATTN MUTUAL FUND OPS MANAGER	11,348,999.880	6.64%
A	NEBCO INC 1815 Y ST # 80268 LINCOLN, NE 68508-1233	8,960,328.670	5.24%
B	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	49,579.560	20.38%
B	DOUGLAS E SHAFFER IRA ROLLOVER PLAN 861 E HILLTOP COURT MONTICELLO, IN 47960-2199	20,690.740	8.51%
B	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	18,827.820	7.74%
B	JOHN CYMANSKY IRA ROLLOVER PLAN 25 MOUNT RUN TINTON FALLS, NJ 07753-7673	13,600.320	5.59%
B	STEVEN HAUSWEDELL 2042 COUNTY HIGHWAY 7 TYLER, MN 56178-4003	12,659.365	5.20%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
B	MELISSA E KEMP ROTH IRA PLAN 101 WINDY HILL CV RAYMOND MS 39154-9732	12,472.600	5.13%
B	ERIN E NORBURY IRA ROLLOVER PLAN 201 COLUMBIA CMN HILLSBOROUGH NJ 08844-4308	12,296.230	5.06%
C	RBC CAPITAL MARKETS, LLC MUTUAL FUND OMNIBUS PROCESSING OMNIBUS ATTN MUTUAL FUND OPS MANAGER 250 NICOLLET MALL STE 1400 MINNEAPOLIS, MN 55401-7554	772,114.645	28.20%
C	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	238,383.930	8.71%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DR SAN DIEGO, CA 92121-3091	154,465.480	5.64%
I	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	10,686.290	100.00%
P	PUTNAM SUSTAINABLE LEADERS ETF	16,558,148.000	47.94%
P	PUTNAM SUSTAINABLE FUTURE ETF	6,521,553.000	18.88%
P	PUTNAM FOCUSED LARGE CAP VALUE ETF	3,665,049.000	10.61%
P	PUTNAM ESG HIGH YIELD ETF	2,103,840.000	6.09%
R	PAI TRUST COMPANY INC HARTZELL & ASSOCIATES, INC 401K 1300 ENTERPRISE DR DE PERE, WI 54115-4934	160,365.620	36.12%
R	PAI TRUST COMPANY INC LINNA GOLODRIGA, DDS 401(K) P/S PLA 1300 ENTERPRISE DR DE PERE, WI 54115-4934	110,084.741	24.80%
R	ASCENSUS TRUST COMPANY FBO COVIELLO ELECTRIC SERVICE INC 401K PO BOX 10758 FARGO, ND 58106-0758	53,732.030	12.10%
R	ASCENSUS TRUST COMPANY FBO CEDAR LAKE ENGINEERING 401K PO BOX 10758 FARGO, ND 58106-0758	49,257.540	11.10%
R	PAI TRUST COMPANY INC GABBIES LLC 401(K) P/S PLAN 1300 ENTERPRISE DR DE PERE, WI 54115-4934	28,873.610	6.50%
Putnam High Yield Fund			
A	EDWARD D JONES & CO, FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	13,254,420.417	10.95%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	7,514,873.555	6.21%
A	WELLS FARGO CLEARING SERVICES, LLC, SPECIAL CUSTODY ACCT FOR THE, EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523,	6,814,463.868	5.63%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam High Yield Fund cont.			
A	NATIONAL FINANCIAL SERVICES LLC, FOR THE EXCLUSIVE BENEFIT OF OUR, CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	6,646,468.668	5.49%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	52,475.348	23.75%
B	AMERICAN ENTERPRISE INVESTMENT SVC, FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	36,309.326	16.43%
B	MLPF&S FOR THE SOLE BENEFIT OF, IT'S CUSTOMERS, ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484,	26,359.270	11.93%
B	NATIONAL FINANCIAL SERVICES LLC, FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	21,449.984	9.71%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	19,374.144	8.77%
B	WELLS FARGO CLEARING SERVICES, LLC, SPECIAL CUSTODY ACCT FOR THE, EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523,	13,765.675	6.23%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	138,394.800	9.92%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	132,211.606	9.48%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	118,336.536	8.48%
C	WELLS FARGO CLEARING SERVICES, LLC, SPECIAL CUSTODY ACCT FOR THE, EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523,	115,234.099	8.26%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	104,144.307	7.47%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	82,326.464	5.90%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	CAPITAL BANK & TRUST CO TRUSTEE FBO, WILLIAMS BROTHERS INC 401K, C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	78,879.505	5.66%
M	MITSUBISHI UFJ MORGAN, STANLEY SECURITIES CO LTD STRUCTURED PRODUCTS DIVISION OTEMACHI FINANCIAL CITY GRAND CUBE, 1-9-2 OTEMACHI CHIYODA-KU TOKYO 100-8127, JAPAN	7,819,165.000	99.72%
R	EMPOWER ANNUITY INSURANCE FBO FUTURE FUNDS II, 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,092,424.728	30.63%
R	TALCOTT RESOLUTION LIFE INSURANCE PO BOX 505 HARTFORD CT 06102-5051	511,598.610	14.34%
R	EMPOWER TRUST COMPANY, LLC FBO, EMPOWER BENEFIT GRAND FATHERED PLAN 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	424,419.574	11.90%
R	STATE STREET BK & TR TTEE &/ORCUST, ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	346,144.297	9.71%
R	EMPOWER ANNUITY INSURANCE, FBO FUTURE FUNDS I 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002,	286,641.049	8.04%
R	DCGT TRUSTEE & ORCUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	192,042.307	5.38%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC, 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002,	2,458,899.567	71.87%
R6	EDWARD D JONES & CO, FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	549,965.064	16.07%
Y	NATIONAL FINANCIAL SERVICES LLC, FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	5,532,256.954	14.46%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	3,205,349.473	8.38%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	3,169,515.788	8.28%
Y	TD AMERITRADE INC FBO OUR CUSTOMERS PO BOX 2226 OMAHA NE 68103-2226	3,125,215.739	8.17%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam High Yield Fund cont.			
Y	EMPOWER TRUST COMPANY, LLC FBO RECORDKEEPING FOR VARIOUS BENEFIT P 8525 E ORCHARD RD C/O MUTUAL FUND TRADING, GREENWOOD VILLAGE CO 80111-5002,	2,684,460.723	7.02%
Putnam Income Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	7,986,489.049	9.07%
A	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DRE FL 3 JACKSONVILLE FL 32246-6484	6,657,180.883	7.56%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	6,069,635.558	6.89%
A	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	4,886,001.407	5.55%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	55,779.577	26.47%
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	31,638.962	15.01%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	18,157.383	8.62%
B	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	10,976.897	5.21%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,044,321.274	15.74%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	914,530.006	13.78%
C	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DRE FL 3 JACKSONVILLE FL 32246-6484	602,689.719	9.08%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	586,248.961	8.84%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94105-1905	521,918.357	7.87%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	500,203.796	7.54%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	476,134.701	7.18%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	419,922.746	6.33%
M	MIZUHO SECURITIES CO., LTD. SETTLEMENT CONTROL DEPT. INVESTMENT FUND TRUST OPERATIONS TEAM OCHANOMIZU SOLA CITY 4-6, KANDA-SURUGADAI, CHIYODA-KU, TOKYO 101-8219 JAPAN	7,164,000.000	99.82%
R	CAPITAL BANK & TRUST CO TRUSTEE FBO HATHAWAY SYCAMORES CHILD & FAM 401K C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	236,134.663	17.93%
R	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	198,106.544	15.04%
R	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	83,102.080	6.31%
R	MID ATLANTIC TRUST COMPANY FBO UNIVERSAL CLASS, INC. 401(K) PROFIT 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH PA 15222-4228	69,813.189	5.30%
R	DCGT TRUSTEE & ORCUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	66,457.275	5.05%
R	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94105-1905	65,840.073	5.00%
R5	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8525 E ORCHARD RD GREENWOOD VILLAGE, CO 80111-5002	583,659.641	97.27%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Income Fund cont.			
R6	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8525 E ORCHARD RD GREENWOOD VILLAGE, CO 80111-5002	8,216,343.659	26.83%
R6	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(k) 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	5,260,178.125	17.18%
R6	DCGT TRUSTEE & OR CUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	2,760,559.782	9.01%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	26,493,595.273	20.48%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO #41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	18,329,155.647	14.17%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	12,934,462.465	10.00%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	10,618,730.915	8.21%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	8,733,854.403	6.75%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	7,272,412.202	5.62%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	6,786,687.316	5.25%
Putnam Intermediate-Term Municipal Income Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	595,214.214	43.76%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD	193,975.602	14.26%
A	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	159,539.039	11.73%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
A	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- 4707 EXECUTIVE DRIVE ATTN. LINDSAY O'TOOLE SAN DIEGO CA 92121-3091	137,556.383	10.11%
B	GRETCHEN YALLOWITZ & ALAN YALLOWITZ JTWROS 515 GARDEN ST LITTLE FALLS NY 13365-1405	1,104.192	80.78%
B	RODNEY B ERICKSON & KAREN J ERICKSON JTWROS 12410 RUSSET LN HUNTLEY IL 60142-6427	243.281	17.80%
C	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	11,432.362	37.64%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	8,224.029	27.08%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- 4707 EXECUTIVE DRIVE ATTN. LINDSAY O'TOOLE SAN DIEGO CA 92121-3091	7,217.733	23.77%
C	JASON L BROW TTEE JASON LINCOLN BROW LIVING TRUST U/A DTD 08/28/2018 FBO JASON L BROW 719 DEERBROOK LN TEGA CAY SC 29708-8582	2,300.336	7.57%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	1,757,038.709	90.99%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- 4707 EXECUTIVE DRIVE ATTN. LINDSAY O'TOOLE SAN DIEGO CA 92121-3091	114,271.302	5.92%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD	296,628.335	99.62%
Putnam International Capital Opportunities Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	486,345.959	7.02%
A	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	429,511.063	6.20%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	413,749.599	5.97%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCOUNT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	351,877.322	5.08%
B	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR. STE 300 FT. WASHINGTON, PA 19034-3275	985.603	6.36%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam International Capital Opportunities Fund cont.			
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCOUNT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	5,395.459	10.88%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST. SAN FRANCISCO, CA 94105-1905	2,911.648	5.87%
R	TALCOTT RESOLUTION LIFE AND ANNUITY INSURANCE COMPANY PO BOX 5051 HARTFORD, CT 06102-5051	52,330.229	29.63%
R	EMPOWER TRUST COMPANY, LLC FUTURE FUNDS I COMPENSATION PLANS 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	27,323.039	15.47%
R	STATE STREET BANK TTEE CUST FBO ADP ACCESS 1 LINCOLN ST. BOSTON, MA 02111-2901	25,281.329	14.32%
R	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	17,350.040	9.83%
R6	GREAT-WEST TRUST & ANNUITY FBO THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	284,841.688	75.32%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	32,263.386	8.53%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	354,113.092	31.65%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	146,371.374	13.08%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCOUNT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	123,778.570	11.06%
Y	PERSHING, LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	103,599.368	9.26%
Putnam International Equity Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,999,653.099	8.34%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	1,599,173.862	6.67%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	1,511,429.945	6.30%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	1,268,997.645	5.29%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	4,111.270	7.13%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	3,847.102	6.67%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,763.422	6.53%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	3,562.487	6.18%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	47,956.669	17.44%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	16,007.038	5.82%
R	ASCENSUS TRUST COMPANY FBO TERRY L JONES LLC 690430 PO BOX 10758 FARGO ND 58106-0758	7,878.254	18.55%
R	PAI TRUST COMPANY INC THE IRRIGATION MAN INC. 401(K) P/S PLAN 1300 ENTERPRISE DR DE PERE WI 54115-4934	4,442.166	10.46%
R	MATRIX TRUST COMPANY CUST FBO IMPACT RET PLAN 401K 717 17TH ST STE 1300 DENVER CO 80202-3304	4,120.426	9.70%
R	MATRIX TRUST COMPANY CUST FBO MUELLER LUMBER COMPANY PROFIT SHARING 717 17TH STREET SUITE 1300 DENVER CO 80202-3304	3,756.850	8.85%
R	ASCENSUS TRUST COMPANY FBO APPLGATE HEATING&INSULATION CO 4225354 PO BOX 10758 FARGO ND 58106-0758	3,559.490	8.38%
R	ASCENSUS TRUST COMPANY FBO BROOKWOOD TECHNOLOGIES 401(K) PLAN 685441 PO BOX 10758 FARGO ND 58106-0758	2,446.208	5.76%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam International Equity Fund cont.			
R	CHARLES SMITH FBO GUARDIAN IGNITION INTERLOCK MA COCOA FL 32926	2,436.835	5.74%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON MA 02110-1802	453.926	100.00%
R6	EMPOWER TRUST COMPANY, LLC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	792,604.265	62.41%
R6	GREAT-WEST TRUST COMPANY LLC TTEE EMPLOYEE BENEFITS CLIENTS 401K PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	183,588.991	14.46%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	83,111.193	6.54%
Y	DCGT TRUSTEE & OR CUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	1,091,429.920	23.46%
Y	EMPOWER TRUST COMPANY, LLC FBO RECORDKEEPING FOR VARIOUS BENEFIT P 8525 E ORCHARD RD C/O MUTUAL FUND TRADING GREENWOOD VILLAGE CO 80111-5002	826,673.205	17.77%
Y	MERRILL LYNCH FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEERLAKE DR E FL3 JACKSONVILLE FL 32246-6484	442,749.531	9.52%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	442,239.624	9.51%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	364,274.636	7.83%
Putnam International Value Fund			
A	EDWARD D. JONES & CO. FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER ROAD SAINT LOUIS, MO 63131-3729	1,259,342.835	13.25%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	700,265.995	7.37%
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-2010	589,324.400	6.20%
B	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-2010	1,438.525	8.95%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	15,169.548	13.72%
C	ASCENSUS TRCO FBO 691365 PO BOX 10758 FARGO, ND 58106-0758	8,367.603	7.57%
C	LPL FINANCIAL ATTENTION LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	7,666.635	6.94%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	7,376.651	6.67%
R	STATE STREET BANK FBO ADP ACCESS 1 LINCOLN ST. BOSTON, MA 02111-2901	37,511.583	19.72%
R	MID ATLANTIC TRUST COMPANY FBO CROUSE CONSTRUCTION CO INC 401K 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH, PA 15222-4228	17,891.404	9.40%
R	MID ATLANTIC TRUST COMPANY FBO HARBOR LANDSCAPING AND HOME MA 401(K) 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH, PA 15222-4228	13,274.545	6.98%
R	MID ATLANTIC TRUST COMPANY FBO WMW CO INC 401(K) PROFIT SHARING PLAN 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH, PA 15222-4228	9,735.659	5.12%
R	MID ATLANTIC TRUST COMPANY FBO NORTHLAND CREDIT CORP 401(K) 1251 WATERFRONT PLACE, SUITE 525 PITTSBURGH, PA 15222-4228	9,593.146	5.04%
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	707,933.542	24.45%
R6	GREAT-WEST TRUST COMPANY LLC TTEE EMPLOYEE BENEFITS CLIENTS 401K PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG, CO 80111-5002	446,979.403	15.44%
R6	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-2010	317,601.767	10.97%
R6	EDWARD D. JONES & CO. FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER ROAD SAINT LOUIS, MO 63131-3729	269,871.063	9.32%
R6	LINCOLN RETIREMENT SERVICES COMPANY FBO OAKS INTGR TD CARE 403B SAV PLAN PO BOX 7876 FORT WAYNE, IN 46801-7876	176,547.481	6.10%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam International Value Fund cont.			
R6	VANGUARD FIDUCIARY TRCO FBO 401K CLIENTS ATTN INVESTMENT SERVICES PO BOX 2600 VALLEY FORGE, PA 19482-2600	150,551.883	5.20%
R6	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	4,664,396.635	32.02%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	3,221,331.109	22.11%
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-2010	3,064,596.028	21.03%
Y	LPL FINANCIAL ATTENTION LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	1,184,478.972	8.13%
Putnam Large Cap Growth Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	9,186,046.451	7.69%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	7,169,618.541	6.00%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	6,278,976.092	5.26%
A	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	6,167,385.845	5.16%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	6,092,181.302	5.10%
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	29,727.645	6.74%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	29,283.305	6.64%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	28,436.870	6.45%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
B	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	24,636.095	5.58%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	431,862.796	14.76%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	273,221.307	9.34%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	228,429.817	7.81%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	206,346.537	7.05%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	196,771.211	6.73%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	194,751.649	6.66%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	184,626.999	6.31%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	161,810.273	5.53%
R	GREAT-WEST TRUST COMPANY, LLC - EMPLOYEE BENEFITS CLIENTS 401(K) PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	39,008.019	13.55%
R	CAPITAL BANK & TRUST CO TRUSTEE FBO TECHSOURCE INC 401K PROFIT SHARING PLAN C/O FASCORE 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	36,258.152	12.60%
R	MATRIX TRUST COMPANY CUST FBO G.E. TIGNALL & CO. 717 17TH STREET SUITE 1300 DENVER CO 80202-3304	29,504.334	10.25%
R	MID ATLANTIC TRUST COMPANY FBO DELASOFT INC 401(K) PROFIT SHARING PLAN & TRUST 1251 WATERFRONT PL STE 525 PITTSBURGH PA 15222-4228	24,101.860	8.37%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Large Cap Growth Fund cont.			
R	ASCENSUS TRUST COMPANY FBO HAIRE PLUMBING COMPANY 401(K) P/S 011361 PO BOX 10758 FARGO ND 58106-0758	18,279.717	6.35%
R	ASCENSUS TRUST COMPANY FBO CITY OF LEAGUE CITY 457 PLAN 69004 PO BOX 10758 FARGO ND 58106-0758	17,616.420	6.12%
R	ASCENSUS TRUST COMPANY FBO STEPHEN BRACCI PLLC PROFIT SHARING 683295 PO BOX 10758 FARGO ND 58106-0758	14,383.190	5.00%
R5	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8525 E ORCHARD RD GREENWOOD VILLAGE, CO 80111-5002	51,916.486	99.89%
R6	GREAT-WEST TRUST COMPANY, LLC - EMPLOYEE BENEFITS CLIENTS 401(K) PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	2,593,007.306	20.49%
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,650,951.751	13.04%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	1,248,298.035	9.86%
R6	NFS LLC FBO FIOOC AS AGENT FOR QUALIFIED EMPLOYEE BENEFIT PLANS 401K FINOPS-IC FUNDS 499 WASHINGTON BLVD JERSEY CITY NJ 07310-1995	1,161,730.947	9.18%
R6	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	769,647.603	6.08%
Y	NATIONWIDE TRUST COMPANY FSB C/O IPO PORTFOLIO ACCOUNTING PO BOX 182029 COLUMBUS OH 43218-2029	4,802,436.971	14.84%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	3,303,154.704	10.21%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,398,222.233	7.41%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	2,186,028.659	6.76%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	2,133,060.827	6.59%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	1,966,173.043	6.08%
Y	NATIONWIDE TRUST COMPANY FSB FBO PARTICIPATING RETIREMENT PLANS NTC-PLNS C/O IPO PORTFOLIO ACCOUNTING PO BOX 182029 COLUMBUS OH 43218-2029	1,917,344.889	5.93%
Putnam Large Cap Value Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	25,669,742.373	8.14%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	24,502,931.650	7.77%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	18,625,913.067	5.90%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	15,816,289.621	5.01%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	85,606.266	9.15%
B	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	79,328.897	8.48%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	77,942.657	8.33%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	73,491.941	7.85%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	72,724.663	7.77%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	1,571,496.673	15.98%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Large Cap Value Fund cont.			
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	961,072.641	9.78%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	947,404.190	9.64%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	884,337.595	8.99%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	778,088.593	7.91%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	757,385.796	7.70%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	573,005.112	5.83%
C	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	539,048.887	5.48%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	517,580.237	5.26%
R	STATE STREET BK & TRUSTEE & OR CUST ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	770,546.982	30.22%
R	TALCOTT RESOLUTION LIFE INSURANCE PO BOX 5051 HARTFORD CT 06102-5051	445,674.675	17.48%
R	PIMS/PRUDENTIAL RETPLAN NOMINEE TRUSTEE CUSTODIAN 700 AKWEL CADILLAC USA INC 603 7TH ST CADILLAC MI 49601-1344	152,018.907	5.96%
R5	NFS LLC FBO FIIOC AS AGENT FOR QUALIFIED EMPLOYEE BENEFIT PLANS 401K FINOPS-IC FUNDS 100 MAGELLAN WAY #KW1C COVINGTON KY 41015-1987	385,224.060	41.83%
R5	CHARLES SCHWAB & CO INC SPECIAL CUSTODY A/C FBO CUSTOMERS ATTN MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	121,400.993	13.18%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R5	DCGT TRUSTEE & OR CUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	102,718.423	11.15%
R5	FIIOC FBO HENRICKSEN & COMPANY INC 401K PROFIT SHARING PLAN 100 MAGELLAN WAY COVINGTON KY 41015-1987	101,554.562	11.03%
R5	JOHN HANCOCK TRUST COMPANY LLC 200 BERKELEY STREET BOSTON MA 02116-5038	82,944.715	9.01%
R6	NFS LLC FBO FIIOC AS AGENT FOR QUALIFIED EMPLOYEE BENEFIT PLANS 401K FINOPS-IC FUNDS 100 MAGELLAN WAY #KW1C COVINGTON KY 41015-1987	13,767,000.042	14.63%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	10,439,425.648	11.09%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	6,293,692.676	6.69%
R6	DCGT TRUSTEE & OR CUSTODIAN PLIC VARIOUS RETIREMENT PLNS OMNI ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	5,889,471.641	6.26%
R6	TIAA - Class CREF TRUST CO CUST/TTEE FBO RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	5,839,500.674	6.21%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	31,206,544.167	13.52%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	27,853,983.023	12.07%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	22,863,763.546	9.90%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	19,382,077.629	8.40%
Y	CHARLES SCHWAB & CO INC SPECIAL CUSTODY A/C FBO CUSTOMERS ATTN MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	17,526,271.350	7.59%
Y	MERRILL LYNCH FOR THE SOLE BENEFITS OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	14,910,132.778	6.46%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Large Cap Value Fund cont.			
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	13,208,041.267	5.72%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	12,958,176.032	5.61%
Putnam Massachusetts Tax Exempt Income Fund			
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	1,907,680.252	12.78%
A	MORGAN STANLEY SMITH BARNEY HARBORSIDE FINANCIAL CENTER PLAZA 2, 3RD FLOOR JERSEY CITY, NJ 07311	1,425,048.897	9.54%
A	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	1,314,737.487	8.80%
B	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	16,440.757	
B	RBC CAPITAL MARKETS, LLC MUTUAL FUND OMNIBUS PROCESSING ATTN: MUTUAL FUND OPS MANAGER 510 MARQUETTE AVE S MINNEAPOLIS, MN 55402-1110	3,939.386	19.02%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	168,864.734	33.13%
C	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	77,228.743	15.15%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	49,234.741	9.66%
C	CHARLES SCHWAB & CO. INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	46,357.319	9.09%
C	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	46,143.615	9.05%
C	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	45,926.259	9.01%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	MORGAN STANLEY 4SMITH BARNEY HARBORSIDE FINANCIAL CENTER PLAZA 2, 3RD FLOOR JERSEY CITY, NJ 07311	41,060.153	8.06%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	85,696.246	100.00%
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	4,153,684.566	32.16%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	2,813,599.868	21.79%
Y	MORGAN STANLEY SMITH BARNEY HARBORSIDE FINANCIAL CENTER PLAZA 2, 3RD FLOOR JERSEY CITY, NJ 07311	1,455,718.309	11.27%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	1,126,071.265	8.72%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	960,452.559	7.44%
Putnam Minnesota Tax Exempt Income Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	1,081,749.690	16.19%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	813,306.365	12.17%
A	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	706,779.557	10.58%
A	CHARLES SCHWAB & CO. INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	588,345.041	8.81%
A	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	376,858.091	5.64%
A	WELLS FARGO CLEARING SERVICES,, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	342,184.918	5.12%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	4,837.999	59.59%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Minnesota Tax Exempt Income Fund cont.			
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	2,608.260	32.13%
B	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	432.813	5.33%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	61,290.606	14.11%
C	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	58,870.004	13.55%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	55,294.088	12.73%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	46,753.369	10.76%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDSHOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	38,902.900	8.96%
C	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	32,100.609	7.39%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	568,054.757	96.33%
Y	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	4,052,734.307	33.91%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	2,882,091.569	24.11%
Y	UBS WEALTH MANAGEMENT USA 000 11011 6100 OMNI ACCOUNT M/F ATTN: DEPARTMENT MANAGER 1000 HARBOR BLVD. WEEHAWKEN, NJ 07086-6761	1,449,260.515	12.13%
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	1,322,471.663	11.06%
Y	TD AMERITRADE INC FBO OUR CUSTOMERS PO BOX 2226 OMAHA NE 68103-2226	1,206,921.107	10.10%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Money Market Fund			
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	77,179,874.066	9.93%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	148,970.809	17.31%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	84,367.787	9.80%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	58,453.938	6.79%
B	DORIS SPITLER TTEE JOHN R SR & DORIS SPITLER REVOCABLE TRUST U/A DTD 10/14/1996 22 CORRIELLE ST FORDS NJ 08863-1909	43,013.440	5.00%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	796,465.799	5.38%
R	ASCENSUS TRUST COMPANY FBO VANDALAY 401(K) 684194 PO BOX 10758 FARGO ND 58106-0758	684,618.650	14.88%
R	ASCENSUS TRUST COMPANY FBO ANDREY BUSLOV SOLO 401(K) PLAN 692 20 PO BOX 10758 FARGO ND 58106-0758	509,102.520	11.07%
R	ASCENSUS TRUST COMPANY FBO BAMBACIGNO STEEL CO. INC 401K PS PL 216713 PO BOX 10758 FARGO ND 58106-0758	492,201.360	10.70%
R	ASCENSUS TRUST COMPANY FBO BRUCE MUSEUM 401(K) PLAN 211490 PO BOX 10758 FARGO ND 58106-0758	290,599.180	6.32%
Putnam Mortgage Opportunities Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	269,972.626	22.42%
A	PERSHING LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	148,318.412	12.32%
A	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DR SAN DIEGO CA 92121-3091	132,267.915	10.98%
A	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	103,526.877	8.60%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Mortgage Opportunities Fund cont.			
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	124,080.304	57.91%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	25,734.260	12.01%
C	PERSHING LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	20,536.214	9.58%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	11,441.797	5.34%
I	THE COCA-COLA COMPANY MASTER RETIREMENT TRUST 1 COCA COLA PLZ NW ATLANTA GA 30313-2420	5,803,223.770	33.65%
I	NORTHERN TRUST COMPANY CUSTODIAN FBO PENSION PLAN OF BATTELLE TRUST A/C 2238559 PO BOX 92956 CHICAGO IL 60675-2956	5,153,774.305	29.89%
I	NORTHERN TRUST COMPANY CUSTODIAN FBO STATE OF UTAH SCHOOL AND INSTITUTIONAL TRUST FUNDS A/C 4471299 PO BOX 92956 CHICAGO IL 60675-2956	4,073,373.615	23.62%
I	NORTHERN TRUST COMPANY CUSTODIAN FBO SIGNAL INSURANCE TR A/C 1703262 PO BOX 92956 CHICAGO IL 60675-2956	2,213,440.822	12.84%
R6	GREAT WEST TRUST COMPANY, LLC - THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE, CO 80111-5002	162,111.352	39.12%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	5,632,007.695	24.32%
Y	RELIANCE TRUST CO FBO FIDUCIARY TRUST C/R PO BOX 78446 ATLANTA GA 30357	4,720,000.260	20.38%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DR SAN DIEGO CA 92121-3091	4,042,920.979	17.45%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,949,448.294	17.05%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	PERSHING LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,175,561.178	9.39%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	1,175,163.038	5.07%
Putnam Mortgage Securities Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,042,798.250	6.61%
A	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	2,330,516.188	5.06%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	9,497.865	25.56%
B	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	3,526.319	9.49%
B	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,058.531	5.54%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	32,291.001	10.57%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	30,727.963	10.06%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	29,017.378	9.50%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	21,977.503	7.19%
C	PUTNAM FIDUCIARY TRUST CO CUST FBO JACKSON COUNTY SCHOOL DIST 9 403(B) PLAN A/C JONAH W PARSONS 953 SAINT ANDREWS WAY EAGLE POINT OR 97524	19,973.563	6.54%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	19,488.867	6.38%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Mortgage Securities Fund cont.			
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	17,939.278	5.87%
C	ASCENSUS TRUST COMPANY FBO RILEY SPENCE MGMT CO - #213962 ASCENSUS TRUST COMPANY PO BOX 10577 FARGO ND 58106-0577	17,914.115	5.86%
C	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DRE FL 3 JACKSONVILLE FL 32246-6484	16,498.264	5.40%
R	STATE STREET BK & TRUSTEE &/OR CUST ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	261,921.290	48.73%
R	ASCENSUS TRUST COMPANY FBO VLG TECH LLC RET PLAN 68192 PO BOX 10758 FARGO ND 58106-0758	30,670.433	5.71%
R	ASCENSUS TRUST COMPANY FBO SPARK ELECTRIC SERVICE INC PENSION PLAN PLA 211694 PO BOX 10758 FARGO ND 58106-0758	29,664.436	5.52%
R	ASCENSUS TRUST COMPANY MARLEN MFG 401(K) PROFIT SHARING PL 208534 PO BOX 10758 FARGO ND 58106-0758	27,824.199	5.18%
R6	GREAT-WEST TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	491,336.803	71.43%
R6	GREAT-WEST TRUST COMPANY, LLC PUTNAM DEFERRED COMPENSATION PLANS 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE, CO 80111-5002	93,266.198	13.56%
R6	GREAT-WEST TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE, CO 80111-5002	41,669.654	6.06%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DRE FL 3 JACKSONVILLE FL 32246-6484	748,363.330	27.63%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	519,732.473	19.19%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	376,886.344	13.91%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	145,411.472	5.37%
Putnam Multi-Asset Income Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	2,195,871.177	14.58%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	1,522,831.848	10.11%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DR SAN DIEGO CA 92121-3091	1,212,566.463	8.05%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	264,196.562	18.14%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	239,180.412	16.42%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DR SAN DIEGO CA 92121-3091	162,973.431	11.19%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	138,675.090	9.52%
P	PUTNAM RETIRE ADV MAT FUND CLASS R6 FUND 7500 C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	1,272,515.324	60.82%
P	PUTNAM RETIRE ADV 2025 FUND CLASS R6 FUND 7502 C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	518,025.085	24.76%
P	PUTNAM RETIRE ADV 2030 FUND CLASS R6 FUND 7503 C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	150,124.892	7.18%
P	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	86,217.674	36.48%
P	MATRIX TRUST COMPANY CUST. FBO ALLIED MOTION TECHNOLOGIES INC. DEF 717 17TH STREET SUITE 1300 DENVER CO 80202-3304	64,301.995	27.21%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Multi-Asset Income Fund cont.			
P	DCGT TRUSTEE & OR CUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	31,006.096	13.12%
P	STATE STREET BK & TR TTEE &/OR CUST ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	13,042.947	5.52%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,044.134	100.00%
R6	EMPOWER TRUST COMPANY, LLC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	420,270.397	78.15%
R6	ASCENSUS TRUST COMPANY FBO STUART KARTEN DESIGN, INC CASH OR D 690372 PO BOX 10758 FARGO ND 58106-0758	29,834.188	5.55%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	668,495.207	15.02%
Y	PUTNAM 529 FOR AMERICA MULTI ASSET INCOME CLA FUND 4180 SSBTC AS SUBCUSTODIAN C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	620,950.300	13.95%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	465,995.307	10.47%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	359,005.861	8.06%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DR SAN DIEGO CA 92121-3091	355,124.030	7.98%
Y	JAMESON A BAXTER & REGINALD R BAXTER JT WROS C/O PUTNAM INVESTMENTS 100 FEDERAL STREET, BOSTON, MA 02110	261,404.088	5.87%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	248,437.679	5.58%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	242,541.481	5.45%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam New Jersey Tax Exempt Income Fund			
A	WELLS FARGO CLEARING SERVICES,, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	1,482,289.641	13.02%
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	1,411,689.942	12.40%
A	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR, E FL 3 JACKSONVILLE, FL 32246-6484	1,132,357.997	9.95%
A	J.P. MORGAN SECURITIES LLC, FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT. BROOKLYN, NY 11245-0003	1,077,499.174	9.47%
B	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	8,329.443	67.52%
B	CHARLES SCHWAB & CO. INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	1,685.088	13.66%
B	CAROL A HAY TOD MULTIPLE BENEFICIARIES SUBJECT TO STA TOD RULES 2109 JOHNSON DR. ROCKAWAY, NJ 07866-5843	997.250	8.08%
C	J.P. MORGAN SECURITIES LLC, FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT. BROOKLYN, NY 11245-0003	326,670.301	45.44%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	84,012.176	11.69%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	51,569.130	7.17%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	45,106.462	6.27%
C	MORGAN STANLEY SMITH BARNEY HARBORSIDE FINANCIAL CENTER PLAZA 2, 3RD FLOOR JERSEY CITY, NJ 07311	43,601.888	6.06%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	48,857.965	83.66%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam New Jersey Tax Exempt Income Fund cont.			
R6	J.P. MORGAN SECURITIES LLC, FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT. BROOKLYN, NY 11245-0003	8,264.464	14.15%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN: FUND ADMINISTRATION 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	1,232,903.775	42.85%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	300,172.087	10.43%
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	279,576.397	9.72%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	265,348.668	9.22%
Y	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	164,003.374	5.70%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO #41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	153,002.300	5.32%
Y	CHARLES SCHWAB & CO. INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	144,278.138	5.01%
Putnam New York Tax Exempt Income Fund			
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	10,032,174.852	13.25%
A	J.P. MORGAN SECURITIES LLC. FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT BROOKLYN NY 11245-0003	8,406,306.586	11.10%
A	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	6,532,878.985	8.63%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	5,178,836.894	6.84%
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	4,819,936.231	6.37%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	4,322,093.264	5.71%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	6,632.084	15.70%
B	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	5,493.543	13.01%
B	TERENCE CORRIGAN 40 BAYBERRY LN NORTHPORT NY 11768-2305	5,168.604	12.24%
B	JOHN DEMPSEY 210 ATLANTIC AVE APT A1H LYNBROOK NY 11563-3555	3,939.619	9.33%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,888.028	6.84%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	2,767.015	6.55%
B	INGEBORG E KUHANECK TOD KIM M HAAS SUBJECT TO STA TOD RULES 399 WOODGATE RD TONAWANDA NY 14150-7209	2,457.183	5.82%
C	J.P. MORGAN SECURITIES LLC. FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT BROOKLYN NY 11245-0003	610,763.023	31.95%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	526,460.393	27.54%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	156,496.503	8.19%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	107,229.547	5.61%
R6	J.P. MORGAN SECURITIES LLC. FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT BROOKLYN NY 11245-0003	17,480,408.003	97.80%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	1,449,941.983	17.94%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam New York Tax Exempt Income Fund cont.			
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,104,529.091	13.67%
Y	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEERLAKE DR E FL3 JACKSONVILLE FL 32246-6484	963,247.947	11.92%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	925,913.664	11.46%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	742,844.069	9.19%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	680,902.042	8.42%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	497,223.936	6.15%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	457,764.210	5.66%
Putnam Ohio Tax Exempt Income Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	1,080,880.706	14.67%
A	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	540,654.674	7.34%
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	532,885.018	7.23%
A	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDSHOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	446,331.721	6.06%
A	MORGAN STANLEY SMITH BARNEY HARBORSIDE FINANCIAL CENTER PLAZA 2, 3RD FLOOR JERSEY CITY, NJ 07311	377,084.091	5.12%
A	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	2,794.766	18.50%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
B	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	8,169.354	54.06%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDSHOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	33,598.659	15.48%
C	CHARLES SCHWAB & CO. INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	27,991.298	12.89%
C	UBS WEALTH MANAGEMENT USA 000 11011 6100 OMNI ACCOUNT M/F ATTN: DEPARTMENT MANAGER 1000 HARBOR BLVD. WEEHAWKEN, NJ 07086-6761	21,667.973	9.98%
C	JAMES E TURNER TOD JAMES E TURNER REVOCABLE TRUST U/A DTD 02/27/1998 SUBJECT TO STA TOD RULES 6401 COUPLES LN. LIMA, OH 45801-8600	20,765.484	9.56%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	17,227.840	7.93%
C	SARA M WELSH TOD MULTIPLE BENEFICIARIES SUBJECT TO STA TOD RULES 16482 GLENRIDGE AVE. CLEVELAND, OH 44130-5444	12,872.264	5.93%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	11,324.515	5.22%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	252,854.422	100.00%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDSHOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER	1,002,275.979	44.81%
Y	UBS WEALTH MANAGEMENT USA 000 11011 6100 OMNI ACCOUNT M/F ATTN: DEPARTMENT MANAGER 1000 HARBOR BLVD. WEEHAWKEN, NJ 07086-6761	183,435.306	8.20%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	177,616.534	7.94%
Y	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	176,807.229	7.90%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Ohio Tax Exempt Income Fund cont.			
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT. 4TH FL JERSEY CITY, NJ 07310-2010	169,282.644	7.57%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	147,100.262	6.58%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN: FUND ADMINISTRATION 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	144,271.623	6.45%
Putnam Pennsylvania Tax Exempt Income Fund			
A	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	2,285,034.479	19.90%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	1,268,126.450	11.05%
A	WELLS FARGO CLEARING SERVICES,, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	832,138.548	7.25%
A	CHARLES SCHWAB & CO. INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	635,172.103	5.53%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	2,885.001	40.96%
B	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	1,321.891	18.77%
B	SCOTT A WOLFE CUST FOR EMILY WOLFE U/PA UNIF TRANSFER TO M/A 5361 SCHWABEN CREEK RD LECK KILL, PA 17836	954.019	13.54%
B	HILDA O NITCHMAN 608 LOCUST ST HANOVER, PA 17331-2715	593.094	8.42%
B	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	482.237	6.85%
B	MICHAEL BEST 2 BOLTON CIR NEWTOWN, PA 18940-1866	459.027	6.52%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	154,417.818	25.83%
C	WELLS FARGO CLEARING SERVICES,, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	122,867.857	20.55%
C	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	63,450.982	10.61%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD. SAINT LOUIS, MO 63131-3729	98,831.054	98.21%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 9785 TOWNE CENTRE DR. SAN DIEGO, CA 92121-1968	388,649.839	26.75%
Y	MORGAN STANLEY SMITH BARNEY HARBORSIDE FINANCIAL CENTER PLAZA 2, 3RD FLOOR JERSEY CITY, NJ 07311	171,905.921	11.83%
Y	NATIONAL FINANCIAL SERVICES, LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD. ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-2010	152,849.928	10.52%
Y	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399-0001	120,789.109	8.31%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S. MINNEAPOLIS, MN 55402-2405	104,453.819	7.19%
Y	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR. E FL 3 JACKSONVILLE, FL 32246-6484	94,874.058	6.53%
Y	CHARLES SCHWAB & CO. INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST. SAN FRANCISCO, CA 94104-4151	93,259.004	6.42%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST. SAINT LOUIS, MO 63103-2523	76,050.312	5.23%
Putnam Research Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	636,041.790	7.09%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Research Fund cont.			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	558,473.479	6.22%
A	AMERICAN ENTERPRISE INVESTMENT SVC FBO #41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	546,809.497	6.09%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	534,330.450	5.95%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	507,840.677	5.66%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	3,713.566	10.48%
B	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR STE 300 FT WASHINGTON PA 19034-3275	2,745.341	7.75%
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO #41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	2,705.109	7.63%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	33,237.029	11.59%
C	PAI TRUST COMPANY INC YALE DRUG/FOSTER CORNER DRUG 401(K) 1300 ENTERPRISE DR DE PERE WI 54115-4934	32,928.039	11.48%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	29,809.354	10.39%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	24,828.730	8.65%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	16,938.777	5.90%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO #41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	16,904.200	5.89%
R	ASCENSUS TRUST COMPANY FBO CITY OF LEAGUE CITY 457 PLAN 69004 PO BOX 10758 FARGO ND 58106-0758	7,060.441	25.79%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R	ASCENSUS TRUST COMPANY FBO PREMIER PROTECTIVE PACKAGING 401(K) 685560 PO BOX 10758 FARGO ND 58106-0758	5,073.911	18.53%
R	MATRIX TRUST COMPANY CUST. FBO SCIENTIFIC SYSTEMS & SOFTWARE 717 17TH STREET SUITE 1300 DENVER CO 80202-3304	3,217.963	11.75%
R	JARED TAYLOR JERRY TAYLOR & SALLY T ROBERT W SPEIRS PLUMBING INC 401K C/O FASCORE 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	2,829.306	10.33%
R	ASCENSUS TRUST COMPANY FBO GARY SZYMANSKI MD LLC 692410 PO BOX 10758 FARGO ND 58106-0758	1,545.884	5.65%
R	MATRIX TRUST COMPANY CUST FBO CHESAPEAKE WOOD PRODUCTS 401(K) 717 17TH ST STE 1300 DENVER CO 80202-3304	1,399.695	5.11%
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	371,980.498	60.71%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	117,417.781	19.16%
R6	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 401(K) PLAN 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	77,289.702	12.61%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	532,280.863	37.66%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	185,638.110	13.14%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	183,075.901	12.95%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO #41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	116,074.551	8.21%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	105,883.327	7.49%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Research Fund cont.			
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	98,557.931	6.97%
Putnam Retirement Advantage 2025 Fund			
A	HELEN M LATIMER IRA ROLLOVER PLAN 2 DAVID CT GLEN COVE NY 11542-3301	26,887.515	20.50%
A	GAFRANCESCO ENTERPRISES SEP IRA PLAN A/C THOMAS P GAFRANCESCO 404 HELEN ST SYRACUSE NY 13203-1248	20,521.622	15.64%
A	ROBERT A LENAHA ARCHITECT PC PROFIT SHARING PLAN A/C ROBERT A LENAHA 34 ANDRE HL TAPPAN NY 10983-2304	7,323.492	5.58%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,409.743	32.05%
C	MATRIX TRUST CO AS AGENT FOR FBO LAURY A PURDY 403B IRA ACCOUNT 717 17TH ST STE 1300 DENVER CO 80202-3304	1,900.191	25.27%
C	CONNIE'S SUPERMARKET INC SIMPLE IRA PLAN A/C CATHY L FRANKLIN 5295 WILMOT RD WYALUSING PA 18853-8482	1,220.264	16.23%
C	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,043.227	13.87%
C	PUTNAM FIDUCIARY TRUST CO CUST FBO MARLBOROUGH PUBLIC SCHOOLS OF MA 403(B) PLAN A/C MICHAEL I ALLEN 41 MYOPIA RD HYDE PARK MA 02136-1521	879.374	11.69%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,046.421	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,052.226	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	9,214.420	89.69%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,059.416	10.31%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,062.246	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	321,376.913	27.10%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQ DCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	195,956.290	16.53%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R6	EMPOWER TRUST COMPANY, LLC FBO ACTION PACT INC C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	140,282.380	11.83%
R6	EMPOWER TRUST COMPANY, LLC FBO INFORM DESIGN INC 401K PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	109,403.393	9.23%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	99,753.011	8.41%
R6	EMPOWER TRUST COMPANY, LLC FBO D SUEHIRO ELECTRIC INC 401K & PSP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	64,519.863	5.44%
R6	JOHN HANCOCK TRUST COMPANY LLC 200 BERKELEY STREET BOSTON MA 02116-5038	61,913.113	5.22%
Y	JIMMY J ZHANG ROTH IRA PLAN 3506 TOWN HAVEN DR TROY MI 48083-1023	4,241.782	79.97%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,062.246	20.03%
Putnam Retirement Advantage 2030 Fund			
A	PUTNAM FIDUCIARY TRUST CO CUST FBO FRANKLIN COUNTY BOARD OF ED 403(B) PLAN A/C H DWAYNE THAMES 2530 LYNCHBURG RD WINCHESTER TN 37398-3408	12,475.014	14.45%
A	ED TOMAYER ROTH IRA PLAN 700 WASHINGTON ST APT 1023 VANCOUVER WA 98660-3358	12,463.467	14.44%
A	JOSE GRANADOS IRA ROLLOVER PLAN 2222 MALLORY ST SN BERNRDN CA 92407-6433	11,448.324	13.26%
A	GEORGINE TOMAYER ROTH IRA PLAN 700 WASHINGTON ST APT 1023 VANCOUVER WA 98660-3358	10,882.771	12.61%
A	PUTNAM FIDUCIARY TRUST CO CUST FBO BRYAN CITY SCHOOLS 403(B) PLAN A/C VICTORIA S EIDENIER PO BOX 1003 PIONEER OH 43554-1003	4,842.132	5.61%
A	BARBARA E GALLAGHER IRA PLAN 1220 W NORTH AVE PITTSBURGH PA 15233-1936	4,779.846	5.54%
A	NAMASIVAYAM THANGAVELU IRA ROLLOVER PLAN 2888 GLEN HAWKINS CT SAN JOSE CA 95148-2542	4,757.439	5.51%
C	PUTNAM FIDUCIARY TRUST CO CUST FBO NORTHBOROUGH-SOUTHBOROUGH 403(B) PLAN A/C RALPH ARABIAN 34 LINWOOD ST ANDOVER MA 01810-2746	4,661.425	40.69%
C	ROBERT A LENAHA ARCHITECT PC PROFIT SHARING PLAN A/C ROBERT A LENAHA 34 ANDRE HL TAPPAN NY 10983-2304	2,995.630	26.15%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Retirement Advantage 2030 Fund cont.			
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,143.476	9.98%
C	PUTNAM FIDUCIARY TRUST CO CUST FBO MARLBOROUGH PUBLIC SCHOOLS OF MA 403(B) PLAN A/C MICHAEL I ALLEN 41 MYOPIA RD HYDE PARK MA 02136-1521	917.602	8.01%
C	PUTNAM FIDUCIARY TRUST CO CUST FBO WOODMORE SCHOOL DISTRICT 403(B) PLAN A/C JULIA B COON 514 HICKORY ST PEMBERVILLE OH 43450-9856	872.637	7.62%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,143.144	100.00%
R3	PUTNAM INVESTMENT HOLDINGS LLC ATTN: CORPORATE TREASURY M/S M26C 100 FEDERAL ST BOSTON MA 02110-1802	1,149.794	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	9,415.156	89.06%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,157.132	10.94%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,160.319	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	378,172.789	27.34%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQ DCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	189,608.587	13.71%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	170,047.638	12.30%
R6	EMPOWER TRUST COMPANY, LLC FBO D SUEHIRO ELECTRIC INC 401K & PSP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	136,409.374	9.86%
R6	EMPOWER TRUST COMPANY, LLC FBO N F STROTH & ASSOCIATES LLC RET PLAN C/O EMPOWER 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	135,579.582	9.80%
R6	EMPOWER TRUST COMPANY, LLC FBO ACTION PACT INC C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	114,670.082	8.29%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,160.442	79.10%
Y	ROBYN L BALDWIN IRA ROLLOVER PLAN 75 CURRAN RD N ATTLEBORO MA 02760-4356	121.444	8.28%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	BARBARA M BAUMANN C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	108.202	7.38%
Y	KEVIN R HUSSEY IRA PLAN 94 PARADISE COVE RD PENROSE NC 28766-8800	77.057	5.25%
Putnam Retirement Advantage 2035 Fund			
A	NICHOLAS TANGEMAN LLC 401K PLAN CUST FBO JULIE M EDWARDS PO BOX 928 LARAMIE WY 82073-0928	30,569.427	21.68%
A	MARK AIELLO IRA ROLLOVER PLAN 120 E 36TH ST NEW YORK NY 10016-3465	21,291.463	15.10%
A	DANA L CONDRON ROTH IRA PLAN 32836 MOUNT HERMON RD PARSONSBURG MD 21849-2147	18,856.153	13.37%
A	PUTNAM FIDUCIARY TRUST CO CUST FBO MIDLAND INDEP SCH DIST (TX) 403(B) PLAN A/C WHITNEY NIX 4310 HEIDELBERG LN MIDLAND TX 79707-9602	8,155.588	5.78%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,175.762	100.00%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,180.512	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,186.171	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,845.796	60.72%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,194.023	39.28%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,197.245	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	506,109.297	31.78%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	332,932.337	20.91%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQ DCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	254,196.099	15.96%
R6	JOHN HANCOCK TRUST COMPANY LLC 200 BERKELEY STREET BOSTON MA 02116-5038	145,757.311	9.15%
R6	EMPOWER TRUST COMPANY, LLC FBO LLAMAS COATINGS INC 401K PSP C/O FASCORE 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	124,601.097	7.82%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Retirement Advantage 2035 Fund cont.			
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,197.432	59.89%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	697.594	34.89%
Y	MONA K SUTPHEN C/O PUTNAM INVESTMENTS 100 FEDERAL STREET BOSTON, MA 02110	104.240	5.21%
Putnam Retirement Advantage 2040 Fund			
A	PUTNAM FIDUCIARY TRUST CO CUST FBO WESTFIELD CITY SCHOOL DEPARTMENT 403(B) PLAN A/C LYNN M COACH 158 WILDER TER W SPRINGFIELD MA 01089-3055	14,651.431	43.32%
A	ED TOMAYER ROTH IRA PLAN 700 WASHINGTON ST APT 1023 VANCOUVER WA 98660-3358	2,103.732	6.22%
A	GEORGINE TOMAYER ROTH IRA PLAN 700 WASHINGTON ST APT 1023 VANCOUVER WA 98660-3358	1,826.257	5.40%
A	PUTNAM FIDUCIARY TRUST CO CUST FBO MIDLAND INDEP SCH DIST (TX) 403(B) PLAN A/C WHITNEY NIX 4310 HEIDELBERG LN MIDLAND TX 79707-9602	1,759.897	5.20%
A	ZUBEK MOTORS INC SIMPLE IRA PLAN A/C JOHN J ZUBEK 492 W M 55 TAWAS CITY MI 48763-9284	1,709.053	5.05%
A	PAZIN & MYERS INC SAR SEP PLAN A/C WILLIAM COANE 3340 HERROD AVE ATWATER CA 95301-9424	1,694.514	5.01%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,218.739	46.43%
C	U S BANCORP INVESTMENTS INC FBO 268573181 60 LIVINGSTON AVE SAINT PAUL MN 55107-2292	787.402	29.99%
C	UNITED WAY OF OTTER TAIL COUNTY SEP IRA PLAN A/C SUMMER E HAMMOND PO BOX 292 NEW YORK MLS MN 56567-0292	532.824	20.30%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,227.682	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,234.806	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	4,624.803	78.82%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,242.918	21.18%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,246.156	100.00%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	394,903.863	40.73%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQDCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	150,600.935	15.53%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	75,157.678	7.75%
R6	EMPOWER TRUST COMPANY, LLC FBO HEARN CONSTRUCTION INC PROFIT SHARING PLAN C/O EMPOWER 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	70,747.964	7.30%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,246.156	100.00%
Putnam Retirement Advantage 2045 Fund			
A	PUTNAM FIDUCIARY TRUST CO CUST FBO GREAT OAKS INSTITUTE OF TECH 403(B) PLAN A/C LAURA R GALE 6218 HEDGEROW DR WEST CHESTER OH 45069-1893	14,296.984	26.80%
A	CHARLES SCHWAB & CO INC SPECIAL CUSTODY A/C FBO CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST FL 17 SAN FRANCISCO CA 94105-1901	12,332.462	23.12%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DR SAN DIEGO CA 92121-3091	3,581.701	6.71%
A	PAUL M SCHIAPPA 19 LIMESTONE DR STE 7 WILLIAMSVILLE NY 14221-7091	2,792.877	5.24%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,214.475	44.30%
A	CONNIE'S SUPERMARKET INC SIMPLE IRA PLAN A/C JENNIFER L NORTON 3684 STEAM MILL HOLLOW RD LACEYVILLE PA 18623-8033	1,143.440	41.70%
A	TOOMSUBA WATER SYSTEM INC SIMPLE IRA PLAN A/C JOE E EVANS III 8293 KING RD MERIDIAN MS 39305-8999	235.747	8.60%
A	SNELGROVE SURVEYING AND MAPPING SIMPLE IRA PLAN A/C GEORGE W BELL II 418 MORGAN AVE CHATTAHOOCHEE FL 32324-1319	146.693	5.35%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,222.886	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,229.905	100.00%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Retirement Advantage 2045 Fund cont.			
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	6,373.032	83.73%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,238.147	16.27%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,241.197	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	374,587.883	42.44%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	173,626.052	19.67%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQ DCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	105,318.321	11.93%
R6	JOHN HANCOCK TRUST COMPANY LLC 200 BERKELEY STREET BOSTON MA 02116-5038	46,142.221	5.23%
Y	RICHARD A ANDRADE ROTH IRA PLAN 81 PLAIN ST TAUNTON MA 02780-4916	5,502.799	81.59%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,241.340	18.41%
Putnam Retirement Advantage 2050 Fund			
A	PAMELA L HARRIS IRA ROLLOVER PLAN 7742 E BUTEO DR SCOTTSDALE AZ 85255-4656	12,054.362	39.07%
A	CETERA INVESTMENT SVCS (FBO) ZACHARY WOLFE 3EC-15058- 10818 12TH ST E WABASHA MN 55981-1718	3,582.424	11.61%
A	PUTNAM FIDUCIARY TRUST CO CUST FBO ACTON BOXBOROUGH REGIONAL SCHOOL 403(B) PLAN A/C JOSEPH C GIBOWICZ 787 CONCORD RD SUDBURY MA 01776-1119	2,208.329	7.16%
A	SHEPHERD OF THE HILLS VETERINARY CLINIC LLC SIMPLE IRA PLAN A/C AMANDA L MCGINTY 1010 TENNESSEE RD OZARK MO 65721-6550	1,977.283	6.41%
A	SHEPHERD OF THE HILLS VETERINARY CLINIC LLC SIMPLE IRA PLAN A/C DARIN J MCGINTY 1010 TENNESSEE RD OZARK MO 65721-6550	1,787.455	5.79%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,232.496	98.26%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,240.215	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,247.362	100.00%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	2,754.506	68.69%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,255.499	31.31%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,258.708	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	224,719.411	42.60%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQ DCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	64,758.561	12.28%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	50,210.200	9.52%
R6	EMPOWER TRUST COMPANY, LLC FBO ACTION PACT INC C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	35,268.593	6.69%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,258.841	91.97%
Y	LIAQUAT AAHAMED & MEENAKSHI N AHAMED JTWROS C/O PUTNAM INVESTMENTS 100 FEDFERAL STREET BOSTON, MA 02110	109.842	8.03%
Putnam Retirement Advantage 2055 Fund			
A	PAMELA L HARRIS IRA ROLLOVER PLAN 7742 E BUTEO DR SCOTTSDALE AZ 85255-4656	11,747.297	52.91%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	1,996.141	8.99%
A	RENEE DARRAGH IRA ROLLOVER PLAN 885 MCDONALD DR NORTHVILLE MI 48167-1087	1,684.863	7.59%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,208.260	93.66%
C	PUTNAM FIDUCIARY TRUST CO CUST FBO SULLIVAN COUNTY CHILD CARE 403(B) PLAN A/C KELSEY STODDARD 587 WILLI HILL RD SWAN LAKE NY 12783-5820	81.817	6.34%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,213.698	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,220.601	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,316.033	51.72%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Retirement Advantage 2055 Fund cont.			
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,228.260	48.28%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,231.890	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	119,047.814	37.54%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	71,209.103	22.46%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQ DCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	26,418.631	8.33%
R6	JOHN HANCOCK TRUST COMPANY LLC 200 BERKELEY STREET BOSTON MA 02116-5038	19,905.667	6.28%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,231.890	92.44%
Y	BERNARD X BALDASSARO II ROTH IRA PLAN 8 COSMOS DR PEABODY MA 01960-2836	100.709	7.56%
Putnam Retirement Advantage 2060 Fund			
A	ANTHONY M SELLS IRA ROLLOVER PLAN 3323 PURDUE AVE LOS ANGELES CA 90066-1321	18,154.209	47.94%
A	PUTNAM FIDUCIARY TRUST CO CUST FBO MILFORD PUBLIC SCHOOLS 403(B) PLAN A/C KERRY A TAYLOR 357 COMMERCIAL ST UNIT 114 BOSTON MA 02109-1230	4,527.358	11.96%
A	CHARLES SCHWAB & CO INC SPECIAL CUSTODY A/C FBO CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST FL 17 SAN FRANCISCO CA 94105-1901	3,607.548	9.53%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	3,446.767	9.10%
A	J D & ASSOCIATES LTD SIMPLE IRA PLAN A/C SAWYER S DAHL 1235 BARNES DR WEST FARGO ND 58078-8895	2,215.663	5.85%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,209.689	96.91%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,214.641	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,219.008	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,322.375	51.88%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,226.781	48.12%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,229.975	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	92,351.847	53.73%
	JOHN HANCOCK TRUST COMPANY LLC 200 BERKELEY STREET BOSTON MA 02116-5038	20,868.170	12.14%
	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	17,194.033	10.00%
	EMPOWER TRUST COMPANY, LLC FBO ACTION PACT INC C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	9,102.736	5.30%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,230.080	74.06%
Y	LYNDEY C ROGER IRA ROLLOVER PLAN 43 SANBORN DR NASHUA NH 03063-3402	237.158	14.28%
Y	MARGARET A BLATCHFORD ROTH IRA PLAN 18 KIMBALL AVE WENHAM MA 01984-1108	102.923	6.20%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	90.786	5.47%
Putnam Retirement Advantage 2065 Fund			
A	DAVID E CHILDS III 360 WABASH AVE N BREWSTER OH 44613-1042	6,421.151	48.44%
A	JANE A SNEAD ROTH IRA PLAN 3430 ROCKY SPRINGS CT MARIETTA GA 30062-4450	1,022.104	7.71%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,101.905	63.74%
R	PUTNAM FIDUCIARY TRUST CO CUST FBO NATOMAS UNIFIED SCH DIST 403(B) PLAN A/C KYLIE M WELCH 1275 SEVILLE WAY SACRAMENTO CA 95816-5232	626.783	36.26%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,105.254	100.00%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,107.777	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	3,909.357	77.82%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,114.490	22.18%
R6	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,116.654	100.00%
R6	EMPOWER TRUST COMPANY, LLC FBO INQBRANDS INC RET PLAN C/O EMPOWER 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	5,366.511	47.85%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Retirement Advantage 2065 Fund cont.			
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,425.568	12.71%
R6	EMPOWER TRUST COMPANY, LLC FBO PUTNAM DEFERRED COMPENSATION PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,150.474	10.26%
R6	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,118.862	9.98%
R6	EMPOWER TRUST COMPANY, LLC FBO ACME DISTRIBUTION HOWARD LOG 401K P C/O EMPOWER 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	1,045.161	9.32%
Y	MELANIE KIRKLAND BENEFICIARY OF THE RAYMOND L DUMONT IRA PLAN 20 TENBY DR NASHUA NH 03062-2017	1,269.210	51.78%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,116.931	45.56%
Putnam Retirement Advantage Maturity Fund			
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	39,566.203	59.86%
A	MICHAEL T SOKOL IRA PLAN 15500 CAROB CIR PARKER CO 80134-4407	14,877.179	22.51%
A	XU G HU IRA PLAN 10890 STEVER ST CULVER CITY CA 90230-5464	7,902.509	11.96%
C	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,025.384	100.00%
R	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,027.252	100.00%
R3	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,028.828	100.00%
R4	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,833.399	64.01%
R4	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,030.689	35.99%
R5	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,031.710	100.00%
R6	MATRIX TRUST CO CUST FBO SALT LAKE CITY CORP RETIREE HRA 717 17TH ST STE 1300 DENVER CO 80202-3304	385,026.703	28.39%
R6	EMPOWER TRUST COMPANY, LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	290,929.675	21.45%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R6	EMPOWER TRUST COMPANY, LLC FBO ACTION PACT INC C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	159,834.885	11.78%
R6	EMPOWER TRUST COMPANY, LLC FBO SLAY ENGINEERING COMPANY INC 401K P C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	88,641.883	6.54%
R6	EMPOWER TRUST COMPANY, LLC FBO LLAMAS COATINGS INC 401K PSP C/O FASCORE 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	75,870.893	5.59%
R6	EMPOWER TRUST COMPANY, LLC FBO GLOBAL MEDICAL RESPONSE NQ DCP C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	71,837.445	5.30%
R6	EMPOWER TRUST COMPANY, LLC FBO N F STROTH & ASSOCIATES LLC RET PLAN C/O EMPOWER 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	71,763.349	5.29%
Y	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,031.710	41.65%
Y	GEORGE PUTNAM III ROTH IRA CONVERSION PLAN 13 ELM ST STE 2 MANCHESTER MA 01944-1366	1,019.392	41.15%
Putnam Short Duration Bond Fund			
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	12,280,994.022	21.57%
A	J.P. MORGAN SECURITIES LLC FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT BROOKLYN NY 11245-0003	10,094,550.745	17.73%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	6,443,584.620	11.32%
A	PERSHING LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	5,735,826.135	10.08%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	4,400,692.569	7.73%
A	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	3,458,454.734	6.07%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Short Duration Bond Fund cont.			
B	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	14,437.386	48.37%
B	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	6,846.842	22.94%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	3,380.585	11.33%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	383,963.810	20.52%
C	J.P. MORGAN SECURITIES LLC FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER 3RD FL MUTUAL FUND DEPT BROOKLYN NY 11245-0003	229,784.206	12.28%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	186,156.968	9.95%
C	PERSHING LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	184,128.794	9.84%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	154,662.646	8.26%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	148,370.718	7.93%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	130,610.537	6.98%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	118,116.650	6.31%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	108,552.371	5.80%
R	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	20,667.913	39.59%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R	ASCENSUS TRUST COMPANY FBO LCN SERVICES, LLC 401K 691601 ASCENSUS TRUST COMPANY PO BOX 10577 FARGO ND 58106-0577	10,157.726	19.46%
R	RICHARD LEE TTEE FBO RENAISSANCE PLASTIC SURGERY INC 401 C/O FASCORE 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	5,823.278	11.15%
R	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	4,356.153	8.34%
R6	MATRIX TRUST COMPANY CUST FBO EDUSERVE/CSUSA RETIREMENT PLAN PO BOX 52129 PHOENIX AZ 85072-2129	271,362.359	36.72%
R6	EMPOWER TRUST COMPANY, LLC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	213,718.664	28.92%
R6	STATE STREET BANK FBO FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	82,998.893	11.23%
R6	D DAVID KELLER & RAYMOND ROBIN TTEE KELLER LANDSBERG PA 401K C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	44,064.154	5.96%
Y	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	18,610,428.734	20.44%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	18,233,923.325	20.03%
Y	RELiance TRUST CO FBO COMERICA EB R/R PO BOX 78446 ATLANTA GA 30357	12,508,924.484	13.74%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	8,572,317.919	9.42%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	7,274,709.163	7.99%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	5,937,171.810	6.52%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Short Duration Bond Fund cont.			
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	5,447,052.476	5.98%
Y	PERSHING LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	4,867,371.836	5.35%
Putnam Short-Term Municipal Income Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	732,434.205	23.04%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	652,186.057	20.52%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	460,488.800	14.49%
A	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	345,903.951	10.88%
A	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINMDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	224,722.236	7.07%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	16,619.990	44.51%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	6,834.980	18.30%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINMDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	4,652.435	12.46%
C	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	3,645.376	9.76%
C	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	3,280.498	8.78%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	482,103.007	99.56%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,591,086.264	43.95%
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINMDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	970,400.602	26.80%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	473,088.097	13.07%
Y	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	198,154.722	5.47%
Putnam Small Cap Growth Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	508,677.265	6.73%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	434,964.194	5.75%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	398,152.408	5.26%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	380,380.289	5.03%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	9,226.491	23.09%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	2,596.177	6.50%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	2,373.406	5.94%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	46,714.163	15.63%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	29,639.844	9.92%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Small Cap Growth Fund cont.			
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	26,626.446	8.91%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	25,579.974	8.56%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	20,781.941	6.95%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	18,513.033	6.19%
R	EMPOWER TRUST COMPANY, LLC FBO EMPOWER BENEFIT GRANDFATHERED PLAN 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	37,754.655	11.64%
R	TALCOTT RESOLUTION LIFE INSURANCE PO BOX 5051 HARTFORD CT 06102-5051	32,317.203	9.97%
R	STATE STREET BK & TR TTEE &/OR CUST ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	17,190.721	5.30%
R6	EMPOWER TRUST COMPANY, LLC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	395,869.920	16.47%
R6	GREAT-WEST TRUST COMPANY LLC TTEE EMPLOYEE BENEFITS CLIENTS 401K PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	365,073.469	15.19%
R6	NFS LLC FBO FIIOCAS AGENT FOR QUALIFIED EMPLOYEE BENEFIT PLANS 401K FINOPS-IC FUNDS 100 MAGELLAN WAY #KW1C COVINGTON KY 41015-1987	274,972.582	11.44%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	271,040.080	11.27%
R6	DCGT TRUSTEE & OR CUSTODIAN FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN: NPIO TRADE DESK 711 HIGH ST DES MOINES IA 50392-0001	189,762.927	7.89%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	1,874,797.725	25.99%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,045,544.277	14.49%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	1,031,752.748	14.30%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	646,481.531	8.96%
Y	CHARLES SCHWAB & CO INC SPECIAL CUSTODY A/C FBO CUSTOMERS ATTN: MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	468,588.505	6.50%
Y	EMPOWER TRUST COMPANY, LLC FBO GREAT WEST IRA ADVANTAGE C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	398,896.274	5.53%
Putnam Small Cap Value Fund			
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	846,281.744	8.05%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	733,232.144	6.97%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	645,760.299	6.14%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	629,759.582	5.99%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO TRUE FREEDOM MINISTRIES LLC SIMPLE IRA PLAN A/C MICHAEL SWIGER 11375 CAVES RD CHESTERLAND OH 44026-1317	1,893.227	21.23%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO MARTIN D INGRAM ROTH IRA PLAN PO BOX 4594 JACKSON MS 39296-4594	1,848.470	20.72%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	1,309.925	14.69%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO DORIS M JANKE IRA ROLLOVER PLAN 635 CHATHAM LN BLUE BELL PA 19422-2908	852.996	9.56%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Small Cap Value Fund cont.			
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO ROBERT A HERTEL ROTH IRA PLAN 289 M ELSTON RD VAN ET TEN NY 14889-9533	588.963	6.60%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	128,208.159	16.72%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	109,951.918	14.34%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	101,105.963	13.19%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	79,688.928	10.39%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	57,256.938	7.47%
R	DARRIN BROOKS & REBECCA BROOKS TTEE INNOVATIVE BLDG SOLUTIONS 401K C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	15,555.743	24.35%
R	ASCENSUS TRUST COMPANY FBO MEDICAL CENTER OF AMERICAS 401(221144 PO BOX 10758 FARGO ND 58106-0758	7,106.362	11.13%
R	GREAT-WEST TRUST COMPANY LLC TTEE EMPLOYEE BENEFITS CLIENTS C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	6,980.549	10.93%
R	STATE STREET BANK FBO ADP ACCESS 1 LINCOLN ST BOSTON MA 02111-2901	6,710.524	10.51%
R	MATRIX TRUST COMPANY CUST FBO ETC COMPANIES LLC 717 17TH ST STE 1300 DENVER CO 80202-3304	5,221.307	8.17%
R	MATRIX TR CO AGENT FOR TRP RPS RK EMPLOYEE BENEFIT PLAN OF SMILE 1525 E 53RD ST STE 734 CHICAGO IL 60615-4575	5,169.772	8.09%
R	ASCENSUS TRUST COMPANY FBO JOYCE & MCFARLAND LLP RETIREMENT TR 224615 PO BOX 10758 FARGO ND 58106-0758	4,400.433	6.89%
R	MATRIX TRUST COMPANY CUST. FBO DONALD V BORGWARDT FUNERAL HOME, PA 717 17TH STREET SUITE 1300 DENVER CO 80202-3304	3,228.456	5.05%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R6	EMPOWER TRUST COMPANY, LLC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	1,093,178.686	72.95%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	111,751.587	7.46%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	2,349,125.586	40.01%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	948,531.958	16.16%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	604,462.030	10.30%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	515,795.450	8.79%
Putnam Strategic Intermediate Municipal Fund			
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	2,627,898.511	16.63%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,293,288.108	8.18%
A	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	1,290,532.454	8.17%
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	1,208,819.186	7.65%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	1,010,910.337	6.40%
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	945,861.145	5.99%
A	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	921,721.148	5.83%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Strategic Intermediate Municipal Fund cont.			
A	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	912,162.752	5.77%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	834,912.918	5.28%
A	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	827,868.684	5.24%
B	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	1,569.026	28.35%
B	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	1,441.618	26.05%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	806.281	14.57%
B	NELL J WIENKEN TOD ELIZABETH J ADKINS SUBJECT TO STATOD RULES 15642 OHIO CITY VENEDOCIA RD VENEDOCIA OH 45894-9513	402.095	7.26%
B	LAUREN BETHEA TOD MULTIPLE BENEFICIARIES SUBJECT TO STATOD RULES 168 BAYOU BEND RD GROVELAND FL 34736-3638	390.977	7.06%
B	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	341.195	6.16%
B	SCOT H TRENKAMP TOD CAROLYN M TRENKAMP SUBJECT TO STATOD RULES 22903 US 224 FORT JENNINGS OH 45844	333.410	6.02%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	188,796.195	28.79%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	153,939.585	23.47%
C	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	61,504.788	9.38%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	56,337.080	8.59%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	40,841.268	6.23%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	812,685.226	94.34%
R6	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR STE 300 FT WASHINGTON PA 19034-3275	47,919.919	5.56%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	8,579,211.929	20.40%
Y	MERRILL LYNCH FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	8,510,231.371	20.24%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	4,451,727.980	10.59%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,941,562.547	9.37%
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	3,923,803.534	9.33%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	3,643,966.433	8.67%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	3,180,197.675	7.56%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,708,591.827	6.44%
Putnam Sustainable Future Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS, MO 63131-3710	1,386,646.265	8.34%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	1,221,992.127	7.35%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Future Fund cont.			
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	1,054,713.631	6.34%
B	OPPENHEIMER & CO INC. FBO YUVAL & SUSAN B SHENKAL CO-TTEES F/T YUVAL & SUSAN B SHENKAL TRUST DTD 12/19/2000 2235 MONTGOMERY AVE CARDIFF, CA 92007-1913	965.399	16.57%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	909.653	15.61%
B	OPPENHEIMER & CO INC. FBO FBO MARC A DAVILLA IRA 3250 OAKES DR HAYWARD, CA 94542-1238	671.750	11.53%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO DRISS BENMHEND IRA PLAN 3535 S BALL ST APT 418 ARLINGTON, VA 22202-4431	592.545	10.17%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO SCOTT C MINNICK ROTH IRA PLAN30993 LORAIN RD NORTH OLMSTED OH 44070-4783	390.486	6.70%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO NICOLE L LANDWEHR IRA ROLLOVER PLAN 14032 ROAD 25M CLOVERDALE OH 45827-9270	358.037	6.14%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO LISA M DIMAULO ROTH IRA PLAN 836 WESSEX LN SOMERDALE NJ 08083-2532	335.109	5.75%
B	PUTNAM FIDUCIARY TRUST CO TTEE FBO KIMBERLY K BURNS IRA ROLLOVER PLAN 519 BIRDIE DR BYRAM MS 39272-5751	329.730	5.66%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS, MO 63103-2523	51,989.809	11.24%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	46,927.039	10.15%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	30,194.264	6.53%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	26,408.546	5.71%
R	TALCOTT RESOLUTION LIFE INSURANCE PO BOX 5051 HARTFORD, CT 06102-5051	215,174.016	50.34%
R6	GREAT WEST TR CO LLC FBO PFTC FBO THE PUTNAM RETIREMENT PLAN C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG, CO 80111-5002	638,387.149	49.18%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS, MO 63131-3710	578,679.830	44.58%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	1,308,554.941	40.64%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	417,400.421	12.96%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	221,472.428	6.88%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	168,422.059	5.23%
Putnam Sustainable Leaders Fund			
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	3,538,740.680	7.27%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	2,814,853.678	5.78%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS, MO 63103-2523	2,626,223.714	5.39%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	14,526.732	7.95%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	12,004.765	6.57%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	56,854.585	13.30%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS, MO 63103-2523	46,228.883	10.82%
C	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	32,294.556	7.56%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	29,725.526	6.95%
C	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	28,065.748	6.57%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Leaders Fund cont.			
R	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	1,975.133	14.73%
R	CAPITAL BANK & TRUST CO TRUSTEE FBO SIGNUM ARCHITECTURE LLP 401K PROFIT SHARING PLAN C/O FASCORE 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE CO 80111-5002	1,843.241	13.75%
R	MATRIX TRUST COMPANY CUST FBO OMNICA CORPORATION EMPLOYEES PROFIT 717 17TH ST STE 1300 DENVER CO 80202-3304	1,791.510	13.36%
R	ASCENSUS TRUST COMPANY FBO NORMAN'S ELECTRIC SERVICE, INC. 401 711648 PO BOX 10758 FARGO ND 58106-0758	1,756.920	13.11%
R	STATE STREET BK & TRUSTEE &/OR CUST ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	1,133.328	8.45%
R	CAPITAL BANK & TRUST CO TRUSTEE FBO TECHSOURCE INC 401K PROFIT SHARING PLAN C/O FASCORE 8515 E ORCHARD RD # 2T2 GREENWOOD VILLAGE CO 80111-5002	1,123.555	8.38%
R6	GREAT-WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E ORCHARD RD. 2T2 GREENWOOD VILLAGE CO 80111-5002	638,708.521	74.03%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	88,466.965	10.25%
R6	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT P C/O MUTUAL FUND TRADING 8525 E ORCHARD RD GREENWOOD VLG CO 80111-5002	51,625.835	5.98%
Y	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT P C/O MUTUAL FUND TRADING 8525 E ORCHARD RD GREENWOOD VLG CO 80111-5002	695,380.739	20.95%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS, MN 55402-2405	383,835.289	11.56%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	371,923.556	11.20%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY, NJ 07310-1995	289,787.245	8.73%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY, NJ 07399-0001	222,515.497	6.70%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	LPL FINANCIAL --OMNIBUS CUSTOMER ACCOUNT-- ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	183,748.317	5.54%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG, FL 33716-1100	171,294.828	5.16%
Putnam Sustainable Retirement 2025 Fund			
A	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399	114,669.879	9.25%
B	KENNEYVILLE SCHOOL DISTRICT #20 403(B) PLAN 215 RUSH ST. ROSELLE, IL 60172-2224	2,033.809	27.24%
B	LITTLE PEOPLES DAY CARE 403(B) PLAN 238 LINCOLN ST. BLACKSTONE, MA 01504-1203	896.676	12.01%
B	MONTVILLE CT BOE 403(B) PLAN A/C DEBORAH PIACENZA 945 VAUXHALL STREET EXT. QUAKER HILL, CT 06375-1037	777.225	10.41%
B	GALENA UNIT DISTRICT 120 403(B) PLAN A/C LYDIA M NOWAK 905 ADDINGTON CT UNIT 202 VENICE, FL 34293-2328	716.276	9.59%
B	SHIRLEY MOTT IRA PLAN 317 HERMAN ST YORK, PA 17404-3428	495.279	6.63%
B	NORTHAMPTON AREA SCHOOL DISTRICT 403(B) PLAN A/C MARY T CELIA 6985 BERGEN CIRCLE BETHLEHEM, PA 18017-9394	477.794	6.40%
B	TAUNTON PUBLIC SCHOOLS 403(B) PLAN A/C DONNA GAVIN 63 MALBONE ST. LAKEVILLE, MA 02347-2255	443.689	5.94%
B	BRENDA M WRIGHT ROTH IRA PLAN 54 APPLE TREE LN SEWELL, NJ 08080-3022	386.520	5.18%
C	BEAVERCREEK CITY SCHOOLS 403(B) PLAN A/C DERON J. SCHWIETERMAN 2623 ROANOKE AVENUE OAKWOOD, OH 45419-1354	8,952.820	12.75%
C	MANCHESTER LOCAL SCHOOLS 403(B) PLAN A/C GOLDIE P FOORE 12990 CLINTON RD DOYLESTOWN OH 44230-1521	3,554.430	5.06%
R	ASCENSUS TRUST COMPANY MR. APPLIANCE RET PLAN P.O. BOX 10758 FARGO, ND 58106-0758	28,081.931	86.49%
R	MATRIX TRUST COMPANY DISABLED RESOURCE SERVICES 717 17TH STREET, SUITE 1300 DENVER, CO 80202-3304	2,952.880	9.09%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Retirement 2025 Fund cont.			
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	53,811.443	28.32%
R3	MATRIX TRUST COMPANY HARKER MELLINGER LLC 717 17TH STREET, SUITE 1300 DENVER, CO 80202-3304	26,750.388	14.08%
R3	ASCENSUS TRUST COMPANY INSIGHT FAMILY EYE CARE PC RETIREME P.O. BOX 10758 FARGO, ND 58106-0758	12,007.806	6.32%
R3	ASCENSUS TRUST COMPANY GSAVISION CONSULTING P.O. BOX 10758 FARGO, ND 58106-0758	10,297.082	5.42%
R3	ASCENSUS TRUST COMPANY CPACKET NETWORKS INC P.O. BOX 10758 FARGO, ND 58106-0758	10,218.699	5.38%
R3	ASCENSUS TRUST COMPANY CREATIVE MANAGEMENT INC P.O. BOX 10758 FARGO, ND 58106-0758	9,543.591	5.02%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	68,281.839	96.12%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	536.442	100.00%
R6	GREAT WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	331,416.045	96.71%
Y	EMPOWER TRUST COMPANY, LLC GREAT-WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	9,019,804.820	99.63%
Putnam Sustainable Retirement 2030 Fund			
A	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399	91,594.518	7.55%
B	PATRICIA D. REEF IRA ROLLOVER PLAN 12530 S MOUNTAIN VIEW DR. RIVERTON, UT 84065-7285	2,346.855	32.62%
B	ISLIP UNION FREE SCHOOL DISTRICT 403(B) PLAN A/C JASON VITALE 121 MONELL AVE. ISLIP, NY 11751-4309	692.636	9.63%
B	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR. STE 300 FT WASHINGTON, PA 19034-3275	441.787	6.14%
B	J BRACKIN & COMPANY SEP IRA PLAN A/C JAMES B BRACKIN JR 242 GLENWORTH CT POWELL, OH 43065-9118	437.536	6.08%
C	BEAVERCREEK CITY SCHOOLS A/C NICOLA MOORHEAD 2389 BROWN BARK DRIVE BEAVERCREEK, OH 45431-2686	6,298.721	12.82%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	JOSEPH M MARTINEZ IRA ROLLOVER PLAN 5089 WATHENS AVE. FRESNO, CA 93722-2306	3,399.996	6.92%
C	BEAVERCREEK CITY SCHOOLS 403(B) PLAN A/C STACIA UER 3848 MESQUITE DR. BEAVERCREEK, OH 45440-3498	3,330.811	6.78%
C	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE. S MINNEAPOLIS, MN 55402-2405	3,105.446	6.32%
C	BANGOR TOWNSHIP SCHOOLS 403(B) PLAN A/C DARCY D NICHOLAS 2170 NIETHAMMER DR BAY CITY, MI 48706-9497	2,480.409	5.05%
R	ASCENSUS TRUST COMPANY VANTAGE TECHNOLOGIES USA 401(K) PLAN P.O. BOX 10758 FARGO, ND 58106-0758	21,448.987	89.39%
R	MATRIX TRUST COMPANY MISSISSIPPI COAST TRANSPORTATION AU 717 17TH ST. STE 1300 DENVER, CO 80202-3304	2,510.902	10.46%
R3	ASCENSUS TRUST COMPANY MICHAEL T GOLDFARB PC PROFIT S P.O. BOX 10758 FARGO, ND 58106-0758	39,108.172	14.79%
R3	MATRIX TRUST COMPANY CUST FBO THE MARTIN LUTHER SCHOOL 403(B) 717 17TH ST. STE 1300 DENVER, CO 80202-3304	30,809.925	11.66%
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	30,219.400	11.43%
R3	ASCENSUS TRUST COMPANY ISRG RET PLAN P.O. BOX 10758 FARGO, ND 58106-0758	24,390.928	9.23%
R3	ASCENSUS TRUST COMPANY CPACKET NETWORKS INC P.O. BOX 10758 FARGO, ND 58106-0758	21,883.307	8.28%
R3	ASCENSUS TRUST COMPANY FTS EMPLOYEES. RETIREMENT PLAN P.O. BOX 10758 FARGO, ND 58106-0758	21,345.711	8.08%
R3	ASCENSUS TRUST COMPANY B & H OIL COMPANY INC. 401K PS PLAN P.O. BOX 10758 FARGO, ND 58106-0758	15,337.589	5.80%
R3	ASCENSUS TRUST COMPANY ADVANTAGE HEALTH SYSTEMS 401(K) PLAN P.O. BOX 10758 FARGO, ND 58106-0758	14,388.720	5.44%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	130,513.995	99.11%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	457.882	100.00%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Retirement 2030 Fund cont.			
R6	GREAT WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	490,970.532	94.12%
Y	EMPOWER TRUST COMPANY, LLC GREAT-WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	8,433,575.884	99.77%
Putnam Sustainable Retirement 2035 Fund			
A	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399	151,469.418	13.58%
B	TAUNTON PUBLIC SCHOOL 403(B) PLAN A/C MATTHEW J KELLY 120 CHURCH ST. WEST ROXBURY, MA 02132-1053	2,097.466	22.37%
B	KAHLE & ASSOCIATES CPAS LLC SIMPLE IRA PLAN A/C SCOTT L KAHLE 113 RIVERVIEW DR. KALIDA, OH 45853-2008	1,453.560	15.51%
B	NATICK PUBLIC SCHOOLS 403(B) PLAN A/C MARNIE MUSANTE 13 ARTHUR ST. NATICK, MA 01760-2817	1,198.760	12.79%
B	MIDLAND INDEP SCH DIST (TX) 403(B) PLAN A/C WHITNEY NIX 4310 HEIDELBERG LN MIDLAND TX 79707-9602	762.542	8.13%
B	STACIE CARPENTER IRA ROLLOVER PLAN 3776 W FONTANA WAY UNIT J108 SOUTH JORDAN, UT 84095-5574	661.112	7.05%
B	JONATHAN C CANTRELL ROTH IRA PLAN 5527 PRESERVE PT FLOWERY BR, GA 30542-6111	533.737	5.69%
C	ROCKWOOD SCHOOL DISTRICT 403(B) PLAN A/C DEBBIE LUCKEN 18530 SASSAFRAS POINT DR. GLENCOE, MO 63038-1122	9,929.757	14.40%
C	CANDACE L. SMITH 10 DEAD END ROAD LEBANON, PA 17046	6,679.378	9.69%
C	TAUNTON PUBLIC SCHOOLS 403(B) PLAN A/C CHRISTINE M STRAWBRIDGE 22 PARTRIDGE CIRCLE TAUNTON, MA 02780-1278	4,815.297	6.98%
C	TOWN OF COHASSET PUBLIC SCHOOLS 403(B) PLAN A/C DAVID VINTON 127 SOUTH S.T HANSON, MA 02341-2059	4,382.975	6.36%
R	ASCENSUS TRUST COMPANY PREMIER TOOL, INC. P.O. BOX 10758 FARGO, ND 58106-0758	14,499.869	49.84%
R	ASCENSUS TRUST COMPANY GARTNER ANESTHESIA PLLC 401K P.O. BOX 10758 FARGO, ND 58106-0758	11,703.798	40.23%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R	MATRIX TRUST COMPANY MISSISSIPPI COAST TRANSPORTATION AU 717 17TH ST, STE 1300 DENVER, CO 80202	2,769.993	9.52%
R3	ASCENSUS TRUST COMPANY C PACKET NETWORKS INC 690515 P.O. BOX 10758 FARGO, ND 58106-0758	49,863.695	23.41%
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	41,013.522	19.25%
R3	ASCENSUS TRUST COMPANY GRAIN TO GLASS LLC 401K PLAN P.O. BOX 10758 FARGO, ND 58106-0758	19,874.624	9.33%
R3	ASCENSUS TRUST COMPANY RKA CIVIL ENGINEERS, INC 401(K) P.O. BOX 10758 FARGO, ND 58106-0758	13,277.682	6.23%
R3	MATRIX TRUST COMPANY HARKER MELLINGER LLC 717 17TH ST, STE 1300 DENVER, CO 80202	12,548.528	5.89%
R3	ASCENSUS TRUST COMPANY B & H OIL COMPANY INC. 401K PS PLAN P.O. BOX 10758 FARGO, ND 58106-0758	12,516.590	5.88%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	39,381.796	97.66%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	431.490	100.00%
R6	GREAT WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	422,851.617	91.74%
R6	EMPOWER TRUST COMPANY, LLC PUTNAM DEFERRED COMPENSATION PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	31,509.040	6.84%
Y	EMPOWER TRUST COMPANY, LLC GREAT-WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	6,269,752.005	99.22%
Putnam Sustainable Retirement 2040 Fund			
A	NATIONAL FINANCIAL SERVICES LLC FBO ITS CUSTOMERS 499 WASHINGTON BLVD. JERSEY CITY, NJ 07310	74,719.064	9.01%
A	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399	58,785.732	7.09%
B	MATTHEW KOHUT 84 WINFRIED DRIVE MERRICK, NY 11566	3,707.131	20.82%
B	CARRIE C. ROSBURG 2722 LANNER ST. CASPER, WY 82604-4280	2,394.713	13.45%
B	CHRISA. BURGEI IRA PLAN 16696 ROAD 27 FORT JENNINGS, OH 45844-8850	1,935.686	10.87%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Retirement 2040 Fund cont.			
B	TRN FINANCIAL LLC A/C TOBYR LEBOEUF 1710 LAKE CHARLOTTE LANE RICHMOND, TX 77406-8094	1,749.453	9.83%
B	NATIONAL FINANCIAL SERVICES LLC FBO ITS CUSTOMERS 499 WASHINGTON BLVD. JERSEY CITY, NJ 07310	1,422.121	7.99%
B	TRN FINANCIAL LLC A/C NICOLE H LEBOEUF 1710 LAKE CHARLOTTE LANE RICHMOND, TX 77406-8094	1,342.500	7.54%
C	CATHERINE PEWITT SEP IRA PLAN A/C CATHERINE B PEWITT 1913 WINNSBORO RD. BIRMINGHAM, AL 35213-1743	6,005.198	10.95%
C	TRINA VOSTERS IRA ROLLOVER PLAN 819 MARQUETTE ST. MENASHA, WI 54952-2829	3,779.123	6.89%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS 211 MAIN STREET SAN FRANCISCO, CA 94105-1905	3,362.540	6.13%
C	LPL FINANCIAL ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	3,359.092	6.12%
R	ASCENSUS TRUST COMPANY JOYCE & MCFARLAND LLP RETIREMENT TR P.O. BOX 10758 FARGO, ND 58106-0758	4,863.792	61.43%
R	MATRIX TRUST COMPANY JOURNEY PAYROLL RETIREMENT TRUST 717 17TH ST., STE 1300 DENVER, CO 80202	2,780.434	35.12%
R3	ASCENSUS TRUST COMPANY FBO CPACKET NETWORKS INC 690515 P.O. BOX 10758 FARGO, ND 58106-0758	37,231.675	30.99%
R3	EMPOWER TRUST COMPANY, LLC RECORDKEEPING FOR VARIOUS BENEFIT PLANS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	15,264.936	12.70%
R3	PAI TRUST COMPANY INC DIAMONDHEAD URGENT CARE LLC 401K 1300 ENTERPRISE DR. DE PERE, WI 54115-4934	14,756.015	12.28%
R3	ASCENSUS TRUST COMPANY FBO RKA CIVIL ENGINEERS, INC 401(K) P.O. BOX 10758 FARGO, ND 58106-0758	11,250.155	9.36%
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	11,044.049	9.19%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	27,533.295	94.49%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	436.267	100.00%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R6	GREAT WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	309,132.697	97.87%
Y	EMPOWER TRUST COMPANY, LLC GREAT-WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	6,889,447.733	99.62%
Putnam Sustainable Retirement 2045 Fund			
A	NATIONAL FINANCIAL SERVICES, LLC FBO ITS CUSTOMERS 499 WASHINGTON BLVD. JERSEY CITY, NJ 07310	110,783.422	16.28%
B	KRISTEN M. HUG 24597 COUNTRY ROAD ARCHBOLD, OH 43502	6,526.188	25.58%
B	JODI A. TURNWALD 22714 ROAD N CLOVERDALE, OH 45827	5,801.066	22.74%
B	NATIONAL FINANCIAL SERVICES, LLC FBO ITS CUSTOMERS 499 WASHINGTON BLVD. JERSEY CITY, NJ 07310	3,422.894	13.42%
B	LATTER AND BLUM SEP IRA PLAN A/C GREGORY S JEANFREAU 3121 FORTIN ST. NEW ORLEANS, LA 70119-280	1,978.756	7.76%
C	PITTSFIELD PUBLIC SCHOOLS 403(B) PLAN A/C MARY JANE LAFERRIERE 337 HUNGERFORD ST PITTSFIELD MA 01201-7812	12,033.408	21.58%
C	BRIDGEWATER-RAYNHAM REG SCHOOL DISTRICT 403(B) PLAN A/C KATELYN O. CARREAU 413 COUNTRY CLUB WAY KINGSTON, MA 02364-4108	5,064.653	9.08%
C	LEWISTON PORTER FCU A/C KENNETH STADLER 14 HOBART STREET BUFFALO, NY 14206-2921	3,845.618	6.90%
C	CHARLES H SCHLOTTMAN IRA ROLLOVER PLAN 1385 SE 72ND AVE. HILLSBORO, OR 97123-6006	3,337.998	5.99%
R	MATRIX TRUST COMPANY JOURNEY PAYROLL RETIREMENT TRUST 717 17TH ST., STE 1300 DENVER, CO 80202	2,792.400	84.39%
R	MATRIX TRUST COMPANY MISSISSIPPI COAST TRANSPORTATION AU 717 17TH ST, STE 1300 DENVER, CO 80202	516.516	15.61%
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	34,252.688	29.39%
R3	ASCENSUS TRUST COMPANY CPACKET NETWORKS INC 690515 P.O. BOX 10758 FARGO, ND 58106-0758	13,349.923	11.45%
R3	ASCENSUS TRUST COMPANY LAJF 401K RET PLAN P.O. BOX 10758 FARGO, ND 58106-0758	10,821.090	9.28%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Retirement 2045 Fund cont.			
R3	ASCENSUS TRUST COMPANY ADVANTAGE HEALTH SYSTEMS 401(K) PLAN P.O. BOX 10758 FARGO, ND 58106-0758	8,487.929	7.28%
R3	MATRIX TRUST COMPANY11.00 HARKER MELLINGER LLC 717 17TH ST., STE 1300 DENVER, CO 80202	8,140.017	6.98%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	27,567.857	92.10%
R4	PAI TRUST COMPANY INC COLONIAL INSTRUMENTS, INC. 401(K) P 1300 ENTERPRISE DR. DE PERE, WI 54115-4934	2,339.098	7.81%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	450.212	100.00%
R6	GREAT WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	195,058.235	96.74%
Y	EMPOWER TRUST COMPANY, LLC GREAT-WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	4,600,836.895	99.98%
Putnam Sustainable Retirement 2050 Fund			
A	NATIONAL FINANCIAL SERVICES, LLC FBO ITS CUSTOMERS 499 WASHINGTON BLVD. JERSEY CITY, NJ 07310	54,966.177	12.69%
A	JUNENOIRE FONTE IRA PLAN 8 RIVERSEDGE DR MILFORD, NH 03055-8900	27,154.928	6.27%
B	NATIONAL FINANCIAL SERVICES, LLC FBO ITS CUSTOMERS 499 WASHINGTON BLVD. JERSEY CITY, NJ 07310	2,968.072	59.38%
B	SHANNON M GENDAY IRA ROLLOVER PLAN 11596 CLAYMONT CIR WINDERMERE, FL 34786-5329	319.997	6.40%
B	MILFORD PUBLIC SCHOOLS 403(B) PLAN A/C JOHANNA K ROY 8 REAGAN RD MILFORD, MA 01757-2269	319.018	6.38%
C	CANTON PUBLIC SCHOOLS 403(B) PLAN A/C JULIE A. FOLEY 787 SEA ST. QUINCY, MA 02169-3421	5,286.631	8.65%
C	LPL FINANCIAL ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	4,130.849	6.76%
C	AMEBA MARKETING INC SIMPLE IRA PLAN A/C LAUREN A AVALONE 8 LORI RD MONMOUTH BCH, NJ 07750-1012	3,624.486	5.93%
C	AMERICAN ENTERPRISE INVESTMENT SERVICES 707 2ND AVE. S MINNEAPOLIS, MN 55402-2405	3,502.644	5.73%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	BLACK TALON SECURITY LLC SIMPLE IRA PLAN A/C JOSHUA HYMAN 840 BROKEN SOUND PKWY NW APT 108 BOCARATON, FL 33487-3714	3,206.093	5.24%
C	BRIDGEWATER-RAYNHAM REG SCH DIST 403(B) PLAN A/C MEGHAN O DRISCOLL 50 ASPEN DR BRIDGEWATER, MA 02324-1244	3,185.824	5.21%
R	MATRIX TRUST COMPANY MILLWRIGHT HOLDINGS LLC 401(K) 717 17TH ST. STE 1300 DENVER, CO 80202-3304	4,257.519	48.62%
R	ASCENSUS TRUST COMPANY JOYCE & MCFARLAND LLP RETIREMENT TRUST P.O. BOX 10758 FARGO, ND 58106-0758	3,974.035	45.38%
R3	ASCENSUS TRUST COMPANY CPACKET NETWORKS INC P.O. BOX 10758 FARGO, ND 58106-0758	34,989.806	33.81%
C	ASCENSUS TRUST COMPANY ADVANTAGE HEALTH SYSTEMS 401(K) PLAN P.O. BOX 10758 FARGO, ND 58106-0758	20,120.844	19.44%
C	ASCENSUS TRUST COMPANY ALTAVIZ 401(K) PLAN P.O. BOX 10758 FARGO, ND 58106-0758	9,036.277	8.73%
C	ASCENSUS TRUST COMPANY GENIA, LLC PROFIT SHARING PLAN P.O. BOX 10758 FARGO, ND 58106-0758	7,140.515	6.90%
C	ASCENSUS TRUST COMPANY HAMAGUCHI & ASSOCIATES 401K P.O. BOX 10758 FARGO, ND 58106-0758	6,455.037	6.24%
C	NFS LLC FBO STATE STREET BANK TR FBO VARIOUS RETIREMENT PLANS 499 WASHINGTON BLVD JERSEY CITY, NJ 07310-1995	5,292.707	5.11%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	10,423.657	78.15%
R4	MATRIX TRUST COMPANY C&H EXCAVATION, LLC 401(K) PLAN 717 17TH ST. STE 1300 DENVER, CO 80202-3304	2,279.257	17.09%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	637.309	100.00%
R6	GREAT-WEST TRUST CO LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	284,939.445	97.20%
Y	EMPOWER TRUST COMPANY, LLC GREAT-WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	4,740,721.393	99.43%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Retirement 2055 Fund			
A	NATIONAL FINANCIAL SERVICES, LLC FBO ITS CUSTOMERS 499 WASHINGTON BLVD. JERSEY CITY, NJ 07310	78,818.339	14.87%
A	TD AMERITRADE INC FBO OUR CUSTOMERS P.O. BOX 2226 OMAHA, NE 68103-2226	27,701.828	5.23%
B	TIMOTHY J. MACLAUGHLIN, JR 21 POULIN DRIVE LANCASTER, MA 01523	1,674.549	35.73%
B	ALEXIS PETERSEN 8242 S FESTIVE WAY WEST JORDAN, UT 84088	1,322.583	28.22%
B	KEALEY GILL ROTH IRA PLAN P.O. BOX 57794 SALT LAKE CITY, UT 84157-0794	349.469	7.46%
B	BRANDON M HAMMOND IRA PLAN 205 APPOMATTOX DR. SIMPSONVILLE, SC 29681-3356	270.182	5.76%
B	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399	237.025	5.06%
C	GRAND FORKS PUBLIC SCH DIST 1 403(B) PLAN A/C ALISON CHERNEY 18460 HOFFMAN AVE. BROOKFIELD, WI 53045-3448	5,160.839	8.33%
C	ABILITY A/C & REFRIGERATION INC SIMPLE IRA PLAN A/C RYAN B FOERTSCHBECK 3546 MILLER RD. STREET, MD 21154-1305	4,111.125	6.64%
C	SYSTEMATIC ASIAN LEADERSHIP A/C NATHAN CLIFTON P.O. BOX 38405 CHARLOTTE, NC 28272	4,107.413	6.63%
C	TOTAL TOOLING CONCEPTS SIMPLE IRA PLAN A/C DUSTIN CRONKRIGHT 2771 FIELDSTONE CT. SW WYOMING, MI 49418-9304	3,799.065	6.13%
C	COMPRESSOR ENERGY SERVICES LLC SIMPLE IRA PLAN A/C SCOTT L MILLS 8 CILLEY BROOK LN. HEBRON, NH 03241-4351	3,595.787	5.80%
R	MATRIX TRUST COMPANY MISSISSIPPI COAST TRANSPORTATION AU 717 17TH ST, STE 1300 DENVER, CO 80202	2,512.218	43.01%
R	MATRIX TRUST COMPANY MILLWRIGHT HOLDINGS LLC 401(K) 717 17TH ST. STE 1300 DENVER, CO 80202-3304	2,374.477	40.65%
R	MATRIX TRUST COMPANY JOURNEY PAYROLL RETIREMENT TRUST 717 17TH ST. STE 1300 DENVER, CO 80202-3304	950.343	16.27%
R3	ASCENSUS TRUST COMPANY CPACKET NETWORKS INC P.O. BOX 10758 FARGO, ND 58106-0758	50,064.953	19.70%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R3	ASCENSUS TRUST COMPANY ADVANTAGE HEALTH SYSTEMS 401(K) PLAN P.O. BOX 10758 FARGO, ND 58106-0758	33,697.499	13.26%
R3	PAI TRUST COMPANY INC JUDICIAL REPORTING AND TYPING SERVICES 1300 ENTERPRISE DR. DE PERE, WI 54115-4934	22,993.016	9.05%
R3	MATRIX TRUST COMPANY SYRPES AND PANGBORN PLLC 717 17TH ST. STE 1300 DENVER, CO 80202-3304	20,299.304	7.99%
R3	ASCENSUS TRUST COMPANY MONTROY ANDERSON 401K 690694 P.O. BOX 10758 FARGO, ND 58106-0758	17,911.938	7.05%
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	17,481.266	6.88%
R3	FIIOC FBO CB RICHARD ELLIS NE PARTNERS LP 401K RETIREMENT PLAN 100 MAGELLAN WAY COVINGTON, KY 41015-1987	15,764.574	6.20%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	32,159.718	96.25%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,012.435	100.00%
R6	GREAT WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	209,650.946	96.44%
Y	EMPOWER TRUST COMPANY, LLC GREAT WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	3,314,497.418	99.80%
Putnam Sustainable Retirement 2060 Fund			
B	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,474.695	100.00%
C	CONNOR B. TRYON 2502 LOS ALAMOS CT. LAS CRUCES, NM 88011-1657	6,408.594	22.57%
C	JUAN M. LEON-ESTRADA IRA ROLLOVER PLAN 14154 W STANISLAUS AVE. KERMAN, CA 93630-2119	3,149.952	11.09%
C	CHRISTOPHER CHRISTIAN SEP IRA PLAN A/C CHRISTOPHER CHRISTIAN 48 PATCHES LN. PELL CITY, AL 35128-7268	2,660.788	9.37%
C	LUIS ORTIZ SEP IRA PLAN A/C LUIS ORTIZ 3204 COVE RD PENNSAUKEN, NJ 08109-2537	2,319.316	8.17%
C	ANNETTE M. HUBBERT ROTH IRA PLAN 303 SUNNY HILL RD MIDDLEBERG, PA 17842-9432	1,547.713	5.45%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Retirement 2060 Fund cont.			
R	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,504.720	100.00%
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	3,547.304	73.67%
R3	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	980.064	20.35%
R3	FIIOC FBO CB RICHARD ELLIS NE PARTNERS LP 401K RETIREMENT PLAN 100 MAGELLAN WAY COVINGTON, KY 41015-1987	287.735	5.98%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	5,358.063	84.48%
R4	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	984.691	15.52%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	986.722	100.00%
R6	EMPOWER TRUST COMPANY, LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	135,655.211	96.42%
Y	EMPOWER TRUST COMPANY, LLC GREAT WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	1,051,235.349	99.57%
Putnam Sustainable Retirement 2065 Fund			
A	PAGE'S TREE SIMPLE IRA PLAN E SERVICE A/C JEFFREY C PAGE 738 WOLF DEN RD. BROOKLYN, CT 06234-1418	5,105.395	28.02%
A	WJP INC SIMPLE IRA PLAN A/C ALYSSA L. OPLINGER 512 VALLEY RD. HEGINS, PA 17938-9185	1,135.048	6.23%
A	INTEGRATED WEALTH MANAGEMENT SIMPLE IRA PLAN A/C ADAM J ROBERTS 339A NATURE DR. SAN JOSE, CA 95123-5121	1,089.325	5.98%
C	TYSON VU SEP PLAN A/C THAI VU P/G OF TYSON VU P.O. BOX 1502 CORDOVA, AK 99574-1502	9,282.381	37.40%
C	PAGE'S TREE SIMPLE IRA PLAN E SERVICE A/C JEFFREY C PAGE 738 WOLF DEN RD. BROOKLYN, CT 06234-1418	6,081.021	24.50%
C	BROCKTON PUBLIC SCHOOL 403(B) PLAN A/C SUSAN A. DEVANEY 15 CAPE COD LN. CANTON, MA 02021-3605	5,698.445	22.96%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
C	ISHCORP ENTERPRISES INC. SIMPLE IRA PLAN A/C NICHOLAS TSUTSUI 79 S PEAK LAGUNA NIGUEL, CA 92677-2903	2,345.653	9.45%
R	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,095.205	100.00%
R3	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,100.500	100.00%
R4	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,105.976	100.00%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,109.227	100.00%
R6	GREAT WEST TRUST COMPANY LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	16,180.583	93.57%
R6	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,111.655	6.43%
Y	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	1,109.463	80.16%
Y	LEFLORE COUNTY ABSTRACT & TITLE LLC SIMPLE IRA PLAN A/C SHELBEY L JACKSON 20857 STATE HIGHWAY 83 HOWE, OK 74940-3055	274.556	19.84%
Putnam Sustainable Retirement Maturity Fund			
A	PERSHING LLC 1 PERSHING PLAZA JERSEY CITY, NJ 07399	235,314.897	15.25%
B	CITY OF WORCESTER 403(B) PLAN A/C DEIDRE M SHEA 2 WOODSIDE DR. SHREWSBURY, MA 01545-7733	722.022	13.22%
B	DONNA M MEDEIROS IRA ROLLOVER PLAN 343 LAFAYETTE ST. SOMERSET, MA 02726-3456	645.018	11.81%
B	CRAIG T WORREL IRA ROLLOVER PLAN 909 MECHANIC ST EMPORIA, KS 66801-2958	568.283	10.40%
B	ROSEDALE MANOR 403(B) PLAN A/C DAVID A BOYER 2483 KREMERS LN VILLA HILLS, KY 41017-1164	440.767	8.07%
B	ELSA C CONLU ROTH IRA PLAN 787 CRAIGMARK CT HENDERSON NV 89002-6580	313.787	5.74%
B	HUA HSING WEI IRA PLAN 9146 EMPEROR AVE SAN GABRIEL, CA 91775-2019	305.452	5.59%
C	FAIRFIELD BOARD OF EDUCATION 403(B) PLAN A/C EILEEN FRANKEL 9 KATY LANE NORWALK, CT 06851-5901	12,490.317	20.47%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Sustainable Retirement Maturity Fund cont.			
C	LPL FINANCIAL ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO, CA 92121-3091	12,452.404	20.40%
C	ANGELA E WHISNEY IRA ROLLOVER PLAN 49396 770TH ST. JACKSON, MN 56143-3806	7,342.870	12.03%
C	ROSEDALE MANOR 403(B) PLAN A/C DAVID A BOYER 2483 KREMERS LN VILLA HILLS, KY 41017-1164	3,100.161	5.08%
R	ASCENSUS TRUST COMPANY WILLIAM A. HELLER, P.A. SOLOK P.O. BOX 10577 FARGO, ND 58106-0577	29,398.609	86.16%
R	MATRIX TRUST COMPANY JOURNEY PAYROLL RETIREMENT TRUST 717 17TH ST, STE 1300 DENVER, CO 80202	3,716.422	10.89%
R3	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	33,554.027	32.62%
R3	ASCENSUS TRUST COMPANY FBO RKA CIVIL ENGINEERS, INC 401(K) P.O. BOX 10577 FARGO, ND 58106-0577	11,511.518	11.19%
R3	ASCENSUS TRUST COMPANY FBO JAMES DALTON 401(K) P.O. BOX 10577 FARGO, ND 58106-0577	11,336.568	11.02%
R3	ASCENSUS TRUST COMPANY FBO TRUE VALUE TITLE SH PLAN P.O. BOX 10577 FARGO, ND 58106-0577	7,854.420	7.64%
R4	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	8,111.425	75.60%
R4	MATRIX TRUST COMPANY CUST FBO C&H EXCAVATION, LLC 401(K) PLAN 717 17TH ST, STE 1300 DENVER, CO 80202	1,599.664	14.91%
R4	ASCENSUS TRUST COMPANY FBO BROKERAGE PROFESSIONALS INC P.O. BOX 10577 FARGO, ND 58106-0577	963.814	8.98%
R5	PUTNAM INVESTMENTS, LLC 100 FEDERAL STREET BOSTON, MA 02110	649.571	100.00%
R6	GREAT-WEST TRUST CO LLC THE PUTNAM RETIREMENT PLAN 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	91,733.188	88.66%
R6	EMPOWER TRUST COMPANY, LLC EMPLOYEE BENEFITS CLIENTS 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	7,799.565	7.54%
Y	EMPOWER TRUST COMPANY, LLC GREAT-WEST IRA ADVANTAGE 8515 E. ORCHARD ROAD 2T2 GREENWOOD VILLAGE, CO 80111-5002	11,688,879.562	99.52%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Tax Exempt Income Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	12,038,339.387	16.28%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	7,697,406.473	10.41%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	4,515,171.437	6.10%
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	4,472,694.388	6.05%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	3,740,348.467	5.06%
B	ARTHUR BROWN 120 SHEFFIELD CT GALLOWAY NJ 08205-6666	12,792.514	39.69%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	4,735.039	14.69%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,823.705	11.86%
B	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DR E FL 3 JACKSONVILLE FL 32246-6484	2,476.061	7.68%
B	RAJIV SINGH TOD MULTIPLE BENEFICIARIES SUBJECT TO STA TOD RULES 10525 KINGHURST DR HOUSTON TX 77099-3505	2,033.835	6.31%
B	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	1,644.216	5.10%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	163,281.473	15.33%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	128,646.879	12.08%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Tax Exempt Income Fund cont.			
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	121,646.965	11.42%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	112,320.152	10.55%
C	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	77,248.674	7.25%
C	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	58,811.997	5.52%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	840,681.396	92.02%
R6	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR STE 300 FT WASHINGTON PA 19034-3275	69,424.884	7.60%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	1,010,064.488	11.89%
Y	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEERLAKE DRE FL 3 JACKSONVILLE FL 32246-6484	957,917.226	11.28%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	940,401.819	11.07%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	896,576.922	10.56%
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	855,854.702	10.08%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	738,754.853	8.70%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	702,600.804	8.27%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	649,435.252	7.65%
Y	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	557,524.602	6.57%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	500,805.739	5.90%
Putnam Tax-Free High Yield Fund			
A	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	4,858,196.299	10.91%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	3,975,562.666	8.93%
A	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	3,860,051.778	8.67%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	3,053,835.962	6.86%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,778,457.698	6.24%
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITS CUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	2,690,649.712	6.04%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	16,255.719	24.87%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	8,496.701	13.00%
B	MLPF&S FOR THE SOLE BENEFIT OF ITS CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DRE FL 3 JACKSONVILLE FL 32246-6484	6,600.548	10.10%
B	ERIK M NOVAK & JAMI L PARENT JTWROS 5111 N KENWOOD AVE INDIANAPOLIS IN 46208-2619	3,645.802	5.58%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Tax-Free High Yield Fund cont.			
B	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	3,590.560	5.49%
B	OPPENHEIMER & CO INC. FBO EUGENE H MILLER (TOD) 3 NORTHLAWN CT SAGINAW MI 48602-1813	3,270.555	5.00%
C	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	348,970.425	27.28%
B	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	167,148.747	13.07%
B	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	165,947.972	12.97%
B	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	146,549.688	11.45%
B	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	90,611.219	7.08%
B	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	80,978.129	6.33%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	149,518.548	89.74%
Y	LINCOLN INVESTMENT PLANNING, LLC FBO LINCOLN CUSTOMERS 601 OFFICE CENTER DR STE 300 FT WASHINGTON PA 19034-3275	15,887.232	9.54%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	2,297,994.187	15.72%
Y	TD AMERITRADE INC FBO OUR CUSTOMERS PO BOX 2226 OMAHA NE 68103-2226	1,980,244.541	13.54%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	1,792,097.403	12.26%
Y	AMERICAN ENTERPRISE INVESTMENT SVC 707 2ND AVE S MINNEAPOLIS MN 55402-2405	1,554,917.391	10.64%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Y	WELLS FARGO CLEARING SERVICES, LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	1,347,413.187	9.22%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	1,254,147.638	8.58%
Y	CHARLES SCHWAB & CO INC CLEARING ACCOUNT FOR THE EXCLUSIVE BENEFIT OF THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	982,860.888	6.72%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	819,157.025	5.60%
Putnam Ultra Short Duration Income Fund			
A	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITSCUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	79,370,783.439	25.98%
A	J.P. MORGAN SECURITIES LLC FOR THE EXCLUSIVE BENEFIT OF CUSTOMERS 4 CHASE METROTECH CENTER, 3RD FL MUTUAL FUND DEPT BROOKLYN NY 11245-0003	35,436,707.422	11.60%
A	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	25,156,230.635	8.23%
A	UBS WM USA, 000 11011 6100 OMNI ACCOUNT M/F, SPEC CDYA/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	24,908,900.150	8.15%
A	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	24,693,452.506	8.08%
A	CHARLES SCHWAB & CO INC, SPECIAL CUSTODY ACCOUNT, FBO THEIR CUSTOMERS, ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	23,972,444.119	7.85%
A	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	19,062,073.767	6.24%
A	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	15,362,429.033	5.03%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam Ultra Short Duration Income Fund cont.			
A	RBC CAPITAL MARKETS, LLC MUTUAL FUND OMNIBUS PROCESSING OMNIBUS ATTN MUTUAL FUND OPS MANAGER 250 NICOLLET MALL STE 1400 MINNEAPOLIS MN 55401-7554	15,299,622.726	5.01%
C	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	223,946.417	17.28%
C	CHARLES SCHWAB & CO INC SPECIAL CUSTODY ACCOUNT FBO THEIR CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1901	194,096.239	14.98%
C	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	152,163.282	11.74%
C	AMERICAN ENTERPRISE INVESTMENT SVC FBO # 41999970 707 2ND AVE S MINNEAPOLIS MN 55402-2405	151,629.400	11.70%
C	WELLS FARGO CLEARING SERVICES LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	136,829.377	10.56%
C	RBC CAPITAL MARKETS, LLC, MUTUAL FUND OMNIBUS PROCESSING, OMNIBUS, ATTN MUTUAL FUND OPS MANAGER, 250 NICOLLET MALL STE 1400, MINNEAPOLIS MN 55401-7554	85,102.541	6.57%
C	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	79,748.611	6.15%
N	WELLS FARGO CLEARING SERVICES LLC SPECIAL CUSTODY ACCT FOR THE EXCLUSIVE BENEFIT OF CUSTOMER 2801 MARKET ST SAINT LOUIS MO 63103-2523	979,746.212	97.58%
R	PAI TRCO INC JOLOHA ENTERPRISES DBA ROACH-REID O 1300 ENTERPRISE DR DE PERE WI 54115-4934	101,520.792	22.39%
R	ASCENSUS TRUST COMPANY FBO PREMIER TOOL, INC. 401K 690498 PO BOX 10758 FARGO ND 58106-0758	89,013.375	19.63%
R	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITSCUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	65,190.360	14.38%
R	CAPITAL BANK & TRUST CO TRUSTEE FBO SILMAR ELECTRONICS INC 401K PROFIT, SHARING PLAN C/O FASCORE 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	42,245.118	9.32%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
R	LINDA GAITHER & MARK TWOMBLY TTEE, BENDENA STATE BANK 401K, C/O FASCORE LLC 8515 E ORCHARD RD # 2T2 GREENWOOD VLG CO 80111-5002	30,278.822	6.68%
R	CHARLES SCHWAB & CO INC, CLEARING ACCOUNT, FOR THE EXCLUSIVE BENEFIT OF, THEIR CUSTOMERS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	24,619.388	5.43%
R6	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DRE FL 3, JACKSONVILLE FL 32246-6484	27,244,225.547	52.35%
R6	EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS 12555 MANCHESTER RD SAINT LOUIS MO 63131-3710	19,794,303.052	38.03%
Y	MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENEFIT OF ITSCUSTOMERS 1 NEW YORK PLAZA FL 12 NEW YORK NY 10004-1965	173,498,062.354	24.40%
Y	UBS WM USA, 000 11011 6100 OMNI ACCOUNT M/F, SPEC CDY A/C EXCL BEN CUST UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	103,790,045.451	14.60%
Y	MLPF&S FOR THE SOLE BENEFIT OF IT'S CUSTOMERS ATTN FUND ADMINISTRATION 4800 DEER LAKE DRE FL 3, JACKSONVILLE FL 32246-6484	81,176,970.453	11.42%
Y	NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS 499 WASHINGTON BLVD ATTN: MUTUAL FUNDS DEPT 4TH FL JERSEY CITY NJ 07310-1995	65,608,933.674	9.23%
Y	LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN: LINDSAY O'TOOLE 4707 EXECUTIVE DRIVE SAN DIEGO CA 92121-3091	61,678,962.185	8.67%
Y	PERSHING, LLC 1 PERSHING PLZ JERSEY CITY NJ 07399-0001	44,301,132.503	6.23%
Y	RAYMOND JAMES OMNIBUS FOR MUTUAL FUNDS HOUSE ACCT FIRM 92500015 ATTN: COURTNEY WALLER 880 CARILLON PKWY ST PETERSBURG FL 33716-1100	41,067,909.805	5.78%
Putnam Ultra Short MAC Series			
	PUTNAM INVESTMENTS LLC 100 FEDERAL ST BOSTON MA 02110-1802	1,000,000.000	100.00%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam VT Core Equity Fund			
IA	TALCOTT RESOLUTION LIFE (25)	2,172,876.361	50.34%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,832,951.062	42.46%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	2,222,046.655	54.01%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	881,832.366	21.43%
IB	TALCOTT RESOLUTION LIFE (25)	567,485.599	13.79%
IB	ALLSTATE LIFE OF NY (2)	289,447.092	7.04%
Putnam VT Diversified Income Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	4,498,028.037	45.64%
IB	TALCOTT RESOLUTION LIFE (25)	4,483,025.493	45.49%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	7,096,536.444	45.07%
IB	TALCOTT RESOLUTION LIFE (25)	3,046,524.177	19.35%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	1,942,166.996	12.34%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,408,336.033	8.94%
IB	AMER GEN CORPORATE AMERICA (4)	951,820.765	6.05%
Putnam VT Emerging Markets Equity Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	483,848.587	48.09%
IA	TALCOTT RESOLUTION LIFE (25)	458,083.449	45.53%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	52,387.975	5.21%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	322,431.890	82.68%
IB	ALLSTATE LIFE OF NY (2)	20,008.590	5.13%
Putnam VT Focused Intl Equity Fund			
IA	TALCOTT RESOLUTION LIFE (25)	5,234,008.500	48.11%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	4,209,934.579	38.70%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	815,426.983	7.50%
IA	TALCOTT RESOLUTION LIFE (25)	567,137.131	5.21%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	991,070.032	71.48%
IB	ALLSTATE LIFE OF NY (2)	114,039.349	8.22%
IB	GREAT- WEST LIFE & ANNUITY CO. (8)	76,611.683	5.53%
Putnam VT George Putnam Balanced Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	2,833,529.164	57.58%
IA	TALCOTT RESOLUTION LIFE (25)	1,688,412.758	34.31%
IB	LINCOLN LIFE INSURANCE COMPANY (12)	7,172,358.128	59.34%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	2,771,525.439	22.93%
IB	LINCOLN LIFE AND ANNUITY COMPANY OF NEW YORK (13)	672,427.626	5.56%
Putnam VT Global Asset Allocation Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,961,830.884	46.74%
IS	TALCOTT RESOLUTION LIFE (25)	1,918,436.088	45.70%
IB	DELAWARE LIFE INSURANCE COMPANY (7)	101,045.222	5.25%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	729,113.157	37.86%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	361,862.031	18.79%
IB	EQUITABLE FINANCIAL LIFE INSURANCE CO. (5)	208,561.574	10.83%
IB	TALCOTT RESOLUTION LIFE (25)	136,019.749	7.06%
IB	GREAT- WEST LIFE & ANNUITY CO. (8)	128,345.650	6.66%
IB	AXA EQUITABLE LIFE INSURANCE CO. (5)	116,448.176	6.05%
Putnam VT Global Health Care Fund			
IA	TALCOTT RESOLUTION LIFE (25)	1,251,996.965	45.52%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,148,626.200	41.76%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	161,996.267	5.89%
IB	RIVERSOURCE LIFE INSURANCE COMPANY (23)	3,469,343.579	46.43%
IB	LINCOLN NATIONAL VARIABLE (14)	1,705,630.772	22.83%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	1,152,982.686	15.43%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam VT Government Money Market Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	20,881,530.168	52.18%
IA	TALCOTT RESOLUTION LIFE (25)	15,945,943.400	39.84%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	19,559,933.750	68.27%
IB	ALLSTATE LIFE OF NY (2)	5,292,771.380	18.47%
IB	TRANSAMERICA LIFE INS CO. (27)	1,687,756.750	5.89%
Putnam VT High Yield Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	4,281,545.090	23.29%
IA	TALCOTT RESOLUTION LIFE (25)	4,161,045.127	22.64%
IA	CMFG GROUP (6)	4,154,665.805	22.60%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	2,117,169.619	11.52%
IA	METLIFE (PARAGON) (15)	1,384,117.044	7.53%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	2,223,846.200	27.87%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,975,743.459	24.76%
IB	JEFFERSON NATIONAL LIFE (10)	1,560,940.513	19.56%
IB	RIVERSOURCE LIFE INSURANCE COMPANY (23)	934,426.273	11.71%
Putnam VT Income Fund			
IA	TALCOTT RESOLUTION LIFE (25)	3,736,339.217	36.03%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	3,331,914.072	32.13%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,277,275.515	12.32%
IA	METLIFE (PARAGON) (15)	835,425.888	8.06%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	3,301,714.266	38.90%
IB	LINCOLN LIFE INSURANCE COMPANY (12)	1,173,778.656	13.83%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,072,567.607	12.64%
IB	JEFFERSON NATIONAL LIFE (10)	784,073.058	9.24%
IB	ALLSTATE LIFE OF NY (2)	439,180.184	5.17%
Putnam VT International Equity Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,463,103.024	43.23%
IA	TALCOTT RESOLUTION LIFE (25)	963,997.177	28.49%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	287,703.732	8.50%
IA	TALCOTT RESOLUTION LIFE (25)	1,773,209.965	30.33%
IA	TALCOTT RESOLUTION LIFE (25)	887,908.695	15.19%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	576,870.555	9.87%
IB	NATIONWIDE LIFE INSURANCE CO. (18)	496,821.570	8.50%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	390,651.805	6.68%
IB	RIVERSOURCE LIFE INSURANCE COMPANY (24)	342,231.386	5.85%
IB	TALCOTT RESOLUTION LIFE (25)	1,678,303.376	34.39%
IB	ALLSTATE NORTHBROOK LIFE (3)	1,295,189.284	26.54%
IB	MINNESOTA LIFE (17)	1,128,237.820	23.12%
Putnam VT International Value Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	352,411.086	7.22%
IA	TALCOTT RESOLUTION LIFE (25)	259,362.204	5.31%
IA	GREAT- WEST LIFE & ANNUITY CO. (8)	1,836,519.451	18.47%
IB	NATIONWIDE LIFE INSURANCE CO. (18)	1,761,138.007	17.71%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,580,819.111	15.90%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	1,212,168.344	12.19%
IB	THRIVENT FINANCIAL FOR LUTHERANS (26)	816,199.257	8.21%
IB	AMER GEN CORPORATE AMERICA (4)	706,214.557	7.10%
IB	JEFFERSON NATIONAL LIFE (10)	664,226.666	6.68%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam VT Large Cap Growth Fund			
IA	TALCOTT RESOLUTION LIFE (25)	28,052,053.675	48.11%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	21,523,764.726	36.92%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	4,052,615.805	6.95%
IA	ALLSTATE LIFE INSURANCE COMPANY (1)	7,095,878.521	37.87%
IA	PRINCIPAL FINANCIAL GROUP PFLX (20)	2,678,730.723	14.29%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,542,826.815	8.23%
IA	MINNESOTA LIFE (17)	1,490,610.264	7.95%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	943,845.981	5.04%
IA	TALCOTT RESOLUTION LIFE (25)	15,744,319.429	46.03%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	13,939,384.699	40.75%
Putnam VT Large Cap Value Fund			
IB	LINCOLN LIFE INSURANCE COMPANY (12)	6,421,230.990	24.62%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	4,524,067.765	17.34%
IB	NATIONWIDE LIFE INSURANCE COMPANY (18)	4,227,986.346	16.21%
Putnam VT Mortgage Securities Fund			
IA	TALCOTT RESOLUTION LIFE (25)	1,263,219.817	49.65%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,218,295.072	47.88%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	911,554.525	39.07%
IB	JEFFERSON NATIONAL LIFE (10)	361,212.163	15.48%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	272,044.520	11.66%
IB	GREAT- WEST LIFE & ANNUITY CO. (8)	206,005.183	8.83%
Putnam VT Research Fund			
IA	TALCOTT RESOLUTION LIFE (25)	324,045.612	44.58%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	323,464.336	44.50%
IA	PROTECTIVE LIFE INSURANCE COMPANY	58,666.010	8.07%
IB	THRIVENT FINANCIAL FOR LUTHERANS (26)	609,236.370	38.13%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	559,960.820	35.05%
Putnam VT Research Fund cont.			
IB	EQUITABLE FINANCIAL LIFE INSURANCE CO. (5)	126,026.104	7.89%
IB	DELAWARE LIFE INSURANCE COMPANY (7)	101,660.099	6.36%
Putnam VT Small Cap Growth Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	447,905.424	53.60%
IA	TALCOTT RESOLUTION LIFE (25)	387,662.492	46.40%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	489,623.314	57.42%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	175,941.641	20.63%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	68,362.784	8.02%
IB	TALCOTT RESOLUTION LIFE (25)	53,408.468	6.26%
Putnam VT Small Cap Value Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,793,653.485	46.70%
IA	TALCOTT RESOLUTION LIFE (25)	1,764,339.307	45.94%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	1,864,342.657	23.89%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	1,390,623.505	17.82%
IB	TALCOTT RESOLUTION LIFE (25)	1,059,028.649	13.57%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	867,925.328	11.12%
IB	NORTHBROOK LIFE INSURANCE COMPANY (19)	712,900.544	9.14%

Class	Shareholder Name and Address	Holdings (number of shares)	Percentage Owned (of Class)
Putnam VT Sustainable Future Fund			
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	786,957.618	51.46%
IA	TALCOTT RESOLUTION LIFE (25)	720,659.774	47.13%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	336,175.364	59.79%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	98,196.843	17.46%
IB	DELAWARE LIFE INSURANCE COMPANY (7)	58,987.202	10.49%
IB	TALCOTT RESOLUTION LIFE (25)	28,257.420	5.03%
Putnam VT Sustainable Leaders Fund			
IA	RIVERSOURCE LIFE INSURANCE COMPANY (24)	5,494,669.726	31.00%
IA	TALCOTT RESOLUTION LIFE (25)	4,807,562.868	27.13%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	4,734,648.479	26.72%
IA	TALCOTT RESOLUTION LIFE & ANNUITY (24)	935,263.941	5.28%
IB	ALLSTATE LIFE INSURANCE COMPANY (1)	1,798,943.332	43.70%
IB	RIVERSOURCE LIFE INSURANCE COMPANY (4)	1,031,327.463	25.05%
IB	TALCOTT RESOLUTION LIFE & ANNUITY (24)	485,084.693	11.78%
IB	ALLSTATE LIFE OF NY (2)	209,626.195	5.09%

This page intentionally left blank.

This page intentionally left blank.

This page intentionally left blank.

This page intentionally left blank.

This page intentionally left blank.

Putnam Investments
100 Federal Street
Boston, MA 02110
1-800-225-1581

Address correspondence to
Putnam Investor Services
P.O. Box 8383
Boston, MA 02266-8383
putnam.com