Prospectus and Statement of Additional Information Supplement

January 1, 2024

George Putnam Balanced Fund
Putnam BDC Income ETF
Putnam BioRevolution ETF
Putnam Convertible Securities Fund
Putnam Core Equity Fund
Putnam Dynamic Asset Allocation Balanced Fund
Putnam Dynamic Asset Allocation Equity Fund
Putnam Dynamic Asset Allocation Growth Fund
Putnam Emerging Markets Equity Fund
Putnam Emerging Markets ex-China ETF
Putnam ESG Core Bond ETF
Putnam ESG High Yield ETF
Putnam ESG Ultra Short ETF
Putnam Focused International Equity Fund
Putnam Focused Large Cap Growth ETF
Putnam Global Health Care Fund
Putnam Government Money Market Fund
Putnam High Yield Fund
Putnam Income Fund
Putnam International Capital Opportunities Fund
Putnam International Equity Fund
Putnam Large Cap Growth Fund
Putnam Large Cap Value Fund
Putnam Money Market Fund
Putnam Mortgage Opportunities Fund
Putnam Multi-Asset Income Fund
Putnam Research Fund
Putnam Retirement Advantage 2030 Fund
Putnam Retirement Advantage 2035 Fund
Putnam Retirement Advantage 2065 Fund
Putnam Short Term Investment Fund
Putnam Small Cap Value Fund
Putnam Sustainable Future ETF
Putnam Sustainable Future Fund
Putnam Sustainable Leaders ETF
Putnam Sustainable Leaders Fund
Putnam Sustainable Retirement 2065 Fund
Putnam Sustainable Retirement Maturity 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

On January 1, 2024 (the “Effective Date”), a subsidiary of Franklin Resources, Inc. (“Franklin Resources”) acquired Putnam U.S. Holdings I, LLC (“Putnam Holdings”) in a stock and cash transaction (the “Transaction”). As a result of the Transaction, Putnam Investment Management, LLC (“Putnam Management”), a wholly-owned subsidiary of Putnam

Holdings and the investment manager to the Putnam family of funds (the "Putnam Funds"), Putnam Investments Limited ("PIL"), an indirect, wholly-owned subsidiary of Putnam Holdings and a sub-adviser to certain of the Putnam Funds, and The Putnam Advisory Company, LLC ("PAC"), an indirect, wholly-owned subsidiary of Putnam Holdings and a sub-adviser to certain of the Putnam Funds, became indirect, wholly-owned subsidiaries of Franklin Resources.

Franklin Resources, whose principal executive offices are at One Franklin Parkway, San Mateo, California 94403, is a global investment management organization operating, together with its subsidiaries, as Franklin Templeton. As of November 30, 2023, after giving effect to the Transaction, Franklin Templeton's asset management operations had aggregate assets under management of approximately $1.546 trillion. As a result of the Transaction, Putnam Management, PIL, and PAC will be able to draw on the broader investment resources, including portfolio management, investment research, trading expertise and other capabilities, of Franklin Templeton to the benefit of the Putnam Funds.

Under the Investment Company Act of 1940, as amended (the "1940 Act"), the Transaction resulted in the automatic termination of the investment management contract between each Putnam Fund and Putnam Management and any related sub-advisory contracts that were in place for each Putnam Fund before the Transaction. However, Putnam Management and, where applicable, the Putnam Funds' sub-adviser(s) continue to provide uninterrupted services with respect to the Putnam Funds listed above pursuant to new investment management and sub-advisory contracts that were previously approved by shareholders of each above-listed Putnam Fund at shareholder meetings held in connection with the Transaction. The terms of the new investment management and sub-advisory contracts are substantially similar to those of the previous investment management and sub-advisory contracts.

The Prospectus and Statement of Additional Information for each of the Putnam Funds listed above are amended to reflect the foregoing.

Prospectus

For each Putnam Fund that offers Class Y shares, the following disclosure replaces and supersedes the corresponding bullet point under "The following investors may purchase class Y shares if approved by Putnam" in the "Here is a summary of the differences among the classes of shares" section:

- current and retired employees of Putnam or an affiliate (including affiliates of Franklin Templeton) and their immediate family members (including an employee's spouse, domestic partner, fiancé(e), or other family members who are living in the same household) as well as, in each case, Putnam-offered health savings accounts, IRAs, and other similar tax-advantaged plans solely owned by the foregoing individuals;
- current directors of Putnam Investments, LLC who commenced service prior to January 1, 2024 and retired directors of Putnam Investments, LLC who served prior to January 1, 2024, regardless of when they retired;
- current employees of Empower Life & Annuity Insurance Company who began their employment prior to January 1, 2024 and retired employees of Empower Life & Annuity Insurance Company who were employees prior to January 1, 2024, regardless of when they retired; and current and retired Trustees of the fund. Upon the departure of any member of this group of individuals from Putnam, Empower Life & Annuity Insurance

Company, or the fund's Board of Trustees, the member's class Y shares convert automatically to class A shares, unless the member's departure is a retirement, as determined by Putnam in its discretion for employees and directors of Putnam and employees of Empower Life & Annuity Insurance Company and by the Board of Trustees in its discretion for Trustees; provided that conversion will not take place with respect to class Y shares held by former Putnam employees and their immediate family members in health savings accounts where it is not operationally practicable due to platform or other limitations; and

For each Putnam Fund that offers Class A shares, the following disclosure replaces and supersedes the corresponding bullet point under "Class A shares" in the "Additional reductions and waivers of sales charges" sub-section in the "Here is a summary of the differences among the classes of shares" section:

(i) current and former Trustees of the fund, their family members, business and personal associates; current and former employees of Putnam Management, certain current corporate affiliates (including affiliates of Franklin Templeton), and certain former corporate affiliates, their family members, business and personal associates; employer-sponsored retirement plans for the foregoing; and partnerships, trusts or other entities in which any of the foregoing has a substantial interest;

Statement of Additional Information

The following disclosure replaces and supersedes the corresponding information in the footnote to the table in the sub-section "Trustee responsibilities and fees" in the section "CHARGES AND EXPENSES":

** Trustee who is an "interested person" (as defined in the 1940 Act) of the fund and Putnam Management. Mr. Reynolds is deemed an "interested person" by virtue of his position as an officer of the fund and his direct beneficial interest in shares of Franklin Resources, of which Putnam Management is an indirect wholly-owned subsidiary. Mr. Reynolds is the President of your fund and each of the other Putnam funds, and prior to January 1, 2024, Mr. Reynolds was President and Chief Executive Officer of Putnam Management and Putnam Investments, LLC, the previous parent company to Putnam Management, PIL, and PAC.

For Putnam BDC Income ETF, Putnam BioRevolution ETF, Putnam Dynamic Asset Allocation Equity Fund, Putnam Emerging Markets ex-China ETF, Putnam Focused Large Cap Growth ETF, and Putnam Ultra Short MAC Series, the following disclosure replaces and supersedes the corresponding information included in the "Share Ownership" section:

In light of its share ownership noted below, Putnam U.S. Holdings I, LLC may be deemed to "control" the fund. Putnam U.S. Holdings I, LLC, a Delaware limited liability company, is owned through a series of subsidiaries by Franklin Resources, Inc., a Delaware corporation, whose principal executive offices are at One Franklin Parkway, San Mateo, California 94403.

The sub-section "Putnam Management and its Affiliates" in the section "MANAGEMENT" is deleted in its entirety and replaced with the following:

Putnam Management and its Affiliates

Putnam Management is one of America's oldest money management firms. Putnam Management's staff of experienced portfolio managers and research analysts selects securities and supervises the fund's portfolio on an ongoing basis. By pooling an investor's money with that of other investors, a greater variety of securities can be purchased than would be the case individually; the resulting diversification helps reduce investment risk. Putnam Management has been managing mutual funds since 1937.

Putnam Management is an indirect, wholly-owned subsidiary of Franklin Resources, Inc. ("Franklin Resources"), a Delaware corporation. Franklin Resources, whose principal executive offices are at One Franklin Parkway, San Mateo, California 94403, is a global investment management organization operating, together with its subsidiaries, as Franklin Templeton. As of November 30, 2023, after giving effect to the Transaction, Franklin Templeton's asset management operations had aggregate assets under management of approximately $1.546 trillion.

Certain employees and officers of Franklin Resources and its subsidiaries who engage in investment advisory services may be appointed to serve as officers and/or authorized persons of Putnam Management and/or PAC and, in that capacity, may provide investment research, investment recommendations and other services to Putnam Management and/or PAC from time to time.

Trustees and officers of the fund who are also officers of Putnam Management or its affiliates or who are stockholders of Franklin Resources or its affiliates will benefit from the advisory fees, sales commissions, distribution fees and transfer agency fees paid or allowed by the fund.

The table in the sub-section "Trustees" in the section "MANAGEMENT" is deleted in its entirety and replaced with the following:

Name, Address[1], Year of Birth, Position(s) Held with Fund and Length of Service as a Putnam Fund Trustee	**Principal Occupation(s) During Past 5 Years**	**Number of Funds in the Putnam Funds Complex Overseen by Trustee[3]**	**Other Directorships Held by Trustee**
Liaquat Ahamed (Born 1952), Trustee since 2012	Author; won Pulitzer Prize for *Lords of Finance: The Bankers Who Broke the World.*	105	Chair of the Sun Valley Writers Conference, a literary not-for-profit organization; and a Trustee of the Journal of Philosophy.
Barbara M. Baumann (Born 1955), Trustee since 2010, Vice Chair since 2022	President of Cross Creek Energy Corporation, a strategic consultant to domestic energy firms and direct investor in energy projects.	105	Director of Devon Energy Corporation, a publicly traded independent natural gas and oil exploration and production company; Director of National Fuel Gas Company, a publicly traded energy company that engages in the production, gathering, transportation, distribution and marketing of natural gas; Senior Advisor to the energy private equity firm First Reserve; member of the Finance Committee of the Children's Hospital of Colorado; member of the Investment Committee of the Board of The Denver Foundation; and previously a Director of publicly traded companies Buckeye Partners LP, UNS Energy Corporation, CVR Energy Company, and SM Energy Corporation.
Katinka Domotorffy (Born 1975), Trustee since 2012	Voting member of the Investment Committees of the Anne Ray Foundation and Margaret A. Cargill Foundation, part of the Margaret A. Cargill Philanthropies.	105	Director of the Great Lakes Science Center and of College Now Greater Cleveland.
Catharine Bond Hill (Born 1954), Trustee since 2017	Managing Director of Ithaka S+R, a not-for-profit service that helps the academic community navigate economic and technological change. From 2006 to 2016, Dr. Hill served as the 10th president of Vassar College.	105	Director of Yale-NUS College; and Trustee of Yale University.

Name, Address[1], Year of Birth, Position(s) Held with Fund and Length of Service as a Putnam Fund Trustee	Principal Occupation(s) During Past 5 Years	Number of Funds in the Putnam Funds Complex Overseen by Trustee[3]	Other Directorships Held by Trustee
Kenneth R. Leibler (Born 1949), Trustee since 2006, Vice Chair from 2016 to 2018,Chair since 2018	Vice Chair Emeritus of the Board of Trustees of Beth Israel Deaconess Hospital in Boston. Member of the Investment Committee of the Boston Arts Academy Foundation.	105	Director of Eversource Corporation, which operates New England's largest energy delivery system; previously the Chairman of the Boston Options Exchange, an electronic marketplace for the trading of listed derivatives securities; previously the Chairman and Chief Executive Officer of the Boston Stock Exchange; and previously the President and Chief Operating Officer of the American Stock Exchange.
***Jennifer Williams Murphy** (Born 1964), Trustee since 2022	Chief Executive Officer and Founder of Runa Digital Assets, LLC, an institutional investment advisory firm specializing in active management of digital assets. Until 2021, Chief Operating Officer of Western Asset Management, LLC, a global investment adviser, and Chief Executive Officer and President of Western Asset Mortgage Capital Corporation, a mortgage finance real estate investment trust.	105	Previously, a Director of Western Asset Mortgage Capital Corporation.
Marie Pillai (Born 1954), Trustee since 2022	Senior Advisor, Hunter Street Partners, LP, an asset-oriented private investment firm; Specialty Leader and Member of the Curriculum Committee of the Center for Board Certified Fiduciaries, a public benefit corporation providing coursework for developing fiduciaries. Until 2019, Vice President, Chief Investment Officer and Treasurer of General Mills, Inc., a global food company.	105	Member of the Investment Committee of the Bush Foundation, a non-profit organization supporting community problem-solving in Minnesota, North Dakota and South Dakota; Member of the Finance Council and Corporate Board of the Archdiocese of Saint Paul and Minneapolis; Director of Choice Bank, a private, community bank based in North Dakota; previously a Board Member of Catholic Charities of St. Paul and Minneapolis; former Director of the Catholic Community Foundation of Minnesota; and former Investment Advisory Board Member of the University of Minnesota.

Name, Address[1], Year of Birth, Position(s) Held with Fund and Length of Service as a Putnam Fund Trustee	Principal Occupation(s) During Past 5 Years	Number of Funds in the Putnam Funds Complex Overseen by Trustee[3]	Other Directorships Held by Trustee
George Putnam III (Born 1951), Trustee since 1984	Chair of New Generation Research, Inc., a publisher of financial advisory and other research services, and President of New Generation Advisors, LLC, a registered investment adviser to private funds.	105	Director of The Boston Family Office, LLC, a registered investment adviser; a Director of the Gloucester Marine Genomics Institute; a Trustee of the Lowell Observatory Foundation; and previously a Trustee of the Marine Biological Laboratory.
Manoj P. Singh (Born 1952), Trustee since 2017	Until 2015, Chief Operating Officer and Global Managing Director at Deloitte Touche Tohmatsu, Ltd., a global professional services organization, serving on the Deloitte U.S. Board of Directors and the boards of Deloitte member firms in China, Mexico and Southeast Asia.	105	Director of ReNew Energy Global Plc, a publicly traded renewable energy company; Director of Abt Associates, a global research firm working in the fields of health, social and environmental policy, and international development; Trustee of Carnegie Mellon University; Director of Pratham USA, an organization dedicated to children's education in India; member of the advisory board of Altimetrik, a business transformation and technology solutions firm; and Director of DXC Technology, a global IT services and consulting company.
Mona K. Sutphen (Born 1967), Trustee since 2020	Partner, Investment Strategies at The Vistria Group, a private investment firm focused on middle-market companies in the healthcare, education, and financial services industries. From 2014 to 2018, Partner at Macro Advisory Partners, a global consulting firm.	105	Director of Spotify Technology S.A., a publicly traded audio content streaming service; Director of Unitek Learning, a private nursing and medical services education provider in the United States; Board Member, International Rescue Committee; Co-Chair of the Board of Human Rights First; Trustee of Mount Holyoke College; member of the Advisory Board for the Center on Global Energy Policy at Columbia University's School of International and Public Affairs; previously Director of Pattern Energy and Pioneer Natural Resources, publicly traded energy companies; and previously Managing Director of UBS AG.

Name, Address[1], Year of Birth, Position(s) Held with Fund and Length of Service as a Putnam Fund Trustee	Principal Occupation(s) During Past 5 Years	Number of Funds in the Putnam Funds Complex Overseen by Trustee[3]	Other Directorships Held by Trustee
Interested Trustees			
****Robert L. Reynolds** (Born 1952), Trustee since 2008	Chair of Great-West Lifeco U.S. LLC. Prior to 2019, also President and Chief Executive Officer of Great-West Financial, a financial services company that provides retirement savings plans, life insurance, and annuity and executive benefits products, and of Great-West Lifeco U.S. LLC, a holding company that owns Putnam Investments and Great-West Financial, and a member of Great-West Financial's Board of Directors. Until 2023, President and Chief Executive Officer of Putnam Investments, President and Chief Executive Officer of Putnam Management, and member of Putnam Investments' Board of Directors.	105	Director of the Concord Museum; Director of Dana-Farber Cancer Institute; Director of the U.S. Ski & Snowboard Foundation; Chair of the Boston Advisory Board of the American Ireland Fund; Council Co-Chair of the American Enterprise Institute; Member of U.S. Chamber of Commerce, Center for Capital Markets Competitiveness; Chair of Massachusetts High Technology Council; Member of the Chief Executives Club of Boston; Member of the Massachusetts General Hospital President's Council; Chairman of the Board of Directors of the Ron Burton Training Village; Director and former Chair of the Massachusetts Competitive Partnership; former Chair of the West Virginia University Foundation; and former Executive Committee Member of the Greater Boston Chamber of Commerce.

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

2 Each Trustee serves for an indefinite term, until his or her resignation, retirement during the year he or she reaches age 75, death or removal.

3 The Putnam funds complex is composed of the Putnam mutual funds, closed-end funds, and exchange-traded funds. As of December 31, 2023, there were 89 mutual funds, 4 closed-end funds and 12 exchange-traded funds. Each Trustee listed in the table above serves as Trustee of each fund in the Putnam funds complex.

* Ms. 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 October 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 upon request 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. With regard to Ms. Murphy, the relationships described above may give rise to a potential conflict of interest with respect to the Funds.

** Trustee who is an "interested person" (as defined in the 1940 Act) of the fund and Putnam Management. Mr. Reynolds is deemed an "interested person" by virtue of his position as an officer of the fund and his direct beneficial interest in shares of Franklin Resources, of which Putnam Management is an indirect wholly-owned subsidiary. Mr. Reynolds is the President of your fund and each of the other Putnam funds, and prior to January 1, 2024, Mr. Reynolds was President and Chief Executive Officer of Putnam Management and Putnam Investments, LLC, the previous parent company to Putnam Management, PIL, and PAC.

The "Interested Trustee" portion of the sub-section "Trustee Qualifications" in the section "MANAGEMENT" is deleted in its entirety and replaced with the following:

Interested Trustee

Robert L. Reynolds — Mr. Reynolds's extensive experience as a senior executive of a major mutual fund organization in the United States and his previous role as President and Chief Executive Officer of Putnam Management and Putnam Investments, LLC, the previous parent company to Putnam Management, PIL, and PAC.

The sub-section "Officers" in the section "MANAGEMENT" is deleted in its entirety and replaced with the following:

Officers

The other officers of the fund, in addition to Robert L. Reynolds, the fund's President, are shown below. All of the officers of your fund listed below are employees of Putnam Management or its affiliates or are members of the Trustees' independent administrative staff.

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]
Jonathan S. Horwitz[4] (Born 1955) Executive Vice President, Principal Executive Officer, and Compliance Liaison	Since 2004	Executive Vice President, Principal Executive Officer, and Compliance Liaison, The Putnam Funds.
Stephen J. Tate (Born 1974) Vice President and Chief Legal Officer	Since 2021	General Counsel, Putnam U.S. Holdings I, LLC ("Putnam Holdings"), 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. Clark[3] (Born 1974) Vice President and Chief Compliance Officer	Since 2016	Chief Compliance Officer, Putnam Holdings and Putnam Management (2016–Present). Associate General Counsel, Putnam Investments, Putnam Management and Putnam Retail Management (2003–2015).
Michael J. Higgins[4] (Born 1976) Vice President, Treasurer, and Clerk	Since 2010	Vice President, Treasurer, and Clerk, The Putnam Funds.
Kevin R. Blatchford (Born 1967) Vice President and Assistant Treasurer	Since 2023	Director, Financial Reporting, Putnam Holdings
Kelley Hunt (Born 1984) AML Compliance Officer	Since 2023	Manager, U.S. Financial Crime team, Franklin Templeton

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]
Janet C. Smith (Born 1965) Vice President, Principal Financial Officer, Principal Accounting Officer, and Assistant Treasurer	Since 2007	Head of Fund Administration Services, Putnam Holdings and Putnam Management.
Alan G. McCormack[5] (Born 1964) Vice President and Derivatives Risk Manager	Since 2022	Head of Quantitative Equities and Risk, Putnam Management.
Martin Lemaire[5] (Born 1984) Vice President and Derivatives Risk Manager	Since 2022	Risk Manager, Putnam Management (2020–Present). Risk Analyst, Putnam Management (2016–2020).
Denere P. Poulack[4] (Born 1968) Assistant Vice President, Assistant Clerk, and Assistant Treasurer	Since 2004	Assistant Vice President, Assistant Clerk, and Assistant Treasurer, The Putnam Funds.

1 The address of each Officer, other than Ms. Hunt, is 100 Federal Street, Boston, MA 02110. Ms. Hunt's address is 100 Fountain Parkway, St. Petersburg, FL 33716.

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 fund or the fund's 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.

Except as stated above, the principal occupations of the officers and Trustees for the last five years have been with the employers as shown above, although in some cases they have held different positions with their employers.

The sub-section "Principal Underwriter" in the section "MANAGEMENT" is deleted in its entirety and replaced with the following:

Putnam Retail Management, located at 100 Federal Street, Boston, MA 02110, is the principal underwriter of shares of the fund and the other continuously offered Putnam Funds. Putnam Retail Management is a wholly-owned subsidiary of Franklin Resources. Putnam Retail Management is not obligated to sell any specific amount of shares of the fund and will purchase shares for resale only against orders for shares. See "Charges and expenses" in Part I of this SAI for information on sales charges and other payments received by Putnam Retail Management.

Shareholders should retain this Supplement for future reference.

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Prospectus Supplement

June 26, 2023

George Putnam Balanced Fund
Putnam BDC Income ETF
Putnam BioRevolution ETF
Putnam California Tax Exempt Income Fund
Putnam Convertible Securities Fund
Putnam Core Bond 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 Emerging Markets Equity Fund
Putnam Emerging Markets ex-China ETF
Putnam ESG Core Bond ETF
Putnam ESG High Yield ETF
Putnam ESG Ultra Short ETF
Putnam Floating Rate Income Fund
Putnam Focused Equity Fund
Putnam Focused International Equity Fund
Putnam Focused Large Cap Growth ETF
Putnam Focused Large Cap Value ETF
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 International Capital Opportunities Fund
Putnam International Equity Fund
Putnam International Value Fund
Putnam Large Cap Growth 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 PanAgora ESG Emerging Markets Equity ETF
Putnam PanAgora ESG International Equity ETF
Putnam Pennsylvania Tax Exempt Income Fund
Putnam Research Fund
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 Short Duration Bond Fund
Putnam Short Term Investment Fund
Putnam Short-Term Municipal Income Fund
Putnam Small Cap Growth Fund
Putnam Small Cap Value Fund
Putnam Strategic Intermediate Municipal Fund
Putnam Sustainable Future ETF
Putnam Sustainable Future Fund
Putnam Sustainable Leaders ETF
Putnam Sustainable Leaders 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
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

This supplement replaces in its entirety the supplement to the Funds' prospectuses dated May 31, 2023.

On May 31, 2023, Franklin Resources, Inc. ("Franklin Resources") and Great-West Lifeco Inc., the parent company of Putnam U.S. Holdings I, LLC ("Putnam Holdings"), announced that they have entered into a definitive agreement for a subsidiary of Franklin Resources to acquire Putnam Holdings in a stock and cash transaction.

As part of this transaction, Putnam Investment Management, LLC ("Putnam Management"), a wholly owned subsidiary of Putnam Holdings and investment manager to the Putnam family of funds (the "Putnam Funds"), would become an indirect wholly owned subsidiary of Franklin Resources.

The transaction is subject to customary closing conditions, including receipt of applicable regulatory approvals. Subject to such approvals and the satisfaction of these conditions, the transaction is currently expected to be consummated in the fourth quarter of 2023.

Under the Investment Company Act of 1940, as amended, consummation of the transaction will result in the automatic termination of the investment management contract between each Putnam Fund and Putnam Management and any related sub-management and sub-advisory contracts, where applicable. In anticipation of this automatic termination, on June 23, 2023, the Board of Trustees of the Putnam Funds approved a new investment management contract between each Putnam Fund and Putnam Management (and new sub-management and sub-advisory contracts, if applicable), which will be presented to the shareholders of each Putnam Fund for their approval at shareholder meetings currently expected to occur in October 2023. Proxy solicitation materials related to these meetings, which will provide detailed information regarding the proposed transaction, are expected to be mailed to shareholders in the coming weeks.

The foregoing is not a solicitation of any proxy. For more information regarding the funds, or to receive a free copy of materials filed with the Securities and Exchange Commission ("SEC"), please visit Putnam's website at putnam.com/individual. Free copies of these materials can also be found on the SEC's website at http://www.sec.gov. Please read the funds' proxy statement carefully when it becomes available in the coming weeks because it will contain important information. The funds, their trustees, officers, and other members of management may be deemed to be participants in any future solicitation of the funds' shareholders in connection with the forthcoming meeting of shareholders. Shareholders may obtain information regarding the names, affiliations, and interests of these individuals in the funds' proxy statement when it becomes available.

Shareholders should retain this Supplement for future reference.

Putnam VT Diversified Income Fund

Prospectus
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FUND SYMBOLS	CLASS IA	CLASS IB
	—	—

This prospectus explains what you should know about Putnam VT Diversified Income Fund, one of the funds of Putnam Variable Trust, which is available for purchase by separate accounts of insurance companies. Please read it carefully. Certain shares of other funds of the Trust are offered through other prospectuses.

Fund summary

Goal

Putnam VT Diversified Income Fund seeks as high a level of current income as Putnam Investment Management, LLC believes is consistent with preservation of capital.

Fees and expenses

The following table describes the fees and expenses you may pay if you buy, hold and sell shares of the fund. You may pay other fees, such as brokerage commissions and other fees to financial intermediaries, which are not reflected in the tables and examples below. The fees and expenses information does not reflect insurance-related charges or expenses borne by contract holders indirectly investing in the fund. If it did, expenses would be higher.

Annual fund operating expenses

(expenses you pay each year as a percentage of the value of your investment)

Share class	Management fees	Distribution and service (12b-1) fees	Other expenses*	Total annual fund operating expenses	Expense reimbursement#	Total annual fund operating expenses after expense reimbursement
Class IA	0.54%	N/A	0.30%	0.84%	(0.02)%	0.82%
Class IB	0.54%	0.25%	0.30%	1.09%	(0.02)%	1.07%

* Restated to reflect current fees.

Reflects Putnam Investment Management, LLC's contractual obligation to limit certain fund expenses through 4/30/24. This obligation may be modified or discontinued only with approval of the fund's Board of Trustees.

Example

The following hypothetical example is intended to help you compare the cost of investing in the fund with the cost of investing in other funds. The example does not reflect insurance-related charges or expenses. If it did, expenses would be higher. It assumes that you invest $10,000 in the fund for the time periods indicated and then redeem or hold all your shares at the end of those periods. It assumes a 5% return on your investment each year and that the fund's operating expenses remain the same. Your actual costs may be higher or lower.

Share class	1 year	3 years	5 years	10 years
Class IA	$84	$266	$464	$1,035
Class IB	$109	$345	$599	$1,327

Portfolio turnover

The fund pays transaction-related costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher turnover rate may indicate higher transaction costs. These costs, which are not reflected in annual fund operating expenses or the above example, affect fund performance. The fund's turnover rate in the most recent fiscal year was 1,417%.

Investments, risks, and performance

Investments

We invest mainly in bonds that are securitized debt instruments (such as mortgage-backed investments) and related derivative instruments, and other obligations of companies and governments worldwide, including bank loans, that are either investment-grade or below-investment-grade in quality (sometimes referred to as "junk bonds") and have intermediate- to long-term maturities (three years or longer). The fund currently has significant investment exposure to residential and commercial mortgage-backed securities.

We may consider, among other factors, credit, interest rate and prepayment risks, as well as general market conditions, when deciding whether to buy or sell investments. We typically use to a significant extent derivatives, including credit default swaps, interest rate swaps, total return swaps, to-be-announced (TBA) commitments, futures, options and swaptions on mortgage-backed securities and indices, and certain foreign currency transactions and credit default, total return and interest rate swap contracts for both hedging and non-hedging purposes, including to obtain or adjust exposure to mortgage-backed investments.

Risks

It is important to understand that you can lose money by investing in the fund.

The value of investments in the fund's portfolio may fall or fail to rise over extended periods of time for a variety of reasons, including general economic, political or financial market conditions, investor sentiment and market perceptions, government actions, geopolitical events or changes, outbreaks or infectious illnesses or other widespread public health issues, and factors related to a specific issuer, geography, industry or sector. These and other factors may lead to increased volatility and reduced liquidity in the fund's portfolio holdings, may negatively impact the fund's performance, and may exacerbate other risks to which the fund is subject.

The risks associated with bond investments include interest rate risk, which is the risk that the value of the fund's investments is likely to fall if interest rates rise. Bond investments are also subject to credit risk, which is the risk that the issuer of a bond may default on payment of interest or principal. Bond investments may be more susceptible to downgrades or defaults during economic downturns or other periods of economic stress. Interest rate risk is generally greater for longer-term bonds, and credit risk is generally greater for below-investment-grade bonds (a significant part of the fund's investments), which can be more sensitive to changes in markets, credit conditions, and interest rates and may be considered speculative.

Mortgage-backed investments, unlike traditional debt investments, are also subject to prepayment risk, which means that they may increase in value less than other bonds when interest rates decline and decline in value more than other bonds when interest rates rise. We may have to invest the proceeds from prepaid investments, including mortgage-backed investments, in other investments with less attractive terms and yields. The fund's investments in mortgage-backed securities, and in certain other securities and derivatives, may be or become illiquid. The fund currently has significant investment exposure to privately issued residential and commercial mortgage-backed securities and mortgage-backed securities issued or guaranteed by the U.S. government or its agencies or instrumentalities, which may make the fund's net asset value more susceptible to economic, market, political and other developments affecting the residential and commercial real estate markets and the servicing of mortgage loans secured by real estate properties. During periods of difficult economic conditions, delinquencies and losses on commercial mortgage-backed investments in particular generally increase, including as a result of the effects of those conditions on commercial real estate markets, the ability of commercial tenants to make loan payments, and the ability of a property to attract and retain commercial tenants.

The value of international investments traded in foreign currencies may be adversely impacted by fluctuations in exchange rates. International investments, particularly investments in emerging markets, may carry risks associated with potentially less stable economies or governments (such as the risk of seizure by a foreign government, the imposition of currency or other restrictions, or high levels of inflation), and may be or become illiquid.

Our use of derivatives may increase the risks of investing in the fund by increasing investment exposure (which may be considered leverage) or, in the case of many over-the-counter instruments, because of the potential inability to terminate or sell derivative positions and the potential failure of the other party to the instrument to meet its obligations. The risk of a party failing to meet its obligations may increase if the fund has significant exposure to that counterparty. The value of derivatives may move in unexpected ways due to unanticipated market movements, the use of leverage, imperfect correlation between the derivative instrument and the reference asset or other factors, especially in unusual market conditions, and volatility in the value of derivatives could adversely impact the fund's returns, obligations and exposures. Derivatives are also subject to other risks, including liquidity risk (e.g., liquidity demands arising from the requirement to make payments to a derivative counterparty), operational risk (e.g., settlement issues or system failures) and legal risk (e.g., insufficient legal documentation or contract enforceability issues).

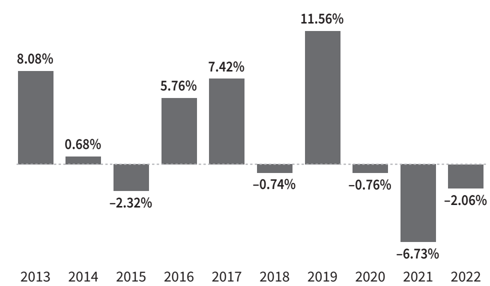
There is no guarantee that the investment techniques, analyses, or judgments that we apply in making investment decisions for the fund will produce the intended outcome or that the investments we select for the fund will perform as well as other securities that were not selected for the fund. We, or the fund's other service providers, may experience disruptions or operating errors that could negatively impact the fund.

The fund may not achieve its goal, and it is not intended to be a complete investment program. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency.

Performance

The performance information below gives some indication of the risks associated with an investment in the fund by showing the fund's performance year to year and over time. The performance information does not reflect insurance-related charges or expenses. If it did, performance would be lower. Please remember that past performance is not necessarily an indication of future results.

Annual total returns for class IA shares



Year-to-date performance **through 3/31/23**	0.01%
Best calendar quarter **Q2 2020**	6.80%
Worst calendar quarter **Q1 2020**	−12.79%

Average annual total returns
(for periods ended 12/31/22)

Share class	1 year	5 years	10 years
Class IA	–2.06%	0.08%	1.94%
Class IB	–2.35%	–0.17%	1.70%
ICE BofA U.S. Treasury Bill Index (no deduction for fees, expenses or taxes)	1.33%	1.27%	0.77%
Bloomberg U.S. Aggregate Bond Index (no deduction for fees, expenses or taxes)	–13.01%	0.02%	1.06%

ICE BofA Indexes: ICE Data Indices, LLC ("ICE BofA"), used with permission. ICE BofA permits use of the ICE BofA indices and related data on an "as is" basis; makes no warranties regarding same; does not guarantee the suitability, quality, accuracy, timeliness, and/or completeness of the ICE BofA indices or any data included in, related to, or derived therefrom; assumes no liability in connection with the use of the foregoing; and does not sponsor, endorse, or recommend Putnam Investments, or any of its products or services.

All Bloomberg indices are provided by Bloomberg Index Services Limited.

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Your fund's management

Investment advisor

Putnam Investment Management, LLC

Portfolio managers

Michael Salm, Chief Investment Officer, Fixed Income, portfolio manager of the fund since 2011

Albert Chan, Head of Portfolio Construction, portfolio manager of the fund since 2020

Robert Davis, Portfolio Manager, portfolio manager of the fund since 2017

Brett Kozlowski, Co-Head of Structured Credit, portfolio manager of the fund since 2017

Robert Salvin, Head of Corporate and Tax-exempt Credit, portfolio manager of the fund since 2022

Sub-advisor

Putnam Investments Limited*

* Though the investment advisor has retained the services of Putnam Investments Limited (PIL), PIL does not currently manage any assets of the fund.

Purchase and sale of fund shares

Fund shares are offered to separate accounts of various insurers. The fund requires no minimum investment, but insurers may require minimum investments from those purchasing variable insurance products for which the fund is an underlying investment option. Insurers may purchase or sell shares on behalf of separate accounts by submitting an order to Putnam Retail Management any day the New York Stock Exchange (NYSE) is open. Some restrictions may apply.

Tax information

Generally, owners of variable insurance contracts are not taxed currently on income or gains realized with respect to such contracts. However, some distributions from such contracts may be taxable at ordinary income tax rates and distributions to contract owners younger than 59½ may be subject to a 10% penalty tax. For more information, please see the prospectus (or other offering document) for your variable insurance contract.

Payments to insurance companies

The fund is offered as an underlying investment option for variable insurance contracts. The fund and its related companies may make payments to the sponsoring insurance company (or its affiliates) and dealers for distribution and/or other services. These payments may create an incentive for the insurance company to include the fund, rather than another investment, as an option in its products and may create a conflict of interest for dealers in recommending the fund over another investment. The prospectus (or other offering document) for your variable insurance contract may contain additional information about these payments.

What are the fund's main investment strategies and related risks?

This section contains greater detail on the fund's main investment strategies and the related risks you would face as a fund shareholder. It is important to keep in mind that risk and reward generally go hand in hand; the higher the potential reward, the greater the risk.

As mentioned in the fund summary, we pursue the fund's goal by investing mainly in assignments of and participations in fixed and floating rate bank loans, bonds and securitized debt instruments from multiple sectors, including the U.S. and investment-grade sectors, the high yield sector, and the international sector. Under normal market conditions, we invest 15%–65% of the fund's net assets in each of (a) the U.S. and investment-grade sectors, including U.S. government securities and investment-grade bonds of U.S. companies; (b) the high yield sector, including lower-rated bonds of U.S. companies; and (c) the international sector, including bonds of foreign governments and companies, and including both investment-grade and lower-rated securities. We will not invest less than 15% of the fund's net assets in U.S. government securities.

- **Foreign investments.** We consider any securities issued by a foreign government or a supranational organization (such as the World Bank) or denominated in a foreign currency to be securities of a foreign issuer. In addition, we consider an issuer to be a foreign issuer if we determine that (i) the issuer is headquartered or organized outside the United States, (ii) the issuer's securities trade in a market outside the United States, (iii) the issuer derives a majority of its revenues or profits outside the United States, or (iv) the issuer is significantly exposed to the economic fortunes and risks of regions outside the United States.

  Foreign investments involve certain special risks, including:

  – Unfavorable changes in currency exchange rates: Foreign investments are typically issued and traded in foreign currencies. As a result, their values may be affected by changes in exchange rates between foreign currencies and the U.S. dollar.

  – Political and economic developments: Foreign investments may be subject to the risks of seizure by a foreign government, direct or indirect impact of sovereign debt default, imposition of economic sanctions, tariffs, trade restrictions, currency restrictions or similar actions (or retaliatory measures taken in response to such actions), and tax increases.

  – Unreliable or untimely information: There may be less information publicly available about a foreign company than about most publicly-traded U.S. companies, and foreign companies are usually not subject to accounting, auditing and financial reporting standards and practices as stringent as those in the United States. Foreign securities may trade on markets that are closed when U.S. markets are open. As a result, accurate pricing information based on foreign market prices may not always be available.

– Limited legal recourse: Legal remedies for investors may be more limited than the remedies available in the United States.

– Limited markets: Certain foreign investments may be less liquid (harder to buy and sell) and more volatile than most U.S. investments, which means we may at times be unable to sell these foreign investments at desirable prices. In addition, there may be limited or no markets for bonds of issuers that become distressed. For the same reason, we may at times find it difficult to value the fund's foreign investments.

– Trading practices: Brokerage commissions and other fees are generally higher for foreign investments than for U.S. investments. The procedures and rules governing foreign transactions and custody may also involve delays in payment, delivery or recovery of money or investments.

– Sovereign issuers: The willingness and ability of sovereign issuers to pay principal and interest on government securities depends on various economic factors, including the issuer's balance of payments, overall debt level, and cash flow from tax or other revenues. In addition, there may be no legal recourse for investors in the event of default by a sovereign government.

The risks of foreign investments are typically increased in countries with less developed markets, which are sometimes referred to as emerging markets. Emerging markets may have less developed economies and legal and regulatory systems, and may be susceptible to greater political and economic instability than developed foreign markets. Countries with emerging markets are also more likely to experience high levels of inflation, or currency devaluation, and investments in emerging markets may be more volatile and less liquid than investments in developed markets. For these and other reasons, investments in emerging markets are often considered speculative.

Certain risks related to foreign investments may also apply to some extent to U.S.-traded investments that are denominated in foreign currencies, investments in U.S. companies that are traded in foreign markets, or investments in U.S. companies that have significant foreign operations.

- **Interest rate risk.** The values of bonds and other debt instruments usually rise and fall in response to changes in interest rates. Interest rates can change in response to the supply and demand for credit, government and/or central bank monetary policy and action, inflation rates, and other factors. Declining interest rates generally result in an increase in the value of existing debt instruments, and rising interest rates generally result in a decrease in the value of existing debt instruments. Changes in a debt instrument's value usually will not affect the amount of interest income paid to the fund, but will affect the value of the fund's shares. Interest rate risk is generally greater for investments with longer maturities.

  Some investments give the issuer the option to call or redeem an investment before its maturity date. If an issuer calls or redeems an investment during a time of declining interest rates, we might have to reinvest the proceeds in an investment offering a lower yield, and, therefore, the fund might not benefit from any increase in value as a result of declining interest rates.

- **Credit risk.** Investors normally expect to be compensated in proportion to the risk they are assuming. Thus, debt of issuers with poor credit prospects usually offers higher yields than debt of issuers with more secure credit. Higher-rated investments generally have lower credit risk.

  We may invest up to 70% of the fund's total assets in higher-yield, higher-risk debt investments that are rated below BBB or its equivalent at the time of purchase by each nationally recognized securities rating agency rating such investments, or in unrated investments that we believe are of comparable quality. We may invest up to 5% of the fund's total assets in debt investments rated below CCC or its equivalent, at the time of purchase, by each rating agency rating such investments, or in unrated investments that we believe are of comparable quality. This includes investments in the lowest rating category of the rating agency. We will not necessarily sell an investment if its rating is reduced after buying it.

  Investments rated below BBB or its equivalent are below investment-grade in quality (sometimes referred to as "junk bonds"). This rating reflects a greater possibility that the issuers may be unable to make timely payments of interest and principal and thus default. If a default occurs, or is perceived as likely to occur, the value of the investment will usually be more volatile and could decrease. The value of a debt instrument may also be affected by changes in, or perceptions of, the financial condition of the issuer, borrower, counterparty, or other entity, or underlying collateral or assets, or changes in, or perceptions of, specific or general market, economic, industry, political, regulatory, geopolitical, environmental, public health, and other conditions. A default or expected default could also make it difficult for us to sell the investment at a price approximating the value we had previously placed on it. Lower-rated debt usually has a more limited market than higher-rated debt, which may at times make it difficult for us to buy or sell certain debt instruments or to establish their fair values. Credit risk is generally greater for zero-coupon bonds and other investments that are issued at less than their face value and that are required to make interest payments only at maturity rather than at intervals during the life of the investment.

  Credit ratings are based largely on the issuer's historical financial condition and the rating agencies' investment analysis at the time of rating. The rating assigned to any particular investment does not necessarily reflect the issuer's current financial condition and does not reflect an assessment of the investment's volatility or liquidity. Although we consider credit ratings in making investment decisions, we perform our own investment analysis and do not rely only on ratings assigned by the rating agencies. Our success in achieving the fund's goal may depend more on our own credit analysis when we buy lower-rated debt than when we buy investment-grade debt. We may have to participate in legal proceedings involving the issuer. This could increase the fund's operating expenses and decrease its net asset value.

Although investment-grade investments generally have lower credit risk, they may share some of the risks of lower-rated investments. U.S. government investments generally have the least credit risk, but are not completely free of credit risk. While some investments, such as U.S. Treasury obligations and Ginnie Mae certificates, are backed by the full faith and credit of the U.S. government, others are backed only by the credit of the issuer. Mortgage-backed securities may be subject to the risk that underlying borrowers will be unable to meet their obligations.

Bond investments may be more susceptible to downgrades or defaults during economic downturns or other periods of economic stress, which can significantly strain the financial resources of debt issuers, including the issuers of the bonds in which the fund invests (or has exposure to). This may make it less likely that those issuers can meet their financial obligations when due and may adversely impact the value of their bonds, which could negatively impact the performance of the fund. It is difficult to predict the level of financial stress and duration of such stress issuers may experience.

- **Prepayment risk.** Traditional debt investments typically pay a fixed rate of interest until maturity, when the entire principal amount is due. In contrast, payments on securitized debt instruments, including mortgage-backed and asset-backed investments, typically include both interest and partial payment of principal. Principal may also be prepaid voluntarily or as a result of refinancing or foreclosure. We may have to invest the proceeds from prepaid investments in other investments with less attractive terms and yields.

  Compared to debt that cannot be prepaid, mortgage-backed investments are less likely to increase in value during periods of declining interest rates and have a higher risk of decline in value during periods of rising interest rates. These investments may increase the volatility of the fund. Some mortgage-backed investments receive only the interest portion or the principal portion of payments on the underlying mortgages. The yields and values of these investments are extremely sensitive to changes in interest rates and in the rate of principal payments on the underlying mortgages. The market for these investments may be volatile and limited, which may make them difficult to buy or sell. Asset-backed securities are structured like mortgage-backed securities, but instead of mortgage loans or interests in mortgage loans, the underlying assets may include such items as motor vehicle installment sales or installment loan contracts, leases of various types of real and personal property and receivables from credit card agreements. Asset-backed securities are subject to risks similar to those of mortgage-backed securities.

- **Derivatives.** We may engage to a significant extent in a variety of transactions involving derivatives, such as credit default swaps, interest rate swaps, total return swaps, to-be-announced (TBA) commitments, futures, options and swaptions on mortgage-backed securities and indices, certain foreign currency transactions, credit default, total return and interest rate swap contracts, including to obtain or adjust exposure to commercial and residential mortgage-backed instruments.

  Derivatives are financial instruments whose value depends upon, or is derived from, the value of something else, such as one or more underlying investments, pools of investments, indexes or currencies. We may make use of "short" derivative positions, the values of which typically move in the opposite direction from the price of the underlying investment, pool of investments, index or currency. We may use derivatives both for hedging and non-hedging purposes. For example, we may use derivatives to increase or decrease the fund's exposure to long- or short-term interest rates (in the United States or abroad), increase or decrease the fund's exposure to inflation, adjust the term of the fund's U.S. Treasury security exposure, adjust the fund's positioning on the yield curve (a line that plots interest rates of bonds having equal credit quality but differing maturity dates) or to take tactical positions along the yield curve or to a particular currency or group of currencies, or as a substitute for a direct investment in the securities of one or more issuers. The fund may also use derivatives to isolate prepayment risk associated with the fund's holdings of collateralized mortgage obligations. However, we may also choose not to use derivatives based on our evaluation of market conditions or the availability of suitable derivatives. Investments in derivatives may be applied toward meeting a requirement to invest in a particular kind of investment if the derivatives have economic characteristics similar to that investment.

  Derivatives involve special risks and may result in losses. The successful use of derivatives depends on our ability to manage these sophisticated instruments. Some derivatives are "leveraged," which means they provide the fund with investment exposure greater than the value of the fund's investment in the derivatives. As a result, these derivatives may magnify or otherwise increase investment losses to the fund. The risk of loss from certain short derivative positions is theoretically unlimited. The value of derivatives may move in unexpected ways due to unanticipated market movements, the use of leverage, imperfect correlation between the derivative instrument and the reference asset or other factors, especially in unusual market conditions, and volatility in the value of derivatives could adversely impact the fund's returns, obligations and exposures.

  Other risks arise from the potential inability to terminate or sell derivative positions. Derivatives may be subject the fund to liquidity risk due to the fund's obligation to make payments of margin, collateral, or settlement payments to counterparties. A liquid secondary market may not always exist for the fund's derivative positions. In fact, certain over-the-counter instruments (investments not traded on an exchange) may not be liquid. Over-the-counter instruments also involve the risk that the other party to the derivative transaction may not be willing or able to meet its obligations with respect to the derivative transaction. The risk of a party failing to meet its obligations may increase if the fund has significant exposure to that counterparty. Derivative transactions may also be subject to operational risk, including due to documentation and settlement issues, system failures, inadequate controls and human error, and legal risk due to insufficient documentation, insufficient capacity or authority of a counterparty, or issues with respect to the legality or enforceability of the derivative contract. For further information about additional types and risks of derivatives, see *Miscellaneous Investments, Investment Practices and Risks* in the SAI.

- **Floating rate loans.** Floating rate loans are debt obligations with interest rates that adjust or "float" periodically (normally on a monthly or quarterly basis) based on a generally recognized base rate, such as the London Inter-Bank Offered Rate or the prime rate offered by one or more major U.S. banks. While most floating rate loans are below-investment-grade in quality, many also are senior in rank in the event of bankruptcy to most other securities of the borrower, such as common stock or public bonds. Floating rate loans are also normally secured by specific collateral or assets of the borrower so that the holders of the loans will have a priority claim on those assets in the event of default or bankruptcy of the issuer.

  Floating rate loans generally are less sensitive to interest rate changes than obligations with fixed interest rates but may decline in value if their interest rates do not rise as much, or as quickly, as interest rates in general. Conversely, floating rate instruments will not generally increase in value if interest rates decline. Changes in interest rates will also affect the amount of interest income the fund earns on its floating rate investments. Most floating rate loans allow for prepayment of principal without penalty. If a borrower prepays a loan, we might have to reinvest the proceeds in an investment that may have lower yields than the yield on the prepaid loan or might not be able to take advantage of potential gains from increases in the credit quality of the issuer.

  The value of collateral, if any, securing a floating rate loan can decline, and may be insufficient to meet the borrower's obligations or difficult to liquidate. In addition, the fund's access to collateral may be limited by bankruptcy or other insolvency proceedings. Floating rate loans may not be fully collateralized and may decline in value. Loans may not be considered "securities," and it is possible that the fund may not be entitled to rely on anti-fraud and other protections under the federal securities laws when it purchases loans.

  Although the market for the types of floating rate loans in which the fund invests has become increasingly liquid over time, this market is still developing, and there can be no assurance that adverse developments with respect to this market or particular borrowers will not prevent the fund from selling these loans at their market values when we consider such a sale desirable. In addition, the settlement period (the period between the execution of the trade and the delivery of cash to the purchaser) for floating rate loan transactions may be significantly longer than the settlement period for other investments, and in some cases longer than seven days. Requirements to obtain consent of borrower and/or agent can delay or impede the fund's ability to sell the floating rate loans and can adversely affect the price that can be obtained. It is possible that sale proceeds from floating rate loan transactions will not be available to meet redemption obligations.

- **Liquidity and illiquid investments.** We may invest up to 15% of the fund's net assets in illiquid investments, which may be considered speculative and which may be difficult to sell. The sale of many of these investments is prohibited or limited by law or contract. Some investments may be difficult to value for purposes of determining the fund's net asset value. Certain other investments may not have an active trading market due to adverse market, economic, industry, political, regulatory, geopolitical, environmental, public health, and other conditions, including investors trying to sell large quantities of a particular investment or type of investment, or lack of market makers or other buyers for a particular investment or type of investment. Commercial mortgage-backed securities may be less liquid and exhibit greater price volatility than other types of mortgage- or asset-backed securities. We may not be able to sell the fund's illiquid investments when we consider it desirable to do so, or we may be able to sell them only at less than their value.

- **Focused investment risk.** Focusing investments in sectors and industries with high positive correlations to one another creates additional risk. The fund currently has significant investment exposure to private issuers of residential and commercial mortgage-backed securities and mortgage-backed securities issued or guaranteed by the U.S. government or its agencies or instrumentalities, which makes the fund's net asset value more susceptible to economic, market, political and other developments affecting the residential and commercial real estate markets and the servicing of mortgage loans secured by real estate properties. Factors affecting the residential and commercial real estate markets include the supply and demand of real property in particular markets, changes in the availability, terms and costs of mortgages, changes in tenants' ability to make loan payments, changes in zoning laws and eminent domain practices, the impact of environmental laws, delays in completion of construction, changes in real estate values, changes in property taxes, levels of occupancy, adequacy of rent to cover operating expenses, changes in government regulations, and local and regional market conditions. Some of these factors may vary greatly by geographic location. The value of these investments also may be affected by changes in interest rates and social and economic trends. Mortgage-backed securities are subject to the risk of fluctuations in income from underlying real estate assets, prepayments, extensions, and defaults by borrowers.

Because the fund currently has significant investment exposure to commercial mortgage-backed securities, the fund may be particularly susceptible to adverse developments affecting those securities. Commercial mortgage-backed securities include securities that reflect an interest in, or are secured by, mortgage loans on commercial real property, such as industrial and warehouse properties, office buildings, retail space and shopping malls, cooperative apartments, hotels and motels, nursing homes, hospitals and senior living centers. Many of the risks of investing in commercial mortgage-backed securities reflect the risks of investing in the real estate securing the underlying mortgage loans. During periods of difficult economic conditions (including periods of significant disruptions to business operations, supply chains, and customer activity and lower consumer demand for goods and services), delinquencies and losses on commercial real estate generally increase, including as a result of the effects of those conditions on commercial real estate markets, the ability of commercial tenants to make loan payments, and the ability of a property to attract and retain commercial tenants. The risk of defaults on residential mortgage-backed securities is generally higher in the case of mortgage-backed investments that include non-qualified mortgages. Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the fund's mortgage-backed investments.

- **Market risk.** The value of investments in the fund's portfolio may fall or fail to rise over extended periods of time for a variety of reasons, including general economic, political or financial market conditions; investor sentiment and market perceptions (including perceptions about monetary policy, interest rates, inflation or the risk of default); government actions (including protectionist measures, intervention in the financial markets or other regulation, and changes in fiscal, monetary or tax policies); geopolitical events or changes (including natural disasters, terrorism and war); outbreaks of infectious illnesses or other widespread public health issues (including epidemics and pandemics); and factors related to a specific issuer, geography, industry or sector. Foreign financial markets have their own market risks, and they may be more or less volatile than U.S. markets and may move in different directions. During a general downturn in financial markets, multiple asset classes may decline in value simultaneously. These and other factors may lead to increased volatility and reduced liquidity in the fund's portfolio holdings. During those periods, the fund may experience high levels of shareholder redemptions, and may have to sell securities at times when it would otherwise not do so, and at unfavorable prices. These risks may be exacerbated during economic downturns or other periods of economic stress.

  The COVID-19 pandemic and efforts to contain its spread have resulted in, among other effects, significant market volatility, exchange trading suspensions and closures, declines in global financial markets, higher default rates, significant changes in fiscal and monetary policies, and economic downturns and recessions. The effects of the COVID-19 pandemic have negatively affected, and may continue to negatively affect, the global economy, the economies of the United States and other individual countries, the financial performance of individual issuers, sectors, industries, asset classes, and markets, and the value, volatility, and liquidity of particular securities and other assets. The effects of the COVID-19 pandemic also are likely to exacerbate other risks that apply to the fund, including the risks disclosed in this prospectus, which could negatively impact the fund's performance and lead to losses on your investment in the fund. The duration of the COVID-19 pandemic and its effects cannot be determined with certainty.

- **ESG considerations.** Although ESG considerations do not represent a primary focus of the fund, we expect to integrate environmental, social, or governance ("ESG") considerations into our fundamental research process and investment decision-making for the fund, where we consider them material and relevant, and where data is available. We believe that ESG considerations, like other, more traditional subjects of investment analysis such as credit, interest rate, prepayment and liquidity risks, as well as general market conditions, have the potential to impact financial risk and investment returns. We believe that ESG considerations are best analyzed in combination with traditional fundamental considerations, including a company's industry, geography, and strategic position or the fundamentals of a securitized product and its underlying assets. With respect to securitized products, we may evaluate ESG considerations related to the originator, servicers and other relevant parties. We also consider ESG factors when evaluating sovereign debt, including both current ESG metrics and goals and progress by the sovereign issuer with respect to ESG considerations. When considering ESG factors for all asset classes, we use company or issuer disclosures, public data sources, and independent third-party data (where available) as inputs into our analytical processes. With respect to certain fund holdings, such as holdings of securitized investments, data on material ESG considerations may be limited. Because fixed income investments generally represent a promise to pay principal and interest by an issuer, and not an ownership interest, and may involve complex structures, ESG-related investment considerations may have a more limited impact on risk and return (or may have an impact over a different investment time horizon) relative to other asset classes, and this may be particularly true for shorter-term investments. The consideration of ESG factors as part of the fund's investment process does not mean that the fund pursues a specific "ESG" or "sustainable" investment strategy, and we may make investment decisions for the fund other than on the basis of relevant ESG considerations.

- **Management and operational risk.** The fund is actively managed and its performance will reflect, in part, our ability to make investment decisions that seek to achieve the fund's investment objective. There is no guarantee that the investment techniques, analyses, or judgments that we apply in making investment decisions for the fund will produce the intended outcome or that the investments we select for the fund will perform as well as other securities that were not selected for the fund. As a result, the fund may underperform its benchmark or other funds with a similar investment goal and may realize losses. In addition, we, or the fund's other service providers, may experience disruptions or operating errors that could negatively impact the fund. Although service providers may have operational risk management policies and procedures and take appropriate precautions to avoid and mitigate risks that could lead to disruptions and operating errors, it may not be possible to identify all of the operational risks that may affect the fund or to develop processes and controls to completely eliminate or mitigate their occurrence or effects.
- **Other investments.** In addition to the main investment strategies described above, the fund may make other types of investments, such as investments in asset-backed, hybrid and structured bonds and notes, preferred securities that would be characterized as debt securities under applicable accounting standards and tax laws, and assignments of and participations in fixed and floating rate loans.

  The fund may also invest in cash or cash equivalents, including money market instruments or short-term instruments such as commercial paper, bank obligations (e.g., certificates of deposit and bankers' acceptances), repurchase agreements, and U.S. Treasury bills or other government obligations. The fund may also from time to time invest all or a portion of its cash balances in money market and/or short-term bond funds advised by Putnam Management or its affiliates. The percentage of the fund invested in cash and cash equivalents and such money market and short-term bond funds is expected to vary over time and will depend on various factors, including market conditions, purchase and redemption activity by fund shareholders, and our assessment of the cash level that is appropriate to allow the fund to pursue investment opportunities as they arise and to meet shareholder redemption requests. Large cash positions may dampen performance and may prevent the fund from achieving its goal. The fund may also loan portfolio securities to earn income. These practices may be subject to other risks, as described under *Miscellaneous Investments, Investment Practices and Risks* in the SAI.
- **Temporary defensive strategies.** In response to adverse market, economic, political or other conditions, we may take temporary defensive positions, such as investing some or all of the fund's assets in cash and cash equivalents, that differ from the fund's usual investment strategies. However, we may choose not to use these temporary defensive strategies for a variety of reasons, even in very volatile market conditions. If we do employ these strategies, the fund may miss out on investment opportunities, and may not achieve its goal. Additionally, while temporary defensive strategies are mainly designed to limit losses, they may not work as intended.
- **Changes in policies.** The Trustees may change the fund's goal, investment strategies and other policies set forth in this prospectus without shareholder approval, except as otherwise provided in the prospectus or SAI.
- **Portfolio turnover rate.** The fund's portfolio turnover rate measures how frequently the fund buys and sells investments. A portfolio turnover rate of 100%, for example, would mean that the fund sold and replaced securities valued at 100% of the fund's assets within a one-year period.

  The fund expects to engage in frequent trading.

  High turnover may cause a fund to pay more brokerage commissions and to incur other transaction costs (including imputed transaction costs), which may detract from performance. The fund's portfolio turnover rate and the amount of brokerage commissions it pays and transaction costs it incurs will vary over time based on market conditions.
- **Portfolio holdings.** The SAI includes a description of the fund's policies with respect to the disclosure of its portfolio holdings. For more specific information on the fund's portfolio, you may visit the Putnam Investments website, putnam.com/individual/annuities, where the fund's top 10 holdings and related portfolio information may be viewed monthly beginning approximately 15 days after the end of each month, and full portfolio holdings may be viewed monthly beginning on the 8th business day after the end of each month. This information will remain available on the website at least until the fund files a Form N-CSR or publicly available Form N-PORT with the SEC for the period that includes the date of the information, after which such information can be found on the SEC's website at http://www.sec.gov.

Who oversees and manages the fund?

The fund's Trustees

As a shareholder of a mutual fund, you have certain rights and protections, including representation by a Board of Trustees. The Putnam Funds' Board of Trustees oversees the general conduct of the fund's business and represents the interests of the Putnam fund shareholders. At least 75% of the members of the Putnam Funds' Board of Trustees are independent, which means they are not officers of the fund or affiliated with Putnam Investment Management, LLC (Putnam Management).

The Trustees periodically review the fund's investment performance and the quality of other services such as administration, custody, and investor services. At least annually, the Trustees review the fees paid to Putnam Management and its affiliates for providing or overseeing these services, as well as the overall level of the fund's operating expenses. In carrying out their responsibilities, the Trustees are assisted by an administrative staff, auditors and legal counsel that are selected by the Trustees and are independent of Putnam Management and its affiliates.

Contacting the fund's Trustees

Address correspondence to:
The Putnam Funds Trustees
100 Federal Street
Boston, MA 02110

The fund's investment manager

The Trustees have retained Putnam Management, which has managed mutual funds since 1937, to be the fund's investment manager, responsible for making investment decisions for the fund and managing the fund's other affairs and business.

The basis for the Trustees' approval of the fund's management contract and the sub-management contract described below is discussed in the fund's semiannual report to shareholders dated June 30, 2022.

The fund pays a monthly management fee to Putnam Management. The fee is calculated by applying a rate to the fund's average net assets for the month. The rate is based on the monthly average of the aggregate net assets of other open-end funds sponsored by Putnam Management (excluding net assets of such funds that are invested in, or that are invested in by, other such funds to the extent necessary to avoid "double counting" of those assets), and generally declines as the aggregate net assets increase.

The fund paid Putnam Management a management fee (after any applicable waivers) of 0.50% of average net assets for the fund's last fiscal year.

Putnam Management's address is 100 Federal Street, Boston, MA 02110.

Putnam Management has retained its affiliate PIL to make investment decisions for such fund assets as may be designated from time to time for its management by Putnam Management. PIL is not currently managing any fund assets. If PIL were to manage any fund assets, Putnam Management (and not the fund) would pay a quarterly sub-management fee to PIL for its services at the annual rate of 0.20% of the average net asset value (NAV) of any fund assets managed by PIL. 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 this arrangement, Putnam investment professionals who are based in foreign jurisdictions may serve as portfolio managers of the fund or provide other investment services, consistent with local regulations.

- **Portfolio managers.** The officers of Putnam Management identified below are jointly and primarily responsible for the day-to-day management of the fund's portfolio.

Portfolio managers	Joined fund	Employer	Positions over past five years
Michael Salm	2011	**Putnam Management** 1997 – Present	Chief Investment Officer, Fixed Income Previously, Co-Chief Investment Officer Fixed Income, Co-Head of Fixed Income
Albert Chan	2020	**Putnam Management** 2002 – Present	Head of Portfolio Construction Previously, Portfolio Manager
Robert Davis	2017	**Putnam Management** 1999 – Present	Portfolio Manager Previously, Analyst
Brett Kozlowski	2017	**Putnam Management** 2008 – Present	Co-Head of Structured Credit Previously, Portfolio Manager
Robert Salvin	2022	**Putnam Management** 2000 – Present	Head of Corporate and Tax-exempt Credit Previously, Co-Head Corporate and Tax-exempt Credit and Portfolio Manager

The SAI provides information about these individuals' compensation, other accounts managed by these individuals and these individuals' ownership of securities in the fund.

How to buy and sell fund shares

The Trust has an underwriting agreement relating to the fund with Putnam Retail Management, 100 Federal Street, Boston, Massachusetts 02110. Putnam Retail Management presently offers shares of the fund continuously to separate accounts of various insurers. The underwriting agreement presently provides that Putnam Retail Management accepts orders for shares at NAV and no sales commission or load is charged.

Shares are sold or redeemed at the NAV per share next determined after receipt of an order. Orders for purchases or sales of shares of the fund must be received by Putnam Retail Management before the close of regular trading on the NYSE in order to receive that day's NAV. No fee is charged to a separate account when it redeems fund shares.

Please check with your insurance company to determine whether the fund is available under your variable annuity contract or variable life insurance policy. The fund may not be available in your state due to various insurance regulations. This prospectus should be read in conjunction with the prospectus of the separate account of the specific insurance product which accompanies this prospectus.

The fund currently does not foresee any disadvantages to policy owners arising out of the fact that the fund offers its shares to separate accounts of various insurance companies to serve as the investment medium for their variable products. Nevertheless, the Trustees intend to monitor events in order to identify any material irreconcilable conflicts which may possibly arise, and to determine what action, if any, should be taken in response to such conflicts. If such a conflict were to occur, one or more insurance companies' separate accounts might be required to withdraw their investments in the fund and shares of another fund may be substituted. This might force the fund to sell portfolio securities at disadvantageous prices. In addition, the Trustees may refuse to sell shares of the fund to any separate account or may suspend or terminate the offering of shares of the fund if such action is required by law or regulatory authority or is in the best interests of the shareholders of the fund.

The fund typically expects to send you payment for your shares one business day after your request is received in good order. However, it is possible that payment of redemption proceeds may take up to seven days. Under unusual circumstances, the Trust may suspend redemptions or postpone payment for more than seven days, as permitted by federal securities law. Under normal market conditions, the fund typically expects to satisfy redemption requests by using holdings of cash and cash equivalents or selling portfolio assets to generate cash. Under stressed market conditions, the fund may also satisfy redemption requests by borrowing under the fund's lines of credit or interfund lending arrangements. For additional information regarding the fund's lines of credit and interfund lending arrangements, please see the SAI.

To the extent consistent with applicable laws and regulations, the fund reserves the right to satisfy all or a portion of a redemption request by distributing securities or other property in lieu of cash ("in-kind" redemptions), under both normal and stressed market conditions. The fund generally expects to use in-kind redemptions only in stressed market conditions or stressed conditions specific to the fund, such as redemption requests that represent a large percentage of the fund's net assets in order to minimize the effect of the large redemption on the fund and its remaining shareholders. Any in-kind redemption will be effected through a pro rata distribution of all publicly traded portfolio securities or securities for which quoted bid prices are available, subject to certain exceptions. The securities distributed in an in-kind redemption will be valued in the same manner as they are valued for purposes of computing the fund's net asset value. Once distributed in-kind to an investor, securities may increase or decrease in value before the investor is able to convert them into cash. Any transaction costs or other expenses involved in liquidating securities received in an in-kind redemption will be borne by the redeeming investor. The fund has committed, in connection with an election under Rule 18f-1 under the Investment Company Act of 1940, to pay all redemptions of fund shares by a single shareholder during any 90-day period in cash, up to the lesser of (i) $250,000 or (ii) 1% of the fund's net assets measured as of the beginning of such 90-day period. For information regarding procedures for in-kind redemptions, please contact Putnam Retail Management.

How does the fund price its shares?

The price of the fund's shares is based on its NAV. The NAV per share of each class equals the total value of its assets, less its liabilities, divided by the number of its outstanding shares. Shares are only valued as of the scheduled close of regular trading on the NYSE each day the exchange is open.

The fund values its investments for which market quotations are readily available at market value. It values all other investments and assets at their fair value, which may differ from recent market prices. Market quotations are not considered to be readily available for many debt securities. These securities are generally valued at fair value on the basis of valuations provided by an independent pricing service approved by the fund's Trustees or dealers selected by Putnam Management. Pricing services and dealers determine valuations for normal institutional-size trading units of such securities using information with respect to transactions in the bond being valued, market transactions for comparable securities and various relationships, generally recognized by institutional traders, between securities. To the extent a pricing service or dealer is unable to value a security or provides a valuation that Putnam Management does not believe accurately reflects the security's fair value, the security will be valued at fair value by Putnam Management.

The fund translates prices for its investments quoted in foreign currencies into U.S. dollars at current exchange rates, which are generally determined as of 4:00 p.m. Eastern Time each day the NYSE is open. As a result, changes in the value of those currencies in relation to the U.S. dollar may affect the fund's NAV. Because foreign markets may be open at different times than the NYSE, the value of the fund's shares may change on days when shareholders are not able to buy or sell them. If events materially affecting the values of the fund's foreign fixed-income investments occur between the close of foreign markets and the close of regular trading on the NYSE, these investments will also be valued at their fair value. As noted above, the value determined for an investment using the fund's fair value pricing procedures may differ from recent market prices for the investment.

Distribution plan and payments to dealers

The Trust has adopted a Distribution Plan with respect to class IB shares to compensate Putnam Retail Management for services provided and expenses incurred by it as principal underwriter of the class IB shares, including the payments to insurance companies and their affiliated dealers mentioned below. The plan provides for payments by the fund to Putnam Retail Management at the annual rate (expressed as a percentage of average net assets) of up to 0.35% on class IB shares. The Trustees currently limit payments on class IB shares to 0.25% of average net assets.

Because these fees are paid out of the fund's assets on an ongoing basis, they will increase the cost of your investment.

Putnam Retail Management compensates insurance companies (or affiliated broker-dealers) whose separate accounts invest in the Trust through class IB shares for providing services to their contract holders investing in the Trust.

Putnam Retail Management makes quarterly payments to dealers at the annual rate of up to 0.25% of the average NAV of class IB shares.

Putnam Retail Management may suspend or modify its payments to dealers. The payments are also subject to the continuation of the Distribution Plan, the terms of service agreements between dealers and Putnam Retail Management, and any applicable limits imposed by the Financial Industry Regulatory Authority (FINRA).

In addition to the payments described above with respect to class IB shares, Putnam Retail Management and its affiliates also pay additional compensation to selected insurance companies (or affiliated broker-dealers) to whom shares of the fund are offered ("Record Owners") and to dealers that sell variable insurance products ("dealers") in recognition of their marketing and/or administrative services support. These payments may create an incentive for a Record Owner firm, dealer firm or their representatives to recommend or offer shares of the fund or other Putnam funds, or insurance products for which the fund serves as an underlying investment, to its customers. These additional payments are made by Putnam Retail Management and its affiliates and do not increase the amount paid by you or the fund as shown under *Fund summary — Fees and expenses*.

The additional payments to Record Owners and dealers by Putnam Retail Management and its affiliates are generally based on one or more of the following factors: average net assets of the fund attributable to that Record Owner or dealer, sales or net sales of the fund attributable to that Record Owner or dealer, or on the basis of a negotiated lump sum payment for services provided. Payments made by Putnam Retail Management and its affiliates for marketing and/or administrative support services to any one Record Owner or dealer are not expected, with certain limited exceptions, to exceed 0.25% of the average assets of the fund attributable to that Record Owner or dealer on an annual basis. These payments are made for marketing and/or administrative support services provided by Record Owners and dealers, including business planning assistance, educating dealer personnel about the fund and shareholder financial planning needs, placement on the dealer's preferred or recommended fund company list, access to sales meetings, sales representatives and management representatives of the dealer and administrative services performed by the Record Owner or dealer. Putnam Retail Management and its affiliates may make other payments (including payments in connection with educational seminars or conferences) or allow other promotional incentives to Record Owners and dealers to the extent permitted by SEC and National Association of Security Dealers, Inc. (as adopted by FINRA) rules and by other applicable laws and regulations.

You can find a list of all Record Owners and dealers to which Putnam made marketing and/or administrative support services payments in 2022 in the SAI, which is on file with the SEC and is also available on Putnam's website at putnam.com. You can also find other details in the SAI about the payments made by Putnam Retail Management and its affiliates and the services provided by your Record Owner or dealer. In addition, you can ask your Record Owner or dealer for information about any payments it receives from Putnam Retail Management and its affiliates and any services provided by your Record Owner or dealer.

Policy on excessive short-term trading

- **Risks of excessive short-term trading.** Excessive short-term trading activity may reduce the fund's performance and harm all fund shareholders by interfering with portfolio management, increasing the fund's expenses and diluting the fund's NAV. Depending on the size and frequency of short-term trades in the fund's shares, the fund may experience increased cash volatility, which could require the fund to maintain undesirably large cash positions or buy or sell portfolio securities it would not have bought or sold otherwise. The need to execute additional portfolio transactions due to these cash flows may also increase the fund's brokerage and administrative costs.

  Because the fund invests in foreign securities, its performance may be adversely impacted and the interests of longer-term shareholders may be diluted as a result of time-zone arbitrage, a short-term trading practice that seeks to exploit changes in the value of the fund's investments that result from events occurring after the close of the foreign markets on which the investments trade, but prior to the later close of trading on the NYSE, the time as of which the fund determines its NAV. If an arbitrageur is successful, he or she may dilute the interests of other shareholders by trading shares at prices that do not fully reflect their fair value.

  Because the fund invests in securities that may trade infrequently or may be more difficult to value, such as lower-rated bonds, it may be susceptible to trading by short-term traders who seek to exploit perceived price inefficiencies in the fund's investments. In addition, the market for lower-rated bonds may at times show "market momentum," in which positive or negative performance may continue from one day to the next for reasons unrelated to the fundamentals of the issuer. Short-term traders may seek to capture this momentum by trading frequently in the fund's shares, which will reduce the fund's performance and may dilute the interests of other shareholders. Because lower-rated debt may be less liquid than higher-rated debt, the fund may also be unable to buy or sell these securities at desirable prices when the need arises (for example, in response to volatile cash flows caused by short-term trading). Similar risks may apply if the fund holds other types of less liquid securities.

- **Fund policies and limitations.** In order to protect the interests of long-term shareholders of the fund, Putnam Management and the fund's Trustees have adopted policies and procedures intended to discourage excessive short-term trading. The fund seeks to discourage excessive short-term trading by using fair value pricing procedures to value investments under some circumstances. In addition, Putnam Management monitors aggregate cash flows in each insurance company separate account that invests in the fund. If high cash flows relative to the size of the account or other information indicate that excessive short-term trading may be taking place in a particular separate account, Putnam Management will contact the insurance company that maintains accounts for the underlying contract holders and seek to have the insurance company enforce the separate account's policies on excessive short-term trading. As noted below, each insurance company's policies on excessive short-term trading will vary, and some insurance companies may not have adopted specific policies on excessive short-term trading.

  As noted above, the fund's shareholders are separate accounts sponsored by various insurance companies. Because Putnam Management currently does not have comprehensive access to trading records of individual contract holders, it is difficult (and in some cases impossible) for Putnam Management to determine if a particular contract holder is engaging in excessive short-term trading. In certain circumstances, there currently are also operational or technological constraints on Putnam Management's ability to monitor trading activity. In addition, even in circumstances when Putnam Management has access to sufficient information to permit a review of trading, its detection methods may not capture all excessive short-term trading.

  As a result of these limitations, the fund's ability to monitor and deter excessive short-term trading ultimately depends on the capabilities, policies and cooperation of the insurance companies that sponsor the separate accounts. Some of the separate accounts have adopted transfer fees, limits on exchange activity, or other measures to attempt to address the potential for excessive short-term trading, while other separate accounts currently have not. For more information about any measures applicable to your investment, please see the prospectus of the separate account of the specific insurance product that accompanies this prospectus. The measures used by Putnam Management or a separate account may or may not be effective in deterring excessive short-term trading. In addition, the terms of the particular insurance contract may also limit the ability of the insurance company to address excessive short-term trading. As a result, the fund can give no assurances that market timing and excessive short-term trading will not occur in the fund.

  In compliance with Rule 22c-2 under the Investment Company Act of 1940, as amended, Putnam Retail Management and Putnam Investor Services, on behalf of the fund, have entered into written agreements with the fund's financial intermediaries, under which the intermediary must, upon request, provide the fund with certain shareholder identity and trading information so that the fund can enforce its market timing policies.

- **Account monitoring.** In instances where trading records of individual contract holders are made available to Putnam Management, Putnam Management measures excessive short-term trading in the fund by the number of "round trip" transactions within a specified period of time. A "round trip" transaction is defined as a transfer into a fund followed, or preceded, by a transfer out of the same fund. A transfer is defined as a transaction requested by the contract owner to reallocate part or all of their contract value among the funds available in the contract. If Putnam Management's Compliance Department determines that a contract holder has engaged in excessive short-term trading, Putnam Management will request that the separate account's financial intermediary issue a written warning to the contract holder. Putnam Management's practices for measuring excessive short-term trading activity and requesting warnings to be issued may change from time to time. Some types of transactions are exempt from monitoring, including, but not limited to, transfers that are executed automatically pursuant to a company-sponsored contractual or systematic program such as transfer of assets as a result of "dollar cost averaging" programs, asset allocation programs or automatic rebalancing programs. Also exempt are annuity payouts, loans, and systematic withdrawal programs; payment of a death benefit; any deduction of fees; payments such as loan repayments, scheduled contributions, withdrawals or surrenders; or retirement plan salary reduction contributions or planned premium payments.

- **Account restrictions.** In addition to these monitoring practices, Putnam Management and the fund reserve the right to reject or restrict transfers for any reason. Continued excessive short-term trading activity by a contract holder following a warning may lead to termination of the transfer privilege for that contract holder. Putnam Management may determine that a contract holder's trading activity is excessive or otherwise potentially harmful based on various factors, including trading history in the fund or other Putnam funds, and may aggregate activity in multiple accounts in the fund or other Putnam funds that Putnam Management believes are under common ownership or control for purposes of determining whether the activity is excessive. If Putnam Management identifies a contract holder engaging in excessive trading, depending on the capabilities of the intermediary, it may revoke certain privileges. Putnam Management may also temporarily or permanently bar the contract holder or insurance company separate account from investing in the fund or other Putnam funds. Putnam Management may take these steps in its discretion even if the contract holder's activity does not fall within Putnam Management's current monitoring parameters for the fund.

Fund distributions and taxes

The fund normally distributes any net investment income and any net realized capital gains annually. Distributions will be reinvested in additional shares of the fund, unless an election is made on behalf of a separate account to receive some or all of the distributions in cash.

Distributions are reinvested without a sales charge, using the NAV determined on the ex-dividend date. Distributions on each share are determined in the same manner and are paid in the same amount, regardless of class, except for such differences as are attributable to different class expenses.

Generally, holders of variable annuity and variable life insurance contracts are not taxed currently on income or gains realized with respect to such contracts. However, some distributions from such contracts may be taxable at ordinary income tax rates. In addition, distributions made to a contract holder who is younger than 59½ may be subject to a 10% penalty tax. Investors should ask their own tax advisors for more information on their own tax situation, including possible foreign, state or local taxes.

In order for investors to receive the favorable tax treatment available to holders of variable annuity and variable life insurance contracts, the separate accounts underlying such contracts, as well as the funds in which such accounts invest, must meet certain diversification requirements. The fund intends to diversify its assets in accordance with these requirements. If the fund does not meet such requirements, income allocable to the contracts would be taxable currently to the holders of such contracts. In addition, if the Internal Revenue Service finds an impermissible level of "investor control" over the investment options underlying variable annuity or variable life insurance contracts, the advantageous tax treatment provided with respect to insurance company separate accounts under the Internal Revenue Code of 1986, as amended, will no longer be available. Please see the SAI for further discussion.

The fund intends to qualify as a "regulated investment company" for federal income tax purposes and to meet all other requirements necessary for it to be relieved of federal income taxes on income and gains it timely distributes to the separate accounts. For information concerning federal income tax consequences for the holders of variable annuity contracts and variable life insurance policies, contract holders should consult the prospectus of the applicable separate account.

The fund's investments in certain debt obligations may cause the fund to recognize taxable income in excess of the cash generated by such obligations. Thus, the fund could be required at times to liquidate other investments, including when it is not advantageous to do so, in order to satisfy its distribution requirements.

The fund's investments in foreign securities, if any, may be subject to foreign withholding or other taxes. In that case, the fund's return on those investments would be decreased.

The fund's use of derivatives, if any, may affect the amount and timing of distributions to shareholders, potentially requiring the fund to liquidate other investments, including when it is not advantageous to do so, in order to satisfy its distribution requirements.

The foregoing discussion is very general and is based on the assumption that the shareholders in the fund will be insurance company separate accounts. For further information, please see *Taxes* in the SAI.

Information about the Summary Prospectus, Prospectus, and SAI

The summary prospectus, prospectus, and SAI for a fund provide information concerning the fund. The summary prospectus, prospectus, and SAI are updated at least annually and any information provided in a summary prospectus, prospectus, or SAI can be changed without a shareholder vote unless specifically stated otherwise. The summary prospectus, prospectus, and the SAI are not contracts between the fund and its shareholders and do not give rise to any contractual rights or obligations or any shareholder rights other than any rights conferred explicitly by federal or state securities laws that may not be waived.

Financial highlights

The financial highlights tables are intended to help you understand the fund's recent financial performance. Certain information reflects financial results for a single fund share. The total returns represent the rate that an investor would have earned or lost on an investment in the fund, assuming reinvestment of all dividends and distributions. Total returns and expense ratios do not reflect insurance related charges or expenses; if these charges and expenses were reflected, performance would be lower and expenses would be higher. This information has been derived from the fund's financial statements, which have been audited by PricewaterhouseCoopers LLP. The Independent Registered Public Accounting Firm's report and the fund's financial statements are included in the fund's annual report to shareholders, which is available upon request.

Financial highlights

(For a common share outstanding throughout the period)

INVESTMENT OPERATIONS:					LESS DISTRIBUTIONS:					RATIOS AND SUPPLEMENTAL DATA:			
Period ended	**Net asset value, beginning of period**	Net investment income (loss)[a]	Net realized and unrealized gain (loss) on investments	**Total from investment operations**	From net investment income	From net realized gain on investments	**Total distributions**	**Net asset value, end of period**	**Total return at net asset value (%)[b,c]**	**Net assets, end of period (in thousands)**	Ratio of expenses to average net assets (%)[b,d]	Ratio of net investment income (loss) to average net assets (%)	Portfolio turnover (%)[e]
Class IA													
12/31/22	**$5.26**	.15	(.24)	**(.09)**	(.36)	(.11)	**(.47)**	**$4.70**	**(2.06)**	**$45,181**	.81[f]	3.17[f]	1,417
12/31/21	**5.69**	.23	(.61)	**(.38)**	(.05)	—	**(.05)**	**5.26**	**(6.73)**	**50,798**	.77	4.07	1,115
12/31/20	**6.26**	.22	(.33)[g]	**(.11)**	(.46)	—	**(.46)**	**5.69**	**(.76)[g]**	**58,536**	.79	4.06	1,184
12/31/19	**5.82**	.27	.39	**.66**	(.22)	—	**(.22)**	**6.26**	**11.56**	**66,012**	.79	4.53	987
12/31/18	**6.13**	.32	(.36)	**(.04)**	(.27)	—	**(.27)**	**5.82**	**(.74)**	**65,046**	.80	5.28	790
Class IB													
12/31/22	**$5.28**	.14	(.25)	**(.11)**	(.34)	(.11)	**(.45)**	**$4.72**	**(2.35)**	**$71,937**	1.06[f]	2.86[f]	1,417
12/31/21	**5.71**	.21	(.60)	**(.39)**	(.04)	—	**(.04)**	**5.28**	**(6.95)**	**112,542**	1.02	3.81	1,115
12/31/20	**6.27**	.21	(.32)[g]	**(.11)**	(.45)	—	**(.45)**	**5.71**	**(.90)[g]**	**124,933**	1.04	3.80	1,184
12/31/19	**5.83**	.26	.38	**.64**	(.20)	—	**(.20)**	**6.27**	**11.23**	**144,640**	1.04	4.26	987
12/31/18	**6.14**	.30	(.35)	**(.05)**	(.26)	—	**(.26)**	**5.83**	**(.98)**	**130,502**	1.05	5.02	790

[a] Per share net investment income (loss) has been determined on the basis of the weighted average number of shares outstanding during the period.

[b] The charges and expenses at the insurance company separate account level are not reflected.

[c] Total return assumes dividend reinvestment.

[d] Includes amounts paid through expense offset and/or brokerage/service arrangements, if any. Also excludes acquired fund fees and expenses, if any.

[e] Portfolio turnover includes TBA purchase and sale commitments.

[f] Reflects an involuntary contractual expense limitation in effect during the period. As a result of such limitation, the expenses of each class reflect a reduction of 0.04% as a percentage of average net assets.

[g] Reflects a non-recurring litigation payment received by the fund from an ISDA Fix Anti-Trust Settlement which amounted to the following amounts per share outstanding on May 4, 2020:

	Per share
Class IA	$0.03
Class IB	0.03

This payment resulted in an increase to total returns of 0.52% for the period ended December 31, 2020.

For more information about Putnam VT Diversified Income Fund

The fund's SAI and annual and semiannual reports to shareholders include additional information about the fund. The SAI, and the auditor's report and the financial statements included in the fund's most recent annual report to shareholders, are incorporated by reference into this prospectus, which means they are part of this prospectus for legal purposes. The fund's annual report discusses the market conditions and investment strategies that significantly affected the fund's performance during its last fiscal year. You may get free copies of these materials, request other information about any Putnam fund, or make shareholder inquiries, by contacting your financial representative, by visiting Putnam's website at putnam.com/individual/annuities, or by calling Putnam toll-free at 1-800-225-1581.

You may access reports and other information about the fund on the EDGAR Database on the Securities and Exchange Commission's website at http://www.sec.gov. You may get copies of this information, with payment of a duplication fee, by electronic request at the following E-mail address: publicinfo@sec.gov. You may need to refer to the fund's file number.

Putnam Investments
100 Federal Street
Boston, MA 02110
1-800-225-1581

Address correspondence to:

Putnam Investments
PO Box 219697
Kansas City, MO 64121-9697

putnam.com

File No. 811-05346

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