

Putnam VT Sustainable Future Fund

The fund's portfolio

3/31/23 (Unaudited)

COMMON STOCKS (97.1%)(a)

	Shares	Value
Biotechnology (5.5%)		
Ascendis Pharma A/S ADR (Denmark) ^(NON)	1,760	\$188,707
Compass Pathways PLC ADR (United Kingdom) ^(NON)	11,567	114,860
Exact Sciences Corp. ^(NON)	5,648	382,991
Regeneron Pharmaceuticals, Inc. ^(NON)	611	502,040
Rocket Pharmaceuticals, Inc. ^(NON)	4,731	81,042
Sarepta Therapeutics, Inc. ^(NON)	963	132,730
Twist Bioscience Corp. ^(NON)	5,108	77,029
		1,479,399
Capital markets (2.9%)		
MSCI, Inc.	1,370	766,775
		766,775
Chemicals (4.4%)		
Ginkgo Bioworks Holdings, Inc. ^(NON)	42,063	55,944
Ginkgo Bioworks Holdings, Inc. ^(NON)	12,120	16,120
Ingevity Corp. ^(NON)	5,010	358,315
Koninklijke DSM NV (Netherlands)	3,350	395,945
Novozymes A/S Class B (Denmark)	7,085	362,915
		1,189,239
Commercial services and supplies (5.0%)		
Casella Waste Systems, Inc. Class A ^(NON)	6,311	521,667
Cintas Corp.	1,730	800,436
		1,322,103
Construction and engineering (1.3%)		
Quanta Services, Inc.	2,062	343,612
		343,612
Consumer staples distribution and retail (2.1%)		
Sprouts Farmers Market, Inc. ^(NON)	16,423	575,298
		575,298

Diversified telecommunication services (1.7%)

Liberty Global PLC Class C (United Kingdom) ^(NON)	22,480	458,142
		<hr/>
		458,142

Electric utilities (1.7%)

Constellation Energy Corp.	4,490	352,465
NextEra Energy, Inc.	1,231	94,885
		<hr/>
		447,350

Electrical equipment (1.2%)

Regal Rexnord Corp.	2,294	322,835
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		322,835

Electronic equipment, instruments, and components (1.3%)

Trimble Inc. ^(NON)	6,494	340,415
		<hr/>
		340,415

Financial services (3.4%)

Eurazeo SE (France)	6,208	442,280
Mastercard, Inc. Class A	1,281	465,528
		<hr/>
		907,808

Food products (0.6%)

McCormick & Co., Inc. (non-voting shares)	1,816	151,109
		<hr/>
		151,109

Health care equipment and supplies (6.9%)

Cooper Cos., Inc. (The)	1,543	576,094
Dexcom, Inc. ^(NON)	7,043	818,256
IDEXX Laboratories, Inc. ^(NON)	868	434,069
		<hr/>
		1,828,419

Health care providers and services (1.5%)

HealthEquity, Inc. ^(NON)	7,023	412,320
		<hr/>
		412,320

Health care technology (2.0%)

Veeva Systems, Inc. Class A ^(NON)	2,969	545,673
		<hr/>
		545,673

Hotels, restaurants, and leisure (4.7%)

Chipotle Mexican Grill, Inc. ^(NON)	537	917,352
Vail Resorts, Inc.	1,384	323,413
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1,240,765

Interactive media and services (1.8%)

Pinterest, Inc. Class A ^(NON)	17,334	472,698
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		472,698

IT Services (2.2%)

Gartner, Inc. ^(NON)	1,774	577,916
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		577,916

Life sciences tools and services (7.0%)

Bio-Rad Laboratories, Inc. Class A ^(NON)	1,141	546,562
Danaher Corp.	2,234	563,057
Thermo Fisher Scientific, Inc.	1,291	744,094
		<hr/>
		1,853,713

Machinery (2.0%)

Federal Signal Corp.	9,869	534,998
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		534,998

Mortgage real estate investment trusts (REITs) (1.4%)

Hannon Armstrong Sustainable Infrastructure Capital, Inc. ^(R)	13,074	373,916
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		373,916

Pharmaceuticals (1.5%)

Zoetis, Inc.	2,459	409,276
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		409,276

Professional services (2.2%)

Bureau Veritas SA (France)	12,711	365,243
Planet Labs PBC ^(NON)	59,794	234,990
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		600,233

Semiconductors and semiconductor equipment (6.0%)

Applied Materials, Inc.	3,103	381,141
ASML Holding NV (NY Reg Shares) (Netherlands)	660	449,269
NVIDIA Corp.	1,893	525,819
SolarEdge Technologies, Inc. (Israel) ^(NON)	783	237,993
		<hr/>
		1,594,222

Software (20.6%)

Adobe, Inc. ^(NON)	1,486	572,664
Atlassian Corp. Class A ^(NON)	1,920	328,646
Cadence Design Systems, Inc. ^(NON)	3,930	825,654

Ceridian HCM Holding, Inc. ^(NON)	4,831	353,726
Crowdstrike Holdings, Inc. Class A ^(NON)	4,013	550,824
Dynatrace, Inc. ^(NON)	10,535	445,631
Palo Alto Networks, Inc. ^(NON)	3,160	631,178
Roper Technologies, Inc.	1,267	558,354
ServiceNow, Inc. ^(NON)	1,071	497,715
Verra Mobility Corp. ^(NON)	25,737	435,470
Zscaler, Inc. ^(NON)	2,452	286,467
		5,486,329
Specialized REITs (0.8%)		
Weyerhaeuser Co. ^(R)	6,885	207,445
		207,445
Textiles, apparel, and luxury goods (4.2%)		
Levi Strauss & Co. Class A	27,785	506,521
Lululemon Athletica, Inc. (Canada) ^(NON)	1,682	612,568
		1,119,089
Trading companies and distributors (1.2%)		
Core & Main, Inc. Class A ^(NON)	13,808	318,965
		318,965
Total common stocks (cost \$21,406,343)		\$25,880,062

SHORT-TERM INVESTMENTS (3.2%)^(a)

	Shares	Value
Putnam Short Term Investment Fund Class P 4.88% ^(AFF)	858,858	\$858,858
Total short-term investments (cost \$858,858)		\$858,858
TOTAL INVESTMENTS		
Total investments (cost \$22,265,201)		\$26,738,920

FORWARD CURRENCY CONTRACTS at 3/31/23 (aggregate face value \$4,026,289) (Unaudited)

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
	Danish Krone	Sell	6/21/23	\$170,939	\$167,806	\$(3,133)
	Euro	Sell	6/21/23	439,409	430,432	(8,977)
Barclays Bank PLC						
	British Pound	Sell	6/21/23	166,914	161,821	(5,093)
	Euro	Sell	6/21/23	152,061	148,967	(3,094)
Citibank, N.A.						
	Israeli Shekel	Sell	4/19/23	114,886	116,941	2,055
Goldman Sachs International						
	Israeli Shekel	Sell	4/19/23	30,544	31,091	547
HSBC Bank USA, National Association						
	British Pound	Sell	6/21/23	258,958	251,011	(7,947)
	Canadian Dollar	Sell	4/19/23	57,431	57,368	(63)
	Danish Krone	Sell	6/21/23	150,541	147,774	(2,767)
	Euro	Sell	6/21/23	317,411	308,278	(9,133)
	Israeli Shekel	Sell	4/19/23	44,480	45,282	802
	Swedish Krona	Buy	6/21/23	81,677	80,759	918
JPMorgan Chase Bank N.A.						
	Euro	Sell	6/21/23	72,871	71,373	(1,498)
Morgan Stanley & Co. International PLC						
	British Pound	Sell	6/21/23	102,175	99,014	(3,161)
	Canadian Dollar	Sell	4/19/23	140,024	139,837	(187)
	Danish Krone	Sell	6/21/23	152,853	150,030	(2,823)
	Euro	Sell	6/21/23	473,285	463,544	(9,741)
	Israeli Shekel	Buy	4/19/23	75,803	79,076	(3,273)
	Israeli Shekel	Sell	4/19/23	75,942	77,278	1,336
NatWest Markets PLC						
	Australian Dollar	Buy	4/19/23	319,490	334,518	(15,028)
	Australian Dollar	Sell	4/19/23	319,490	333,523	14,033
	British Pound	Sell	6/21/23	90,191	87,431	(2,760)
	Danish Krone	Sell	6/21/23	88,703	87,075	(1,628)
State Street Bank and Trust Co.						
	Canadian Dollar	Sell	4/19/23	53,508	53,443	(65)
	Euro	Sell	6/21/23	104,787	102,617	(2,170)
Unrealized appreciation						19,691

Unrealized (depreciation)

(82,541)

Total

\$(62,850)

* The exchange currency for all contracts listed is the United States Dollar.

Key to holding's abbreviations

ADR American Depository Receipts: Represents ownership of foreign securities on deposit with a custodian bank.

Notes to the fund's portfolio

Unless noted otherwise, the notes to the fund's portfolio are for the close of the fund's reporting period, which ran from January 1, 2023 through March 31, 2023 (the reporting period). Within the following notes to the portfolio, references to "Putnam Management" represent Putnam Investment Management, LLC, the fund's manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC, references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures* and references to "OTC", if any, represent over-the-counter.

(a) Percentages indicated are based on net assets of \$26,666,064.

(NON) This security is non-income-producing.

(AFF) Affiliated company. For investments in Putnam Short Term Investment Fund, the rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting period. Transactions during the period with any company which is under common ownership or control were as follows:

Name of affiliate	Fair value as of 12/31/22	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 3/31/23
Short-term investments					
Putnam Short Term Investment Fund*	\$726,550	\$1,620,389	\$1,488,081	\$9,651	\$858,858
Total Short-term investments	\$726,550	\$1,620,389	\$1,488,081	\$9,651	\$858,858

* Management fees charged to Putnam Short Term Investment Fund have been waived by Putnam Management. There were no realized or unrealized gains or losses during the period.

(R) Real Estate Investment Trust.

Security valuation: Portfolio securities and other investments are valued using policies and procedures adopted by the Board of Trustees. The Trustees have formed a Pricing Committee to oversee the implementation of these procedures and have delegated responsibility for valuing the fund's assets in accordance with these procedures to Putnam Management. Putnam Management has established an internal Valuation Committee that is responsible for

making fair value determinations, evaluating the effectiveness of the pricing policies of the fund and reporting to the Pricing Committee.

Investments for which market quotations are readily available are valued at the last reported sales price on their principal exchange, or official closing price for certain markets, and are classified as Level 1 securities under ASC 820. If no sales are reported, as in the case of some securities that are traded OTC, a security is valued at its last reported bid price and is generally categorized as a Level 2 security.

Investments in open-end investment companies (excluding exchange-traded funds), if any, which can be classified as Level 1 or Level 2 securities, are valued based on their net asset value. The net asset value of such investment companies equals the total value of their assets less their liabilities and divided by the number of their outstanding shares.

Many securities markets and exchanges outside the U.S. close prior to the scheduled close of the New York Stock Exchange and therefore the closing prices for securities in such markets or on such exchanges may not fully reflect events that occur after such close but before the scheduled close of the New York Stock Exchange. Accordingly, on certain days, the fund will fair value certain foreign equity securities taking into account multiple factors including movements in the U.S. securities markets, currency valuations and comparisons to the valuation of American Depository Receipts, exchange-traded funds and futures contracts. The foreign equity securities, which would generally be classified as Level 1 securities, will be transferred to Level 2 of the fair value hierarchy when they are valued at fair value. The number of days on which fair value prices will be used will depend on market activity and it is possible that fair value prices will be used by the fund to a significant extent. At the close of the reporting period, fair value pricing was used for certain foreign securities in the portfolio. Securities quoted in foreign currencies, if any, are translated into U.S. dollars at the current exchange rate. Short-term securities with remaining maturities of 60 days or less are valued using an independent pricing service approved by the Trustees, and are classified as Level 2 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 in accordance with policies and procedures approved by the Trustees. Certain investments, including certain restricted and illiquid securities and derivatives, are also valued at fair value following procedures approved by the Trustees. These valuations consider such factors as significant market or specific security events such as interest rate or credit quality changes, various relationships with other securities, discount rates, U.S. Treasury, U.S. swap and credit yields, index levels, convexity exposures, recovery rates, sales and other multiples and resale restrictions. These securities are classified as Level 2 or as Level 3 depending on the priority of the significant inputs.

To assess the continuing appropriateness of fair valuations, the Valuation Committee reviews and affirms the reasonableness of such valuations on a regular basis after considering all relevant information that is reasonably available. Such valuations and procedures are reviewed periodically by the Trustees. The fair value of securities is generally determined as the amount that the fund could reasonably expect to realize from an orderly disposition of such securities over a reasonable period of time. By its nature, a fair value price is a good faith estimate of the value of a security in a current sale and does not reflect an actual market price, which may be different by a material amount.

Forward currency contracts: The fund buys and sells forward currency contracts, which are agreements between two parties to buy and sell currencies at a set price on a future date. These contracts were used to hedge foreign exchange risk.

The U.S. dollar value of forward currency contracts is determined using current forward currency exchange rates supplied by a quotation service. The fair value of the contract will fluctuate with changes in currency exchange rates. The contract is marked to market daily and the change in fair value is recorded as an unrealized gain or loss. The fund records a realized gain or loss equal to the difference between the value of the contract at the time it was opened and the value at the time it was closed when the contract matures or by delivery of the currency. The fund could be exposed to risk if the value of the currency changes unfavorably, if the counterparties to the contracts are unable to meet the terms of their contracts or if the fund is unable to enter into a closing position.

For the fund's average contract amount on forward currency contracts, see the appropriate table at the end of these footnotes.

Master agreements: The fund is a party to ISDA (International Swaps and Derivatives Association, Inc.) Master Agreements (Master Agreements) with certain counterparties that govern OTC derivative and foreign exchange contracts entered into from time to time. The Master Agreements may contain provisions regarding, among other things, the parties' general

obligations, representations, agreements, collateral requirements, events of default and early termination. With respect to certain counterparties, in accordance with the terms of the Master Agreements, collateral posted to the fund is held in a segregated account by the fund's custodian and, with respect to those amounts which can be sold or repledged, is presented in the fund's portfolio.

Collateral pledged by the fund is segregated by the fund's custodian and identified in the fund's portfolio. Collateral can be in the form of cash or debt securities issued by the U.S. Government or related agencies or other securities as agreed to by the fund and the applicable counterparty. Collateral requirements are determined based on the fund's net position with each counterparty.

Termination events applicable to the fund may occur upon a decline in the fund's net assets below a specified threshold over a certain period of time. Termination events applicable to counterparties may occur upon a decline in the counterparty's long-term and short-term credit ratings below a specified level. In each case, upon occurrence, the other party may elect to terminate early and cause settlement of all derivative and foreign exchange contracts outstanding, including the payment of any losses and costs resulting from such early termination, as reasonably determined by the terminating party. Any decision by one or more of the fund's counterparties to elect early termination could impact the fund's future derivative activity.

At the close of the reporting period, the fund had a net liability position of \$65,452 on open derivative contracts subject to the Master Agreements. There was no collateral posted by the fund at period end for these agreements.

ASC 820 establishes a three-level hierarchy for disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of the fund's investments. The three levels are defined as follows:

Level 1: Valuations based on quoted prices for identical securities in active markets.

Level 2: Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3: Valuations based on inputs that are unobservable and significant to the fair value measurement.

The following is a summary of the inputs used to value the fund's net assets as of the close of the reporting period:

	Valuation inputs		
Investments in securities:	Level 1	Level 2	Level 3
Common stocks*:			
Communication services	\$930,840	\$—	\$—
Consumer discretionary	2,359,854	—	—
Consumer staples	726,407	—	—
Financials	1,606,219	442,280	—
Health care	6,528,800	—	—
Industrials	3,077,503	365,243	—
Information technology	7,998,882	—	—
Materials	374,435	758,860	55,944
Real estate	207,445	—	—
Utilities	447,350	—	—
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Total common stocks	24,257,735	1,566,383	55,944

Short-term investments	—	858,858	—
	<u> </u>	<u> </u>	<u> </u>
Totals by level	\$24,257,735	\$2,425,241	\$55,944

Valuation inputs

Other financial instruments:	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$(62,850)	\$—
	<u> </u>	<u> </u>	<u> </u>
Totals by level	\$—	\$(62,850)	\$—

* Common stock classifications are presented at the sector level, which may differ from the fund's portfolio presentation.

At the start and close of the reporting period, Level 3 investments in securities represented less than 1% of the fund's net assets and were not considered a significant portion of the fund's portfolio.

The volume of activity for the reporting period for any derivative type that was held at the close of the period is listed below and was based on an average of the holdings of that derivative at the end of each fiscal quarter in the reporting period:

Forward currency contracts (contract amount)	\$4,200,000
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For additional information regarding the fund please see the fund's most recent annual or semiannual shareholder report filed on the Securities and Exchange Commission's Web site, www.sec.gov, or visit Putnam's Individual Investor Web site at www.putnaminvestments.com