

Putnam VT Sustainable Future Fund

The fund's portfolio

3/31/24 (Unaudited)

COMMON STOCKS (97.3%)(a)

	Shares	Value
Beverages (0.9%)		
Vita Coco Co., Inc. (The) ^(NON)	12,780	\$312,215
		312,215
Biotechnology (4.6%)		
Ascendis Pharma A/S ADR (Denmark) ^(NON)	1,164	175,962
Compass Pathways PLC ADR (United Kingdom) ^(NON)	12,485	103,875
Exact Sciences Corp. ^(NON)	5,343	368,988
Regeneron Pharmaceuticals, Inc. ^(NON)	594	571,719
Rocket Pharmaceuticals, Inc. ^(NON)	5,404	145,584
Twist Bioscience Corp. ^(NON)	4,329	148,528
		1,514,656
Capital markets (2.9%)		
MSCI, Inc.	1,186	664,694
TPG, Inc.	7,363	329,126
		993,820
Chemicals (2.6%)		
Ecolab, Inc.	1,840	424,856
Novozymes A/S Class B (Denmark)	7,775	455,669
		880,525
Commercial services and supplies (5.1%)		
Casella Waste Systems, Inc. Class A ^(NON)	6,789	671,228
Cintas Corp.	1,535	1,054,591
		1,725,819
Construction and engineering (1.7%)		
Quanta Services, Inc.	2,260	587,148
		587,148
Consumer finance (0.6%)		
Capital One Financial Corp.	1,404	209,042

209,042

Consumer staples distribution and retail (2.1%)

Sprouts Farmers Market, Inc. <i>(NON)</i>	10,898	702,703
		<hr/>
		702,703

Containers and packaging (0.9%)

Graphic Packaging Holding Co.	10,289	300,233
		<hr/>
		300,233

Electric utilities (2.3%)

Constellation Energy Corp.	3,838	709,454
NextEra Energy, Inc.	1,281	81,869
		<hr/>
		791,323

Electrical equipment (2.0%)

Nextracker, Inc. Class A <i>(NON)</i>	3,902	219,566
Regal Rexnord Corp.	2,516	453,132
		<hr/>
		672,698

Electronic equipment, instruments, and components (1.1%)

Trimble Inc. <i>(NON)</i>	5,582	359,258
		<hr/>
		359,258

Financial services (1.8%)

Mastercard, Inc. Class A	1,272	612,557
		<hr/>
		612,557

Food products (0.6%)

Darling Ingredients, Inc. <i>(NON)</i>	4,581	213,062
		<hr/>
		213,062

Ground transportation (1.0%)

Uber Technologies, Inc. <i>(NON)</i>	4,270	328,747
		<hr/>
		328,747

Health care equipment and supplies (10.2%)

Dexcom, Inc. <i>(NON)</i>	7,056	978,667
Haemonetics Corp. <i>(NON)</i>	2,018	172,236
IDEXX Laboratories, Inc. <i>(NON)</i>	1,290	696,510
Intuitive Surgical, Inc. <i>(NON)</i>	1,520	606,617
Penumbra, Inc. <i>(NON)</i>	1,167	260,451
ResMed, Inc.	3,770	746,573
		<hr/>
		3,461,054

Health care providers and services (1.1%)

HealthEquity, Inc. <i>(NON)</i>	4,563	372,478
		<hr/>
		372,478

Health care technology (0.7%)

Veeva Systems, Inc. Class A <i>(NON)</i>	1,028	238,177
		<hr/>
		238,177

Hotels, restaurants, and leisure (4.4%)

CAVA Group, Inc. <i>(NON)</i>	3,170	222,059
Chipotle Mexican Grill, Inc. <i>(NON)</i>	232	674,371
First Watch Restaurant Group, Inc. <i>(NON)</i>	16,515	406,599
Vail Resorts, Inc.	823	183,389
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		1,486,418

Interactive media and services (1.5%)

Pinterest, Inc. Class A <i>(NON)</i>	15,078	522,754
		<hr/>
		522,754

IT Services (1.7%)

Gartner, Inc. <i>(NON)</i>	1,177	561,041
		<hr/>
		561,041

Life sciences tools and services (8.1%)

Danaher Corp.	2,704	675,243
ICON PLC (Ireland) <i>(NON)</i>	1,761	591,608
Mettler-Toledo International, Inc. <i>(NON)</i>	577	768,154
Thermo Fisher Scientific, Inc.	1,238	719,538
		<hr/>
		2,754,543

Machinery (3.1%)

Federal Signal Corp.	9,489	805,331
Xylem, Inc./NY	1,840	237,802
		<hr/>
		1,043,133

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

Hannon Armstrong Sustainable Infrastructure Capital, Inc. <i>(R)</i>	16,773	476,353
		<hr/>
		476,353

Pharmaceuticals (1.5%)

Zoetis, Inc.	3,047	515,583
		<hr/>
		515,583

Professional services (1.4%)

Planet Labs PBC ^(NON)	78,581	200,382
Verra Mobility Corp. ^(NON)	11,571	288,928
		<hr/>
		489,310

Semiconductors and semiconductor equipment (6.6%)

Applied Materials, Inc.	3,403	701,801
ASML Holding NV (NY Reg Shares) (Netherlands)	722	700,679
First Solar, Inc. ^(NON)	1,584	267,379
NVIDIA Corp.	644	581,893
		<hr/>
		2,251,752

Software (18.3%)

Adobe, Inc. ^(NON)	839	423,359
Altair Engineering, Inc. Class A ^(NON)	4,961	427,390
Atlassian Corp. Class A ^(NON)	1,266	247,009
Cadence Design Systems, Inc. ^(NON)	1,563	486,531
CrowdStrike Holdings, Inc. Class A ^(NON)	2,528	810,452
Dynatrace, Inc. ^(NON)	7,975	370,359
Fair Isaac Corp. ^(NON)	525	656,045
HubSpot, Inc. ^(NON)	929	582,074
Palo Alto Networks, Inc. ^(NON)	878	249,466
Roper Technologies, Inc.	1,388	778,446
ServiceNow, Inc. ^(NON)	876	667,862
Synopsys, Inc. ^(NON)	616	352,044
Vertex, Inc. Class A ^(NON)	5,340	169,598
		<hr/>
		6,220,635

Specialized REITs (0.8%)

Weyerhaeuser Co. ^(R)	7,554	271,264
		<hr/>
		271,264

Specialty retail (0.4%)

Ulta Beauty, Inc. ^(NON)	270	141,178
		<hr/>
		141,178

Textiles, apparel, and luxury goods (3.6%)

Levi Strauss & Co. Class A	23,187	463,508
Lululemon Athletica, Inc. (Canada) ^(NON)	949	370,727
On Holding AG Class A (Switzerland) ^(NON)	11,140	394,133
		<hr/>
		1,228,368

Trading companies and distributors (2.3%)

Core & Main, Inc. Class A ^(NON)	6,930	396,743
United Rentals, Inc.	531	382,909
		779,652
Total common stocks (cost \$21,864,780)		\$33,017,499

SHORT-TERM INVESTMENTS (2.9%)^(a)

	Shares	Value
Putnam Short Term Investment Fund Class P 5.50% ^(AFF)	969,898	\$969,898
Total short-term investments (cost \$969,898)		\$969,898

TOTAL INVESTMENTS

Total investments (cost \$22,834,678)		\$33,987,397
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FORWARD CURRENCY CONTRACTS at 3/31/24 (aggregate face value \$3,461,638) (Unaudited)

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
	Canadian Dollar	Buy	4/17/24	\$23,630	\$23,785	\$(155)
	Danish Krone	Sell	6/20/24	86,444	87,400	956
	Euro	Sell	6/20/24	158,767	159,847	1,080
	Swedish Krona	Buy	6/20/24	80,828	83,713	(2,885)
Barclays Bank PLC						
	Euro	Sell	6/20/24	151,083	152,112	1,029
Citibank, N.A.						
	Danish Krone	Sell	6/20/24	70,863	71,648	784
Goldman Sachs International						
	Brazilian Real	Buy	4/2/24	168,720	170,743	(2,023)
	Brazilian Real	Sell	4/2/24	168,720	169,664	944

Brazilian Real	Buy	7/2/24	167,265	168,231	(966)
Swedish Krona	Buy	6/20/24	71,625	74,197	(2,572)
HSBC Bank USA, National Association					
British Pound	Sell	6/20/24	33,082	33,263	181
Canadian Dollar	Sell	4/17/24	57,302	58,173	871
Danish Krone	Sell	6/20/24	149,394	151,016	1,622
Euro	Sell	6/20/24	315,369	317,604	2,235
Swedish Krona	Buy	6/20/24	79,132	81,929	(2,797)
Morgan Stanley & Co. International PLC					
British Pound	Sell	6/20/24	9,091	9,145	54
Canadian Dollar	Sell	4/17/24	359,170	364,664	5,494
Danish Krone	Sell	6/20/24	151,688	153,285	1,597
Euro	Sell	6/20/24	439,396	442,530	3,134
Swiss Franc	Sell	6/20/24	301,537	307,777	6,240
NatWest Markets PLC					
Danish Krone	Sell	6/20/24	175,053	176,996	1,943
Swedish Krona	Buy	6/20/24	64,708	67,026	(2,318)
State Street Bank and Trust Co.					
Canadian Dollar	Sell	4/17/24	53,388	54,213	825
Euro	Sell	6/20/24	974	981	7
WestPac Banking Corp.					
Swiss Franc	Sell	6/20/24	80,082	81,696	1,614
Unrealized appreciation					30,610
Unrealized (depreciation)					(13,716)
Total					\$16,894

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

Key to holding's currency 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, 2024 through March 31, 2024. 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 Franklin Resources, Inc., 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 \$33,942,647.

(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 12/31/23	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 3/31/24
Short-term investments					
Putnam Short Term Investment Fund Class P‡	971,880	2,109,001	2,110,983	11,647	969,898
Total Short-term investments	\$971,880	\$2,109,001	\$2,110,983	\$11,647	\$969,898

‡ 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. 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, which has been designated as valuation designee pursuant to Rule 2a-5 under the Investment Company Act of 1940, 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 for hedging 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 \$5,996 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	\$522,754	\$—	\$—
Consumer discretionary	2,855,964	—	—
Consumer staples	1,227,980	—	—
Financials	2,291,772	—	—
Health care	8,856,491	—	—
Industrials	5,626,507	—	—
Information technology	9,392,686	—	—
Materials	1,180,758	—	—
Real estate	271,264	—	—
Utilities	791,323	—	—
	<hr/>	<hr/>	<hr/>
Total common stocks	33,017,499	—	—
Short-term investments	—	969,898	—
	<hr/>	<hr/>	<hr/>
Totals by level	\$33,017,499	\$969,898	\$—

	Valuation inputs		
Other financial instruments:	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$16,894	\$—
	<hr/>	<hr/>	<hr/>
Totals by level	\$—	\$16,894	\$—

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

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) \$3,300,000

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.putnam.com