Putnam VT Sustainable Leaders Fund

The fund's portfolio

3/31/23 (Unaudited)

COMMON STOCKS (99.2%)(a)

	Shares	Value
Automobiles (1.0%)		
General Motors Co.	214,200	\$7,856,856
		7,856,856
Banks (3.1%)		
Bank of America Corp.	575,604	16,462,274
JPMorgan Chase & Co.	55,100	7,180,081
		23,642,355
Beverages (2.4%)		
Heineken NV (Netherlands)	167,391	18,020,439
		18,020,439
Biotechnology (2.8%)		
Amgen, Inc.	44,500	10,757,875
Regeneron Pharmaceuticals, Inc. (NON)	13,300	10,928,211
		21,686,086
Broadline retail (2.8%)		
Amazon.com, Inc. (NON)	204,200	21,091,818
		21,091,818
Capital markets (3.1%)		
Charles Schwab Corp. (The)	176,900	9,266,022
KKR & Co., Inc.	152,900	8,030,308
TPG, Inc.	223,858	6,565,755
		23,862,085
Chemicals (5.5%)		
Eastman Chemical Co.	114,200	9,631,628
Ginkgo Bioworks Holdings, Inc. (NON)	904,307	1,202,728
Koninklijke DSM NV (Netherlands)	54,875 47,700	6,485,818
Linde PLC Novozymes A/S Class B (Denmark)	47,700 157,249	16,954,488 8,054,776
Trovozymocz to olaco z (zermani)	.0.,2.0	42,329,438
		72,J23,4J0

Consumer staples distribution and retail (4.4%)		
Dollar General Corp.	50,600	10,649,276
Walmart, Inc.	156,500	23,075,925
		33,725,201
Electric utilities (2.1%)		
Constellation Energy Corp.	169,300	13,290,050
NextEra Energy, Inc.	38,600	2,975,288
		16,265,338
Entertainment (1.7%)		
Walt Disney Co. (The)(NON)	128,000	12,816,640
		12,816,640
Financial services (3.0%)		
PayPal Holdings, Inc. (NON)	70,200	5,330,988
Visa, Inc. Class A	78,300	17,653,518
		22,984,506
Health care equipment and supplies (3.9%)		
Boston Scientific Corp. (NON)	366,600	18,340,998
Cooper Cos., Inc. (The)	30,500	11,387,480
		29,728,478
Health care providers and services (2.7%)		
UnitedHealth Group, Inc.	43,900	20,746,701
		20,746,701
Hotels, restaurants, and leisure (5.1%)		
Chipotle Mexican Grill, Inc. ^(NON)	7.500	12.812.175
•	7,500 119,799	12,812,175 16,876,085
Hilton Worldwide Holdings, Inc.		
Chipotle Mexican Grill, Inc. (NON) Hilton Worldwide Holdings, Inc. Starbucks Corp.	119,799	16,876,085
Hilton Worldwide Holdings, Inc.	119,799	16,876,085 9,111,375
Hilton Worldwide Holdings, Inc. Starbucks Corp.	119,799	16,876,085 9,111,375
Hilton Worldwide Holdings, Inc. Starbucks Corp. Independent power and renewable electricity producers (1.0%)	119,799 87,500	16,876,085 9,111,375 ————————————————————————————————————
Hilton Worldwide Holdings, Inc. Starbucks Corp. Independent power and renewable electricity producers (1.0%)	119,799 87,500	16,876,085 9,111,375 38,799,635 7,739,312
Hilton Worldwide Holdings, Inc. Starbucks Corp. Independent power and renewable electricity producers (1.0%) AES Corp. (The)	119,799 87,500	16,876,085 9,111,375 38,799,635 7,739,312
Hilton Worldwide Holdings, Inc. Starbucks Corp. Independent power and renewable electricity producers (1.0%) AES Corp. (The) Industrial REITs (1.3%)	119,799 87,500 321,400	16,876,085 9,111,375 38,799,635 7,739,312 7,739,312
Hilton Worldwide Holdings, Inc. Starbucks Corp. Independent power and renewable electricity producers (1.0%) AES Corp. (The) Industrial REITs (1.3%)	119,799 87,500 321,400	16,876,085 9,111,375 38,799,635 7,739,312 7,739,312
Hilton Worldwide Holdings, Inc. Starbucks Corp. Independent power and renewable electricity producers (1.0%) AES Corp. (The) Industrial REITs (1.3%) Prologis, Inc. (R)	119,799 87,500 321,400	16,876,085 9,111,375 38,799,635 7,739,312 7,739,312

		29,810,259
Machinery (6.0%)		
Deere & Co.	15,600	6,440,928
Fortive Corp.	219,300	14,949,681
Ingersoll Rand, Inc.	278,500	16,203,130
Otis Worldwide Corp.	102,500	8,651,000
		46,244,739
Office REITs (0.6%)		
Boston Properties, Inc. ^(R)	82,700	4,475,724
		4,475,724
Personal care products (1.1%)		
Unilever PLC (United Kingdom)	167,254	8,650,162
		8,650,162
Pharmaceuticals (5.5%)		
Eli Lilly and Co.	51,300	17,617,446
Merck & Co., Inc.	130,200	13,851,978
Sanofi (France)	97,212	10,586,595
		42,056,019
Semiconductors and semiconductor equipment (7.2%)		
Advanced Micro Devices, Inc. (NON)	108,400	10,624,284
Applied Materials, Inc.	81,000	9,949,230
ASML Holding NV (NY Reg Shares) (Netherlands)	17,600	11,980,496
NVIDIA Corp.	82,400	22,888,248
		55,442,258
Software (15.6%)		
Adobe, Inc. (NON)	40,300	15,530,411
Intuit, Inc.	20,500	9,139,515
Microsoft Corp.	210,500	60,687,152
Roper Technologies, Inc.	35,500	15,644,495
Salesforce, Inc.(NON)	92,200	18,419,716
		119,421,289
Specialized REITs (1.3%)		
American Tower Corp. (R)	50,300	10,278,302
		10,278,302
Specialty retail (1.7%)		- ,—
Home Depot, Inc. (The)	44,100	13,014,792
		13,014,792
		, ,

Technology hardware, storage, and peripherals (7.4%)		
Apple, Inc.	343,888	56,707,131
		56,707,131
Textiles, apparel, and luxury goods (1.8%)		
Levi Strauss & Co. Class A	320,070	5,834,876
LVMH Moet Hennessy Louis Vuitton SA (France)	9,069	8,311,355
		14,146,231
Wireless telecommunication services (1.2%)		
T-Mobile US, Inc. (NON)	65,800	9,530,472
		9,530,472
Total common stocks (cost \$564,249,738)		\$760,754,418

SHORT-TERM INVESTMENTS $(1.1\%)^{(a)}$

	a	Principal mount/shares	Value
Putnam Short Term Investment Fund Class P 4.88% (AFF)	Shares	6,678,412	\$6,678,412
U.S. Treasury Bills 4.468%, 5/23/23(SEGSF)		\$1,100,000	1,092,989
U.S. Treasury Bills 4.507%, 5/11/23 ^(SEGSF)		400,000	398,037
Total short-term investments (cost \$8,169,501)			\$8,169,438
TOTAL INVESTMENTS			
Total investments (cost \$572,419,239)		;	\$768,923,856

FORWARD CURRENCY CONTRACTS at 3/31/23 (aggregate face value \$70,364,338) (Unaudited)

					Unrealized
	Contract	Delivery		Aggregate	appreciation/
Counterparty Currency	type*	date	Value	face value	(depreciation)

Bank of Amer	ica N.A.					
	British Pound	Sell	6/21/23	\$2,282,314	\$2,212,474	\$(69,840)
	Danish Krone	Sell	6/21/23	4,816,598	4,728,324	(88,274)
	Euro	Sell	6/21/23	2,466,963	2,416,564	(50,399)
Barclays Ban	k PLC					
	British Pound	Sell	6/21/23	576,107	558,528	(17,579)
HSBC Bank U	SA, National As	sociation				
	British Pound	Sell	6/21/23	2,399,932	2,326,280	(73,652)
	Danish Krone	Sell	6/21/23	4,816,598	4,728,052	(88,546)
	Euro	Sell	6/21/23	6,409,223	6,277,110	(132,113)
JPMorgan Ch	ase Bank N.A.					
-	Euro	Sell	6/21/23	7,204,603	7,056,465	(148,138)
Morgan Stanl	ey & Co. Interna	tional PLC				
	Euro	Sell	6/21/23	16,108,888	15,777,357	(331,531)
State Street B	ank and Trust C	o.				
	British Pound	Sell	6/21/23	2,490,988	2,414,381	(76,607)
	Euro	Sell	6/21/23	4,340,277	4,250,397	(89,880)
Toronto-Domi	inion Bank					
	Danish Krone	Buy	6/21/23	2,058,263	2,041,345	16,918
UBS AG						
	Euro	Sell	6/21/23	9,096,108	8,909,445	(186,663)
WestPac Ban	king Corp.					
	Euro	Sell	6/21/23	6,807,131	6,667,616	(139,515)
Unrealized ap	preciation					16,918
Unrealized (de	epreciation)					(1,492,737)
Total						\$(1,475,819)

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

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 whollyowned 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 \$766,770,120.

(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	Sale proceeds	Investment income	outstanding and fair value as of 3/31/23
Short-term investments					
Putnam Short Term Investment Fund*	\$10,453,100	\$33,211,219	\$36,985,907	\$93,676	\$6,678,412
Total Short-term investments	\$10,453,10 0	\$33,211,219	\$36,985,907	\$93,676	\$6,678,412

^{*} 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.

- (SEGSF) This security, in part or in entirety, was pledged and segregated with the custodian for collateral on certain derivative contracts at the close of the reporting period. Collateral at period end totaled \$1,345,359.
 - (R) Real Estate Investment Trust.

Unless otherwise noted, the rates quoted in Short-term investments security descriptions represent the weighted average yield to maturity.

The dates shown on debt obligations are the original maturity dates.

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.

Market quotations are not considered to be readily available for certain debt obligations (including short-term investments with remaining maturities of 60 days or less) and other investments; such investments are valued on the basis of valuations furnished by an independent pricing service approved by the Trustees or dealers selected by Putnam Management. Such services or dealers determine valuations for normal institutional-size trading units of such securities using methods based on market transactions for comparable securities and various relationships, generally recognized by institutional traders, between securities (which consider such factors as security prices, yields, maturities and ratings). These securities will generally be categorized as Level 2.

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.

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 \$1,492,737 on open derivative contracts subject to the Master Agreements. Collateral posted by the fund at period end for these agreements totaled \$1,345,359 and may include amounts related to unsettled 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	\$22,347,112	\$—	\$—		
Consumer discretionary	86,597,977	8,311,355	_		
Consumer staples	33,725,201	26,670,601	_		
Financials	70,488,946	_	_		
Health care	133,440,948	10,586,595	_		
Industrials	46,244,739	_	_		
Information technology	231,570,678	_	_		
Materials	27,788,844	14,540,594	_		
Real estate	24,436,178	_	_		
Utilities	24,004,650	_	_		
Total common stocks	700,645,273	60,109,145	_		
Short-term investments	_	8,169,438	_		
Totals by level	\$700,645,273	\$68,278,583	\$—		
	V	aluation inputs			
Other financial instruments:	Level 1	Level 2	Level 3		
Forward currency contracts	\$—	\$(1,475,819)	\$—		
Totals by level		\$(1,475,819)	<u> </u>		

* 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) \$68,100,000

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.putnaminvestments.com