

Putnam VT Sustainable Leaders Fund

The fund's portfolio

9/30/23 (Unaudited)

COMMON STOCKS (99.0%)(a)

	Shares	Value
Automobiles (1.1%)		
General Motors Co.	244,300	\$8,054,571
		8,054,571
Banks (3.2%)		
Bank of America Corp.	440,304	12,055,524
JPMorgan Chase & Co.	83,000	12,036,660
		24,092,184
Beverages (1.2%)		
Heineken NV (Netherlands)	100,490	8,839,860
		8,839,860
Biotechnology (1.4%)		
Regeneron Pharmaceuticals, Inc. (NON)	13,300	10,945,368
		10,945,368
Broadline retail (4.2%)		
Amazon.com, Inc. (NON)	249,400	31,703,728
		31,703,728
Capital markets (3.4%)		
Charles Schwab Corp. (The)	176,900	9,711,810
KKR & Co., Inc.	152,900	9,418,640
TPG, Inc.	223,858	6,742,603
		25,873,053
Chemicals (4.2%)		
Eastman Chemical Co.	114,200	8,761,424
Ginkgo Bioworks Holdings, Inc. (NON)	904,307	1,636,796
Linde PLC	41,000	15,266,350
Novozymes A/S Class B (Denmark)	157,249	6,339,228
		32,003,798
Commercial services and supplies (0.7%)		
Waste Connections, Inc.	42,800	5,748,040

5,748,040**Consumer staples distribution and retail (3.8%)**

Kroger Co. (The)	148,600	6,649,850
Target Corp.	8,600	950,902
Walmart, Inc.	134,500	21,510,585

29,111,337**Electric utilities (2.7%)**

Constellation Energy Corp.	169,300	18,467,244
NextEra Energy, Inc.	38,600	2,211,394

20,678,638**Entertainment (1.2%)**

Walt Disney Co. (The) ^(NON)	112,000	9,077,600
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9,077,600**Financial services (2.4%)**

Visa, Inc. Class A	78,300	18,009,783
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18,009,783**Ground transportation (1.0%)**

Canadian Pacific Railway, Ltd. (Canada)	100,700	7,485,126
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7,485,126**Health care equipment and supplies (3.4%)**

Boston Scientific Corp. ^(NON)	327,100	17,270,880
Cooper Cos., Inc. (The)	26,100	8,300,061

25,570,941**Health care providers and services (2.9%)**

UnitedHealth Group, Inc.	43,900	22,133,941
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22,133,941**Hotels, restaurants, and leisure (3.8%)**

Chipotle Mexican Grill, Inc. ^(NON)	6,200	11,357,346
Hilton Worldwide Holdings, Inc.	119,799	17,991,414

29,348,760**Independent power and renewable electricity producers (0.8%)**

AES Corp. (The)	427,500	6,498,000
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6,498,000**Industrial REITs (1.2%)**

Prologis, Inc. ^(R)	83,400	9,358,314
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9,358,314**Life sciences tools and services (3.3%)**

Danaher Corp.	39,500	9,799,950
Thermo Fisher Scientific, Inc.	29,900	15,134,483

24,934,433**Machinery (5.5%)**

Fortive Corp.	219,300	16,263,288
Ingersoll Rand, Inc.	278,500	17,746,020
Otis Worldwide Corp.	102,500	8,231,775

42,241,083**Office REITs (0.9%)**

Boston Properties, Inc. ^(R)	116,300	6,917,524
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6,917,524**Personal care products (2.5%)**

Kenvue, Inc.	360,942	7,247,715
Unilever PLC (United Kingdom)	233,801	11,574,429

18,822,144**Pharmaceuticals (5.8%)**

Eli Lilly and Co.	37,500	20,142,375
Merck & Co., Inc.	130,200	13,404,090
Sanofi (France)	97,212	10,431,060

43,977,525**Semiconductors and semiconductor equipment (8.4%)**

Advanced Micro Devices, Inc. ^(NON)	81,000	8,328,420
Applied Materials, Inc.	81,000	11,214,450
ASML Holding NV (NY Reg Shares) (Netherlands)	17,600	10,360,416
NVIDIA Corp.	79,200	34,451,208

64,354,494**Software (17.5%)**

Adobe, Inc. ^(NON)	33,600	17,132,640
Intuit, Inc.	16,500	8,430,510
Microsoft Corp.	210,500	66,465,375
Roper Technologies, Inc.	35,500	17,191,940
Salesforce, Inc. ^(NON)	92,200	18,696,316
Synopsys, Inc. ^(NON)	12,100	5,553,537

133,470,318**Specialized REITs (0.9%)**

American Tower Corp. ^(R)	40,800	6,709,560
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		6,709,560
Specialty retail (1.8%)		
Home Depot, Inc. (The)	44,100	13,325,256
		13,325,256
Technology hardware, storage, and peripherals (7.7%)		
Apple, Inc.	343,888	58,877,064
		58,877,064
Textiles, apparel, and luxury goods (1.4%)		
LVMH Moet Hennessy Louis Vuitton SA (France)	10,802	8,149,317
On Holding AG Class A (Switzerland) ^(NON)	78,600	2,186,652
		10,335,969
Wireless telecommunication services (0.7%)		
T-Mobile US, Inc. ^(NON)	39,200	5,489,959
		5,489,959
Total common stocks (cost \$526,898,657)		\$753,988,371

U.S. TREASURY OBLIGATIONS (0.1%)^(a)

	Principal amount	Value
U.S. Treasury Notes		
2.25%, 11/15/25 ⁽ⁱ⁾	\$118,000	\$112,494
1.625%, 5/15/31 ⁽ⁱ⁾	165,000	134,967
1.625%, 8/15/29 ⁽ⁱ⁾	148,000	125,887
1.625%, 2/15/26 ⁽ⁱ⁾	122,000	113,253
0.25%, 7/31/25 ⁽ⁱ⁾	134,000	122,748
Total U.S. treasury obligations (cost \$609,349)		\$609,349

SHORT-TERM INVESTMENTS (1.0%)(a)

		Principal amount/shares	Value
Putnam Short Term Investment Fund Class P 5.57% ^(AFF)	Shares	5,171,638	\$5,171,638
State Street Institutional U.S. Government Money Market Fund, Premier Class 5.29% ^(P)	Shares	370,000	370,000
U.S. Treasury Bills 5.407%, 12/7/23		\$900,000	891,230
U.S. Treasury Bills 5.324%, 11/16/23		700,000	695,367
U.S. Treasury Bills 5.259%, 11/9/23		600,000	596,647
U.S. Treasury Bills 5.453%, 10/26/23		200,000	199,296
Total short-term investments (cost \$7,924,341)			\$7,924,178

TOTAL INVESTMENTS

Total investments (cost \$535,432,347)	\$762,521,898
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FORWARD CURRENCY CONTRACTS at 9/30/23 (aggregate face value \$69,337,799) (Unaudited)

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
	British Pound	Sell	12/20/23	\$2,255,116	\$2,302,576	\$47,460
	Danish Krone	Sell	12/20/23	2,684,210	2,730,698	46,488
	Euro	Sell	12/20/23	2,403,239	2,444,331	41,092
Barclays Bank PLC						
	British Pound	Sell	12/20/23	569,242	580,939	11,697
Citibank, N.A.						
	Euro	Sell	12/20/23	2,583,524	2,627,650	44,126
HSBC Bank USA, National Association						
	British Pound	Sell	12/20/23	2,371,333	2,420,011	48,678
	Danish Krone	Sell	12/20/23	4,687,162	4,767,772	80,610
	Euro	Sell	12/20/23	6,243,667	6,333,487	89,820
JPMorgan Chase Bank N.A.						
	Canadian Dollar	Sell	10/18/23	7,976,862	8,213,873	237,011
	Euro	Sell	12/20/23	4,478,059	4,554,800	76,741
Morgan Stanley & Co. International PLC						

Euro	Sell	12/20/23	8,056,495	8,202,297	145,802
State Street Bank and Trust Co.					
British Pound	Sell	12/20/23	5,410,180	5,521,535	111,355
Euro	Sell	12/20/23	510,402	519,106	8,704
Swiss Franc	Sell	12/20/23	2,310,010	2,381,945	71,935
UBS AG					
Euro	Sell	12/20/23	8,861,147	8,992,284	131,137
WestPac Banking Corp.					
Euro	Sell	12/20/23	6,631,293	6,744,495	113,202
Unrealized appreciation					1,305,858
Unrealized (depreciation)					—
Total					\$1,305,858

* 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 September 30, 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 \$761,398,793.

(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 9/30/23
Short-term investments					
Putnam Short Term Investment Fund*	\$10,453,100	\$87,751,665	\$93,033,127	\$532,022	\$5,171,638

**Total Short-term
investments**

\$10,453,100 \$87,751,665 \$93,033,127 \$532,022 \$5,171,638

* 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.

- (i) This security was pledged, or purchased with cash that was pledged, to the fund for collateral on certain derivative contracts.
- (P) This security was pledged, or purchased with cash that was pledged, to the fund for collateral on certain derivative contracts. The rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting period.
- (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 Depositary 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, 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 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 posted to the fund which cannot be sold or repledged totaled \$118,182 at the close of the reporting period.

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 did not have a net liability position on open derivative contracts subject to the Master 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	\$14,567,559	\$—	\$—
Consumer discretionary	84,618,967	8,149,317	—
Consumer staples	36,359,052	20,414,289	—
Financials	67,975,020	—	—
Health care	117,131,148	10,431,060	—
Industrials	55,474,249	—	—
Information technology	256,701,876	—	—
Materials	25,664,570	6,339,228	—
Real estate	22,985,398	—	—
Utilities	27,176,638	—	—
Total common stocks	708,654,477	45,333,894	—
U.S. treasury obligations	—	609,349	—
Short-term investments	370,000	7,554,178	—
Totals by level	\$709,024,477	\$53,497,421	\$—

	Valuation inputs		
Other financial instruments:	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$1,305,858	\$—
Totals by level	\$—	\$1,305,858	\$—

* 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) \$69,200,000

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