

Putnam VT Sustainable Future Fund

The fund's portfolio

9/30/22 (Unaudited)

COMMON STOCKS (97.6%)(a)

	Shares	Value
Banks (0.9%)		
First Republic Bank/CA	1,852	\$241,779
		241,779
Biotechnology (5.4%)		
Compass Pathways PLC ADR (United Kingdom)(NON)	11,200	120,176
Exact Sciences Corp.(NON)	6,205	201,600
Regeneron Pharmaceuticals, Inc.(NON)	930	640,649
Seagen, Inc.(NON)	1,690	231,243
Twist Bioscience Corp.(NON)	4,950	174,438
		1,368,106
Building products (1.8%)		
Advanced Drainage Systems, Inc.	3,640	452,707
		452,707
Capital markets (2.6%)		
MSCI, Inc.	1,590	670,646
		670,646
Chemicals (5.8%)		
Ecolab, Inc.	2,025	292,451
Ginkgo Bioworks Holdings, Inc.(NON)	42,063	131,237
Ginkgo Bioworks Holdings, Inc.(NON)	11,740	36,629
Ingevity Corp.(NON)	4,830	292,843
Koninklijke DSM NV (Netherlands)	3,282	372,244
Novozymes A/S Class B (Denmark)	6,940	346,145
		1,471,549
Commercial services and supplies (4.5%)		
Casella Waste Systems, Inc. Class A(NON)	6,710	512,577
Cintas Corp.	1,640	636,632
		1,149,209
Construction and engineering (1.3%)		

Quanta Services, Inc.	2,680	341,405
		341,405
Containers and packaging (0.8%)		
Ball Corp.	4,015	194,005
		194,005
Diversified consumer services (0.9%)		
Chegg, Inc. <i>(NON)</i>	10,415	219,444
		219,444
Diversified financial services (1.3%)		
Eurazeo SE (France)	6,081	317,514
		317,514
Diversified telecommunication services (1.4%)		
Liberty Global PLC Class C (United Kingdom) <i>(NON)</i>	21,920	361,680
		361,680
Electric utilities (2.4%)		
NextEra Energy, Inc.	7,665	601,013
		601,013
Electrical equipment (2.8%)		
Fluence Energy, Inc. <i>(NON)</i>	15,577	227,268
Sunrun, Inc. <i>(NON)</i>	17,078	471,182
		698,450
Electronic equipment, instruments, and components (3.0%)		
Trimble Inc. <i>(NON)</i>	7,785	422,492
Zebra Technologies Corp. Class A <i>(NON)</i>	1,325	347,163
		769,655
Food and staples retailing (1.5%)		
Sprouts Farmers Market, Inc. <i>(NON)</i>	13,710	380,453
		380,453
Food products (2.6%)		
McCormick & Co., Inc. (non-voting shares)	9,135	651,051
		651,051
Health-care equipment and supplies (6.4%)		
Cooper Cos., Inc. (The)	1,285	339,112
DexCom, Inc. <i>(NON)</i>	6,820	549,283

Edwards Lifesciences Corp. ^(NON)	6,120	505,696
Mesa Laboratories, Inc.	1,564	220,258
		<hr/>
		1,614,349
Health-care providers and services (2.3%)		
HealthEquity, Inc. ^(NON)	8,500	570,945
		<hr/>
		570,945
Health-care technology (1.8%)		
Veeva Systems, Inc. Class A ^(NON)	2,810	463,313
		<hr/>
		463,313
Hotels, restaurants, and leisure (3.5%)		
Chipotle Mexican Grill, Inc. ^(NON)	595	894,142
		<hr/>
		894,142
Internet and direct marketing retail (1.0%)		
Etsy, Inc. ^(NON)	2,350	235,306
thredUp, Inc. Class A ^(NON)	13,025	23,966
		<hr/>
		259,272
IT Services (2.0%)		
Gartner, Inc. ^(NON)	750	207,518
Mastercard, Inc. Class A	1,090	309,931
		<hr/>
		517,449
Life sciences tools and services (7.5%)		
Bio-Rad Laboratories, Inc. Class A ^(NON)	940	392,112
Danaher Corp.	2,969	766,863
Thermo Fisher Scientific, Inc.	1,435	727,818
		<hr/>
		1,886,793
Machinery (1.0%)		
Federal Signal Corp.	7,080	264,226
		<hr/>
		264,226
Mortgage real estate investment trusts (REITs) (1.6%)		
Hannon Armstrong Sustainable Infrastructure Capital, Inc. ^(R)	13,305	398,219
		<hr/>
		398,219
Pharmaceuticals (1.3%)		
Zoetis, Inc.	2,180	323,272
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		323,272

Professional services (2.6%)

Bureau Veritas SA (France)	14,910	332,973
Planet Labs PBC ^(NON)	57,860	314,180
		<hr/>
		647,153

Semiconductors and semiconductor equipment (3.6%)

Applied Materials, Inc.	4,360	357,215
ASML Holding NV (NY Reg Shares) (Netherlands)	705	292,822
SolarEdge Technologies, Inc. (Israel) ^(NON)	1,090	252,291
		<hr/>
		902,328

Software (18.8%)

Adobe, Inc. ^(NON)	1,636	450,221
Atlassian Corp PLC Class A (Australia) ^(NON)	1,290	271,661
Bill.com Holdings, Inc. ^(NON)	2,210	292,538
Ceridian HCM Holding, Inc. ^(NON)	6,250	349,250
CrowdStrike Holdings, Inc. Class A ^(NON)	4,615	760,598
Dynatrace, Inc. ^(NON)	14,236	495,555
Palo Alto Networks, Inc. ^(NON)	3,350	548,697
Roper Technologies, Inc.	1,200	431,568
ServiceNow, Inc. ^(NON)	870	328,521
Verra Mobility Corp. ^(NON)	25,090	385,633
Zscaler, Inc. ^(NON)	2,700	443,799
		<hr/>
		4,758,041

Specialty retail (0.5%)

Brilliant Earth Group, Inc. Class A ^(NON)	21,700	124,341
		<hr/>
		124,341

Textiles, apparel, and luxury goods (3.0%)

Levi Strauss & Co. Class A	27,070	391,703
Lululemon Athletica, Inc. (Canada) ^(NON)	1,305	364,826
		<hr/>
		756,529

Trading companies and distributors (1.7%)

Core & Main, Inc. Class A ^(NON)	19,100	434,334
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		434,334

Total common stocks (cost \$23,618,952)

\$24,703,372

SHORT-TERM INVESTMENTS (2.1%)(a)

	Shares	Value
Putnam Short Term Investment Fund Class P 3.11%(AFF)	539,680	\$539,680
Total short-term investments (cost \$539,680)		\$539,680
TOTAL INVESTMENTS		
Total investments (cost \$24,158,632)		\$25,243,052

FORWARD CURRENCY CONTRACTS at 9/30/22 (aggregate face value \$4,080,824) (Unaudited)

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
	Danish Krone	Sell	12/21/22	\$154,943	\$160,213	\$5,270
	Euro	Sell	12/21/22	397,767	408,204	10,437
Barclays Bank PLC						
	British Pound	Sell	12/21/22	151,023	156,582	5,559
Citibank, N.A.						
	Israeli Shekel	Sell	10/19/22	115,949	123,035	7,086
Goldman Sachs International						
	Australian Dollar	Sell	10/19/22	117,841	123,089	5,248
	Israeli Shekel	Sell	10/19/22	104,635	106,562	1,927
HSBC Bank USA, National Association						
	British Pound	Sell	12/21/22	309,312	320,684	11,372
	Canadian Dollar	Sell	10/19/22	292,022	312,039	20,017
	Danish Krone	Sell	12/21/22	226,937	234,673	7,736
	Euro	Sell	12/21/22	666,560	684,167	17,607
	Israeli Shekel	Sell	10/19/22	121,845	124,086	2,241
	Swedish Krona	Buy	12/21/22	131,530	139,023	(7,493)
JPMorgan Chase Bank N.A.						
	Australian Dollar	Sell	10/19/22	48,493	52,149	3,656

Euro	Sell	12/21/22	65,966	67,697	1,731
Morgan Stanley & Co. International PLC					
British Pound	Sell	12/21/22	92,447	95,852	3,405
Canadian Dollar	Buy	10/19/22	235,847	253,541	(17,694)
Euro	Sell	12/21/22	261,201	273,596	12,395
NatWest Markets PLC					
Australian Dollar	Sell	10/19/22	140,360	154,689	14,329
State Street Bank and Trust Co.					
Canadian Dollar	Sell	10/19/22	52,338	55,341	3,003
Toronto-Dominion Bank					
Euro	Buy	12/21/22	79,475	81,138	(1,663)
UBS AG					
British Pound	Buy	12/21/22	75,009	71,637	3,372
Israeli Shekel	Buy	10/19/22	76,953	82,827	(5,874)
Unrealized appreciation					136,391
Unrealized (depreciation)					(32,724)
Total					\$103,667

* 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, 2022 through September 30, 2022 (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 \$25,323,032.

(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 12/31/21	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 9/30/22
Short-term investments					
Putnam Cash Collateral Pool, LLC*#	\$2,909,090	\$7,956,010	\$10,865,100	\$3,343	\$—
Putnam Short Term Investment Fund**	1,205,155	6,627,336	7,292,811	4,537	539,680
Total Short-term investments	\$4,114,245	\$14,583,346	\$18,157,911	\$7,880	\$539,680

* The fund may lend securities, through its agent, to qualified borrowers in order to earn additional income. The loans are collateralized by cash in an amount at least equal to the fair value of the securities loaned. The fair value of securities loaned is determined daily and any additional required collateral is allocated to the fund on the next business day. The remaining maturities of the securities lending transactions are considered overnight and continuous. The risk of borrower default will be borne by the fund's agent; the fund will bear the risk of loss with respect to the investment of the cash collateral. The fund receives cash collateral, which is invested in Putnam Cash Collateral Pool, LLC, a limited liability company managed by an affiliate of Putnam Management. Investments in Putnam Cash Collateral Pool, LLC are valued at its closing net asset value each business day. There are no management fees charged to Putnam Cash Collateral Pool, LLC and there were no realized or unrealized gains or losses during the period.

At the close of the reporting period, the fund did not have any securities on loan.

** 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 \$6,059 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	\$361,680	\$—	\$—
Consumer discretionary	2,253,728	—	—
Consumer staples	1,031,504	—	—
Financials	1,310,644	317,514	—
Health care	6,226,778	—	—
Industrials	3,654,511	332,973	—
Information technology	6,947,473	—	—
Materials	815,928	849,626	—
Utilities	601,013	—	—
Total common stocks	23,203,259	1,500,113	—
Short-term investments	—	539,680	—
Totals by level	\$23,203,259	\$2,039,793	\$—

	Valuation inputs		
Other financial instruments:	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$103,667	\$—
Totals by level	\$—	\$103,667	\$—

* 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)	\$3,200,000
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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