

Putnam VT Large Cap Value Fund

The fund's portfolio

9/30/22 (Unaudited)

COMMON STOCKS (93.0%)(a)

	Shares	Value
Aerospace and defense (3.9%)		
Northrop Grumman Corp.	64,663	\$30,412,302
Raytheon Technologies Corp.	288,895	23,648,945
		<u>54,061,247</u>
Airlines (1.0%)		
Southwest Airlines Co. (NON)	462,134	14,252,213
		<u>14,252,213</u>
Automobiles (1.2%)		
General Motors Co.	516,107	16,561,874
		<u>16,561,874</u>
Banks (7.4%)		
Bank of America Corp.	1,233,554	37,253,331
Citigroup, Inc.	589,623	24,569,590
JPMorgan Chase & Co.	120,786	12,622,137
KeyCorp	176,859	2,833,281
PNC Financial Services Group, Inc. (The)	149,402	22,323,647
		<u>99,601,986</u>
Beverages (2.3%)		
Coca-Cola Co. (The)	259,875	14,558,198
Keurig Dr Pepper, Inc.	476,344	17,062,642
		<u>31,620,840</u>
Biotechnology (3.5%)		
AbbVie, Inc.	112,974	15,162,241
Regeneron Pharmaceuticals, Inc. (NON)	48,563	33,453,594
		<u>48,615,835</u>
Building products (1.1%)		
Johnson Controls International PLC	304,899	15,007,129
		<u>15,007,129</u>
Capital markets (4.5%)		

Charles Schwab Corp. (The)	347,754	24,993,080
Goldman Sachs Group, Inc. (The)	101,870	29,853,004
State Street Corp.	120,800	7,345,848
		62,191,932
Chemicals (3.5%)		
Corteva, Inc.	390,922	22,341,192
Eastman Chemical Co.	142,862	10,150,345
PPG Industries, Inc.	137,298	15,197,516
		47,689,053
Construction materials (0.8%)		
CRH PLC (Ireland)	352,304	11,281,221
		11,281,221
Consumer finance (0.6%)		
Capital One Financial Corp.	82,953	7,645,778
		7,645,778
Containers and packaging (0.7%)		
Ball Corp.	201,960	9,758,707
		9,758,707
Diversified financial services (0.7%)		
Apollo Global Management, Inc.	203,317	9,454,241
		9,454,241
Electric utilities (4.9%)		
American Electric Power Co., Inc.	190,108	16,434,837
Constellation Energy Corp.	145,848	12,133,095
Exelon Corp.	448,040	16,783,578
NRG Energy, Inc.	557,670	21,342,031
		66,693,541
Electronic equipment, instruments, and components (0.4%)		
Vontier Corp.	334,960	5,597,182
		5,597,182
Equity real estate investment trusts (REITs) (2.8%)		
American Tower Corp. ^(R)	50,288	10,796,834
Boston Properties, Inc. ^(R)	133,233	9,988,478
Gaming and Leisure Properties, Inc. ^(R)	387,876	17,159,634
		37,944,946
Food and staples retailing (4.2%)		

BJ's Wholesale Club Holdings, Inc. ^(NON)	268,040	19,515,992
Walmart, Inc.	291,752	37,840,234
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		57,356,226
Health-care equipment and supplies (1.4%)		
Abbott Laboratories	202,542	19,597,964
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		19,597,964
Health-care providers and services (5.6%)		
Cigna Corp.	83,612	23,199,822
Elevance Health, Inc.	45,648	20,735,148
McKesson Corp.	95,803	32,560,566
		<hr/>
		76,495,536
Hotels, restaurants, and leisure (1.0%)		
Hilton Worldwide Holdings, Inc.	118,392	14,280,443
		<hr/>
		14,280,443
Household durables (1.2%)		
PulteGroup, Inc. ^(S)	440,077	16,502,888
		<hr/>
		16,502,888
Household products (1.3%)		
Procter & Gamble Co. (The)	142,093	17,939,241
		<hr/>
		17,939,241
Industrial conglomerates (1.4%)		
General Electric Co.	33,202	2,055,536
Honeywell International, Inc.	101,031	16,869,146
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		18,924,682
Insurance (3.4%)		
American International Group, Inc.	298,497	14,172,638
Assured Guaranty, Ltd.	369,298	17,892,488
AXA SA (France)	691,079	15,131,004
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		47,196,130
Interactive media and services (2.3%)		
Meta Platforms, Inc. Class A ^(NON)	237,144	32,175,698
		<hr/>
		32,175,698
IT Services (0.3%)		
Fidelity National Information Services, Inc.	54,368	4,108,590
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		4,108,590

Life sciences tools and services (2.5%)

Danaher Corp.	48,213	12,452,936
Thermo Fisher Scientific, Inc.	43,975	22,303,680
		<hr/>
		34,756,616

Machinery (1.1%)

Ingersoll Rand, Inc.	334,821	14,484,356
		<hr/>
		14,484,356

Media (1.5%)

Charter Communications, Inc. Class A ^{(NON)(S)}	33,932	10,293,272
Comcast Corp. Class A	359,298	10,538,210
		<hr/>
		20,831,482

Metals and mining (1.4%)

Freeport-McMoRan, Inc. (Indonesia)	685,637	18,738,459
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		18,738,459

Multi-utilities (0.6%)

Ameren Corp.	110,656	8,913,341
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		8,913,341

Multiline retail (1.0%)

Target Corp.	96,056	14,253,750
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		14,253,750

Oil, gas, and consumable fuels (8.6%)

ConocoPhillips	266,707	27,294,794
Enterprise Products Partners LP	406,242	9,660,435
EOG Resources, Inc.	59,306	6,626,259
Exxon Mobil Corp.	398,758	34,815,561
Shell PLC (Euronext Amsterdam Exchange) (United Kingdom)	863,226	21,534,066
Valero Energy Corp.	166,880	17,831,128
		<hr/>
		117,762,243

Pharmaceuticals (4.2%)

AstraZeneca PLC ADR (United Kingdom)	391,184	21,452,531
Euroapi SA (France) ^(NON)	5,838	97,204
Merck & Co., Inc.	300,424	25,872,515
Sanofi (France)	134,278	10,248,135
		<hr/>
		57,670,385

Road and rail (1.3%)

Union Pacific Corp.	90,776	17,684,980
		<hr/>

17,684,980

Semiconductors and semiconductor equipment (2.5%)

NXP Semiconductors NV	50,445	7,441,142
Qualcomm, Inc.	154,125	17,413,043
Texas Instruments, Inc.	57,299	8,868,739
		<u>33,722,924</u>

Software (3.8%)

Microsoft Corp.	171,714	39,992,187
Oracle Corp.	200,490	12,243,924
		<u>52,236,111</u>

Specialty retail (1.4%)

O'Reilly Automotive, Inc. <i>(NON)</i>	27,782	19,540,470
		<u>19,540,470</u>

Trading companies and distributors (0.8%)

United Rentals, Inc. <i>(NON)</i>	42,893	11,586,257
		<u>11,586,257</u>

Wireless telecommunication services (0.9%)

T-Mobile US, Inc. <i>(NON)</i>	88,388	11,859,018
		<u>11,859,018</u>

Total common stocks (cost \$1,009,976,433)

\$1,276,595,515

CONVERTIBLE PREFERRED STOCKS (1.4%)^(a)

	Shares	Value
Danaher Corp. 5.00% cv. pfd. <i>(S)</i>	6,266	\$8,396,440
T-Mobile US, Inc. 144A 5.25% cv. pfd. <i>(NON)</i>	10,000	11,249,000
		<u>\$19,645,440</u>

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

	Principal amount	Value
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U.S. Treasury Notes		
3.25%, 8/31/24 ⁽ⁱ⁾	\$155,000	\$152,630
1.75%, 11/15/29 ⁽ⁱ⁾	295,000	258,228
1.625%, 8/15/29 ⁽ⁱ⁾	205,000	177,210
1.625%, 5/15/26 ⁽ⁱ⁾	129,000	118,690
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Total U.S. treasury obligations (cost \$706,758)		\$706,758

SHORT-TERM INVESTMENTS (7.5%)(a)

		Principal amount/shares	Value
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Putnam Cash Collateral Pool, LLC 3.06% ^(AFF)	Shares	28,174,240	\$28,174,240
Putnam Short Term Investment Fund Class P 3.11% ^(AFF)	Shares	70,380,952	70,380,952
State Street Institutional U.S. Government Money Market Fund, Premier Class 2.94% ^(P)	Shares	3,003,000	3,003,000
U.S. Treasury Bills 2.914%, 11/15/22 ^(SEG)		\$1,500,000	1,494,925
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Total short-term investments (cost \$103,052,826)			\$103,053,117
 TOTAL INVESTMENTS			
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Total investments (cost \$1,130,382,412)			\$1,400,000,830

FORWARD CURRENCY CONTRACTS at 9/30/22 (aggregate face value \$89,844,625) (Unaudited)

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/ (depreciation)
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Bank of America N.A.						

British Pound	Sell	12/21/22	\$2,310,397	\$2,394,057	\$83,660
Euro	Sell	12/21/22	3,430,915	3,520,941	90,026
Barclays Bank PLC					
British Pound	Sell	12/21/22	18,669,859	19,357,006	687,147
Goldman Sachs International					
British Pound	Sell	12/21/22	14,492,856	15,023,999	531,143
Euro	Sell	12/21/22	2,008,557	2,060,670	52,113
HSBC Bank USA, National Association					
British Pound	Sell	12/21/22	5,375,463	5,573,086	197,623
Morgan Stanley & Co. International PLC					
Euro	Sell	12/21/22	14,568,002	14,948,194	380,192
State Street Bank and Trust Co.					
British Pound	Sell	12/21/22	3,604,881	3,737,737	132,856
Euro	Sell	12/21/22	5,473,095	5,617,152	144,057
UBS AG					
British Pound	Buy	12/21/22	3,824,765	3,652,862	171,903
Euro	Sell	12/21/22	13,514,914	13,851,587	336,673
WestPac Banking Corp.					
British Pound	Sell	12/21/22	103,626	107,334	3,708
Unrealized appreciation					2,811,101
Unrealized (depreciation)					—
Total					\$2,811,101

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

FUTURES CONTRACTS OUTSTANDING at 9/30/22 (Unaudited)

	Number of contracts	Notional amount	Value	Expiration date	Unrealized appreciation/ (depreciation)
S&P 500 Index E-Mini (Long)	89	\$15,956,009	\$16,026,675	Dec-22	\$(1,154,343)
Unrealized appreciation					—
Unrealized (depreciation)					(1,154,343)
Total					\$(1,154,343)

Key to holding's abbreviations

ADR American Depositary 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 \$1,373,182,246.

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

(AFF) Affiliated company. For investments in Putnam Cash Collateral Pool, LLC and 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*#	\$14,399,492	\$182,885,690	\$169,110,942	\$163,207	\$28,174,240
Putnam Short Term Investment Fund**	24,089,254	152,934,138	106,642,440	329,849	70,380,952
Total Short-term investments	\$38,488,746	\$335,819,828	\$275,753,382	\$493,056	\$98,555,192

* 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 received cash collateral of \$28,174,240 for securities loaned. The rate quoted in the security description is the annualized 7-day yield at

the close of the reporting period. At the close of the reporting period, the value of securities loaned amounted to \$27,077,189.

** 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.

- (SEG) This security, in part or in entirety, was pledged and segregated with the broker to cover margin requirements for futures contracts at the close of the reporting period. Collateral at period end totaled \$913,882.
- (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.
- (S) This security is on loan, in part or in entirety, at the close of the reporting period.

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

144A after the name of an issuer represents securities exempt from registration under Rule 144A of the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration, normally to qualified institutional buyers.

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.

Futures contracts: The fund used futures contracts to equitize cash.

The potential risk to the fund is that the change in value of futures contracts may not correspond to the change in value of the hedged instruments. In addition, losses may arise from changes in the value of the underlying instruments, if there is an illiquid secondary market for the contracts, if interest or exchange rates move unexpectedly or if the counterparty to the contract is unable to perform. With futures, there is minimal counterparty credit risk to the fund since futures are exchange traded and the exchange's clearinghouse, as counterparty to all exchange traded futures, guarantees the futures against default. When the contract is closed, 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.

Futures contracts are valued at the quoted daily settlement prices established by the exchange on which they trade. The fund and the broker agree to exchange an amount of cash equal to the daily fluctuation in the value of the futures contract. Such receipts or payments are known as "variation margin".

For the fund's average number of futures contracts, see the appropriate table at the end of these footnotes.

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 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	\$64,866,198	\$—	\$—
Consumer discretionary	81,139,425	—	—
Consumer staples	106,916,307	—	—
Energy	96,228,177	21,534,066	—
Financials	210,959,063	15,131,004	—
Health care	226,790,997	10,345,339	—
Industrials	146,000,864	—	—
Information technology	95,664,807	—	—
Materials	76,186,219	11,281,221	—
Real estate	37,944,946	—	—
Utilities	75,606,882	—	—
Total common stocks	1,218,303,885	58,291,630	—
Convertible preferred stocks	—	19,645,440	—
U.S. treasury obligations	—	706,758	—
Short-term investments	3,003,000	100,050,117	—
Totals by level	\$1,221,306,885	\$178,693,945	\$—

Valuation inputs

Other financial instruments:	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$2,811,101	\$—
Futures contracts	(1,154,343)	—	—
Totals by level	\$(1,154,343)	\$2,811,101	\$—

* 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:

Futures contracts (number of contracts)	30
Forward currency contracts (contract amount)	\$89,700,000

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