

Putnam VT Large Cap Value Fund†

† Effective 4/30/21, the fund changed its name from Putnam VT Equity Income Fund.

The fund's portfolio

9/30/21 (Unaudited)

COMMON STOCKS (96.1%)(a)

	Shares	Value
Aerospace and defense (2.7%)		
Northrop Grumman Corp.	76,430	\$27,526,265
Raytheon Technologies Corp.	193,480	16,631,541
		44,157,806
Airlines (1.7%)		
Southwest Airlines Co.(NON)	521,119	26,801,150
		26,801,150
Automobiles (1.9%)		
General Motors Co.(NON)	581,980	30,676,166
		30,676,166
Banks (12.1%)		
Bank of America Corp.	1,391,005	59,048,162
Citigroup, Inc.	664,885	46,661,629
JPMorgan Chase & Co.	341,896	55,964,956
KeyCorp	391,160	8,456,879
PNC Financial Services Group, Inc. (The)	128,140	25,069,310
		195,200,936
Beverages (1.7%)		
Keurig Dr Pepper, Inc.(S)	310,211	10,596,808
PepsiCo, Inc.	112,550	16,928,646
		27,525,454
Biotechnology (3.8%)		
AbbVie, Inc.	258,600	27,895,182
Regeneron Pharmaceuticals, Inc.(NON)	54,980	33,272,796
		61,167,978
Building products (2.1%)		
Fortune Brands Home & Security, Inc.	120,310	10,758,120
Johnson Controls International PLC	343,820	23,407,266
		34,165,386

		34,165,386
Capital markets (3.3%)		
Apollo Global Management, Inc.	229,270	14,120,739
Goldman Sachs Group, Inc. (The)	71,289	26,949,381
State Street Corp.	139,490	11,817,593
		52,887,713
Chemicals (3.0%)		
Corteva, Inc.	440,820	18,549,706
Dow, Inc.	356,185	20,502,009
DuPont de Nemours, Inc.	71,245	4,843,948
Sherwin-Williams Co. (The)	13,070	3,656,071
		47,551,734
Construction materials (1.2%)		
CRH PLC (Ireland)	397,270	18,531,054
		18,531,054
Consumer finance (0.9%)		
Capital One Financial Corp.	93,540	15,150,674
		15,150,674
Electric utilities (4.2%)		
American Electric Power Co., Inc.	214,370	17,402,557
Exelon Corp.	505,230	24,422,818
NRG Energy, Inc.	628,850	25,675,946
		67,501,321
Electrical equipment (1.1%)		
Eaton Corp. PLC	118,330	17,667,852
		17,667,852
Electronic equipment, instruments, and components (0.8%)		
Vontier Corp.	386,771	12,995,506
		12,995,506
Energy equipment and services (0.3%)		
Halliburton Co.	191,250	4,134,825
		4,134,825
Entertainment (0.9%)		
Activision Blizzard, Inc.	178,190	13,790,124
		13,790,124
Equity real estate investment trusts (REITs) (3.2%)		
American Tower Corp. ^(R)	58,068	15,411,828

Boston Properties, Inc. ^(R)	150,240	16,278,504
Gaming and Leisure Properties, Inc. ^(R)	437,382	20,259,534
		51,949,866
Food and staples retail (4.0%)		
BJ's Wholesale Club Holdings, Inc. ^(NON)	432,198	23,736,314
Walmart, Inc.	285,970	39,858,499
		63,594,813
Health-care equipment and supplies (1.0%)		
Danaher Corp.	54,370	16,552,403
		16,552,403
Health-care providers and services (3.2%)		
Anthem, Inc.	72,690	27,098,832
McKesson Corp.	120,289	23,983,221
		51,082,053
Hotels, restaurants, and leisure (1.7%)		
Aramark	316,760	10,408,734
Hilton Worldwide Holdings, Inc. ^(NON)	133,502	17,636,949
		28,045,683
Household durables (0.9%)		
HC Brilliant Services GmbH (acquired 8/2/13 to 8/31/16, cost \$13) (Private) (Germany) ^{(NON)(F)(RES)}	20	—
PulteGroup, Inc.	329,420	15,126,966
		15,126,966
Household products (1.4%)		
Procter & Gamble Co. (The)	160,230	22,400,154
		22,400,154
Industrial conglomerates (0.9%)		
General Electric Co.	33,202	3,420,802
Honeywell International, Inc.	54,950	11,664,786
		15,085,588
Insurance (3.0%)		
American International Group, Inc.	288,880	15,856,623
Assured Guaranty, Ltd.	411,237	19,250,004
AXA SA (France)	495,960	13,797,601
		48,904,228
IT Services (1.3%)		
Fidelity National Information Services, Inc.	177,140	21,554,395
		21,554,395

		21,554,395
Life sciences tools and services (1.3%)		
Thermo Fisher Scientific, Inc.	35,420	20,236,509
		20,236,509
Media (3.1%)		
Charter Communications, Inc. Class A ^{(NON)(S)}	38,260	27,836,446
Comcast Corp. Class A	405,160	22,660,599
		50,497,045
Metals and mining (1.6%)		
Freeport-McMoRan, Inc. (Indonesia)	776,210	25,250,111
		25,250,111
Multi-utilities (0.6%)		
Ameren Corp.	127,770	10,349,370
		10,349,370
Multiline retail (1.5%)		
Target Corp.	108,320	24,780,366
		24,780,366
Oil, gas, and consumable fuels (6.4%)		
ConocoPhillips	420,920	28,525,748
Enterprise Products Partners LP	469,080	10,150,891
EOG Resources, Inc.	68,480	5,496,890
Exxon Mobil Corp.	275,488	16,204,204
Royal Dutch Shell PLC Class A (Amsterdam Exchange) (United Kingdom)	977,250	21,765,456
Valero Energy Corp.	290,950	20,532,342
		102,675,531
Pharmaceuticals (6.1%)		
AstraZeneca PLC ADR (United Kingdom)	438,640	26,344,718
Johnson & Johnson	184,040	29,722,460
Merck & Co., Inc.	237,485	17,837,498
Organon & Co.	23,748	778,697
Pfizer, Inc.	187,523	8,065,364
Sanofi (France)	152,010	14,633,179
		97,381,916
Road and rail (1.2%)		
Union Pacific Corp.	102,360	20,063,584
		20,063,584
Semiconductors and semiconductor equipment (2.9%)		
NXP Semiconductors NV	58,250	11,409,428
Qualcomm, Inc.	173,800	22,416,724

Texas Instruments, Inc.	66,160	12,716,614
		46,542,766
Software (4.6%)		
Microsoft Corp.	193,630	54,588,170
Oracle Corp.	226,970	19,775,896
		74,364,066
Specialty retail (1.2%)		
O'Reilly Automotive, Inc. <i>(NON)</i>	31,380	19,175,063
		19,175,063
Thriffs and mortgage finance (0.9%)		
Radian Group, Inc.	612,459	13,915,068
		13,915,068
Trading companies and distributors (1.6%)		
United Rentals, Inc. <i>(NON)</i>	71,330	25,031,837
		25,031,837
Wireless telecommunication services (0.8%)		
T-Mobile US, Inc. <i>(NON)</i>	102,060	13,039,182
		13,039,182
Total common stocks (cost \$1,020,187,294)		\$1,547,504,242

CONVERTIBLE PREFERRED STOCKS (1.5%)^(a)

	Shares	Value
Danaher Corp. 5.00% cv. pfd. <i>(S)</i>	7,240	\$11,714,687
T-Mobile US, Inc. 144A 5.25% cv. pfd. <i>(NON)</i>	11,686	13,214,178
		\$24,928,865
Total convertible preferred stocks (cost \$19,445,131)		\$24,928,865

U.S. TREASURY OBLIGATIONS (—%)^(a)

	Principal amount	Value
U.S. Treasury Notes		
1.75%, 12/31/24 ⁽ⁱ⁾	\$108,000	\$112,542
1.625%, 9/30/26 ⁽ⁱ⁾	121,000	124,762
0.75%, 4/30/26 ⁽ⁱ⁾	122,000	121,453
0.375%, 12/31/25 ⁽ⁱ⁾	94,000	92,190
Total U.S. treasury obligations (cost \$450,947)		\$450,947

WARRANTS (—%)^(a)(NON)

	Expiration date	Strike Price	Warrants	Value
Occidental Petroleum Corp. ^(S)	8/3/27	\$22.00	6,947	\$82,322
Total warrants (cost \$34,389)				\$82,322

SHORT-TERM INVESTMENTS (5.2%)^(a)

		Principal amount/ shares	Value
Putnam Cash Collateral Pool, LLC 0.09% ^(AFF)	Shares	47,080,982	\$47,080,982
Putnam Short Term Investment Fund Class P 0.08% ^(AFF)	Shares	34,910,096	34,910,096
State Street Institutional U.S. Government Money Market Fund, Premier Class 0.03% ^(P)	Shares	1,049,000	1,049,000
U.S. Treasury Bills zero%, 1/13/22 ⁽ⁱ⁾		\$252,000	251,975
Total short-term investments (cost \$83,292,053)			\$83,292,053

TOTAL INVESTMENTS

Total investments (cost \$1,123,409,814)			\$1,656,258,429
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FORWARD CURRENCY CONTRACTS at 9/30/21 (aggregate face value \$110,435,457) (Unaudited)

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
	British Pound	Sell	12/15/21	\$3,246,218	\$3,333,099	\$86,881
	Euro	Sell	12/15/21	4,036,444	4,134,198	97,754
Barclays Bank PLC						
	British Pound	Sell	12/15/21	16,069,115	16,499,066	429,951
	Euro	Buy	12/15/21	7,109,918	7,282,230	(172,312)
Goldman Sachs International						
	British Pound	Sell	12/15/21	17,470,554	17,937,242	466,688
	Euro	Sell	12/15/21	3,988,881	4,085,925	97,044
HSBC Bank USA, National Association						
	British Pound	Sell	12/15/21	2,370,049	2,433,493	63,444
	Euro	Sell	12/15/21	3,205,374	3,282,718	77,344
Morgan Stanley & Co. International PLC						
	Euro	Sell	12/15/21	9,832,937	10,071,421	238,484
NatWest Markets PLC						
	British Pound	Sell	12/15/21	2,370,184	2,433,431	63,247
State Street Bank and Trust Co.						
	British Pound	Buy	12/15/21	1,574,867	1,616,828	(41,961)
	Euro	Sell	12/15/21	17,355,374	17,775,212	419,838
UBS AG						
	British Pound	Buy	12/15/21	3,473,682	3,566,799	(93,117)
	Euro	Sell	12/15/21	13,327,747	13,649,843	322,096
WestPac Banking Corp.						
	Euro	Sell	12/15/21	2,278,714	2,333,952	55,238
Unrealized appreciation						2,418,009
Unrealized (depreciation)						(307,390)
Total						\$2,110,619

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

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, 2021 through September 30, 2021 (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 "the SEC" represent the Securities and Exchange Commission, 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 \$1,609,915,544.

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

(RES) This security is restricted with regard to public resale. The total fair value of this security and any other restricted securities (excluding 144A securities), if any, held at the close of the reporting period was \$—.

(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 12/31/20	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 9/30/21
Short-term investments					
Putnam Cash Collateral Pool, LLC*#	\$19,202,535	\$266,329,375	\$238,450,928	\$29,916	\$47,080,982
Putnam Short Term Investment Fund**	28,324,063	158,884,027	152,297,994	19,203	34,910,096
Total Short-term investments	\$47,526,598	\$425,213,402	\$390,748,922	\$49,119	\$81,991,078

* 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 \$47,080,982 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 \$45,709,261.

** 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.

(F) This security is valued by Putnam Management at fair value following procedures approved by the Trustees. Securities are classified as Level 3 for ASC 820 based on the securities' valuation inputs. At the close of the reporting period, fair value pricing was also used for certain foreign securities in the portfolio.

- (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.

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	\$77,326,351	\$—	\$—

Consumer discretionary	117,804,244	—	—**
Consumer staples	113,520,421	—	—
Energy	85,044,900	21,765,456	—
Financials	312,261,018	13,797,601	—
Health care	231,787,680	14,633,179	—
Industrials	182,973,203	—	—
Information technology	155,456,733	—	—
Materials	72,801,845	18,531,054	—
Real estate	51,949,866	—	—
Utilities	77,850,691	—	—
Total common stocks	1,478,776,952	68,727,290	—
Convertible preferred stocks	—	24,928,865	—
U.S. treasury obligations	—	450,947	—
Warrants	82,322	—	—
Short-term investments	1,049,000	82,243,053	—
Totals by level	\$1,479,908,274	\$176,350,155	\$—

	Valuation inputs		
Other financial instruments:	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$2,110,619	\$—
Totals by level	\$—	\$2,110,619	\$—

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

** Value of level 3 security is \$—.

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)	\$105,700,000
Warrants (number of warrants)	7,000

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

