

Putnam VT Small Cap Value Fund

The fund's portfolio

9/30/22 (Unaudited)

COMMON STOCKS (98.7%)(a)

	Shares	Value
Aerospace and defense (2.1%)		
Maxar Technologies, Inc.	46,600	\$872,352
V2X, Inc. (NON)	38,858	1,375,573
		2,247,925
Air freight and logistics (0.8%)		
Radiant Logistics, Inc. (NON)	150,980	859,076
		859,076
Airlines (0.8%)		
Sun Country Airlines Holdings, Inc. (NON)(S)	62,805	854,776
		854,776
Auto components (0.6%)		
Motorcar Parts of America, Inc. (NON)	40,673	619,043
		619,043
Banks (21.4%)		
Ameris Bancorp	31,460	1,406,575
Bancorp, Inc. (The) (NON)	57,840	1,271,323
Bank of NT Butterfield & Son, Ltd. (The) (Bermuda) (S)	45,000	1,460,700
Coastal Financial Corp./WA (NON)	25,963	1,031,770
ConnectOne Bancorp, Inc.	42,809	987,176
CrossFirst Bankshares, Inc. (NON)	88,540	1,155,447
Eastern Bankshares, Inc.	62,200	1,221,608
Equity Bancshares, Inc. Class A	35,200	1,042,976
First Foundation, Inc.	57,103	1,035,848
Five Star Bancorp	40,418	1,146,254
Lakeland Bancorp, Inc.	76,060	1,217,721
Metropolitan Bank Holding Corp. (NON)	13,084	842,086
OFG Bancorp (Puerto Rico)	59,400	1,492,722
Origin Bancorp, Inc.	25,200	969,444
Preferred Bank/Los Angeles CA	17,560	1,145,439
Premier Financial Corp.	39,146	1,006,052
QCR Holdings, Inc.	18,578	946,363
Southern First Bancshares, Inc. (NON)	13,344	555,911

UMB Financial Corp.	10,000	842,900
Univest Financial Corp.	46,820	1,099,334
Veritex Holdings, Inc.	31,900	848,221
		<hr/>
		22,725,870
Biotechnology (4.0%)		
Arcus Biosciences, Inc. <i>(NON)(S)</i>	40,200	1,051,632
Chinook Therapeutics, Inc. <i>(NON)</i>	55,600	1,093,096
ImmunoGen, Inc. <i>(NON)</i>	239,100	1,142,898
Veracyte, Inc. <i>(NON)(S)</i>	56,900	944,540
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		4,232,166
Chemicals (0.7%)		
Olin Corp.	16,380	702,374
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		702,374
Commercial services and supplies (2.6%)		
Aris Water Solution, Inc. Class A	67,447	860,624
Deluxe Corp.	42,000	699,300
SP Plus Corp. <i>(NON)</i>	40,000	1,252,800
		<hr/>
		2,812,724
Communications equipment (2.2%)		
Aviat Networks, Inc. <i>(NON)</i>	56,870	1,557,101
Ribbon Communications, Inc. <i>(NON)</i>	354,400	786,768
		<hr/>
		2,343,869
Construction and engineering (2.2%)		
APi Group Corp. <i>(NON)</i>	73,800	979,326
Sterling Construction Co., Inc. <i>(NON)</i>	17,657	379,096
WillScot Mobile Mini Holdings Corp. <i>(NON)</i>	25,092	1,011,960
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		2,370,382
Diversified consumer services (1.1%)		
Universal Technical Institute, Inc. <i>(NON)</i>	216,927	1,180,083
		<hr/>
		1,180,083
Electrical equipment (1.1%)		
LSI Industries, Inc.	148,900	1,145,041
		<hr/>
		1,145,041
Electronic equipment, instruments, and components (2.4%)		
Celestica, Inc. (Canada) <i>(NON)</i>	114,600	963,786
Jabil, Inc.	15,227	878,750

Vontier Corp.	44,000	735,240
		2,577,776
Energy equipment and services (2.3%)		
Liberty Energy, Inc. ^(NON)	69,600	882,528
Newpark Resources, Inc. ^(NON)	296,137	746,265
ProFrac Holding Corp. Class A ^{(NON)(S)}	50,636	770,174
		2,398,967
Entertainment (0.7%)		
Lions Gate Entertainment Corp. Class A ^{(NON)(S)}	108,484	806,036
		806,036
Equity real estate investment trusts (REITs) (6.6%)		
Alpine Income Property Trust, Inc. ^(R)	60,052	974,043
Apple Hospitality REIT, Inc. ^(R)	87,400	1,228,844
Diversified Healthcare Trust ^(R)	639,399	633,069
EPR Properties ^(R)	24,860	891,480
RLJ Lodging Trust ^(R)	116,840	1,182,421
Spirit Realty Capital, Inc. ^(R)	30,059	1,086,933
Xenia Hotels & Resorts, Inc. ^{(NON)(R)}	72,980	1,006,394
		7,003,184
Food and staples retailing (0.9%)		
United Natural Foods, Inc. ^(NON)	27,700	952,049
		952,049
Food products (1.0%)		
Hostess Brands, Inc. ^(NON)	44,800	1,041,152
		1,041,152
Gas utilities (1.0%)		
ONE Gas, Inc.	15,100	1,062,889
		1,062,889
Health-care equipment and supplies (0.8%)		
Lantheus Holdings, Inc. ^(NON)	12,140	853,806
		853,806
Health-care providers and services (5.6%)		
Acadia Healthcare Co., Inc. ^(NON)	16,205	1,266,907
Aveanna Healthcare Holdings, Inc. ^(NON)	345,800	518,700
Brookdale Senior Living, Inc. ^(NON)	414,446	1,769,684

Option Care Health, Inc. ^(NON)	40,500	1,274,535
RadNet, Inc. ^(NON)	52,920	1,076,922
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		5,906,748
Hotels, restaurants, and leisure (4.0%)		
Chuy's Holdings, Inc. ^(NON)	47,600	1,103,368
Dave & Buster's Entertainment, Inc. ^(NON)	32,000	992,960
Everi Holdings, Inc. ^(NON)	73,000	1,184,060
Penn Entertainment, Inc. ^(NON)	33,900	932,589
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		4,212,977
Household durables (0.8%)		
Hooker Furniture Corp. ^(S)	63,000	849,870
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		849,870
Insurance (1.8%)		
Argo Group International Holdings, Ltd. (Bermuda)	39,060	752,296
Heritage Insurance Holdings, Inc.	81,004	183,069
Horace Mann Educators Corp.	28,400	1,002,236
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		1,937,601
Internet and direct marketing retail (1.6%)		
a.k.a. Brands Holding Corp. ^(NON)	359,321	521,015
RumbleON, Inc. Class B ^{(NON)(S)}	67,181	1,136,703
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		1,657,718
IT Services (3.4%)		
Hackett Group, Inc. (The)	60,000	1,063,200
IBEX, Ltd. ^(NON)	71,490	1,327,569
Edgio, Inc. ^(NON)	452,800	1,258,784
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		3,649,553
Machinery (3.4%)		
Chart Industries, Inc. ^{(NON)(S)}	7,900	1,456,365
Crane Holdings Co.	11,740	1,027,720
Federal Signal Corp.	31,300	1,168,116
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		3,652,201
Metals and mining (3.7%)		
Alamos Gold, Inc. Class A (Canada) ^(S)	123,880	917,951
Commercial Metals Co. ^(S)	32,800	1,163,744
Haynes International, Inc.	34,956	1,227,655
Major Drilling Group International, Inc. (Canada) ^(NON)	103,881	624,933
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		3,934,283

Mortgage real estate investment trusts (REITs) (2.9%)

Ladder Capital Corp. ^(R)	160,412	1,437,292
MFA Financial, Inc. ^(R)	87,700	682,306
Rithm Capital Corp. ^(R)	132,780	971,950
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		3,091,548

Multi-utilities (1.1%)

Unitil Corp.	24,480	1,137,096
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		1,137,096

Oil, gas, and consumable fuels (3.9%)

Brigham Minerals, Inc. Class A	43,100	1,063,277
CNX Resources Corp. ^{(NON)(S)}	55,220	857,567
Magnolia Oil & Gas Corp. Class A	34,685	687,110
Scorpio Tankers, Inc.	36,600	1,538,664
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		4,146,618

Professional services (1.5%)

ICF International, Inc.	14,640	1,596,053
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		1,596,053

Software (0.8%)

Verra Mobility Corp. ^(NON)	59,238	910,488
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		910,488

Specialty retail (0.7%)

Brilliant Earth Group, Inc. Class A ^(NON)	131,600	754,068
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		754,068

Textiles, apparel, and luxury goods (1.5%)

Carter's, Inc. ^(S)	13,300	871,549
Unifi, Inc. ^(NON)	72,064	685,329
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		1,556,878

Thriffs and mortgage finance (1.8%)

Bridgewater Bancshares, Inc. ^(NON)	61,980	1,020,811
Walker & Dunlop, Inc.	10,580	885,863
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		1,906,674

Tobacco (0.8%)

Turning Point Brands, Inc.	42,000	891,660
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		891,660

Trading companies and distributors (4.1%)

Custom Truck One Source, Inc. <i>(NON)</i>	242,900	1,416,107
Karat Packaging, Inc. <i>(NON)</i>	29,580	472,984
MRC Global, Inc. <i>(NON)</i>	143,220	1,029,752
Titan Machinery, Inc. <i>(NON)</i>	51,620	1,458,781
		4,377,624
Total common stocks (cost \$124,093,957)		\$104,958,846

SHORT-TERM INVESTMENTS (8.6%)^(a)

	Shares	Value
Putnam Cash Collateral Pool, LLC 3.06% <i>(AFF)</i>	8,023,261	\$8,023,261
Putnam Short Term Investment Fund Class P 3.11% <i>(AFF)</i>	1,131,290	1,131,290
Total short-term investments (cost \$9,154,551)		\$9,154,551

TOTAL INVESTMENTS

Total investments (cost \$133,248,508)		\$114,113,397
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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 \$106,349,159.

(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*#	\$7,233,470	\$63,090,140	\$62,300,349	\$71,824	\$8,023,261
Putnam Short Term Investment Fund**	1,014,103	13,867,946	13,750,759	5,561	1,131,290
Total Short-term investments	\$8,247,573	\$76,958,086	\$76,051,108	\$77,385	\$9,154,551

* 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 \$8,023,261 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 \$7,798,204.

** 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.

(S) This security is on loan, in part or in entirety, at the close of the reporting period.

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. 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.

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:

Investments in securities:	Valuation inputs		
	Level 1	Level 2	Level 3
Common stocks*:			
Communication services	\$806,036	\$—	\$—
Consumer discretionary	10,830,637	—	—
Consumer staples	2,884,861	—	—
Energy	6,545,585	—	—
Financials	29,661,693	—	—
Health care	10,992,720	—	—
Industrials	19,915,802	—	—
Information technology	9,481,686	—	—
Materials	4,636,657	—	—
Real estate	7,003,184	—	—

Utilities	2,199,985	—	—
	<u> </u>	<u> </u>	<u> </u>
Total common stocks	104,958,846	—	—
Short-term investments	—	9,154,551	—
	<u> </u>	<u> </u>	<u> </u>
Totals by level	\$104,958,846	\$9,154,551	\$—

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

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