

Putnam VT Small Cap Growth Fund

The fund's portfolio

9/30/20 (Unaudited)

COMMON STOCKS (99.7%)(a)

	Shares	Value
Aerospace and defense (2.0%)		
Mercury Systems, Inc.(NON)	7,750	\$600,315
		600,315
Biotechnology (14.3%)		
Accelaron Pharma, Inc.(NON)	3,915	440,555
Ascendis Pharma A/S ADR (Denmark)(NON)	2,195	338,732
Biohaven Pharmaceutical Holding Co., Ltd.(NON)	3,745	243,462
Castle Biosciences, Inc.(NON)	3,262	167,830
ChemoCentryx, Inc.(NON)	3,385	185,498
Emergent BioSolutions, Inc.(NON)	5,995	619,463
FibroGen, Inc.(NON)	3,080	126,650
Global Blood Therapeutics, Inc.(NON)	2,450	135,093
Immunomedics, Inc.(NON)	4,520	384,336
Immunovant, Inc.(NON)	5,665	199,351
Insmed, Inc.(NON)	8,650	278,011
Ligand Pharmaceuticals, Inc.(NON)(S)	1,180	112,478
Mirati Therapeutics, Inc.(NON)	1,670	277,304
PTC Therapeutics, Inc.(NON)	3,505	163,859
Rocket Pharmaceuticals, Inc.(NON)(S)	4,260	97,384
TG Therapeutics, Inc.(NON)	4,405	117,878
Veracyte, Inc.(NON)	4,828	156,862
Vericel Corp.(NON)	6,500	120,445
Y-mAbs Therapeutics, Inc.(NON)	5,235	200,972
		4,366,163
Building products (4.4%)		
AZEK Co., Inc. (The)(NON)	7,679	267,306
CSW Industrials, Inc.	5,070	391,658
Patrick Industries, Inc.	5,040	289,901
Trex Co., Inc.(NON)(S)	5,430	388,788
		1,337,653
Capital markets (2.0%)		

Hamilton Lane, Inc. Class A	9,380	605,854
		605,854
Chemicals (0.9%)		
Ingevity Corp. <i>(NON)</i>	5,430	268,459
		268,459
Commercial services and supplies (2.2%)		
ABM Industries, Inc.	6,220	228,025
Casella Waste Systems, Inc. Class A <i>(NON)</i>	8,122	453,614
		681,639
Diversified consumer services (0.8%)		
Chegg, Inc. <i>(NON)</i>	3,400	242,896
		242,896
Electrical equipment (0.6%)		
Sunrun, Inc. <i>(NON)</i>	2,300	177,261
		177,261
Electronic equipment, instruments, and components (1.9%)		
Novanta, Inc. <i>(NON)</i>	5,440	573,050
		573,050
Equity real estate investment trusts (REITs) (1.2%)		
Terreno Realty Corp.	6,805	372,642
		372,642
Food and staples retail (1.6%)		
BJ's Wholesale Club Holdings, Inc. <i>(NON)</i>	11,955	496,730
		496,730
Health-care equipment and supplies (6.8%)		
Antares Pharma, Inc. <i>(NON)</i>	37,655	101,669
CONMED Corp.	3,915	307,993
Haemonetics Corp. <i>(NON)</i>	1,890	164,903
Inmode, Ltd. (Israel) <i>(NON)(S)</i>	7,661	277,175
Insulet Corp. <i>(NON)</i>	1,190	281,542
Nevro Corp. <i>(NON)</i>	1,215	169,250
Quidel Corp. <i>(NON)</i>	3,575	784,284
		2,086,816
Health-care providers and services (7.5%)		
1Life Healthcare, Inc. <i>(NON)</i>	7,340	208,162
AdaptHealth Corp. <i>(NON)</i>	10,998	239,866

Amedisys, Inc. ^(NON)	2,290	541,425
LHC Group, Inc. ^(NON)	2,490	529,274
R1 RCM, Inc. ^(NON)	37,563	644,205
US Physical Therapy, Inc.	1,480	128,582
		<hr/>
		2,291,514
Health-care technology (0.8%)		
Phreesia, Inc. ^(NON)	7,690	247,080
		<hr/>
		247,080
Hotels, restaurants, and leisure (5.4%)		
Churchill Downs, Inc.	2,710	443,952
Penn National Gaming, Inc. ^{(NON)(S)}	3,882	282,221
Planet Fitness, Inc. Class A ^(NON)	8,135	501,279
Wingstop, Inc. ^(S)	3,155	431,131
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		1,658,583
Household durables (2.5%)		
Installed Building Products, Inc. ^(NON)	3,270	332,723
TopBuild Corp. ^(NON)	2,555	436,113
		<hr/>
		768,836
Insurance (5.0%)		
Kinsale Capital Group, Inc.	3,335	634,250
Palomar Holdings, Inc. ^(NON)	7,251	755,844
Trean Insurance Group, Inc. ^(NON)	9,376	142,984
		<hr/>
		1,533,078
IT Services (0.6%)		
Shift4 Payments, Inc. Class A ^(NON)	4,090	197,792
		<hr/>
		197,792
Life sciences tools and services (3.6%)		
Medpace Holdings, Inc. ^(NON)	5,150	575,513
Repligen Corp. ^(NON)	3,605	531,882
		<hr/>
		1,107,395
Machinery (1.8%)		
ESCO Technologies, Inc.	3,405	274,307
RBC Bearings, Inc. ^(NON)	2,321	281,328
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		555,635
Media (3.5%)		
Cable One, Inc.	390	735,318
TechTarget, Inc. ^(NON)	7,369	323,941
		<hr/>

		1,059,259
Miscellaneous (0.4%)		
EverArc Holdings, Ltd. (British Virgin Islands) ^(NON)	9,534	123,942
		123,942
Multiline retail (1.5%)		
Ollie's Bargain Outlet Holdings, Inc. ^{(NON)(S)}	5,195	453,783
		453,783
Pharmaceuticals (2.7%)		
Horizon Therapeutics PLC ^(NON)	5,935	461,031
MyoKardia, Inc. ^(NON)	1,985	270,615
Provention Bio, Inc. ^{(NON)(S)}	6,798	87,218
		818,864
Real estate management and development (1.5%)		
Colliers International Group, Inc. (Canada)	6,695	445,831
		445,831
Road and rail (2.7%)		
Saia, Inc. ^(NON)	2,885	363,914
TFI International, Inc. (Canada)	11,295	472,311
		836,225
Semiconductors and semiconductor equipment (4.7%)		
Brooks Automation, Inc.	6,035	279,179
CMC Materials, Inc. ^(NON)	1,965	280,622
Entegris, Inc.	7,650	568,701
Nova Measuring Instruments, Ltd. (Israel) ^(NON)	5,615	292,766
		1,421,268
Software (12.0%)		
Blackline, Inc. ^(NON)	2,505	224,523
Everbridge, Inc. ^{(NON)(S)}	4,440	558,241
Five9, Inc. ^(NON)	2,705	350,784
j2 Global, Inc. ^(NON)	2,151	148,892
Manhattan Associates, Inc. ^(NON)	5,295	505,620
Paylocity Holding Corp. ^(NON)	3,135	506,052
Q2 Holdings, Inc. ^(NON)	3,100	282,906
Rapid7, Inc. ^(NON)	1,770	108,395
SPS Commerce, Inc. ^(NON)	6,065	472,282
Verra Mobility Corp. ^(NON)	30,399	293,654
Vertex, Inc. Class A ^(NON)	9,307	214,061
		3,665,410

Specialty retail (2.6%)

Boot Barn Holdings, Inc. <i>(NON)(S)</i>	9,923	279,233
Five Below, Inc. <i>(NON)</i>	4,035	512,445
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		791,678

Textiles, apparel, and luxury goods (1.2%)

Deckers Outdoor Corp. <i>(NON)</i>	1,610	354,216
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		354,216

Trading companies and distributors (1.0%)

SiteOne Landscape Supply, Inc. <i>(NON)</i>	2,525	307,920
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		307,920

Total common stocks (cost \$21,101,509)		<hr/> \$30,447,787
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SHORT-TERM INVESTMENTS (8.7%)^(a)

	Shares	Value
Putnam Cash Collateral Pool, LLC 0.22% <i>(AFF)</i>	2,295,997	\$2,295,997
Putnam Short Term Investment Fund Class P 0.21% <i>(AFF)</i>	363,332	363,332
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Total short-term investments (cost \$2,659,329)		\$2,659,329

TOTAL INVESTMENTS

Total investments (cost \$23,760,838)		<hr/> \$33,107,116
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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, 2020 through September 30, 2020 (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 \$30,526,121.

(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 12/31/19	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 9/30/20
Short-term investments					
Putnam Cash Collateral Pool, LLC*#	\$5,262,550	\$14,992,300	\$17,958,853	\$25,800	\$2,295,997
Putnam Short Term Investment Fund**	393,186	5,622,120	5,651,974	3,043	363,332
Total Short-term investments	\$5,655,736	\$20,614,420	\$23,610,827	\$28,843	\$2,659,329

* No management fees are charged to Putnam Cash Collateral Pool, LLC. There were no realized or unrealized gains or losses during the period.

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 received cash collateral of \$2,295,997, 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. 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 \$2,261,060. Certain of these securities were sold prior to the close of the reporting period.

** 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.

(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:

	Valuation inputs		
Investments in securities:	Level 1	Level 2	Level 3
Common stocks*:			
Communication services	\$1,059,259	\$—	\$—
Consumer discretionary	4,269,992	—	—
Consumer staples	496,730	—	—
Financials	2,138,932	—	—
Health care	10,917,832	—	—

Industrials	4,496,648	—	—
Information technology	5,857,520	—	—
Materials	268,459	—	—
Miscellaneous	123,942	—	—
Real estate	818,473	—	—
	<hr/>	<hr/>	<hr/>
Total common stocks	30,447,787	—	—
Short-term investments	363,332	2,295,997	—
	<hr/>	<hr/>	<hr/>
Totals by level	\$30,811,119	\$2,295,997	\$—

* 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