

# Putnam VT Small Cap Growth Fund

## The fund's portfolio

9/30/21 (Unaudited)

### COMMON STOCKS (98.0%)(a)

	Shares	Value
<b>Auto components (1.1%)</b>		
Patrick Industries, Inc.	4,870	\$405,671
		<b>405,671</b>
<b>Banks (0.7%)</b>		
ServisFirst Bancshares, Inc.	3,390	263,742
		<b>263,742</b>
<b>Biotechnology (9.2%)</b>		
Accelaron Pharma, Inc.(NON)	3,470	597,187
Ascendis Pharma A/S ADR (Denmark)(NON)(S)	2,035	324,359
Biohaven Pharmaceutical Holding Co., Ltd.(NON)	3,585	497,992
CareDx, Inc.(NON)	945	59,885
Cytokinetics, Inc.(NON)	5,450	194,783
Denali Therapeutics, Inc.(NON)	3,120	157,404
Halozyme Therapeutics, Inc.(NON)	12,970	527,620
Insmed, Inc.(NON)	8,885	244,693
Intellia Therapeutics, Inc.(NON)	1,525	204,579
Natera, Inc.(NON)	3,570	397,841
Turning Point Therapeutics, Inc.(NON)	2,485	165,079
Veracyte, Inc.(NON)	4,276	198,620
		<b>3,570,042</b>
<b>Building products (1.5%)</b>		
AZEK Co., Inc. (The)(NON)	15,196	555,110
		<b>555,110</b>
<b>Capital markets (4.0%)</b>		
Hamilton Lane, Inc. Class A	8,175	693,404
Open Lending Corp. Class A(NON)	16,895	609,403
StepStone Group, Inc. Class A	5,595	238,571
		<b>1,541,378</b>
<b>Chemicals (1.5%)</b>		
Ingevity Corp.(NON)	4,875	347,929
Orion Engineered Carbons SA (Luxembourg)(NON)	13,640	248,657

		<b>596,586</b>
<b>Commercial services and supplies (2.6%)</b>		
Brink's Co. (The) <sup>(S)</sup>	5,295	335,174
Montrose Environmental Group, Inc. <sup>(NON)</sup>	10,898	672,843
		<b>1,008,017</b>
<b>Construction and engineering (1.4%)</b>		
WillScot Mobile Mini Holdings Corp. <sup>(NON)</sup>	16,652	528,201
		<b>528,201</b>
<b>Containers and packaging (0.8%)</b>		
Ranpak Holdings Corp. <sup>(NON)</sup>	11,972	321,089
		<b>321,089</b>
<b>Diversified financial services (0.3%)</b>		
EverArc Holdings, Ltd. (British Virgin Islands) <sup>(NON)</sup>	9,269	115,863
		<b>115,863</b>
<b>Electronic equipment, instruments, and components (2.9%)</b>		
Littelfuse, Inc.	1,570	429,034
Novanta, Inc. <sup>(NON)</sup>	4,575	706,838
		<b>1,135,872</b>
<b>Energy equipment and services (0.7%)</b>		
ChampionX Corp. <sup>(NON)</sup>	12,025	268,879
		<b>268,879</b>
<b>Food and staples retail (1.2%)</b>		
Performance Food Group Co. <sup>(NON)</sup>	10,275	477,377
		<b>477,377</b>
<b>Health-care equipment and supplies (8.4%)</b>		
AtriCure, Inc. <sup>(NON)</sup>	2,775	193,001
Axonics, Inc. <sup>(NON)</sup>	6,295	409,742
CONMED Corp.	5,190	679,008
InMode, Ltd. (Israel) <sup>(NON)</sup>	10,107	1,611,561
Lantheus Holdings, Inc. <sup>(NON)</sup>	7,855	201,716
STAAR Surgical Co. <sup>(NON)</sup>	1,240	159,377
		<b>3,254,405</b>
<b>Health-care providers and services (4.1%)</b>		
Castle Biosciences, Inc. <sup>(NON)</sup>	3,035	201,828
HealthEquity, Inc. <sup>(NON)</sup>	2,900	187,804
LHC Group, Inc. <sup>(NON)</sup>	2,855	447,978

R1 RCM, Inc. <i>(NON)</i>	33,828	744,554
		<b>1,582,164</b>
<b>Health-care technology (2.5%)</b>		
Definitive Healthcare Corp. <i>(NON)(S)</i>	6,780	290,387
Health Catalyst, Inc. <i>(NON)</i>	6,049	302,510
Phreesia, Inc. <i>(NON)</i>	6,337	390,993
		<b>983,890</b>
<b>Hotels, restaurants, and leisure (5.4%)</b>		
Accel Entertainment, Inc. <i>(NON)</i>	15,350	186,349
Churchill Downs, Inc.	2,985	716,639
Everi Holdings, Inc. <i>(NON)</i>	14,580	352,544
F45 Training Holdings, Inc. <i>(NON)(S)</i>	15,760	235,770
Planet Fitness, Inc. Class A <i>(NON)</i>	3,655	287,100
Wingstop, Inc.	2,010	329,499
		<b>2,107,901</b>
<b>Household durables (0.7%)</b>		
Installed Building Products, Inc.	2,715	290,912
		<b>290,912</b>
<b>Insurance (1.2%)</b>		
Kinsale Capital Group, Inc.	2,895	468,122
		<b>468,122</b>
<b>Internet and direct marketing retail (0.8%)</b>		
Revolve Group, Inc. <i>(NON)</i>	4,910	303,291
		<b>303,291</b>
<b>IT Services (1.8%)</b>		
Shift4 Payments, Inc. Class A <i>(NON)(S)</i>	3,810	295,351
WNS Holdings, Ltd. ADR (India) <i>(NON)</i>	5,050	413,090
		<b>708,441</b>
<b>Life sciences tools and services (3.7%)</b>		
Medpace Holdings, Inc. <i>(NON)</i>	4,110	777,941
Pacific Biosciences of California, Inc. <i>(NON)</i>	5,565	142,186
Repligen Corp. <i>(NON)</i>	1,725	498,508
		<b>1,418,635</b>
<b>Machinery (4.0%)</b>		
Albany International Corp. Class A	3,178	244,293
Altra Industrial Motion Corp.	8,125	449,719
John Bean Technologies Corp.	2,000	281,100
RBC Bearings, Inc. <i>(NON)</i>	2,711	575,274

		<b>1,550,386</b>
<b>Media (3.3%)</b>		
Cable One, Inc.	285	516,742
TechTarget, Inc. <i>(NON)</i>	9,084	748,703
		<b>1,265,445</b>
<b>Personal products (0.4%)</b>		
Beauty Health Co. (The) <i>(NON)</i>	6,300	163,611
		<b>163,611</b>
<b>Pharmaceuticals (0.3%)</b>		
Antares Pharma, Inc. <i>(NON)</i>	30,450	110,838
		<b>110,838</b>
<b>Professional services (1.0%)</b>		
Korn Ferry	5,195	375,910
		<b>375,910</b>
<b>Real estate management and development (2.1%)</b>		
Colliers International Group, Inc. (Canada)	6,500	832,027
		<b>832,027</b>
<b>Road and rail (4.1%)</b>		
Saia, Inc. <i>(NON)</i>	2,285	543,899
TFI International, Inc. (Canada)	10,170	1,040,446
		<b>1,584,345</b>
<b>Semiconductors and semiconductor equipment (4.6%)</b>		
Brooks Automation, Inc.	4,630	473,881
Nova Measuring Instruments, Ltd. (Israel) <i>(NON)(S)</i>	7,445	761,549
Onto Innovation, Inc. <i>(NON)</i>	4,245	306,701
Ultra Clean Holdings, Inc. <i>(NON)</i>	6,042	257,389
		<b>1,799,520</b>
<b>Software (13.1%)</b>		
Digital Turbine, Inc. <i>(NON)</i>	4,500	309,375
EngageSmart, Inc. <i>(NON)(S)</i>	1,265	43,086
j2 Global, Inc. <i>(NON)</i>	4,340	592,931
Manhattan Associates, Inc. <i>(NON)</i>	4,975	761,324
Paylocity Holding Corp. <i>(NON)</i>	3,215	901,486
Rapid7, Inc. <i>(NON)</i>	3,340	377,487
Sprout Social, Inc. Class A <i>(NON)</i>	3,285	400,606
SPS Commerce, Inc. <i>(NON)</i>	4,600	742,026
Upland Software, Inc. <i>(NON)</i>	8,305	277,719
Verra Mobility Corp. <i>(NON)</i>	44,259	666,983

		<b>5,073,023</b>
<b>Specialty retail (6.1%)</b>		
Boot Barn Holdings, Inc. <i>(NON)</i>	9,748	866,305
Five Below, Inc. <i>(NON)</i>	3,855	681,603
Lithia Motors, Inc.	1,515	480,316
RH <i>(NON)(S)</i>	510	340,124
		<b>2,368,348</b>
<b>Textiles, apparel, and luxury goods (0.7%)</b>		
Deckers Outdoor Corp. <i>(NON)</i>	790	284,558
		<b>284,558</b>
<b>Trading companies and distributors (1.8%)</b>		
Applied Industrial Technologies, Inc.	3,440	310,047
SiteOne Landscape Supply, Inc. <i>(NON)(S)</i>	2,035	405,915
		<b>715,962</b>
<b>Total common stocks (cost \$24,969,974)</b>		<b>\$38,029,561</b>

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**SHORT-TERM INVESTMENTS (7.7%)<sup>(a)</sup>**

	<b>Shares</b>	<b>Value</b>
Putnam Cash Collateral Pool, LLC 0.09% <i>(AFF)</i>	2,842,765	\$2,842,765
Putnam Short Term Investment Fund Class P 0.08% <i>(AFF)</i>	150,438	150,438
<b>Total short-term investments (cost \$2,993,203)</b>		<b>\$2,993,203</b>
<b>TOTAL INVESTMENTS</b>		
<b>Total investments (cost \$27,963,177)</b>		<b>\$41,022,764</b>

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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, 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 \$38,800,687.

(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 12/31/20	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 9/30/21
<b>Short-term investments</b>					
Putnam Cash Collateral Pool, LLC*#	\$2,727,150	\$16,485,671	\$16,370,056	\$1,939	\$2,842,765
Putnam Short Term Investment Fund**	764,119	3,843,195	4,456,876	246	150,438
<b>Total Short-term investments</b>	<b>\$3,491,269</b>	<b>\$20,328,866</b>	<b>\$20,826,932</b>	<b>\$2,185</b>	<b>\$2,993,203</b>

\* 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 \$2,842,765 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 \$2,775,383.

\*\* 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.

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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:

	<b>Valuation inputs</b>		
<b>Investments in securities:</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
<b>Common stocks*:</b>			
Communication services	\$1,265,445	\$—	\$—
Consumer discretionary	5,760,681	—	—
Consumer staples	640,988	—	—
Energy	268,879	—	—

Financials	2,389,105	—	—
Health care	10,919,974	—	—
Industrials	6,317,931	—	—
Information technology	8,716,856	—	—
Materials	917,675	—	—
Real estate	832,027	—	—
	<hr/>	<hr/>	<hr/>
<b>Total common stocks</b>	<b>38,029,561</b>	<b>—</b>	<b>—</b>
Short-term investments	—	2,993,203	—
	<hr/>	<hr/>	<hr/>
<b>Totals by level</b>	<b>\$38,029,561</b>	<b>\$2,993,203</b>	<b>\$—</b>

\* 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](http://www.sec.gov), or visit Putnam's Individual Investor Web site at [www.putnaminvestments.com](http://www.putnaminvestments.com)