

Putnam VT Growth Opportunities Fund

The fund's portfolio

9/30/22 (Unaudited)

COMMON STOCKS (97.9%)(a)

	Shares	Value
Aerospace and defense (0.8%)		
TransDigm Group, Inc.	11,333	\$5,947,785
		<u>5,947,785</u>
Automobiles (4.1%)		
Tesla, Inc. (NON)	118,500	31,432,125
		<u>31,432,125</u>
Building products (0.7%)		
Johnson Controls International PLC	102,777	5,058,684
		<u>5,058,684</u>
Capital markets (2.6%)		
Charles Schwab Corp. (The)	156,594	11,254,411
MSCI, Inc.	21,234	8,956,289
		<u>20,210,700</u>
Chemicals (1.1%)		
Sherwin-Williams Co. (The)	40,828	8,359,533
		<u>8,359,533</u>
Commercial services and supplies (1.0%)		
Waste Connections, Inc.	55,062	7,440,528
		<u>7,440,528</u>
Entertainment (2.1%)		
Live Nation Entertainment, Inc. (NON)	102,310	7,779,652
Universal Music Group NV (Netherlands)	440,800	8,309,116
		<u>16,088,768</u>
Equity real estate investment trusts (REITs) (2.0%)		
American Tower Corp. (R)	71,212	15,289,216
		<u>15,289,216</u>
Food and staples retailing (3.7%)		

Costco Wholesale Corp.	44,797	21,156,279
Walmart, Inc.	59,048	7,658,526
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		28,814,805
Food products (1.4%)		
Hershey Co. (The)	49,807	10,980,949
		<hr/>
		10,980,949
Health-care equipment and supplies (1.6%)		
DexCom, Inc. <i>(NON)</i>	84,825	6,831,806
IDEXX Laboratories, Inc. <i>(NON)</i>	11,079	3,609,538
Intuitive Surgical, Inc. <i>(NON)</i>	11,449	2,146,001
		<hr/>
		12,587,345
Health-care providers and services (6.1%)		
HCA Healthcare, Inc.	33,824	6,216,513
Humana, Inc.	24,045	11,666,394
UnitedHealth Group, Inc.	58,402	29,495,346
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		47,378,253
Hotels, restaurants, and leisure (2.0%)		
Booking Holdings, Inc. <i>(NON)</i>	4,008	6,585,986
Chipotle Mexican Grill, Inc. <i>(NON)</i>	6,070	9,121,753
		<hr/>
		15,707,739
Interactive media and services (5.8%)		
Alphabet, Inc. Class C <i>(NON)</i>	464,804	44,690,905
		<hr/>
		44,690,905
Internet and direct marketing retail (6.3%)		
Amazon.com, Inc. <i>(NON)</i>	431,541	48,764,133
		<hr/>
		48,764,133
IT Services (7.3%)		
Accenture PLC Class A	48,967	12,599,209
Gartner, Inc. <i>(NON)</i>	19,814	5,482,336
Mastercard, Inc. Class A	69,246	19,689,408
Visa, Inc. Class A <i>(S)</i>	105,968	18,825,215
		<hr/>
		56,596,168
Life sciences tools and services (4.1%)		
Danaher Corp.	63,615	16,431,118
IQVIA Holdings, Inc. <i>(NON)</i>	61,205	11,086,674
Lonza Group AG (Switzerland)	9,384	4,563,522
		<hr/>

32,081,314**Machinery (1.2%)**

Deere & Co.	28,496	9,514,529
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		9,514,529

Personal products (1.0%)

Estee Lauder Cos., Inc. (The) Class A	37,058	8,000,822
		<hr/>
		8,000,822

Pharmaceuticals (2.7%)

AstraZeneca PLC (United Kingdom)	78,987	8,686,205
Eli Lilly and Co.	38,874	12,569,908
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		21,256,113

Professional services (0.3%)

CoStar Group, Inc. <i>(NON)</i>	38,898	2,709,246
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		2,709,246

Road and rail (2.5%)

Uber Technologies, Inc. <i>(NON)</i>	231,929	6,146,119
Union Pacific Corp.	67,446	13,139,830
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		19,285,949

Semiconductors and semiconductor equipment (3.1%)

Advanced Micro Devices, Inc. <i>(NON)</i>	51,962	3,292,312
Marvell Technology, Inc.	92,418	3,965,656
NVIDIA Corp.	141,156	17,134,927
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		24,392,895

Software (18.7%)

Adobe, Inc. <i>(NON)</i>	11,777	3,241,030
Cadence Design Systems, Inc. <i>(NON)</i>	94,356	15,420,601
CrowdStrike Holdings, Inc. Class A <i>(NON)</i>	43,485	7,166,763
Intuit, Inc.	24,815	9,611,346
Microsoft Corp.	372,871	86,841,656
Palo Alto Networks, Inc. <i>(NON)</i>	108,081	17,702,587
ServiceNow, Inc. <i>(NON)</i>	12,353	4,664,616
		<hr/>
		144,648,599

Specialty retail (1.7%)

Home Depot, Inc. (The)	24,083	6,645,463
O'Reilly Automotive, Inc. <i>(NON)</i>	9,256	6,510,208
		<hr/>
		13,155,671

Technology hardware, storage, and peripherals (10.8%)

Apple, Inc.	603,133	83,352,981
		<u>83,352,981</u>

Textiles, apparel, and luxury goods (2.7%)

Lululemon Athletica, Inc. (Canada) ^(NON)	35,951	10,050,462
Nike, Inc. Class B	126,610	10,523,823
		<u>20,574,285</u>

Wireless telecommunication services (0.5%)

T-Mobile US, Inc. ^(NON)	29,785	3,996,252
		<u>3,996,252</u>

Total common stocks (cost \$469,407,578) \$758,316,292

SHORT-TERM INVESTMENTS (2.9%)^(a)

	Shares	Value
Putnam Cash Collateral Pool, LLC 3.06% ^(AFF)	5,053,125	\$5,053,125
Putnam Short Term Investment Fund Class P 3.11% ^(AFF)	17,616,719	17,616,719
		<u>\$22,669,844</u>

TOTAL INVESTMENTS

Total investments (cost \$492,077,422) \$780,986,136

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 \$774,618,077.

(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#	\$3,164,850	\$75,680,820	\$73,792,545	\$17,019	\$5,053,125
Putnam Short Term Investment Fund**	12,033,506	72,695,570	67,112,357	89,112	17,616,719
Total Short-term investments	\$15,198,356	\$148,376,390	\$140,904,902	\$106,131	\$22,669,844

* 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 \$5,053,125 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 \$4,885,375.

** 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. 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. 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	\$56,466,809	\$8,309,116	\$—
Consumer discretionary	129,633,953	—	—
Consumer staples	47,796,576	—	—
Financials	20,210,700	—	—
Health care	100,053,298	13,249,727	—
Industrials	49,956,721	—	—
Information technology	308,990,643	—	—
Materials	8,359,533	—	—
Real estate	15,289,216	—	—
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Total common stocks	736,757,449	21,558,843	—
Short-term investments	—	22,669,844	—
	<hr/>	<hr/>	<hr/>
Totals by level	\$736,757,449	\$44,228,687	\$—

* 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.

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