

Putnam VT Multi-Cap Core Fund

The fund's portfolio

9/30/20 (Unaudited)

COMMON STOCKS (98.5%)(a)

	Shares	Value
Aerospace and defense (1.1%)		
Northrop Grumman Corp.	4,300	\$1,356,607
Raytheon Technologies Corp.	24,900	1,432,746
		2,789,353
Air freight and logistics (0.5%)		
FedEx Corp.	4,800	1,207,296
		1,207,296
Airlines (1.2%)		
Air Canada (Canada)(NON)	24,900	293,403
Southwest Airlines Co.	74,400	2,790,000
		3,083,403
Auto components (0.7%)		
Magna International, Inc. (Canada)	35,985	1,646,314
		1,646,314
Banks (4.6%)		
Bank of America Corp.	236,042	5,686,252
Hilltop Holdings, Inc.	25,904	533,104
JPMorgan Chase & Co.	48,427	4,662,067
KeyCorp	50,507	602,549
		11,483,972
Beverages (1.1%)		
Coca-Cola Co. (The)	47,500	2,345,075
Molson Coors Beverage Co. Class B	13,735	460,947
		2,806,022
Biotechnology (4.1%)		
AbbVie, Inc.	32,025	2,805,070
Alexion Pharmaceuticals, Inc.(NON)	5,100	583,593
Amgen, Inc.	18,395	4,675,273
Biogen, Inc.(NON)	3,500	992,880

Gilead Sciences, Inc.	19,300	1,219,567
		10,276,383
Capital markets (3.6%)		
Ameriprise Financial, Inc.	12,400	1,910,964
Apollo Global Management, Inc.	27,414	1,226,777
Goldman Sachs Group, Inc. (The)	11,990	2,409,630
KKR & Co., Inc. Class A	45,200	1,552,168
Morgan Stanley	19,900	962,165
Raymond James Financial, Inc.	12,000	873,120
		8,934,824
Chemicals (1.1%)		
Dow, Inc.	31,872	1,499,578
Eastman Chemical Co.	16,900	1,320,228
		2,819,806
Commercial services and supplies (0.8%)		
BrightView Holdings, Inc. ^(NON)	17,000	193,800
Republic Services, Inc.	19,187	1,791,106
		1,984,906
Communications equipment (1.4%)		
Cisco Systems, Inc.	89,241	3,515,203
		3,515,203
Construction and engineering (0.4%)		
APi Group Corp. 144A ^(NON)	71,598	1,018,840
		1,018,840
Construction materials (0.1%)		
Summit Materials, Inc. Class A ^(NON)	9,274	153,392
		153,392
Consumer finance (0.5%)		
Capital One Financial Corp.	17,900	1,286,294
		1,286,294
Distributors (0.2%)		
LKQ Corp. ^(NON)	16,200	449,226
		449,226
Diversified financial services (2.4%)		
Berkshire Hathaway, Inc. Class B ^(NON)	21,600	4,599,504
Pershing Square Tontine Holdings, Ltd. Class A ^(NON)	45,676	1,036,388
Switchback Energy Acquisition Corp. Class A ^(NON)	23,010	358,956

		5,994,848
Diversified telecommunication services (0.8%)		
AT&T, Inc. ^(S)	39,172	1,116,794
Liberty Global PLC Class A (United Kingdom) ^(NON)	46,574	978,520
		2,095,314
Electric utilities (2.4%)		
Entergy Corp.	13,300	1,310,449
Exelon Corp.	34,700	1,240,872
NRG Energy, Inc.	62,000	1,905,880
PG&E Corp. ^{(NON)(S)}	161,178	1,513,461
		5,970,662
Electrical equipment (0.8%)		
Eaton Corp. PLC	18,700	1,907,961
		1,907,961
Entertainment (1.0%)		
Walt Disney Co. (The)	20,200	2,506,416
		2,506,416
Equity real estate investment trusts (REITs) (1.9%)		
Armada Hoffer Properties, Inc.	83,291	771,275
Boston Properties, Inc.	9,700	778,910
Easterly Government Properties, Inc.	49,728	1,114,404
Equity Commonwealth	32,900	876,127
Equity Residential	500	25,665
Gaming and Leisure Properties, Inc.	34,244	1,264,631
		4,831,012
Food and staples retail (2.5%)		
Kroger Co. (The)	32,200	1,091,902
Walgreens Boots Alliance, Inc.	18,728	672,710
Walmart, Inc.	31,100	4,351,201
		6,115,813
Food products (0.6%)		
Campbell Soup Co.	15,700	759,409
JDE Peet's BV (Netherlands) ^(NON)	14,915	606,762
Whole Earth Brands, Inc. ^(NON)	23,500	195,990
		1,562,161
Health-care equipment and supplies (1.1%)		
Baxter International, Inc.	20,862	1,677,722
Medtronic PLC	11,200	1,163,904
		2,841,626

Health-care providers and services (4.1%)

Cigna Corp.	5,900	999,519
CVS Health Corp.	10,900	636,560
HCA Healthcare, Inc.	15,039	1,875,063
McKesson Corp.	11,300	1,682,909
Tenet Healthcare Corp. ^(NON)	33,700	825,987
UnitedHealth Group, Inc.	13,000	4,053,010
		<hr/>
		10,073,048

Health-care technology (0.4%)

Change Healthcare, Inc. ^(NON)	69,206	1,004,179
		<hr/>
		1,004,179

Hotels, restaurants, and leisure (0.6%)

Brinker International, Inc.	17,193	734,485
Chuy's Holdings, Inc. ^(NON)	14,762	289,040
Darden Restaurants, Inc.	1,674	168,639
Kura Sushi USA, Inc. Class A ^{(NON)(S)}	16,076	210,596
		<hr/>
		1,402,760

Household durables (1.6%)

Green Brick Partners, Inc. ^{(NON)(S)}	22,140	356,454
HC Brillant Services GmbH (acquired 8/2/13, cost \$4) (Private) (Germany) ^{(NON)(F)(RES)}	6	5
PulteGroup, Inc.	79,200	3,666,168
		<hr/>
		4,022,627

Household products (1.4%)

Procter & Gamble Co. (The)	24,500	3,405,255
		<hr/>
		3,405,255

Industrial conglomerates (1.1%)

General Electric Co.	80,500	501,515
Honeywell International, Inc.	12,900	2,123,469
		<hr/>
		2,624,984

Insurance (1.1%)

American International Group, Inc.	42,300	1,164,519
Arch Capital Group, Ltd. ^(NON)	6,600	193,050
Assured Guaranty, Ltd.	30,200	648,696
Lincoln National Corp.	24,212	758,562
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		2,764,827

Interactive media and services (5.0%)

Alphabet, Inc. Class C ^(NON)	4,942	7,262,763
Facebook, Inc. Class A ^(NON)	19,200	5,028,480
		<hr/>
		12,291,243

Internet and direct marketing retail (4.6%)

Amazon.com, Inc. <i>(NON)</i>	3,285	10,343,578
Booking Holdings, Inc. <i>(NON)</i>	683	1,168,394
		<hr/>
		11,511,972

IT Services (3.5%)

Grid Dynamics Holdings, Inc. <i>(NON)</i>	15,813	122,234
IBM Corp.	11,680	1,421,106
Mastercard, Inc. Class A	7,900	2,671,543
Priority Technology Holdings, Inc. <i>(NON)</i>	27,247	85,964
Snowflake, Inc. Class A <i>(NON)(S)</i>	2,735	686,485
Visa, Inc. Class A	18,500	3,699,445
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		8,686,777

Machinery (0.5%)

Cummins, Inc.	1,800	380,088
Otis Worldwide Corp.	13,500	842,670
		<hr/>
		1,222,758

Media (1.7%)

Comcast Corp. Class A <i>(S)</i>	68,140	3,152,156
Discovery, Inc. Class A <i>(NON)(S)</i>	43,900	955,703
		<hr/>
		4,107,859

Metals and mining (1.1%)

Freeport-McMoRan, Inc. (Indonesia)	58,800	919,632
Largo Resources, Ltd. (Canada) <i>(NON)(S)</i>	401,126	331,372
Nucor Corp.	31,463	1,411,430
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		2,662,434

Mortgage real estate investment trusts (REITs) (0.1%)

Starwood Property Trust, Inc.	19,000	286,710
		<hr/>
		286,710

Multiline retail (1.5%)

Target Corp.	24,100	3,793,822
		<hr/>
		3,793,822

Oil, gas, and consumable fuels (2.5%)

Brigham Minerals, Inc. Class A	25,450	227,014
Comstock Resources, Inc. <i>(NON)(S)</i>	210,192	920,641
ConocoPhillips	27,157	891,836
Energy Transfer LP	87,200	472,624
Enterprise Products Partners LP	58,300	920,557
Kimbell Royalty Partners LP (Units)	15,005	91,681
Kinder Morgan, Inc.	83,900	1,034,487

Phillips 66	400	20,736
Rattler Midstream LP	21,413	127,407
Royal Dutch Shell PLC ADR Class A (United Kingdom)	31,332	788,626
Valero Energy Corp.	15,500	671,460
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		6,167,069
Pharmaceuticals (3.6%)		
Eli Lilly and Co.	7,600	1,124,952
Jazz Pharmaceuticals PLC <i>(NON)</i>	10,656	1,519,439
Johnson & Johnson	18,930	2,818,298
Merck & Co., Inc.	33,400	2,770,530
Mylan NV <i>(NON)(S)</i>	52,200	774,126
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		9,007,345
Real estate management and development (0.7%)		
CBRE Group, Inc. Class A <i>(NON)</i>	33,700	1,582,889
Realty Holdings Corp. <i>(NON)</i>	20,506	193,577
		<hr/>
		1,776,466
Road and rail (0.8%)		
Union Pacific Corp.	10,545	2,075,994
		<hr/>
		2,075,994
Semiconductors and semiconductor equipment (3.3%)		
Intel Corp.	58,520	3,030,166
Lam Research Corp.	8,600	2,853,050
Micron Technology, Inc. <i>(NON)</i>	24,200	1,136,432
Texas Instruments, Inc.	7,500	1,070,925
		<hr/>
		8,090,573
Software (10.2%)		
Citrix Systems, Inc.	5,800	798,718
Dynatrace, Inc. <i>(NON)</i>	25,382	1,041,170
Microsoft Corp.	96,550	20,307,362
Oracle Corp.	40,658	2,427,283
Salesforce.com, Inc. <i>(NON)</i>	700	175,924
Upland Software, Inc. <i>(NON)</i>	400	15,080
Vertex, Inc. Class A <i>(NON)</i>	18,131	417,013
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		25,182,550
Specialty retail (3.8%)		
Best Buy Co., Inc.	26,300	2,926,927
Home Depot, Inc. (The)	8,400	2,332,764
Lowe's Cos., Inc.	24,700	4,096,742
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		9,356,433
Technology hardware, storage, and peripherals (8.7%)		

Apple, Inc.	171,132	19,818,797
HP, Inc.	63,800	1,211,562
NCR Corp. <i>(NON)</i>	19,100	422,874
		21,453,233
Thrifts and mortgage finance (0.3%)		
Radian Group, Inc.	44,700	653,067
		653,067
Tobacco (0.5%)		
Altria Group, Inc.	29,600	1,143,744
		1,143,744
Trading companies and distributors (0.9%)		
United Rentals, Inc. <i>(NON)</i>	13,300	2,320,849
		2,320,849
Total common stocks (cost \$173,612,947)		\$244,369,625

CONVERTIBLE BONDS AND NOTES (0.8%)^(a)

	Principal amount	Value
Callaway Golf Co. 144A cv. sr. unsec. notes 2.75%, 5/1/26	\$376,000	\$510,546
Penn National Gaming, Inc. cv. sr. unsec. notes 2.75%, 5/15/26	471,000	1,511,653
Total convertible bonds and notes (cost \$847,000)		\$2,022,199

UNITS (0.5%)^(a)

Units	Value
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Hudson Executive Investment Corp. (acquired 6/9/20, cost \$913,400)(<i>NON</i>)(<i>RES</i>)	91,340	\$946,282
Longview Acquisition Corp.(<i>NON</i>)	23,265	236,140
Total units (cost \$1,146,050)		\$1,182,422

WARRANTS (0.1%)(*a*)(*NON*)

	Expiration date	Strike Price	Warrants	Value
APi Group Corp.	10/1/22	\$11.50	77,798	\$91,802
Pershing Square Tontine Holdings, Ltd. Class A	7/24/25	23.00	5,074	36,381
Sirius International Insurance Group, Ltd. (Bermuda)	11/5/23	18.88	38,710	8,516
Switchback Energy Acquisition Corp. Class A	12/31/24	11.50	7,670	35,972
Total warrants (cost \$73,547)				\$172,671

SHORT-TERM INVESTMENTS (3.5%)(*a*)

	Shares	Value
Putnam Cash Collateral Pool, LLC 0.22%(<i>AFF</i>)	8,116,249	\$8,116,249
Putnam Short Term Investment Fund Class P 0.21%(<i>AFF</i>)	509,020	509,020
Total short-term investments (cost \$8,625,269)		\$8,625,269

TOTAL INVESTMENTS

Total investments (cost \$184,304,813)		\$256,372,186
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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, 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 \$248,053,552.

(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 \$946,287, or 0.4% of net assets.

(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*#	\$11,319,121	\$85,892,902	\$89,095,774	\$67,995	\$8,116,249
Putnam Short Term Investment Fund**	831,433	29,521,013	29,843,426	12,329	509,020
Total Short-term investments	\$12,150,554	\$115,413,915	\$118,939,200	\$80,324	\$8,625,269

* 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 \$8,116,249, 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 \$7,853,255.

** 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.

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

Debt obligations are considered secured unless otherwise indicated.

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.

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	\$21,000,832	\$—	\$—
Consumer discretionary	32,183,149	—	5
Consumer staples	14,426,233	606,762	—
Energy	6,167,069	—	—
Financials	31,045,586	358,956	—
Health care	33,202,581	—	—
Industrials	20,236,344	—	—
Information technology	66,928,336	—	—
Materials	5,635,632	—	—
Real estate	6,607,478	—	—
Utilities	5,970,662	—	—
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Total common stocks	243,403,902	965,718	5
Convertible bonds and notes	—	2,022,199	—
Units	1,182,422	—	—
Warrants	44,897	127,774	—
Short-term investments	509,020	8,116,249	—
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Totals by level	\$245,140,241	\$11,231,940	\$5

* 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.

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:

Warrants (number of warrants)	140,000
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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