

Putnam VT Emerging Markets Equity Fund

The fund's portfolio

9/30/20 (Unaudited)

COMMON STOCKS (99.7%)(a)

	Shares	Value
Airlines (1.0%)		
Copa Holdings SA Class A (Panama)	6,515	\$327,965
		327,965
Banks (4.8%)		
Bank Tabungan Pensiunan Nasional Syariah Tbk PT (Indonesia)	968,200	214,359
Hana Financial Group, Inc. (South Korea)	16,022	381,322
HDFC Bank, Ltd. (India)(NON)	46,464	684,650
Sberbank of Russia PJSC ADR (Russia)(NON)	27,419	319,889
		1,600,220
Beverages (1.1%)		
Wuliangye Yibin Co., Ltd. Class A (China)	10,800	350,454
		350,454
Building products (1.2%)		
China Lesso Group Holdings, Ltd. (China)	222,000	401,469
		401,469
Capital markets (2.6%)		
B3 SA - Brasil Bolsa Balcao (Brazil)	50,300	492,709
Hong Kong Exchanges and Clearing, Ltd. (Hong Kong)	7,700	361,934
		854,643
Chemicals (1.9%)		
Asian Paints, Ltd. (India)	10,084	271,707
LG Chemical, Ltd. (South Korea)	656	366,280
		637,987
Commercial services and supplies (1.4%)		
A-Living Services Co., Ltd. Class H (China)	56,250	286,427
Sunny Friend Environmental Technology Co., Ltd. (Taiwan)	22,000	174,907
		461,334

Diversified consumer services (1.0%)		
Fu Shou Yuan International Group, Ltd. (China)	333,000	325,315
		325,315
Electric utilities (0.8%)		
Companhia Paranaense de Energia-Copel (Preference) (Brazil)	23,000	253,963
		253,963
Electrical equipment (1.2%)		
Voltronic Power Technology Corp. (Taiwan)	11,550	394,200
		394,200
Electronic equipment, instruments, and components (1.0%)		
Elite Material Co., Ltd. (Taiwan)	68,000	345,036
		345,036
Entertainment (0.9%)		
Sea, Ltd. ADR (Thailand) ^{(NON)(S)}	1,884	290,211
		290,211
Food and staples retail (3.2%)		
Clicks Group, Ltd. (South Africa)	8,275	109,672
Dino Polska SA (Poland) ^(NON)	3,501	206,035
Wal-Mart de Mexico SAB de CV (Mexico)	308,485	738,165
		1,053,872
Gas utilities (0.8%)		
China Resources Gas Group, Ltd. (China)	56,000	250,718
		250,718
Health-care equipment and supplies (1.2%)		
Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Class A (China)	7,900	404,017
		404,017
Health-care providers and services (0.8%)		
Universal Vision Biotechnology Co., Ltd. (Taiwan)	30,000	274,084
		274,084
Hotels, restaurants, and leisure (0.7%)		
Jubilant Foodworks, Ltd. (India)	7,133	226,821
		226,821
Household durables (—%)		
HC Brillant Services GmbH (acquired 8/2/13, cost \$1) (Private) (Germany) ^{(NON)(F)(RES)}	2	2

Household products (1.4%)

Hindustan Unilever, Ltd. (India)	16,804	472,041
		472,041

Interactive media and services (12.1%)

Kakao Corp. (South Korea)	869	270,513
NAVER Corp. (South Korea)	1,614	408,650
Tencent Holdings, Ltd. (China)	45,100	3,003,361
Yandex NV Class A (Russia) ^{(NON)(S)}	5,229	341,192
		4,023,716

Internet and direct marketing retail (18.4%)

Alibaba Group Holding, Ltd. (China) ^(NON)	103,416	3,824,186
JD.com, Inc. ADR (China) ^(NON)	7,708	598,218
Meituan Dianping Class B (China) ^(NON)	25,200	792,522
MercadoLibre, Inc. (Argentina) ^(NON)	331	358,301
Prosus NV (Netherlands) ^(NON)	6,338	582,244
		6,155,471

IT Services (2.6%)

21Vianet Group, Inc. ADR (China) ^(NON)	8,798	203,762
Tata Consultancy Services, Ltd. (India)	19,977	677,547
		881,309

Life sciences tools and services (1.2%)

WuXi AppTec Co., Ltd. Class H (China)	27,480	397,565
		397,565

Machinery (3.7%)

Airtac International Group (China)	16,000	361,746
Shenzhen Inovance Technology Co., Ltd. Class A (China)	41,200	351,243
Techtronic Industries Co., Ltd. (TTI) (Hong Kong)	39,000	512,837
		1,225,826

Multiline retail (1.1%)

Poya International Co., Ltd. (Taiwan)	19,000	363,182
		363,182

Oil, gas, and consumable fuels (4.9%)

Lukoil PJSC ADR (Russia)	7,255	419,476
Reliance Industries, Ltd. (India)	39,674	1,208,360
		1,627,836

Pharmaceuticals (0.9%)

Hypera SA (Brazil)	54,400	288,860
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		288,860
Professional services (1.1%)		
Centre Testing International Group Co., Ltd. Class A (China)	102,800	369,013
		369,013
Real estate management and development (0.6%)		
Sichuan Languang Justbon Services Group Co., Ltd. Class H (China)	33,200	187,672
		187,672
Road and rail (0.8%)		
Companhia De Locacao das Americas (Brazil)	66,800	282,501
		282,501
Semiconductors and semiconductor equipment (11.1%)		
MediaTek, Inc. (Taiwan)	16,000	337,391
Silergy Corp. (China)	3,000	177,507
SK Hynix, Inc. (South Korea)	10,582	759,277
Taiwan Semiconductor Manufacturing Co., Ltd. (Taiwan)	162,000	2,433,009
		3,707,184
Software (1.2%)		
Totvs SA (Brazil)	80,500	388,460
		388,460
Specialty retail (2.6%)		
JUMBO SA (Greece)	17,476	307,098
Wilcon Depot, Inc. (Philippines)	539,600	178,088
Zhongsheng Group Holdings, Ltd. (China)	60,500	380,259
		865,445
Technology hardware, storage, and peripherals (5.4%)		
Samsung Electronics Co., Ltd. (South Korea)	35,933	1,810,508
		1,810,508
Textiles, apparel, and luxury goods (1.6%)		
Li Ning Co., Ltd. (China)	111,000	520,854
		520,854
Wireless telecommunication services (3.4%)		
China Mobile, Ltd. (China)	121,500	781,081
MTN Group, Ltd. (South Africa)	78,250	263,251
Safaricom PLC (Kenya)	366,305	100,587
		1,144,919
Total common stocks (cost \$26,307,199)		\$33,164,673

INVESTMENT COMPANIES (0.2%)(a)

	Shares	Value
iShares Core MSCI Emerging Markets ETF	1,204	\$63,571
Total investment companies (cost \$61,479)		\$63,571

SHORT-TERM INVESTMENTS (1.5%)(a)

	Shares	Value
Putnam Cash Collateral Pool, LLC 0.22%(AFF)	500,165	\$500,165
Total short-term investments (cost \$500,165)		\$500,165

TOTAL INVESTMENTS

Total investments (cost \$26,868,843)		\$33,728,409
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Key to holding's abbreviations

ADR American Depository Receipts: represents ownership of foreign securities on deposit with a custodian bank

ETF Exchange Traded Fund

PJSC Public Joint Stock Company

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). Prior to April 30, 2020, the Fund was known as Putnam VT International Growth Fund. 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 \$33,250,094.

(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 \$2, or less than 0.1% of net assets.

(AFF) Affiliated company. For investments in Putnam Cash Collateral Pool, LLC, 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*#	\$—	\$5,254,160	\$4,753,995	\$2,543	\$500,165
Putnam Short Term Investment Fund**	1,066,016	10,574,612	11,640,628	6,054	—
Total Short-term investments	\$1,066,016	\$15,828,772	\$16,394,623	\$8,597	\$500,165

* 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 \$500,165, 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 \$491,523.

** 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.

DIVERSIFICATION BY COUNTRY

Distribution of investments by country of risk at the close of the reporting period, excluding collateral received, if any (as a percentage of Portfolio Value):

China	42.0%
Taiwan	13.0

South Korea	12.0
India	10.7
Brazil	5.1
Russia	3.3
Hong Kong	2.6
Mexico	2.2
Netherlands	1.8
South Africa	1.1
Argentina	1.1
Panama	1.0
Greece	0.9
Thailand	0.9
Indonesia	0.6
Poland	0.6
Philippines	0.5
Other	0.6
Total	100.0%

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 Depositary 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:

Investments in securities:	Valuation inputs		
	Level 1	Level 2	Level 3
Common stocks*:			
Communication services	\$631,403	\$4,827,443	\$—
Consumer discretionary	956,519	7,500,569	2
Consumer staples	1,088,619	787,748	—
Energy	—	1,627,836	—
Financials	492,709	1,962,154	—
Health care	288,860	1,075,666	—
Industrials	610,466	2,851,842	—
Information technology	592,222	6,540,275	—
Materials	—	637,987	—
Real estate	—	187,672	—
Utilities	253,963	250,718	—
Total common stocks	4,914,761	28,249,910	2
Investment companies	63,571	—	—
Short-term investments	—	500,165	—
Totals by level	\$4,978,332	\$28,750,075	\$2

* 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