

Putnam VT Emerging Markets Equity Fund

The fund's portfolio

9/30/21 (Unaudited)

COMMON STOCKS (97.6%)(a)

	Shares	Value
Airlines (1.0%)		
Copa Holdings SA Class A (Panama) ^{(NON)(S)}	4,054	\$329,915
		329,915
Banks (8.3%)		
HDFC Bank, Ltd. (India)	33,814	724,921
ICICI Bank, Ltd. (India)	47,625	447,662
Sberbank of Russia PJSC ADR (Russia)	43,496	808,166
TCS Group Holding PLC GDR 144A (Cyprus)	8,323	757,792
		2,738,541
Capital markets (1.0%)		
Hong Kong Exchanges and Clearing, Ltd. (Hong Kong)	5,600	339,910
		339,910
Chemicals (1.6%)		
Asian Paints, Ltd. (India)	12,590	546,271
		546,271
Electrical equipment (1.3%)		
Contemporary Amperex Technology Co., Ltd. Class A (China)	5,400	439,467
		439,467
Entertainment (3.3%)		
PearlAbyss Corp. (South Korea) ^(NON)	3,988	268,091
Sea, Ltd. ADR (Thailand) ^(NON)	2,678	853,559
		1,121,650
Food and staples retail (4.0%)		
Dino Polska SA (Poland) ^(NON)	5,173	431,783
Wal-Mart de Mexico SAB de CV (Mexico)	264,360	895,864
		1,327,647
Health-care equipment and supplies (0.9%)		
Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Class A (China)	5,100	303,555

		303,555
Health-care providers and services (2.6%)		
Apollo Hospitals Enterprise, Ltd. (India)	14,637	880,061
		880,061
Hotels, restaurants, and leisure (4.0%)		
Evolution AB (Sweden)	2,055	312,377
Jubilant Foodworks, Ltd. (India)	7,789	422,655
Yum China Holdings, Inc. (China)	10,300	606,191
		1,341,223
Household durables (—%)		
HC Brillant Services GmbH (acquired 8/2/13, cost \$1) (Private) (Germany) ^{(NON)(F)(RES)}	2	—
		—
Household products (1.8%)		
Hindustan Unilever, Ltd. (India)	16,984	617,672
		617,672
Insurance (2.1%)		
AIA Group, Ltd. (Hong Kong)	61,600	709,271
		709,271
Interactive media and services (12.9%)		
Kakao Corp. (South Korea)	2,800	274,296
NAVER Corp. (South Korea)	2,239	729,565
Tencent Holdings, Ltd. (China)	43,000	2,521,271
Yandex NV Class A (Russia) ^{(NON)(S)}	9,768	778,412
		4,303,544
Internet and direct marketing retail (9.8%)		
Alibaba Group Holding, Ltd. (China) ^(NON)	84,416	1,570,139
JD.com, Inc. ADR (China) ^(NON)	11,162	806,343
MercadoLibre, Inc. (Argentina) ^(NON)	532	893,441
		3,269,923
IT Services (4.8%)		
Remitly Global, Inc. ^{(NON)(S)}	4,327	158,801
Tata Consultancy Services, Ltd. (India)	23,808	1,205,567
Thoughtworks Holding, Inc. ^(NON)	8,419	241,709
		1,606,077
Life sciences tools and services (2.3%)		
WuXi AppTec Co., Ltd. Class H (China)	33,576	783,786
		783,786

Machinery (4.9%)		
Airtac International Group (China)	11,000	344,278
Shenzhen Inovance Technology Co., Ltd. Class A (China)	59,550	580,762
Techtronic Industries Co., Ltd. (TTI) (Hong Kong)	36,500	715,526
		1,640,566
Multiline retail (0.2%)		
Poya International Co., Ltd. (Taiwan)	3,120	52,785
		52,785
Oil, gas, and consumable fuels (3.4%)		
Reliance Industries, Ltd. (India)	33,792	1,142,757
		1,142,757
Professional services (1.3%)		
Centre Testing International Group Co., Ltd. Class A (China)	111,500	437,432
		437,432
Semiconductors and semiconductor equipment (15.1%)		
ASPEED Technology, Inc. (Taiwan)	6,000	493,790
MediaTek, Inc. (Taiwan)	21,000	676,899
Novatek Microelectronics Corp. (Taiwan)	24,000	348,436
Parade Technologies, Ltd. (Taiwan)	7,000	407,124
Taiwan Semiconductor Manufacturing Co., Ltd. (Taiwan)	151,000	3,113,782
		5,040,031
Software (2.3%)		
Totvs SA (Brazil)	116,845	774,568
		774,568
Technology hardware, storage, and peripherals (6.7%)		
Samsung Electronics Co., Ltd. (South Korea)	33,149	2,063,154
Xiaomi Corp. Class B (China) ^(NON)	71,400	194,300
		2,257,454
Textiles, apparel, and luxury goods (2.0%)		
Li Ning Co., Ltd. (China)	58,500	674,851
		674,851
Total common stocks (cost \$24,917,734)		\$32,678,957

INVESTMENT COMPANIES (3.1%)^(a)

	Shares	Value
iShares Core MSCI Emerging Markets ETF ^(S)	17,073	\$1,054,428
Total investment companies (cost \$1,063,511)		\$1,054,428

SHORT-TERM INVESTMENTS (5.3%)^(a)

	Shares	Value
Putnam Cash Collateral Pool, LLC 0.09% ^(AFF)	1,787,638	\$1,787,638
Total short-term investments (cost \$1,787,638)		\$1,787,638

TOTAL INVESTMENTS

Total investments (cost \$27,768,883)		\$35,521,023
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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

GDR Global Depository Receipts: represents ownership of foreign securities on deposit with a custodian bank

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, 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 \$33,499,045.

(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 \$—.

(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 12/31/20	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 9/30/21
Short-term investments					
Putnam Cash Collateral Pool, LLC*#	\$804,230	\$12,284,533	\$11,301,125	\$674	\$1,787,638
Putnam Short Term Investment Fund**	422,426	3,640,890	4,063,316	79	—
Total Short-term investments	\$1,226,656	\$15,925,423	\$15,364,441	\$753	\$1,787,638

* 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 \$1,787,638 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 \$1,759,256.

** 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.

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.

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	27.6%
India	17.7
Taiwan	15.1
South Korea	9.9
Hong Kong	5.2
Russia	4.7
United States	4.3
Mexico	2.7
Argentina	2.6
Thailand	2.5
Brazil	2.3

Cyprus	2.2
Poland	1.3
Panama	1.0
Sweden	0.9
Other	>0.0
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	\$1,631,971	\$3,793,223	\$—
Consumer discretionary	1,699,784	3,638,998	—**
Consumer staples	895,864	1,049,455	—
Energy	—	1,142,757	—
Financials	—	3,787,722	—
Health care	—	1,967,402	—
Industrials	329,915	2,517,465	—
Information technology	1,175,078	8,503,052	—
Materials	—	546,271	—
Total common stocks	5,732,612	26,946,345	—
Investment companies	1,054,428	—	—
Short-term investments	—	1,787,638	—
Totals by level	\$6,787,040	\$28,733,983	\$—

* Common stock classifications are presented at the sector level, which may differ from the fund's portfolio presentation.

**Value of Level 3 security is \$—.

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

