

Putnam VT Emerging Markets Equity Fund

The fund's portfolio

3/31/21 (Unaudited)

COMMON STOCKS (100.1%)^(a)

	Shares	Value
Airlines (0.9%)		
Copa Holdings SA Class A (Panama) ^(NON)	4,253	\$343,600
		343,600
Automobiles (0.3%)		
BYD Co., Ltd. Class H (China)	5,500	117,822
		117,822
Banks (3.4%)		
HDFC Bank, Ltd. (India) ^(NON)	48,937	995,914
Sberbank of Russia PJSC ADR (Russia)	15,659	241,227
		1,237,141
Capital markets (2.8%)		
B3 SA - Brasil Bolsa Balcao (Brazil)	69,500	674,423
Hong Kong Exchanges and Clearing, Ltd. (Hong Kong)	5,900	348,896
		1,023,319
Chemicals (2.6%)		
Asian Paints, Ltd. (India)	11,206	389,574
LG Chemical, Ltd. (South Korea)	797	569,805
		959,379
Entertainment (1.5%)		
Sea, Ltd. ADR (Thailand) ^(NON)	2,554	570,129
		570,129
Food and staples retail (2.6%)		
Dino Polska SA (Poland) ^(NON)	4,549	299,975

Wal-Mart de Mexico SAB de CV (Mexico)	203,680	643,242
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		943,217
Health-care equipment and supplies (1.2%)		
Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Class A (China)	7,200	440,042
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		440,042
Health-care providers and services (2.8%)		
Apollo Hospitals Enterprise, Ltd. (India)	17,031	677,235
Universal Vision Biotechnology Co., Ltd. (Taiwan)	32,000	364,436
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		1,041,671
Hotels, restaurants, and leisure (2.4%)		
Jubilant Foodworks, Ltd. (India) ^(NON)	8,074	321,892
Yum China Holdings, Inc. (China)	9,350	547,589
		<hr/>
		869,481
Household durables (—%)		
HC Brillant Services GmbH (acquired 8/2/13, cost \$1) (Private) (Germany) ^{(NON)(F)(RES)}	2	2
		<hr/>
		2
Household products (1.5%)		
Hindustan Unilever, Ltd. (India)	16,804	559,459
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		559,459
Insurance (1.8%)		
AIA Group, Ltd. (Hong Kong)	54,200	659,370
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		659,370
Interactive media and services (16.9%)		
Baidu, Inc. ADR (China) ^(NON)	2,423	527,124
Kakao Corp. (South Korea)	1,767	780,421
NAVER Corp. (South Korea)	2,033	679,987
Tencent Holdings, Ltd. (China)	45,100	3,555,549
Yandex NV Class A (Russia) ^{(NON)(S)}	10,517	673,719
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		6,216,800
Internet and direct marketing retail (16.0%)		

Alibaba Group Holding, Ltd. (China) ^(NON)	97,216	2,751,023
JD.com, Inc. ADR (China) ^{(NON)(S)}	11,343	956,555
Meituan Dianping Class B (China) ^(NON)	26,800	1,032,450
MercadoLibre, Inc. (Argentina) ^(NON)	428	630,076
Prosus NV (China)	4,572	508,278
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		5,878,382
IT Services (2.7%)		
StoneCo., Ltd. Class A (Brazil) ^(NON)	4,750	290,795
Tata Consultancy Services, Ltd. (India)	16,411	714,298
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		1,005,093
Life sciences tools and services (1.3%)		
WuXi AppTec Co., Ltd. Class H (China)	24,480	484,163
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		484,163
Machinery (6.3%)		
Airtac International Group (China)	17,000	603,751
Sany Heavy Industry Co., Ltd. Class A (China)	100,400	525,317
Shenzhen Inovance Technology Co., Ltd. Class A (China)	38,100	498,119
Techtronic Industries Co., Ltd. (TTI) (Hong Kong)	40,000	687,607
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		2,314,794
Multiline retail (1.0%)		
Poya International Co., Ltd. (Taiwan)	17,000	356,296
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		356,296
Oil, gas, and consumable fuels (2.9%)		
Reliance Industries, Ltd. (India)	38,487	1,057,852
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		1,057,852
Professional services (1.3%)		
Centre Testing International Group Co., Ltd. Class A (China)	113,800	495,614
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		495,614
Semiconductors and semiconductor equipment (17.5%)		
MediaTek, Inc. (Taiwan)	25,000	859,218
Novatek Microelectronics Corp. (Taiwan)	33,000	672,414

SK Hynix, Inc. (South Korea)	10,103	1,189,704
Taiwan Semiconductor Manufacturing Co., Ltd. (Taiwan)	157,000	3,264,566
Xinyi Solar Holdings, Ltd. (China)	244,000	408,998
		6,394,900
Software (1.5%)		
Totvs SA (Brazil)	107,900	554,582
		554,582
Technology hardware, storage, and peripherals (6.8%)		
Samsung Electronics Co., Ltd. (South Korea)	34,829	2,515,738
		2,515,738
Textiles, apparel, and luxury goods (2.1%)		
Li Ning Co., Ltd. (China)	118,500	774,163
		774,163
Total common stocks (cost \$26,923,257)		\$36,813,009

SHORT-TERM INVESTMENTS (4.4%)^(a)

	Shares	Value
Putnam Cash Collateral Pool, LLC 0.10% ^(AFF)	1,469,770	\$1,469,770
Putnam Short Term Investment Fund 0.09% ^(AFF)	139,985	139,985
Total short-term investments (cost \$1,609,755)		\$1,609,755
TOTAL INVESTMENTS		
Total investments (cost \$28,533,012)		\$38,422,764

Key to holding's abbreviations

ADR American 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 March 31, 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 "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 \$36,792,571.

(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 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 3/31/21
Short-term investments					
Putnam Cash Collateral Pool, LLC*#	\$804,230	\$1,979,875	\$1,314,335	\$280	\$1,469,770
Putnam Short Term Investment Fund**	422,426	2,793,578	3,076,019	57	139,985
Total Short-term investments	\$1,226,656	\$4,773,453	\$4,390,354	\$337	\$1,609,755

* 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 \$1,469,770, 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 \$1,462,330.

** 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	38.5%
South Korea	15.5
Taiwan	14.9
India	12.8
Hong Kong	4.6
Brazil	4.1
Russia	2.5
Mexico	1.7
Argentina	1.7
Thailand	1.5
Panama	0.9
Poland	0.8
Other	0.5
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 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		
	Level 1	Level 2	Level 3
Investments in securities:			
Common stocks*:			

Communication services	\$1,770,972	\$5,015,957	\$—
Consumer discretionary	2,094,909	5,901,235	2
Consumer staples	943,217	559,459	—
Energy	—	1,057,852	—
Financials	915,650	2,004,180	—
Health care	—	1,965,876	—
Industrials	343,600	2,810,408	—
Information technology	845,377	9,624,936	—
Materials	—	959,379	—
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Total common stocks	6,913,725	29,899,282	2
Short-term investments	—	1,609,755	—
	<hr/>	<hr/>	<hr/>
Totals by level	\$6,913,725	\$31,509,037	\$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