

Putnam VT Emerging Markets Equity Fund

The fund's portfolio

3/31/20 (Unaudited)

COMMON STOCKS (92.8%)^(a)

	Shares	Value
Aerospace and defense (1.7%)		
Airbus SE (France)	6,775	\$439,584
		439,584
Airlines (0.3%)		
Dart Group PLC (United Kingdom)	10,848	73,969
		73,969
Auto components (0.9%)		
Toyota Industries Corp. (Japan)	4,500	215,932
		215,932
Banks (2.9%)		
Bank Tabungan Pensiunan Nasional Syariah Tbk PT (Indonesia) ^(NON)	1,125,400	146,524
Commercial International Bank (CIB) Egypt SAE GDR (Egypt)	38,143	138,204
HDFC Bank, Ltd. (India)	39,532	444,799
		729,527
Beverages (8.7%)		
Asahi Group Holdings, Ltd. (Japan)	13,700	444,824
Coca-Cola HBC AG (Switzerland)	10,127	217,660
Diageo PLC (United Kingdom)	10,724	343,476
Heineken NV (Netherlands)	6,513	545,125
Pernod Ricard SA (France)	1,905	270,965
Wuliangye Yibin Co., Ltd. Class A (China)	23,700	386,744
		2,208,794
Building products (1.3%)		
Daikin Industries, Ltd. (Japan)	2,700	329,254
		329,254
Capital markets (3.4%)		
Deutsche Boerse AG (Germany)	2,656	364,850
Quilter PLC (United Kingdom)	190,855	278,908
TMX Group, Ltd. (Canada)	2,868	213,516

		857,274
Chemicals (1.2%)		
Koninklijke DSM NV (Netherlands)	2,695	306,244
		306,244
Commercial services and supplies (2.8%)		
A-Living Services Co., Ltd. Class H (China)	148,750	718,629
New Bigfoot Other Assets GmbH (acquired 8/2/13, cost \$1) (Private) (Germany) <i>(NON)(F)(RES)</i>	1	1
New Middle East Other Assets GmbH (acquired 8/2/13, cost \$1) (Private) (Germany) <i>(NON)(F)(RES)</i>	1	1
		718,631
Construction and engineering (1.2%)		
Vinci SA (France)	3,720	307,812
		307,812
Distributors (1.3%)		
PALTAC Corp. (Japan)	6,800	339,529
		339,529
Diversified consumer services (1.3%)		
Fu Shou Yuan International Group, Ltd. (China)	389,000	340,710
		340,710
Food and staples retail (1.1%)		
Dino Polska SA (Poland) <i>(NON)</i>	6,987	273,286
		273,286
Food products (7.6%)		
Grieg Seafood ASA (Norway)	21,824	202,777
Kerry Group PLC Class A (Ireland)	4,139	474,507
Nestle SA (Switzerland)	10,130	1,044,081
WH Group, Ltd. (Hong Kong)	224,000	208,015
		1,929,380
Health-care providers and services (2.2%)		
Orpea (France)	5,234	548,128
		548,128
Hotels, restaurants, and leisure (2.0%)		
Compass Group PLC (United Kingdom)	19,716	308,055
GVC Holdings PLC (Isle of Man)	28,741	199,510
		507,565
Household durables (2.1%)		

HC Brillant Services GmbH (acquired 8/2/13, cost \$1) (Private) (Germany) ^{(NON)(F)(RES)}	2	2
Sony Corp. (Japan)	9,000	534,989
		534,991
Insurance (6.4%)		
AIA Group, Ltd. (Hong Kong)	52,400	471,406
Ping An Insurance (Group) Co. of China, Ltd. Class H (China)	56,000	547,801
Prudential PLC (United Kingdom)	18,577	237,136
QBE Insurance Group, Ltd. (Australia)	68,234	372,809
		1,629,152
Interactive media and services (5.4%)		
Tencent Holdings, Ltd. (China)	22,600	1,102,008
Yandex NV Class A (Russia) ^{(NON)(S)}	8,036	273,626
		1,375,634
Internet and direct marketing retail (3.7%)		
Alibaba Group Holding, Ltd. ADR (China) ^(NON)	3,104	603,666
JD.com, Inc. ADR (China) ^(NON)	8,409	340,565
		944,231
IT Services (2.6%)		
Visa, Inc. Class A ^(S)	4,084	658,014
		658,014
Life sciences tools and services (1.5%)		
Lonza Group AG (Switzerland)	926	385,263
		385,263
Media (0.6%)		
Cogeco Communications, Inc. (Canada)	2,426	164,578
		164,578
Oil, gas, and consumable fuels (2.3%)		
Cenovus Energy, Inc. (Canada)	47,911	96,687
Reliance Industries, Ltd. (India)	32,686	481,103
		577,790
Personal products (2.9%)		
Shiseido Co., Ltd. (Japan)	7,500	443,039
Unilever NV (Netherlands)	6,060	298,576
		741,615
Pharmaceuticals (6.4%)		
AstraZeneca PLC (United Kingdom)	9,958	889,529

Novartis AG (Switzerland)	8,731	721,574
		1,611,103
Real estate management and development (1.1%)		
Open House Co., Ltd. (Japan)	13,400	275,617
		275,617
Semiconductors and semiconductor equipment (6.1%)		
ASML Holding NV (Netherlands)	2,629	698,684
NXP Semiconductors NV	2,418	200,525
Renesas Electronics Corp. (Japan) ^(NON)	73,700	264,611
SK Hynix, Inc. (South Korea)	4,016	271,675
Tokyo Seimitsu Co., Ltd. (Japan)	3,700	105,226
		1,540,721
Software (5.5%)		
Constellation Software, Inc. (Canada)	693	629,831
Dassault Systemes SA (France)	3,907	579,395
Talend SA ADR ^(NON)	8,479	190,184
		1,399,410
Textiles, apparel, and luxury goods (4.9%)		
adidas AG (Germany)	2,015	463,546
Aritzia, Inc. (Canada) ^(NON)	12,922	113,032
Kering SA (France)	1,259	656,939
		1,233,517
Trading companies and distributors (1.4%)		
Ashtead Group PLC (United Kingdom)	16,108	357,769
		357,769
Total common stocks (cost \$25,923,880)		\$23,555,024

U.S. TREASURY OBLIGATIONS (0.4%)^(a)

	Principal amount	Value
U.S. Treasury Notes 1.75%, 2/28/22 ^(j)	\$109,000	\$112,212
Total U.S. treasury obligations (cost \$112,212)		\$112,212

SHORT-TERM INVESTMENTS (10.3%)(a)

		Principal amount/ shares	Value
Putnam Cash Collateral Pool, LLC 0.54%(AFF)	Shares	857,520	\$857,520
Putnam Short Term Investment Fund 0.92%(AFF)	Shares	1,620,123	1,620,123
U.S. Treasury Bills zero%, 8/13/20(SEGSF)		\$129,000	128,963
Total short-term investments (cost \$2,606,643)			\$2,606,606
TOTAL INVESTMENTS			
Total investments (cost \$28,642,735)			\$26,273,842

FORWARD CURRENCY CONTRACTS at 3/31/20 (aggregate face value \$25,254,417) (Unaudited)

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
	Brazilian Real	Buy	4/2/20	\$310,675	\$365,536	\$(54,861)
	Brazilian Real	Sell	4/2/20	310,675	385,753	75,078
	Japanese Yen	Buy	4/15/20	650,562	644,073	6,489
Barclays Bank PLC						
	Australian Dollar	Buy	4/15/20	12,856	14,515	(1,659)
	British Pound	Sell	4/15/20	141,136	140,728	(408)
	Canadian Dollar	Buy	4/15/20	83,294	86,152	(2,858)
	Euro	Sell	4/15/20	1,109,241	1,128,754	19,513
	Hong Kong Dollar	Buy	4/15/20	247,766	246,874	892
	Polish Zloty	Sell	4/15/20	248,025	264,819	16,794
	Swedish Krona	Sell	4/15/20	95,980	101,130	5,150
Citibank, N.A.						
	Australian Dollar	Sell	4/15/20	254,423	276,002	21,579
	Canadian Dollar	Sell	4/15/20	530,678	575,341	44,663

Danish Krone	Buy	4/15/20	939,914	953,791	(13,877)
Euro	Buy	4/15/20	255,104	258,907	(3,803)
Goldman Sachs International					
Canadian Dollar	Buy	4/15/20	190,040	183,094	6,946
Euro	Buy	4/15/20	209,645	212,682	(3,037)
Japanese Yen	Sell	4/15/20	424,862	431,926	7,064
Swedish Krona	Sell	4/15/20	132,251	134,138	1,887
HSBC Bank USA, National Association					
Canadian Dollar	Sell	4/15/20	114,849	124,528	9,679
Chinese Yuan (Offshore)	Sell	4/15/20	3,879,620	3,917,072	37,452
Euro	Buy	4/15/20	480,748	487,958	(7,210)
Japanese Yen	Buy	4/15/20	579,051	577,200	1,851
JPMorgan Chase Bank N.A.					
Australian Dollar	Buy	4/15/20	81,075	91,544	(10,469)
British Pound	Buy	4/15/20	607,281	626,494	(19,213)
Canadian Dollar	Sell	4/15/20	630,175	683,294	53,119
Japanese Yen	Buy	4/15/20	1,230,418	1,217,138	13,280
New Zealand Dollar	Buy	4/15/20	57,096	63,890	(6,794)
Norwegian Krone	Sell	4/15/20	79,071	88,249	9,178
Singapore Dollar	Buy	4/15/20	275,286	293,761	(18,475)
South Korean Won	Sell	4/14/20	336,709	346,302	9,593
Swedish Krona	Buy	4/15/20	11,032	11,484	(452)
Swiss Franc	Buy	4/15/20	1,334,220	1,346,299	(12,079)
NatWest Markets PLC					
Australian Dollar	Buy	4/15/20	170,886	192,945	(22,059)
British Pound	Buy	4/15/20	153,560	158,084	(4,524)
Swedish Krona	Buy	4/15/20	999,047	1,039,989	(40,942)
State Street Bank and Trust Co.					
British Pound	Sell	4/15/20	1,337,187	1,395,193	58,006
Canadian Dollar	Sell	4/15/20	294,798	322,343	27,545
Israeli Shekel	Buy	4/16/20	173,835	177,949	(4,114)
Japanese Yen	Buy	4/15/20	1,212,476	1,207,760	4,716
UBS AG					
Australian Dollar	Sell	4/15/20	303,696	285,534	(18,162)
British Pound	Buy	4/15/20	623,805	643,496	(19,691)
Canadian Dollar	Buy	4/15/20	62,755	20,495	42,260
Euro	Buy	4/15/20	1,420,066	1,452,120	(32,054)
WestPac Banking Corp.					
Australian Dollar	Buy	4/15/20	1,372,012	1,494,114	(122,102)
British Pound	Buy	4/15/20	101,006	104,195	(3,189)
Canadian Dollar	Buy	4/15/20	117,123	123,722	(6,599)
Japanese Yen	Buy	4/15/20	363,686	357,050	6,636
Unrealized appreciation					479,370
Unrealized (depreciation)					(428,631)

* The exchange currency for all contracts listed is the United States Dollar.

Key to holding's abbreviations

- ADR American Depository Receipts: represents ownership of foreign securities on deposit with a custodian bank
- GDR Global Depository 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 March 31, 2020 (the reporting period). Prior to April 30, 2020, Putnam VT Emerging Markets Equity 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 \$25,393,759.

(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 \$4, 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 12/31/19	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 3/31/20
Short-term investments					
Putnam Cash Collateral Pool, LLC*#	\$—	\$1,530,720	\$673,200	\$972	\$857,520
Putnam Short Term Investment Fund**	1,066,016	5,403,667	4,849,560	4,365	1,620,123
Total Short-term investments	\$1,066,016	\$6,934,387	\$5,522,760	\$5,337	\$2,477,643

* 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 \$857,520, 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 \$825,192.

** 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.

(SEGSF) This security, in part or in entirety, was pledged and segregated with the custodian for collateral on certain derivative contracts at the close of the reporting period. Collateral at period end totaled \$120,964.

(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.

(i) This security was pledged, or purchased with cash that was pledged, to the fund for collateral on certain derivative contracts.

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

At the close of the reporting period, the fund maintained liquid assets totaling \$240,320 to cover certain derivative contracts.

Unless otherwise noted, the rates quoted in Short-term investments security descriptions represent the weighted average yield to maturity.

The dates shown on debt obligations are the original maturity dates.

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	15.9%
Japan	11.6
United States	11.4
France	11.0
United Kingdom	9.7
Switzerland	9.3
Netherlands	7.2
Canada	4.8
India	3.7
Germany	3.3
Hong Kong	2.7
Ireland	1.9
Australia	1.5
Russia	1.1
Poland	1.1
South Korea	1.1
Norway	0.8
Isle of Man	0.8
Indonesia	0.6
Egypt	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.

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.

Forward currency contracts: The fund buys and sells forward currency contracts, which are agreements between two parties to buy and sell currencies at a set price on a future date. These contracts were used to hedge foreign exchange risk.

The U.S. dollar value of forward currency contracts is determined using current forward currency exchange rates supplied by a quotation service. The fair value of the contract will fluctuate with changes in currency exchange rates. The contract is marked to market daily and the change in fair value is recorded as an unrealized gain or loss. The fund records a realized gain or loss equal to the difference between the value of the contract at the time it was opened and the value at the time it was closed when the contract matures or by delivery of the currency. The fund could be exposed to risk if the value of the currency changes unfavorably, if the counterparties to the contracts are unable to meet the terms of their contracts or if the fund is unable to enter into a closing position.

For the fund's average contract amount on forward currency contracts, see the appropriate table

at the end of these footnotes.

Master agreements: The fund is a party to ISDA (International Swaps and Derivatives Association, Inc.) Master Agreements (Master Agreements) with certain counterparties that govern OTC derivative and foreign exchange contracts entered into from time to time. The Master Agreements may contain provisions regarding, among other things, the parties' general obligations, representations, agreements, collateral requirements, events of default and early termination. With respect to certain counterparties, in accordance with the terms of the Master Agreements, collateral posted to the fund is held in a segregated account by the fund's custodian and, with respect to those amounts which can be sold or repledged, is presented in the fund's portfolio.

Collateral pledged by the fund is segregated by the fund's custodian and identified in the fund's portfolio. Collateral can be in the form of cash or debt securities issued by the U.S. Government or related agencies or other securities as agreed to by the fund and the applicable counterparty. Collateral requirements are determined based on the fund's net position with each counterparty.

Termination events applicable to the fund may occur upon a decline in the fund's net assets below a specified threshold over a certain period of time. Termination events applicable to counterparties may occur upon a decline in the counterparty's long-term and short-term credit ratings below a specified level. In each case, upon occurrence, the other party may elect to terminate early and cause settlement of all derivative and foreign exchange contracts outstanding, including the payment of any losses and costs resulting from such early termination, as reasonably determined by the terminating party. Any decision by one or more of the fund's counterparties to elect early termination could impact the fund's future derivative activity.

At the close of the reporting period, the fund had a net liability position of \$220,426 on open derivative contracts subject to the Master Agreements. Collateral posted by the fund at period end for these agreements totaled \$120,964 and may include amounts related to unsettled agreements.

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	\$438,204	\$1,102,008	\$—
Consumer discretionary	1,057,263	3,059,210	2
Consumer staples	—	5,153,075	—
Energy	96,687	481,103	—
Financials	213,516	3,002,437	—
Health care	—	2,544,494	—
Industrials	—	2,227,017	2
Information technology	1,678,554	1,919,591	—
Materials	—	306,244	—
Real estate	—	275,617	—

Total common stocks	3,484,224	20,070,796	4
U.S. treasury obligations	—	112,212	—
Short-term investments	1,620,123	986,483	—
Totals by level	\$5,104,347	\$21,169,491	\$4

Valuation inputs

Other financial instruments:	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$50,739	\$—
Totals by level	\$—	\$50,739	\$—

* 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:

Forward currency contracts (contract amount)	\$26,700,000
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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