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Putnam Variable Trust

Putnam VT Emerging Markets Equity Fund

Annual report

12 | 31 | 20

Prior to April 30, 2020, the fund was known as Putnam VT International Growth Fund.

Message from the Trustees

February 10, 2021

Dear Shareholder:

The world welcomed 2021 with high hopes for improvement in the global economy and public health. Although COVID-19 infections have reached new levels, distribution of vaccines is underway, boosting optimism about a return to normal in the not-too-distant future. In the United States, new proposals to rebuild the economy are anticipated from the Biden administration. The stock and bond markets started the year in good shape, indicating that investors are willing to look beyond current challenges and see the potential for renewed economic growth.

Putnam continues to employ active strategies that seek superior investment performance for you and your fellow shareholders. Putnam's portfolio managers and analysts take a research-intensive approach that includes risk management strategies designed to serve you through changing conditions.

As always, thank you for investing with Putnam.

Respectfully yours,



Robert L. Reynolds
President and Chief Executive Officer
Putnam Investments



Kenneth R. Leibler
Chair, Board of Trustees

Performance summary (as of 12/31/20)

Investment objective

Long-term capital appreciation

Net asset value December 31, 2020

Class IA: \$24.97

Class IB: \$24.77

Total return at net asset value

(as of 12/31/20)	Class IA shares*	Class IB shares†	MSCI Emerging Markets Index (ND)‡	MSCI EAFE Growth Index (ND) — MSCI Emerging Markets (ND) Linked Benchmark**	MSCI EAFE Growth Index (ND)
1 year	28.25%	27.94%	18.31%	26.36%	18.29%
5 years	65.90	63.81	82.70	76.01	64.78
Annualized	10.66	10.37	12.81	11.97	10.50
10 years	93.79	89.00	42.82	120.38	106.31
Annualized	6.84	6.57	3.63	8.22	7.51
Life	301.25	279.95	—	265.49	242.17
Annualized	5.96	5.72	—	5.57	5.28

For a portion of the periods, the fund had expense limitations, without which returns would have been lower.

* Class inception date: January 2, 1997.

† Class inception date: April 30, 1998.

Before April 30, 2020, the fund was managed with a materially different investment strategy and may have achieved materially different performance results under its current investment strategy from that shown for periods before this date.

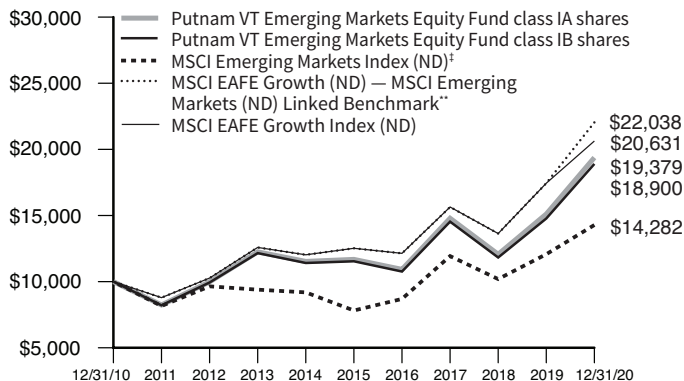
As of April 30, 2020, the MSCI Emerging Markets Index (ND) replaced the MSCI EAFE Growth Index (ND) as the primary benchmark for this fund. In Putnam Investment Management, LLC's opinion, the securities tracked by the MSCI Emerging Markets Index (ND) more accurately reflect the types of securities that generally will be held by the fund.

‡ The fund's benchmark, the MSCI Emerging Markets Index (ND), was introduced on 1/1/01, which post-dates the inception of the fund's class IA shares.

The MSCI Emerging Markets Index (ND) is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. Calculated with net dividends (ND), this total return index reflects the reinvestment of dividends after the deduction of withholding taxes, using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

** The MSCI EAFE Growth (ND) — MSCI Emerging Markets (ND) Linked Benchmark represents performance of the MSCI EAFE Growth Index (ND) from the inception date of the fund, January 2, 1997 through April 29, 2020, and performance of the MSCI Emerging Markets Index (ND) from April 30, 2020 and thereafter.

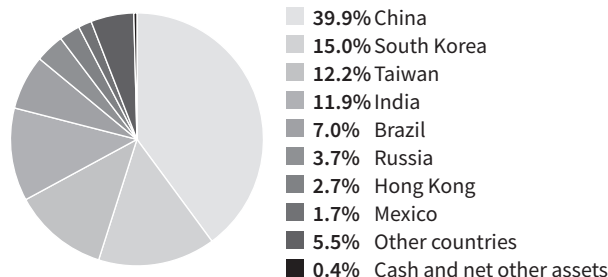
Cumulative total returns of a \$10,000 investment in class IA and class IB shares at net asset value — since 12/31/10



The MSCI EAFE Growth Index (ND) is an unmanaged index that measures the performance in 20 countries within Europe, Australasia, and the Far East with a greater-than-average growth orientation. Calculated with net dividends (ND), this total return index reflects the reinvestment of dividends after the deduction of withholding taxes, using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

Data represent past performance. Past performance does not guarantee future results. More recent returns may be less or more than those shown. Investment return and principal value will fluctuate, and you may have a gain or a loss when you sell your shares. Performance information does not reflect any deduction for taxes a shareholder may owe on fund distributions or on the redemption of fund shares. All total return figures are at net asset value and exclude contract charges and expenses, which are added to the variable annuity contracts to determine total return at unit value. Had these charges and expenses been reflected, performance would have been lower. Performance of class IB shares before their inception is derived from the historical performance of class IA shares, adjusted to reflect the higher operating expenses applicable to such shares. For more recent performance, contact your variable annuity provider who can provide you with performance that reflects the charges and expenses at your contract level.

Portfolio composition



Allocations are shown as a percentage of the fund's net assets. Cash and net other assets, if any, represent the market value weights of cash, derivatives, short-term securities, and other unclassified assets in the portfolio. Summary information may differ from the information in the portfolio schedule notes included in the financial statements due to the inclusion of derivative securities, any interest accruals, the exclusion of as-of trades, if any, and rounding. Holdings and allocations may vary over time.

Report from your fund's managers

How was the investment environment for the 12-month reporting period?

Despite some weakness during the 12-month period, emerging-market equities advanced overall. Global equity indices also reached record highs, continuing the market's run from the downturn earlier in the year. The rally was fueled by the development of COVID-19 vaccines, signs of economic recovery, and stimulus measures. China, a key investment and trading partner for emerging-market economies, has been one of the major economies to gradually rebound.

How did Putnam VT Emerging Markets Equity Fund perform during the period?

Putnam VT Emerging Markets Equity Fund invests in growth and/or value stocks of emerging-market companies. Prior to its repositioning effective April 30, 2020, the portfolio was focused on investments in growth stocks of companies of any size in established and emerging markets outside the United States.

For the 12-month reporting period, the fund's class IA shares posted a return of 28.25%, outperforming the fund's benchmark, MSCI Emerging Markets Index [ND], which returned 18.31%. It outperformed the benchmark for the 10-year period ended December 31, 2020.

What were some holdings that contributed to performance relative to the benchmark during the period?

Mercadolibre [MELI] is the leading Latin American ecommerce and financial technology platform in Latin America and key contributor to performance in 2020. Our thesis — that consensus revenue expectations were too low as ecommerce adoption would accelerate faster than expected and MELI was best positioned to maintain and grow its market share — has continued to play out. Performance also benefited from a shift in consumption from offline to online during quarantine in the second and third quarters of 2020. MELI remains a core long-term holding in the portfolio.

Top Glove, the largest producer of medical gloves in the world, was another big winner in the fund. After studying the supply and demand dynamics of the industry, we concluded that prices would rise significantly, leading to the highest margins in the company's history. Margins also benefited from lower oil prices, which are a key driver of cost of goods sold. Our thesis played out as Wall Street analysts estimate revisions were increased significantly higher. We sold our position in Top Glove before period-end.

What were some holdings that detracted from performance during the period?

Our top detractors for the period were Airbus SE and Cenovus Energy. Airbus is a leading manufacturer of planes in an attractive duopoly market. Shares were negatively impacted by the sharp decline in air travel. Cenovus is a Canadian energy company with significant leverage to oil prices. Shares were negatively impacted by the collapse in oil price due to the reduction in demand for gasoline due to the COVID-19 crisis. We sold our positions in these developed-market companies before period-end.

What is your near-term outlook for the markets?

While rising virus infections could lead to weaker-than-expected economic activity in the coming months, we believe the vaccine progress has reduced the chances of much slower growth in 2021. New vaccines have started to be rolled out across the world, including in China. We believe the financial markets are now pinning hope on widespread vaccinations by the middle of 2021.

We believe our consistent investment approach, often has enabled us to deliver outperformance despite declines in the broader market — and when either value stocks or growth stocks took the lead. We have a two-part investment process. First, we create a custom watch list of 500 to 600 stocks out of a universe of 3,500. We believe the businesses on our custom list have superior return potential, strong competitive advantages, better sustainability characteristics, above-average profitability, and strong balance sheets. On a fundamental basis, these are the types of businesses that we want to own.

Second, we use a rigorous research process to identify our top stock picks. We build dozens of proprietary models, looking for a differentiated view of long-term earnings relative to consensus expectations. From these fundamental steps, we build a portfolio of our best ideas, which typically consists of 40 to 60 stocks.

The views expressed in this report are exclusively those of Putnam Management and are subject to change. They are not meant as investment advice. Please note that the holdings discussed in this report may not have been held by the fund for the entire period. Portfolio composition is subject to review in accordance with the fund's investment strategy and may vary in the future.

Consider these risks before investing: International investing involves currency, economic, and political risks. Emerging-market securities carry illiquidity and volatility risks. Investments in small and/or midsize companies increase the risk of greater price fluctuations. From time to time, the fund may invest a significant portion of its assets in companies in one or more related industries or sectors, which would make the fund more vulnerable to adverse developments affecting those industries or sectors. Growth stocks may be more susceptible to earnings disappointments, and value stocks may fail to rebound. Risks associated with derivatives include increased investment exposure (which may be considered leverage) and, in the case of over-the-counter instruments, the potential inability to terminate or sell derivatives positions and the potential failure of the other party to the instrument to meet its obligations. The value of investments in the fund's portfolio may fall or fail to rise over extended periods of time for a variety of reasons, including general economic, political, or financial market conditions; investor sentiment and market perceptions; government actions; geopolitical events or changes; and factors related to a specific issuer, geography, industry, or sector. These and other factors may lead to increased volatility and reduced liquidity in the fund's portfolio holdings. Our investment techniques, analyses, and judgments may not produce the outcome we intend. The investments we select for the fund may not perform as well as other securities that we do not select for the fund. We, or the fund's other service providers, may experience disruptions or operating errors that could have a negative effect on the fund. You can lose money by investing in the fund.

Your fund's managers



Portfolio Manager **Brian S. Freiwald, CFA**, joined Putnam in 2010 and has been in the investment industry since 2004.

Andrew J. Yoon, CFA, is Assistant Portfolio Manager of the fund.

Your fund's managers may also manage other accounts advised by Putnam Management or an affiliate, including retail mutual fund counterparts to the funds in Putnam Variable Trust.

Understanding your fund's expenses

As an investor in a variable annuity product that invests in a registered investment company, you pay ongoing expenses, such as management fees, distribution fees (12b-1 fees), and other expenses. In the most recent six-month period, your fund's expenses were limited; had expenses not been limited, they would have been higher. Using the following information, you can estimate how these expenses affect your investment and compare them with the expenses of other funds. You may also pay one-time transaction expenses, which are not shown in this section and would result in higher total expenses. Charges and expenses at the insurance company separate account level are not reflected. For more information, see your fund's prospectus or talk to your financial representative.

Review your fund's expenses

The two left-hand columns of the Expenses per \$1,000 table show the expenses you would have paid on a \$1,000 investment in your fund from 7/1/20 to 12/31/20. They also show how much a \$1,000 investment would be worth at the close of the period, *assuming actual returns and expenses*. To estimate the ongoing expenses you paid over the period, divide your account value by \$1,000, then multiply the result by the number in the first line for the class of shares you own.

Compare your fund's expenses with those of other funds

The two right-hand columns of the Expenses per \$1,000 table show your fund's expenses based on a \$1,000 investment, *assuming a hypothetical 5% annualized return*. You can use this information to compare the ongoing expenses (but not transaction expenses or total costs) of investing in the fund with those of other funds. All shareholder reports of mutual funds and funds serving as variable annuity vehicles will provide this information to help you make this comparison. Please note that you cannot use this information to estimate your actual ending account balance and expenses paid during the period.

Expense ratios

	Class IA	Class IB
Net expenses for the fiscal year ended 12/31/19*	1.09%	1.34%
Total annual operating expenses for the fiscal year ended 12/31/19	1.30%	1.55%
Annualized expense ratio for the six-month period ended 12/31/20†	1.09%	1.34%

Fiscal year expense information in this table is taken from the most recent prospectus, is subject to change, and may differ from that shown for the annualized expense ratio and in the financial highlights of this report.

Expenses are shown as a percentage of average net assets.

*Reflects Putnam Management's contractual obligation to limit certain fund expenses through 4/30/21.

†For the fund's most recent fiscal half year; may differ from expense ratios based on one-year data in the financial highlights.

Expenses per \$1,000

	Expenses and value for a \$1,000 investment, assuming actual returns for the 6 months ended 12/31/20		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 12/31/20	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$6.43	\$7.90	\$5.53	\$6.80
Ending value (after expenses)	\$1,345.40	\$1,344.00	\$1,019.66	\$1,018.40

*Expenses for each share class are calculated using the fund's annualized expense ratio for each class, which represents the ongoing expenses as a percentage of average net assets for the six months ended 12/31/20. The expense ratio may differ for each share class.

†Expenses based on actual returns are calculated by multiplying the expense ratio by the average account value for the period; then multiplying the result by the number of days in the period; and then dividing that result by the number of days in the year. Expenses based on a hypothetical 5% return are calculated by multiplying the expense ratio by the average account value for the six-month period; then multiplying the result by the number of days in the six-month period; and then dividing that result by the number of days in the year.

Report of Independent Registered Public Accounting Firm

To the Board of Trustees of Putnam Variable Trust and Shareholders of
Putnam VT Emerging Markets Equity Fund:

Opinion on the Financial Statements

We have audited the accompanying statement of assets and liabilities, including the fund's portfolio, of Putnam VT Emerging Markets Equity Fund (prior to April 30, 2020, the fund was known as Putnam VT International Growth Fund) (one of the funds constituting Putnam Variable Trust, referred to hereafter as the "Fund") as of December 31, 2020, the related statement of operations for the year ended December 31, 2020, the statement of changes in net assets for each of the two years in the period ended December 31, 2020, including the related notes, and the financial highlights for each of the five years in the period ended December 31, 2020 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Fund as of December 31, 2020, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period ended December 31, 2020 and the financial highlights for each of the five years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Fund's management. Our responsibility is to express an opinion on the Fund's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Fund in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our procedures included confirmation of securities owned as of December 31, 2020 by correspondence with the custodian, transfer agent and brokers; when replies were not received from brokers, we performed other auditing procedures. We believe that our audits provide a reasonable basis for our opinion.

PricewaterhouseCoopers LLP
Boston, Massachusetts
February 10, 2021

We have served as the auditor of one or more investment companies in the Putnam Investments family of mutual funds since at least 1957. We have not been able to determine the specific year we began serving as auditor.

The fund's portfolio 12/31/20

COMMON STOCKS (99.7%)*	Shares	Value
Airlines (1.3%)		
Copa Holdings SA Class A (Panama) ^S	6,278	\$484,850
		484,850
Banks (10.4%)		
Bank Tabungan Pensiunan Nasional Syariah Tbk PT (Indonesia)	654,100	174,859
Hana Financial Group, Inc. (South Korea)	16,714	531,465
HDFC Bank, Ltd. (India) †	48,075	946,979
ICICI Bank, Ltd. (India) †	73,554	539,928
Itau Unibanco Holding SA (Preference) (Brazil) †	155,200	945,088
Sberbank of Russia PJSC ADR (Russia)	53,785	775,359
		3,913,678
Beverages (1.4%)		
Wuliangye Yibin Co., Ltd. Class A (China)	11,900	531,058
		531,058
Capital markets (2.7%)		
B3 SA - Brasil Bolsa Balcao (Brazil)	49,300	588,274
Hong Kong Exchanges and Clearing, Ltd. (Hong Kong)	7,700	423,503
		1,011,777
Chemicals (2.8%)		
Asian Paints, Ltd. (India)	10,084	382,346
LG Chemical, Ltd. (South Korea)	873	664,537
		1,046,883
Commercial services and supplies (1.1%)		
A-Living Smart City Services Co., Ltd. (China)	90,000	400,991
		400,991
Electric utilities (0.9%)		
Companhia Paranaense de Energia-Copel (Preference) (Brazil)	23,000	331,836
		331,836
Electronic equipment, instruments, and components (1.0%)		
Elite Material Co., Ltd. (Taiwan)	68,000	381,443
		381,443
Entertainment (1.1%)		
Sea, Ltd. ADR (Thailand) †	2,158	429,550
		429,550
Food and staples retail (2.6%)		
Dino Polska SA (Poland) †	4,258	329,716
Wal-Mart de Mexico SAB de CV (Mexico)	227,506	639,091
		968,807
Health-care equipment and supplies (1.1%)		
Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Class A (China)	6,500	422,319
		422,319
Health-care providers and services (0.7%)		
Universal Vision Biotechnology Co., Ltd. (Taiwan)	30,000	255,978
		255,978
Hotels, restaurants, and leisure (3.0%)		
Jubilant Foodworks, Ltd. (India)	7,133	273,310
Wynn Macau, Ltd. (China) †	202,800	340,980
Yum China Holdings, Inc. (China)	8,650	497,584
		1,111,874
Household durables (—%)		
HC Brillant Services GmbH (acquired 8/2/13, cost \$1) (Private) (Germany) † Δ Δ ^F	2	2
		2
Household products (1.5%)		
Hindustan Unilever, Ltd. (India)	16,804	551,758
		551,758
Interactive media and services (13.9%)		
Baidu, Inc. ADR (China) †	3,029	654,991
Kakao Corp. (South Korea)	1,729	621,846
Tencent Holdings, Ltd. (China)	45,100	3,295,333
Yandex NV Class A (Russia) † ^S	8,996	625,942
		5,198,112

COMMON STOCKS (99.7%)* cont.	Shares	Value
Internet and direct marketing retail (14.1%)		
Alibaba Group Holding, Ltd. (China) †	98,616	\$2,881,326
JD.com, Inc. ADR (China) †	11,077	973,668
Meituan Dianping Class B (China) †	27,800	1,063,248
MercadoLibre, Inc. (Argentina) †	214	358,497
		5,276,739
IT Services (1.5%)		
Tata Consultancy Services, Ltd. (India)	14,314	561,730
		561,730
Life sciences tools and services (1.1%)		
WuXi AppTec Co., Ltd. Class H (China)	21,880	429,865
		429,865
Machinery (4.7%)		
Airtac International Group (China)	17,000	544,754
Shenzhen Inovance Technology Co., Ltd. Class A (China)	44,900	641,976
Techtronic Industries Co., Ltd. (TTI) (Hong Kong)	40,000	572,727
		1,759,457
Multiline retail (1.0%)		
Poya International Co., Ltd. (Taiwan)	19,000	388,884
		388,884
Oil, gas, and consumable fuels (3.2%)		
Reliance Industries, Ltd. (India)	43,719	1,190,947
		1,190,947
Professional services (1.3%)		
Centre Testing International Group Co., Ltd. Class A (China)	113,800	477,050
		477,050
Road and rail (1.0%)		
Companhia De Locacao das Americas (Brazil)	66,800	376,941
		376,941
Semiconductors and semiconductor equipment (14.4%)		
MediaTek, Inc. (Taiwan)	20,000	534,116
SK Hynix, Inc. (South Korea)	10,582	1,157,645
Taiwan Semiconductor Manufacturing Co., Ltd. (Taiwan)	161,000	3,023,818
Xinyi Solar Holdings, Ltd. (China)	268,000	699,372
		5,414,951
Software (1.0%)		
Totvs SA (Brazil)	66,400	367,142
		367,142
Specialty retail (1.3%)		
JUMBO SA (Greece)	5,193	90,426
Zhongsheng Group Holdings, Ltd. (China)	55,000	392,125
		482,551
Technology hardware, storage, and peripherals (7.1%)		
Samsung Electronics Co., Ltd. (South Korea)	35,470	2,650,937
		2,650,937
Textiles, apparel, and luxury goods (2.0%)		
Li Ning Co., Ltd. (China)	111,000	764,680
		764,680
Wireless telecommunication services (0.5%)		
MTN Group, Ltd. (South Africa)	43,331	177,670
		177,670
Total common stocks (cost \$25,937,166)		\$37,360,460
SHORT-TERM INVESTMENTS (3.3%)*	Shares	Value
Putnam Cash Collateral Pool, LLC 0.14% ^d	804,230	\$804,230
Putnam Short Term Investment Fund Class P 0.17% ^L	422,426	422,426
Total short-term investments (cost \$1,226,656)		\$1,226,656
Total investments (cost \$27,163,822)		\$38,587,116

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, 2020 through December 31, 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 and references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures*.

* Percentages indicated are based on net assets of \$37,458,316.

† This security is non-income-producing.

ΔΔ 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.

♠ Affiliated company. See Notes 1 and 5 to the financial statements regarding securities lending. The rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting 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 (Note 1).

L Affiliated company (Note 5). The rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting period.

S Security on loan, in part or in entirety, at the close of the reporting period (Note 1).

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	39.7%	Thailand	1.1%
South Korea	14.9	United States	1.1
Taiwan	12.1	Argentina	0.9
India	11.8	Poland	0.9
Brazil	6.9	South Africa	0.5
Russia	3.7	Indonesia	0.5
Hong Kong	2.6	Other	0.3
Mexico	1.7	Total	100.0%
Panama	1.3		

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	\$1,710,483	\$4,094,849	\$—
Consumer discretionary	1,332,165	6,692,563	2
Consumer staples	1,170,149	881,474	—
Energy	—	1,190,947	—
Financials	1,533,362	3,392,093	—
Health care	—	1,108,162	—
Industrials	861,791	2,637,498	—
Information technology	367,142	9,009,061	—
Materials	—	1,046,883	—
Utilities	331,836	—	—
Total common stocks	7,306,928	30,053,530	2
Short-term investments	422,426	804,230	—
Totals by level	\$7,729,354	\$30,857,760	\$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.

The accompanying notes are an integral part of these financial statements.

Statement of assets and liabilities

12/31/20

Assets

Investment in securities, at value, including \$790,406 of securities on loan (Note 1):	
Unaffiliated issuers (identified cost \$25,937,166)	\$37,360,460
Affiliated issuers (identified cost \$1,226,656) (Notes 1 and 5)	1,226,656
Cash	13,928
Foreign currency (cost \$9,157) (Note 1)	9,531
Dividends, interest and other receivables	107,845
Foreign tax reclaim	39,673
Receivable for shares of the fund sold	628
Receivable for investments sold	88,743
Total assets	38,847,464

Liabilities

Payable for investments purchased	37,397
Payable for shares of the fund repurchased	259,099
Payable for foreign capital gains taxes	136,354
Payable for compensation of Manager (Note 2)	5,494
Payable for custodian fees (Note 2)	31,685
Payable for investor servicing fees (Note 2)	4,195
Payable for Trustee compensation and expenses (Note 2)	57,606
Payable for administrative services (Note 2)	414
Payable for distribution fees (Note 2)	2,403
Collateral on securities loaned, at value (Note 1)	804,230
Other accrued expenses	50,271
Total liabilities	1,389,148

Net assets

\$37,458,316

Represented by

Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$25,435,193
Total distributable earnings (Note 1)	12,023,123
Total — Representing net assets applicable to capital shares outstanding	\$37,458,316

Computation of net asset value Class IA

Net assets	\$25,960,240
Number of shares outstanding	1,039,532
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$24.97

Computation of net asset value Class IB

Net assets	\$11,498,076
Number of shares outstanding	464,225
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$24.77

The accompanying notes are an integral part of these financial statements.

Statement of operations

Year ended 12/31/20

Investment income

Dividends (net of foreign tax of \$72,720)	\$559,918
Interest (including interest income of \$6,180 from investments in affiliated issuers) (Note 5)	6,185
Securities lending (net of expenses) (Notes 1 and 5)	896
Total investment income	566,999

Expenses

Compensation of Manager (Note 2)	291,460
Investor servicing fees (Note 2)	22,238
Custodian fees (Note 2)	42,347
Trustee compensation and expenses (Note 2)	1,458
Distribution fees (Note 2)	24,743
Administrative services (Note 2)	943
Auditing and tax fees	46,801
Legal	28,921
Other	16,483
Fees waived and reimbursed by Manager (Note 2)	(104,080)
Total expenses	371,314
Expense reduction (Note 2)	(83)
Net expenses	371,231
Net investment income	195,768

Realized and unrealized gain (loss)

Net realized gain (loss) on:	
Securities from unaffiliated issuers (net of foreign tax of \$1,199) (Notes 1 and 3)	1,347,393
Foreign currency transactions (Note 1)	(53,543)
Forward currency contracts (Note 1)	24,987
Total net realized gain	1,318,837
Change in net unrealized appreciation on:	
Securities from unaffiliated issuers (net of foreign tax of \$136,354)	6,611,237
Assets and liabilities in foreign currencies	4,935
Forward currency contracts	70,416
Total change in net unrealized appreciation	6,686,588
Net gain on investments	8,005,425
Net increase in net assets resulting from operations	\$8,201,193

The accompanying notes are an integral part of these financial statements.

Statement of changes in net assets

	Year ended 12/31/20	Year ended 12/31/19
Increase in net assets		
Operations:		
Net investment income	\$195,768	\$193,246
Net realized gain (loss) on investments and foreign currency transactions	1,318,837	(622,706)
Change in net unrealized appreciation of investments and assets and liabilities in foreign currencies	6,686,588	7,701,262
Net increase in net assets resulting from operations	8,201,193	7,271,802
Distributions to shareholders (Note 1):		
From ordinary income		
Net investment income		
Class IA	(62,479)	(85,793)
Class IB	(3,664)	(39,055)
Net realized short-term gain on investments		
Class IA	—	(542,526)
Class IB	—	(246,968)
From net realized long-term gain on investments		
Class IA	—	(1,981,529)
Class IB	—	(902,033)
Decrease from capital share transactions (Note 4)	(4,490,147)	(4,668)
Total increase in net assets	3,644,903	3,469,230
Net assets:		
Beginning of year	33,813,413	30,344,183
End of year	\$37,458,316	\$33,813,413

The accompanying notes are an integral part of these financial statements.

Financial highlights (For a common share outstanding throughout the period)

Period ended	INVESTMENT OPERATIONS:				LESS DISTRIBUTIONS:				RATIOS AND SUPPLEMENTAL DATA:				
	Net asset value, beginning of period	Net investment income (loss) ^a	Net realized and unrealized gain (loss) on investments	Total from investment operations	From net investment income	From net realized gain on investments	Total distributions	Net asset value, end of period	Total return at net asset value (%) ^{b,c}	Net assets, end of period (in thousands)	Ratio of expenses to average net assets (%) ^{c,d,e}	Ratio of net investment income (loss) to average net assets (%) ^e	Portfolio turnover (%)
Class IA													
12/31/20	\$19.54	.14	5.35	5.49	(.06)	—	(.06)	\$24.97	28.25	\$25,960	1.09	.69	146
12/31/19	17.66	.12	4.04	4.16	(.08)	(2.20)	(2.28)	19.54	25.21	23,383	1.09	.67	68
12/31/18	23.51	.12	(4.10)	(3.98)	(.03)	(1.84)	(1.87)	17.66	(18.40)	20,832	1.16	.55	89
12/31/17	17.61	.16	6.00	6.16	(.26)	—	(.26)	23.51	35.37	29,496	1.20	.77	105
12/31/16	19.06	.16	(1.39)	(1.23)	(.22)	—	(.22)	17.61	(6.46)	23,196	1.20 ^f	.87 ^f	117
Class IB													
12/31/20	\$19.37	.09	5.32	5.41	(.01)	—	(.01)	\$24.77	27.94	\$11,498	1.34	.45	146
12/31/19	17.56	.08	4.01	4.09	(.08)	(2.20)	(2.28)	19.37	24.93	10,430	1.34	.42	68
12/31/18	23.42	.06	(4.08)	(4.02)	—	(1.84)	(1.84)	17.56	(18.64)	9,512	1.41	.30	89
12/31/17	17.54	.11	5.98	6.09	(.21)	—	(.21)	23.42	35.04	13,716	1.45	.52	105
12/31/16	18.98	.11	(1.38)	(1.27)	(.17)	—	(.17)	17.54	(6.72)	11,037	1.45 ^f	.63 ^f	117

Before April 30, 2020, the fund was managed with a materially different investment strategy and may have achieved materially different performance results under its current investment strategy from that shown for periods before this date.

- ^a Per share net investment income (loss) has been determined on the basis of the weighted average number of shares outstanding during the period.
- ^b Total return assumes dividend reinvestment.
- ^c The charges and expenses at the insurance company separate account level are not reflected.
- ^d Includes amounts paid through expense offset and brokerage/service arrangements, if any (Note 2). Also excludes acquired fund fees and expenses, if any.
- ^e Reflects an involuntary contractual expense limitation in effect during the period (Note 2). As a result of such limitation, the expenses of each class reflect a reduction of the following amounts:

	Percentage of average net assets
12/31/20	0.33%
12/31/19	0.21
12/31/18	0.14
12/31/17	0.14
12/31/16	0.15

- ^f Reflects a voluntary waiver of certain fund expenses in effect during the period. As a result of such waiver, the expenses of each class reflect a reduction of less than 0.01% as a percentage of average net assets.

The accompanying notes are an integral part of these financial statements.

Notes to financial statements 12/31/20

Within the following Notes to financial statements, references to “State Street” represent State Street Bank and Trust Company, references to “the SEC” represent the Securities and Exchange Commission, references to “Putnam Management” represent Putnam Investment Management, LLC, the fund’s manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC and references to “OTC”, if any, represent over-the-counter. Unless otherwise noted, the “reporting period” represents the period from January 1, 2020 through December 31, 2020.

Putnam VT Emerging Markets Equity Fund (the fund) is a diversified series of Putnam Variable Trust (the Trust), a Massachusetts business trust registered under the Investment Company Act of 1940, as amended, as an open-end management investment company. Prior to April 30, 2020, the fund was known as Putnam VT International Growth Fund. The goal of the fund is to seek long-term capital appreciation. The fund invests mainly in common stocks (growth or value stocks or both) of emerging market companies that Putnam Management believes have favorable investment potential. For example, the fund may purchase stocks of companies with stock prices that reflect a value lower than that which Putnam Management places on the company. The fund may also consider other factors that Putnam Management believes will cause the stock price to rise. Under normal circumstances, the fund invests at least 80% of the fund’s net assets in equity securities of emerging market companies. This policy may be changed only after 60 days’ notice to shareholders. Emerging markets include countries in the MSCI Emerging Market Index or that Putnam Management considers to be emerging markets based on our evaluation of their level of economic development or the size and experience of their securities markets. The fund invests significantly in small and midsize companies. Putnam Management may consider, among other factors, a company’s valuation, financial strength, growth potential, competitive position in its industry, projected future earnings, cash flows and dividends when deciding whether to buy or sell investments. The fund may also use derivatives, such as futures, options, certain foreign currency transactions, warrants and swap contracts, for both hedging and non-hedging purposes.

The fund offers class IA and class IB shares of beneficial interest. Class IA shares are offered at net asset value and are not subject to a distribution fee. Class IB shares are offered at net asset value and pay an ongoing distribution fee, which is identified in Note 2.

In the normal course of business, the fund enters into contracts that may include agreements to indemnify another party under given circumstances. The fund’s maximum exposure under these arrangements is unknown as this would involve future claims that may be, but have not yet been, made against the fund. However, the fund’s management team expects the risk of material loss to be remote.

The fund has entered into contractual arrangements with an investment adviser, administrator, distributor, shareholder servicing agent and custodian, who each provide services to the fund. Unless expressly stated otherwise, shareholders are not parties to, or intended beneficiaries of these contractual arrangements, and these contractual arrangements are not intended to create any shareholder right to enforce them against the service providers or to seek any remedy under them against the service providers, either directly or on behalf of the fund.

Under the fund’s Amended and Restated Agreement and Declaration of Trust, any claims asserted against or on behalf of the Putnam Funds, including claims against Trustees and Officers, must be brought in state and federal courts located within the Commonwealth of Massachusetts.

Note 1 — Significant accounting policies

The following is a summary of significant accounting policies consistently followed by the fund in the preparation of its financial statements. The preparation of financial statements is in conformity with accounting principles generally accepted in the United States of America and requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities in the financial statements and the reported amounts of increases and decreases in net assets from operations. Actual results could differ from those estimates. Subsequent events after the Statement of assets and liabilities date through the date that the financial statements were issued have been evaluated in the preparation of the financial statements.

Investment income, realized and unrealized gains and losses and expenses of the fund are borne pro-rata based on the relative net assets of each class to the total net assets of the fund, except that each class bears expenses unique to that class (including the distribution fees applicable to such classes). Each class votes as a class only with respect to its own distribution plan or other matters on which a class vote is required by law or determined by the Trustees. If the fund

were liquidated, shares of each class would receive their pro-rata share of the net assets of the fund. In addition, the Trustees declare separate dividends on each class of shares.

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 Accounting Standards Codification 820 *Fair Value Measurements and Disclosures* (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.

Security transactions and related investment income Security transactions are recorded on the trade date (the date the order to buy or sell is executed). Gains or losses on securities sold are determined on the identified cost basis.

Interest income, net of any applicable withholding taxes, if any, and including amortization and accretion of premiums and discounts on debt securities, is recorded on the accrual basis. Dividend income, net of any applicable withholding

taxes, is recognized on the ex-dividend date except that certain dividends from foreign securities, if any, are recognized as soon as the fund is informed of the ex-dividend date. Non-cash dividends, if any, are recorded at the fair value of the securities received. Dividends representing a return of capital or capital gains, if any, are reflected as a reduction of cost and/or as a realized gain.

Foreign currency translation The accounting records of the fund are maintained in U.S. dollars. The fair value of foreign securities, currency holdings, and other assets and liabilities is recorded in the books and records of the fund after translation to U.S. dollars based on the exchange rates on that day. The cost of each security is determined using historical exchange rates. Income and withholding taxes are translated at prevailing exchange rates when earned or incurred. The fund does not isolate that portion of realized or unrealized gains or losses resulting from changes in the foreign exchange rate on investments from fluctuations arising from changes in the market prices of the securities. Such gains and losses are included with the net realized and unrealized gain or loss on investments. Net realized gains and losses on foreign currency transactions represent net realized exchange gains or losses on disposition of foreign currencies, currency gains and losses realized between the trade and settlement dates on securities transactions and the difference between the amount of investment income and foreign withholding taxes recorded on the fund's books and the U.S. dollar equivalent amounts actually received or paid. Net unrealized appreciation and depreciation of assets and liabilities in foreign currencies arise from changes in the value of assets and liabilities other than investments at the period end, resulting from changes in the exchange rate.

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 are 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. Risks may exceed amounts recognized on the Statement of assets and liabilities.

Forward currency contracts outstanding at period end, if any, are listed after the fund's portfolio.

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 pledged 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 did not have a net liability position on open derivative contracts subject to the Master Agreements.

Securities lending 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. Income from securities lending, net of expenses, is included in investment income on the Statement of operations. Cash collateral 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. At the close of the reporting period, the fund received cash collateral of \$804,230 and the value of securities loaned amounted to \$790,406.

Interfund lending The fund, along with other Putnam funds, may participate in an interfund lending program pursuant to an exemptive order issued by the SEC. This program allows the fund to borrow from or lend to other Putnam funds that permit such transactions. Interfund lending transactions are subject to each fund's investment policies and borrowing and lending limits. Interest earned or paid on the interfund lending transaction will be based on the average of certain current market rates. During the reporting period, the fund did not utilize the program.

Lines of credit The fund participates, along with other Putnam funds, in a \$317.5 million unsecured committed line of credit and a \$235.5 million unsecured uncommitted line of credit, both provided by State Street. Borrowings may be made for temporary or emergency purposes, including the funding of shareholder redemption requests and trade settlements. Interest is charged to the fund based on the fund's borrowing at a rate equal to 1.25% plus the higher of (1) the Federal Funds rate and (2) the Overnight Bank Funding Rate (overnight LIBOR prior to October 16, 2020) for the committed line of credit and 1.30% plus the higher of (1) the Federal Funds rate and (2) the Overnight Bank Funding Rate (1.30% prior to October 16, 2020) for the uncommitted line of credit. A closing fee equal to 0.04% of the committed line of credit and 0.04% of the uncommitted line of credit has been paid by the participating funds. In addition, a commitment fee of 0.21% per annum on any unutilized portion of the committed line of credit is allocated to the participating funds based on their relative net assets and paid quarterly. During the reporting period, the fund had no borrowings against these arrangements.

Federal taxes It is the policy of the fund to distribute all of its taxable income within the prescribed time period and otherwise comply with the provisions of the Internal Revenue Code of 1986, as amended (the Code), applicable to regulated investment companies.

The fund is subject to the provisions of Accounting Standards Codification 740 *Income Taxes* (ASC 740). ASC 740 sets forth a minimum threshold for financial statement recognition of the benefit of a tax position taken or expected to be taken in a tax return. The fund did not have a liability to record for any unrecognized tax benefits in the accompanying financial statements. No provision has been made for federal taxes on income, capital gains or unrealized appreciation on securities held nor for excise tax on income and capital gains. Each of the fund's federal tax returns for the prior three fiscal years remains subject to examination by the Internal Revenue Service.

The fund may also be subject to taxes imposed by governments of countries in which it invests. Such taxes are generally based on either income or gains earned or repatriated. The fund accrues and applies such taxes to net investment income, net realized gains and net unrealized gains as income and/or capital gains are earned. In some cases, the fund may be entitled to reclaim all or a portion of such taxes, and such reclaim amounts, if any, are reflected as an asset on the fund's books. In many cases, however, the fund may not receive such amounts for an extended period of time, depending on the country of investment.

Distributions to shareholders Distributions to shareholders from net investment income are recorded by the fund on the ex-dividend date. Distributions from capital gains, if any, are recorded on the ex-dividend date and paid at least annually. The amount and character of income and gains to be distributed are determined in accordance with income tax regulations, which may differ from generally accepted accounting principles. These differences include temporary and/or permanent differences from foreign currency gains and losses. Reclassifications are made to the fund's capital accounts to reflect income and gains available for distribution (or available capital loss carryovers) under income tax regulations. At the close of the reporting period, the fund reclassified \$29,755 to decrease undistributed net investment income and \$29,755 to increase accumulated net realized gain.

Tax cost of investments includes adjustments to net unrealized appreciation (depreciation) which may not necessarily be final tax cost basis adjustments, but

closely approximate the tax basis unrealized gains and losses that may be realized and distributed to shareholders. The tax basis components of distributable earnings and the federal tax cost as of the close of the reporting period were as follows:

Unrealized appreciation	\$11,511,662
Unrealized depreciation	(89,997)
Net unrealized appreciation	11,421,665
Undistributed ordinary income	214,911
Undistributed short-term gain	518,995
Cost for federal income tax purposes	\$27,165,451

Expenses of the Trust Expenses directly charged or attributable to any fund will be paid from the assets of that fund. Generally, expenses of the Trust will be allocated among and charged to the assets of each fund on a basis that the Trustees deem fair and equitable, which may be based on the relative assets of each fund or the nature of the services performed and relative applicability to each fund.

Beneficial interest At the close of the reporting period, insurance companies or their separate accounts were record owners of all but a de minimis number of the shares of the fund. Approximately 40.3% of the fund is owned by accounts of one insurance company.

Note 2 — Management fee, administrative services and other transactions

The fund pays Putnam Management a management fee (based on the fund's average net assets and computed and paid monthly) at annual rates that may vary based on the average of the aggregate net assets of all open-end mutual funds sponsored by Putnam Management (excluding net assets of funds that are invested in, or that are invested in by, other Putnam funds to the extent necessary to avoid "double counting" of those assets). Such annual rates may vary as follows:

1.080%	of the first \$5 billion,
1.030%	of the next \$5 billion,
0.980%	of the next \$10 billion,
0.930%	of the next \$10 billion,
0.880%	of the next \$50 billion,
0.860%	of the next \$50 billion,
0.850%	of the next \$100 billion and
0.845%	of any excess thereafter.

For the reporting period, the management fee represented an effective rate (excluding the impact from any expense waivers in effect) of 0.918% of the fund's average net assets.

Putnam Management has contractually agreed to waive fees (and, to the extent necessary, bear other expenses) of the fund through April 30, 2022, to the extent that total expenses of the fund (excluding brokerage, interest, taxes, investment-related expenses, payments under distribution plans, extraordinary expenses and acquired fund fees and expenses) would exceed an annual rate of 1.09% of the fund's average net assets. During the reporting period, the fund's expenses were reduced by \$31,008 as a result of this limit.

Putnam Management has also contractually agreed, through April 30, 2022, to waive fees and/or reimburse the fund's expenses to the extent necessary to limit the cumulative expenses of the fund, exclusive of brokerage, interest, taxes, investment-related expenses, extraordinary expenses, acquired fund fees and expenses and payments under the fund's investor servicing contract, investment management contract and distribution plans, on a fiscal year-to-date basis to an annual rate of 0.20% of the fund's average net assets over such fiscal year-to-date period. During the reporting period, the fund's expenses were reduced by \$73,072 as a result of this limit.

Putnam Investments Limited (PIL), an affiliate of Putnam Management, is authorized by the Trustees to manage a separate portion of the assets of the fund as determined by Putnam Management from time to time. PIL did not manage any portion of the assets of the fund during the reporting period. If Putnam Management were to engage the services of PIL, Putnam Management would pay a quarterly sub-management fee to PIL for its services at an annual rate of 0.35% of the average net assets of the portion of the fund managed by PIL.

The Putnam Advisory Company, LLC (PAC), an affiliate of Putnam Management, is authorized by the Trustees to manage a separate portion of the assets of the fund, as designated from time to time by Putnam Management or PIL. Putnam Management or PIL, as applicable, pays a quarterly sub-advisory fee to PAC for its services at the annual rate of 0.35% of the average net assets of the portion of the fund's assets for which PAC is engaged as sub-adviser.

The fund reimburses Putnam Management an allocated amount for the compensation and related expenses of certain officers of the fund and their staff who provide administrative services to the fund. The aggregate amount of all such reimbursements is determined annually by the Trustees.

Custodial functions for the fund's assets are provided by State Street. Custody fees are based on the fund's asset level, the number of its security holdings and transaction volumes.

Putnam Investor Services, Inc., an affiliate of Putnam Management, provides investor servicing agent functions to the fund. Putnam Investor Services, Inc. was paid a monthly fee for investor servicing at an annual rate of 0.07% of the fund's average daily net assets. During the reporting period, the expenses for each class of shares related to investor servicing fees were as follows:

Class IA	\$15,310
Class IB	6,928
Total	\$22,238

The fund has entered into expense offset arrangements with Putnam Investor Services, Inc. and State Street whereby Putnam Investor Services, Inc.'s and State Street's fees are reduced by credits allowed on cash balances. For the reporting period, the fund's expenses were reduced by \$83 under the expense offset arrangements.

Each Independent Trustee of the fund receives an annual Trustee fee, of which \$23, as a quarterly retainer, has been allocated to the fund, and an additional fee for each Trustee meeting attended. Trustees also are reimbursed for expenses they incur relating to their services as Trustees.

The fund has adopted a Trustee Fee Deferral Plan (the Deferral Plan) which allows the Trustees to defer the receipt of all or a portion of Trustees fees payable on or after July 1, 1995. The deferred fees remain invested in certain Putnam funds until distribution in accordance with the Deferral Plan.

The fund has adopted an unfunded noncontributory defined benefit pension plan (the Pension Plan) covering all Trustees of the fund who have served as a Trustee for at least five years and were first elected prior to 2004. Benefits under the Pension Plan are equal to 50% of the Trustee's average annual attendance and retainer fees for the three years ended December 31, 2005. The retirement benefit is payable during a Trustee's lifetime, beginning the year following retirement, for the number of years of service through December 31, 2006. Pension expense for the fund is included in Trustee compensation and expenses in the Statement of operations. Accrued pension liability is included in Payable for Trustee compensation and expenses in the Statement of assets and liabilities. The Trustees have terminated the Pension Plan with respect to any Trustee first elected after 2003.

The fund has adopted a distribution plan (the Plan) with respect to its class IB shares pursuant to Rule 12b-1 under the Investment Company Act of 1940. The purpose of the Plan is to compensate Putnam Retail Management Limited Partnership, an indirect wholly-owned subsidiary of Putnam Investments, LLC, for services provided and expenses incurred in distributing shares of the fund. The Plan provides for payment by the fund to Putnam Retail Management Limited Partnership at an annual rate of up to 0.35% of the average net assets attributable to the fund's class IB shares. The Trustees have approved payment by the fund at an annual rate of 0.25% of the average net assets attributable to the fund's class IB shares. The expenses related to distribution fees during the reporting period are included in Distribution fees in the Statement of operations.

Note 3 — Purchases and sales of securities

During the reporting period, the cost of purchases and the proceeds from sales, excluding short-term investments, were as follows:

	Cost of purchases	Proceeds from sales
Investments in securities (Long-term)	\$45,680,571	\$49,310,578
U.S. government securities (Long-term)	—	—
Total	\$45,680,571	\$49,310,578

The fund may purchase or sell investments from or to other Putnam funds in the ordinary course of business, which can reduce the fund's transaction costs, at prices determined in accordance with SEC requirements and policies approved by the Trustees. During the reporting period, purchases or sales of long-term securities from or to other Putnam funds, if any, did not represent more than 5% of the fund's total cost of purchases and/or total proceeds from sales.

Note 4 — Capital shares

At the close of the reporting period, there were an unlimited number of shares of beneficial interest authorized. Subscriptions and redemptions are presented at the omnibus level. Transactions in capital shares were as follows:

	Class IA shares				Class IB shares			
	Year ended 12/31/20		Year ended 12/31/19		Year ended 12/31/20		Year ended 12/31/19	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	26,904	\$555,360	24,618	\$440,926	32,475	\$622,996	14,741	\$260,123
Shares issued in connection with reinvestment of distributions	4,102	62,479	150,946	2,609,848	242	3,664	69,194	1,188,056
	31,006	617,839	175,564	3,050,774	32,717	626,660	83,935	1,448,179
Shares repurchased	(187,949)	(3,595,015)	(158,802)	(2,908,509)	(106,930)	(2,139,631)	(87,161)	(1,595,112)
Net increase (decrease)	(156,943)	\$(2,977,176)	16,762	\$142,265	(74,213)	\$(1,512,971)	(3,226)	\$(146,933)

Note 5 — Affiliated transactions

Transactions during the reporting 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 12/31/20
Short-term investments					
Putnam Cash Collateral Pool, LLC*	\$—	\$6,808,680	\$6,004,450	\$2,839	\$804,230
Putnam Short Term Investment Fund**	1,066,016	12,986,287	13,629,877	6,180	422,426
Total Short-term investments	\$1,066,016	\$19,794,967	\$19,634,327	\$9,019	\$1,226,656

*No management fees are charged to Putnam Cash Collateral Pool, LLC (Note 1). Investment income shown is included in securities lending income on the Statement of operations. There were no realized or unrealized gains or losses during the period.

**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.

Note 6 — Market, credit and other risks

In the normal course of business, the fund trades financial instruments and enters into financial transactions where risk of potential loss exists due to changes in the market (market risk) or failure of the contracting party to the transaction to perform (credit risk). The fund may be exposed to additional credit risk that an institution or other entity with which the fund has unsettled or open transactions will default. Investments in foreign securities involve certain risks, including those related to economic instability, unfavorable political developments, and currency fluctuations.

Beginning in January 2020, global financial markets have experienced, and may continue to experience, significant volatility resulting from the spread of a virus known as COVID-19. The outbreak of COVID-19 has resulted in travel and border restrictions, quarantines, supply chain disruptions, lower consumer demand, and general market uncertainty. The effects of COVID-19 have adversely affected, and may continue to adversely affect, the global economy, the economies of certain nations, and individual issuers, all of which may negatively impact the fund's performance.

Note 7 — Summary of derivative activity

The volume of activity for the reporting period for any derivative type that was held during the period is listed below and was based on an average of the holdings at the end of each fiscal quarter:

Forward currency contracts (contract amount)	\$8,200,000
Warrants (number of warrants)	500

As of the close of the reporting period, the fund did not hold any derivative instruments.

The following is a summary of realized and change in unrealized gains or losses of derivative instruments in the Statement of operations for the reporting period (Note 1):

Amount of realized gain or (loss) on derivatives recognized in net gain or (loss) on investments

Derivatives not accounted for as hedging instruments under ASC 815	Warrants	Forward currency contracts	Total
Foreign exchange contracts	\$—	\$24,987	\$24,987
Equity contracts	25,452	—	\$25,452
Total	\$25,452	\$24,987	\$50,439






Change in unrealized appreciation or (depreciation) on derivatives recognized in net gain or (loss) on investments

Derivatives not accounted for as hedging instruments under ASC 815	Warrants	Forward currency contracts	Total
Foreign exchange contracts	\$—	\$70,416	\$70,416
Equity contracts	(20,759)	—	\$(20,759)
Total	\$(20,759)	\$70,416	\$49,657

Federal tax information (Unaudited)

For the reporting period, total interest and dividend income from foreign countries were \$628,565, or \$0.42 per share (for all classes of shares). Taxes paid to foreign countries were \$73,919, or \$0.05 per share (for all classes of shares).

About the Trustees

Name	Year of birth	Position held	Principal occupations during past five years	Other directorships	
Independent Trustees					
Liaquat Ahamed	Born 1952	Trustee since 2012	Author; won Pulitzer Prize for <i>Lords of Finance: The Bankers Who Broke the World</i> .	Chairman of the Sun Valley Writers Conference, a literary not-for-profit organization, and a Trustee of the Journal of Philosophy.	
Ravi Akhoury	Born 1947	Trustee since 2009	Private investor	Director of English Helper, Inc., a private software company; Trustee of the Rubin Museum, serving on the Investment Committee; and previously a Director of RAGE Frameworks, Inc.	
Barbara M. Baumann	Born 1955	Trustee since 2010	President of Cross Creek Energy Corporation, a strategic consultant to domestic energy firms and direct investor in energy projects.	Director of Devon Energy Corporation, a publicly traded independent natural gas and oil exploration and production company; Director of National Fuel Gas Company, a publicly traded energy company that engages in the production, gathering, transportation, distribution, and marketing of natural gas; Senior Advisor to the energy private equity firm First Reserve; Director of Ascent Resources, LLC, a private exploration and production company established to acquire, explore for, develop, and produce natural gas, oil, and natural gas liquids reserves in the Appalachian Basin; Director of Texas American Resources Company II, a private, independent oil and gas exploration and production company; member of the Finance Committee of the Children's Hospital of Colorado; member of the Investment Committee of the Board of The Denver Foundation; and previously a Director of publicly traded companies Buckeye Partners LP, UNS Energy Corporation, CVR Energy Company, and SM Energy Corporation.	
Katinka Domotorffy	Born 1975	Trustee since 2012	Voting member of the Investment Committees of the Anne Ray Foundation and Margaret A. Cargill Foundation, part of the Margaret A. Cargill Philanthropies.	Director of the Great Lakes Science Center and of College Now Greater Cleveland.	
Catharine Bond Hill	Born 1954	Trustee since 2017	Managing Director of Ithaca S+R, a not-for-profit service that helps the academic community navigate economic and technological change. From 2006 to 2016, the 10th president of Vassar College.	Director of Yale-NUS College and Trustee of Yale University.	
Paul L. Joskow	Born 1947	Trustee since 1997	The Elizabeth and James Killian Professor of Economics, Emeritus at the Massachusetts Institute of Technology (MIT). From 2008 to 2017, the President of the Alfred P. Sloan Foundation, a philanthropic institution focused primarily on research and education on issues related to science, technology, and economic performance.	Trustee of Yale University; a Director of Exelon Corporation, an energy company focused on power services; and a member Emeritus of the Board of Advisors of the Boston Symphony Orchestra.	
Kenneth R. Leibler	Born 1949	Trustee since 2006 Vice Chair from 2016 to 2018, and Chair since 2018	Vice Chairman Emeritus of the Board of Trustees of Beth Israel Deaconess Hospital in Boston. Member of the Investment Committee of the Boston Arts Academy Foundation.	Director of Eversource Corporation, which operates New England's largest energy delivery system; previously the Chairman of the Boston Options Exchange, an electronic market place for the trading of listed derivatives securities; previously the Chairman and Chief Executive Officer of the Boston Stock Exchange; and previously the President and Chief Operating Officer of the American Stock Exchange.	
George Putnam, III	Born 1951	Trustee since 1984	Chairman of New Generation Research, Inc., a publisher of financial advisory and other research services, and President of New Generation Advisors, LLC, a registered investment adviser to private funds.	Director of The Boston Family Office, LLC, a registered investment advisor; a Trustee of the Gloucester Marine Genomics Institute; previously a Trustee of the Marine Biological Laboratory; and previously a Trustee of Epiphany School.	

Name Year of birth Position held	Principal occupations during past five years	Other directorships	
Manoj P. Singh Born 1952 Trustee since 2017	Until 2015, Chief Operating Officer and Global Managing Director at Deloitte Touche Tohmatsu, Ltd., a global professional services organization, serving on the Deloitte U.S. Board of Directors and the boards of Deloitte member firms in China, Mexico, and Southeast Asia.	Director of Abt Associates, a global research firm working in the fields of health, social and environmental policy, and international development; Trustee of Carnegie Mellon University; Director of Pratham USA, an organization dedicated to children's education in India; member of the advisory board of Altimetrik, a business transformation and technology solutions firm; and Director of DXC Technology, a global IT services and consulting company.	
Mona K. Sutphen Born 1967 Trustee since 2020	Senior Advisor at The Vistria Group, a private investment firm focused on middle-market companies in the healthcare, education, and financial services industries. From 2014 to 2018, Partner at Macro Advisory Partners, a global consulting firm.	Director of Unitek Learning, a private nursing and medical services education provider in the United States; previous Director of Pattern Energy, a publicly traded renewable energy company; Board Member, International Rescue Committee; Co-Chair of the Board of Human Rights First; Trustee of Mount Holyoke College; and member of the Advisory Board for the Center on Global Energy Policy at Columbia University's School of International and Public Affairs.	

Interested Trustee

Robert L. Reynolds* Born 1952 Trustee since 2008 and President and Chief Executive Officer of Putnam Investments since 2008	President and Chief Executive Officer of Putnam Investments; President and Chief Executive Officer of Great-West Financial, a financial services company that provides retirement savings plans, life insurance, and annuity and executive benefits products; President and Chief Executive Officer of Great-West Lifeco U.S. Inc., a holding company that owns Putnam Investments and Great-West Financial; and member of Putnam Investments' and Great-West Financial's Board of Directors.	Director of West Virginia University Foundation; director of the Concord Museum; director of Dana-Farber Cancer Institute; Chairman of Massachusetts Competitive Partnership; director of Boston Chamber of Commerce; member of the Chief Executives Club of Boston; member of the National Innovation Initiative; member of the Massachusetts General Hospital President's Council; member of the Council on Competitiveness; and previously the President of the Commercial Club of Boston.	
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*Mr. Reynolds is an "interested person" (as defined in the Investment Company Act of 1940) of the fund and Putnam Investments. He is President and Chief Executive Officer of Putnam Investments, as well as the President of your fund and each of the other Putnam funds.

The address of each Trustee is 100 Federal Street, Boston, MA 02110.

As of December 31, 2020, there were 97 Putnam funds. All Trustees serve as Trustees of all Putnam funds.

Each Trustee serves for an indefinite term, until his or her resignation, retirement at age 75, removal, or death.

Officers

In addition to Robert L. Reynolds, the other officers of the fund are shown below:

Robert T. Burns (Born 1961)
Vice President and Chief Legal Officer
Since 2011

General Counsel, Putnam Investments, Putnam Management, and Putnam Retail Management

James F. Clark (Born 1974)
Vice President and Chief Compliance Officer
Since 2016

Chief Compliance Officer and Chief Risk Officer, Putnam Investments and Chief Compliance Officer, Putnam Management

Nancy E. Florek (Born 1957)
Vice President, Director of Proxy Voting and Corporate Governance, Assistant Clerk, and Assistant Treasurer
Since 2000

Michael J. Higgins (Born 1976)
Vice President, Treasurer, and Clerk
Since 2010

Jonathan S. Horwitz (Born 1955)
Executive Vice President, Principal Executive Officer, and Compliance Liaison
Since 2004

Richard T. Kircher (Born 1962)
Vice President and BSA Compliance Officer
Since 2019
Assistant Director, Operational Compliance, Putnam Investments and Putnam Retail Management

Susan G. Malloy (Born 1957)
Vice President and Assistant Treasurer
Since 2007
Head of Accounting and Middle Office Services, Putnam Investments and Putnam Management

Denere P. Poulack (Born 1968)
Assistant Vice President, Assistant Clerk, and Assistant Treasurer
Since 2004

Janet C. Smith (Born 1965)
Vice President, Principal Financial Officer, Principal Accounting Officer, and Assistant Treasurer
Since 2007
Head of Fund Administration Services, Putnam Investments and Putnam Management

Mark C. Trenchard (Born 1962)
Vice President
Since 2002
Director of Operational Compliance, Putnam Investments and Putnam Retail Management

The principal occupations of the officers for the past five years have been with the employers as shown above, although in some cases they have held different positions with such employers. The address of each officer is 100 Federal Street, Boston, MA 02110.

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Other important information

Proxy voting

Putnam is committed to managing our mutual funds in the best interests of our shareholders. The Putnam funds' proxy voting guidelines and procedures, as well as information regarding how your fund voted proxies relating to portfolio securities during the 12-month period ended June 30, 2020, are available in the Individual Investors section of putnam.com and on the Securities and Exchange Commission's (SEC) website at www.sec.gov. If you have questions about finding forms on the SEC's website, you may call the SEC at 1-800-SEC-0330. You may also obtain the Putnam funds' proxy voting guidelines and procedures at no charge by calling Putnam's Shareholder Services at 1-800-225-1581.

Fund portfolio holdings

The fund will file a complete schedule of its portfolio holdings with the SEC for the first and third quarters of each fiscal year on Form N-PORT within 60 days of the end of such fiscal quarter. Shareholders may obtain the fund's Form N-PORT from the SEC's website at www.sec.gov.

Prior to its use of Form N-PORT, the fund filed its complete schedule of its portfolio holdings with the SEC on Form N-Q, which is available online at www.sec.gov.

Fund information

Investment Manager

Putnam Investment Management, LLC
100 Federal Street
Boston, MA 02110

Investment Sub-Advisors

Putnam Investments Limited
16 St James's Street
London, England SW1A 1ER

The Putnam Advisory Company, LLC
100 Federal Street
Boston, MA 02110

Marketing Services

Putnam Retail Management
100 Federal Street
Boston, MA 02110

Investor Servicing Agent

Putnam Investments
Mailing address:
P.O. Box 219697
Kansas City, MO 64121-9697
1-800-225-1581

Custodian

State Street Bank and Trust Company

Legal Counsel

Ropes & Gray LLP

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP

Trustees

Kenneth R. Leibler, *Chair*
Liaquat Ahamed
Ravi Akhoury
Barbara M. Baumann
Katinka Domotorffy
Catharine Bond Hill
Paul L. Joskow
George Putnam, III
Robert L. Reynolds
Manoj P. Singh
Mona K. Sutphen

The fund's Statement of Additional Information contains additional information about the fund's Trustees and is available without charge upon request by calling 1-800-225-1581.

