

# Putnam Variable Trust Putnam VT Small Cap Value Fund

**Annual report**  
**12 | 31 | 18**

**IMPORTANT NOTICE: Delivery of paper fund reports**

In accordance with regulations adopted by the Securities and Exchange Commission, beginning on or after January 1, 2021, at the election of your insurance provider, you may not receive paper reports like this one in the mail from the insurance provider that offers your variable annuity contract or variable life insurance policy unless you specifically request it. Instead, they will be available on a website, and your insurance provider will notify you by mail whenever a new one is available, and provide you with a website link to access the report.

If you wish to continue to receive paper reports free of charge after January 1, 2021, please contact your insurance provider.

If you already receive these reports electronically, no action is required.

# Message from the Trustees

February 15, 2019

Dear Shareholder:

Global financial markets encountered challenges in the final months of 2018. December was difficult for stock markets worldwide, and most major indexes finished the year with losses. Among the issues that contributed to the downturn were uncertainty about monetary policy, a slowing Chinese economy, and the U.S.–China trade dispute. Fixed-income markets were less volatile than stocks, and higher quality bonds benefited from a flight to safety amid the turmoil.

Although no one can predict the direction of the markets in the months ahead, Putnam’s experienced investment professionals actively seek to position their fund portfolios for all types of conditions. They take a research-intensive approach to investing that includes risk management strategies designed to serve investors through changing markets. In all environments, we believe investors should remain focused on time-tested approaches: maintain a well-diversified portfolio, think about long-term goals, and speak regularly with a financial advisor.

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 12/31/18)

### Investment objective

Capital appreciation

**Net asset value** December 31, 2018

Class IA: \$9.05

Class IB: \$8.89

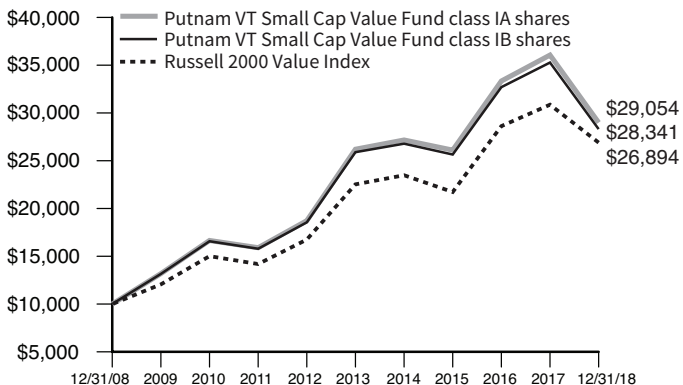
### Total return at net asset value

(as of 12/31/18)	Class IA shares*	Class IB shares*	Russell 2000 Value Index
1 year	-19.42%	-19.66%	-12.86%
5 years	10.89	9.45	19.38
Annualized	2.09	1.82	3.61
10 years	190.54	183.41	168.94
Annualized	11.26	10.98	10.40
Life	363.15	341.73	393.58
Annualized	8.11	7.85	8.46

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

\* Class inception date: April 30, 1999.

### Cumulative total returns of a \$10,000 investment in class IA and class IB shares at net asset value — since 12/31/08

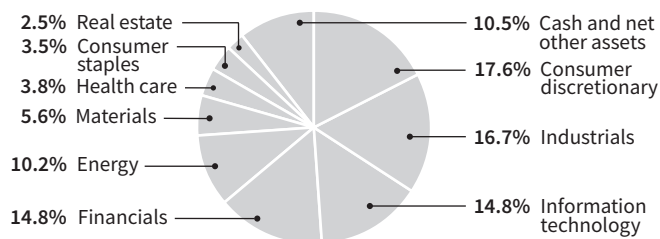


The Russell 2000 Value Index is an unmanaged index of those companies in the small-cap Russell 2000 Index chosen for their value orientation.

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**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. 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 portfolio schedule included in the financial statements due to the inclusion of derivative securities, any interest accruals, the exclusion of as-of-trades, if any, the use of different classifications of securities for presentation purposes, and rounding. Holdings and allocations may vary over time.

## Report from your fund's manager

### What was the market like for U.S. small-cap value stocks during the 12-month reporting period ended December 31, 2018?

Despite solid U.S. economic data and higher corporate earnings for much of 2018, stock market performance was quite volatile and marked by historic market swings. Faced with a barrage of headlines about U.S.–China trade tensions, rising interest rates, slowing global growth, and geopolitical worries, investors became more cautious and moved into conservative sanctuary investments. The sell-off in equities was especially noteworthy in the fourth quarter, with December posting the worst monthly performance since February 2009. As with 2017, large-cap and growth stocks outperformed small-cap and value stocks in 2018.

Despite a strong start to the year, eight of the ten sectors in the Russell 2000 Value Index [the fund's benchmark] ended the year with negative returns. Utilities and communications services were the only sectors with positive performance, due in part to investors' preference for more defensive, lower-risk strategies.

### What was your investment strategy in this environment?

We looked for what we believed were undervalued stocks of high-quality, rapidly growing small companies. Our bottom-up, fundamental research process aims for the best stock ideas regardless of their sector. This can lead to sector overweightings, but it is a derivative of the stock selection process. We continued to avoid stocks that have high ownership by exchange-traded funds and passive mutual funds due to the liquidity risk involved should passive owners want to exit their positions. As value investors, we have found many undervalued energy and materials stocks, contributing to an overweight position in these sectors relative to the benchmark during the year. As of the end of the period, the fund held a large underweight to financials. Financials is the largest sector in the benchmark and also represents a high percentage of passive ownership. We prefer not to have such a high allocation to one sector, as it creates a disproportionate amount of risk, in our view. Our investment approach resulted in a relatively higher level of portfolio turnover during the reporting period.

### How did Putnam VT Small Cap Value Fund perform during the reporting period?

The fund underperformed its benchmark for the 12 months ended December 31, 2018. Much of the fund's relative underperformance was due to sector weightings. Overweight positioning in energy and materials represented the biggest headwind, as these two sectors were the worst-performing sectors in the benchmark. Stocks within these sectors were influenced by volatile commodity prices and the sharp sell-off in the fourth quarter, which weighed heavily on companies with weaker balance sheets. The fund's relatively large underweight exposure to utilities and communication services also weighed on performance, as these were the only two sectors to produce a positive return for the period. An underweight exposure to health care and financials detracted from results as well.

Stock selection in materials, financials, and consumer staples also detracted from results during the period. This result was marginally

offset by positive stock selection in consumer discretionary, energy, and communication services. The portfolio carried an average cash balance of 6.7% of total net assets throughout the year, which was positive for performance relative to the benchmark and helped to buffer the fund from the heightened market volatility.

### What is your outlook for 2019?

While market volatility is likely to continue in 2019, we are finding what we believe are attractive buying opportunities. Many stocks were sold regardless of their fundamentals in 2018, creating attractive pricings that could translate into investment opportunities for the fund, in our view.

*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:** Investments in small and/or midsize companies increase the risk of greater price fluctuations. Value stocks may fail to rebound, and the market may not favor value-style investing. 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. These risks are generally greater for small and midsize companies. 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. You can lose money by investing in the fund.

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## Your fund's manager



Portfolio Manager **Michael C. Petro, CFA**, joined Putnam in 2002 and has been in the investment industry since 1999.

Prior to January 31, 2019, David L. Diamond, CFA, was Portfolio Manager of the fund.

Your fund's manager also manages 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. 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 7/1/18 to 12/31/18. 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
Total annual operating expenses for the fiscal year ended 12/31/17	1.07%	1.32%
Annualized expense ratio for the six-month period ended 12/31/18*	0.87%	1.12%

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.

Prospectus expense information also includes the impact of acquired fund fees and expenses of 0.25%, which is not included in the financial highlights or annualized expense ratios. Expenses are shown as a percentage of average net assets.

\*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 12/31/18		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 12/31/18	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$3.91	\$5.03	\$4.43	\$5.70
Ending value (after expenses)	\$782.20	\$781.20	\$1,020.82	\$1,019.56

\*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 12/31/18. 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 Trustees of Putnam Variable Trust  
and Shareholders of Putnam VT Small Cap Value Fund

### ***Opinion on the Financial Statements***

We have audited the accompanying statement of assets and liabilities, including the fund's portfolio, of Putnam VT Small Cap Value Fund (one of the funds constituting Putnam Variable Trust, referred to hereafter as the "Fund") as of December 31, 2018, the related statement of operations for the year ended December 31, 2018, the statement of changes in net assets for each of the two years in the period ended December 31, 2018, including the related notes, and the financial highlights for each of the five years in the period ended December 31, 2018 (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, 2018, 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, 2018 and the financial highlights for each of the five years in the period ended December 31, 2018 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, 2018 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 15, 2019

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 12/31/18

<b>COMMON STOCKS (92.8%)*</b>	<b>Shares</b>	<b>Value</b>
<b>Aerospace and defense (0.3%)</b>		
Vectrus, Inc. †	15,600	\$336,648
		<b>336,648</b>
<b>Air freight and logistics (0.6%)</b>		
Atlas Air Worldwide Holdings, Inc. †	5,400	227,826
Hub Group, Inc. Class A †	11,739	435,165
		<b>662,991</b>
<b>Airlines (1.0%)</b>		
JetBlue Airways Corp. †	72,331	1,161,636
		<b>1,161,636</b>
<b>Auto components (1.1%)</b>		
Cooper Tire & Rubber Co.	20,523	663,509
Cooper-Standard Holdings, Inc. †	5,479	340,355
VOXX International Corp. †	65,064	257,653
		<b>1,261,517</b>
<b>Banks (8.3%)</b>		
Berkshire Hills Bancorp, Inc.	26,483	714,247
Brookline Bancorp, Inc.	18,907	261,295
Cadence Bancorporation	35,232	591,193
Coastal Financial Corp. (WA) †	19,028	289,796
FCB Financial Holdings, Inc. Class A †	8,966	301,078
First Horizon National Corp.	39,726	522,794
First Merchants Corp.	15,000	514,050
Franklin Financial Network, Inc. †	2,100	55,377
Hancock Whitney Corp.	8,450	292,793
IBERIABANK Corp.	14,427	927,368
Independent Bank Group, Inc.	16,618	760,606
Investors Bancorp, Inc.	59,413	617,895
Pacific Premier Bancorp, Inc. †	13,400	341,968
Pinnacle Financial Partners, Inc.	25,100	1,157,110
Sterling Bancorp	17,449	288,083
Umpqua Holdings Corp.	25,200	400,680
Union Bankshares Corp.	13,000	366,990
Western Alliance Bancorp †	24,600	971,454
		<b>9,374,777</b>
<b>Beverages (0.6%)</b>		
Craft Brew Alliance, Inc. †	48,607	695,566
		<b>695,566</b>
<b>Building products (0.3%)</b>		
Quanex Building Products Corp.	25,166	342,006
		<b>342,006</b>
<b>Capital markets (1.2%)</b>		
Donnelley Financial Solutions, Inc. †	53,952	756,947
WisdomTree Investments, Inc.	97,526	648,548
		<b>1,405,495</b>
<b>Chemicals (1.2%)</b>		
AgroFresh Solutions, Inc. †	37,037	140,370
Axalta Coating Systems, Ltd. †	12,666	296,638
Minerals Technologies, Inc.	4,862	249,615
Sensient Technologies Corp.	5,900	329,515
W.R. Grace & Co.	5,400	350,514
		<b>1,366,652</b>
<b>Commercial services and supplies (2.9%)</b>		
CECO Environmental Corp. †	65,772	443,961
Charah Solutions, Inc. †	474	3,958
Clean Harbors, Inc. †	32,295	1,593,758
Herman Miller, Inc.	4,500	136,125
Interface, Inc.	32,100	457,425
Steelcase, Inc. Class A	10,500	155,715
Stericycle, Inc. †	12,471	457,561
		<b>3,248,503</b>

<b>COMMON STOCKS (92.8%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Communications equipment (1.0%)</b>		
ADTRAN, Inc.	4,000	\$42,960
Extreme Networks, Inc. †	15,400	93,940
Lumentum Holdings, Inc. †	12,278	515,799
Tessco Technologies, Inc.	35,846	430,152
		<b>1,082,851</b>
<b>Construction and engineering (3.1%)</b>		
Construction Partners, Inc. Class A †	29,128	257,200
Granite Construction, Inc.	16,600	668,648
Great Lakes Dredge & Dock Corp. †	12,100	80,102
KBR, Inc.	12,600	191,268
MasTec, Inc. † \$	13,199	535,351
MYR Group, Inc./DE †	36,402	1,025,444
Sterling Construction Co., Inc. †	27,217	296,393
Williams Scotsman Corp. † \$	47,400	446,508
		<b>3,500,914</b>
<b>Construction materials (0.8%)</b>		
Eagle Materials, Inc. \$	14,563	888,780
		<b>888,780</b>
<b>Containers and packaging (1.5%)</b>		
Berry Plastics Group, Inc. †	17,454	829,589
Sealed Air Corp.	24,244	844,661
		<b>1,674,250</b>
<b>Diversified consumer services (0.5%)</b>		
frontdoor, Inc. †	21,200	564,132
		<b>564,132</b>
<b>Diversified financial services (—%)</b>		
FGL Holdings (Bermuda) †	5,000	33,375
		<b>33,375</b>
<b>Electrical equipment (2.4%)</b>		
Acuity Brands, Inc.	5,228	600,959
AZZ, Inc.	7,000	282,520
LSI Industries, Inc.	47,005	149,006
Nexans SA (France)	26,885	749,449
nVent Electric PLC (United Kingdom)	26,747	600,738
Powell Industries, Inc.	11,100	277,611
		<b>2,660,283</b>
<b>Electronic equipment, instruments, and components (4.5%)</b>		
Avnet, Inc.	18,000	649,800
Benchmark Electronics, Inc.	9,500	200,724
Celestica, Inc. (Canada) †	145,487	1,275,921
Control4 Corp. †	20,100	353,760
Evertz Technologies, Ltd. (Canada)	31,844	377,640
II-VI, Inc. †	18,859	612,163
Jabil, Inc.	6,800	168,572
Knowles Corp. †	58,088	773,151
SYNNEX Corp.	7,191	581,320
TTM Technologies, Inc. †	10,400	101,192
		<b>5,094,243</b>
<b>Energy equipment and services (2.1%)</b>		
Dril-Quip, Inc. †	15,813	474,864
Exterran Corp. †	5,000	88,500
Frank's International NV (Netherlands) †	21,600	112,752
Geospace Technologies Corp. †	12,986	133,886
Gulf Island Fabrication, Inc. †	8,491	61,305
Magseis Fairfield ASA (Rights) (Norway)	9,302	—
Natural Gas Services Group, Inc. †	17,986	295,690
Patterson-UTI Energy, Inc.	60,511	626,289
ProPetro Holding Corp. †	24,600	303,072
Select Energy Services, Inc. Class A †	49,090	310,249
		<b>2,406,607</b>

<b>COMMON STOCKS (92.8%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Entertainment (3.0%)</b>		
IMAX Corp. (Canada) †	52,297	\$983,707
Lions Gate Entertainment Corp. Class A <sup>5</sup>	48,951	788,111
Madison Square Garden Co. (The) Class A †	5,098	1,364,735
Zynga, Inc. Class A †	65,900	258,987
		<b>3,395,540</b>
<b>Equity real estate investment trusts (REITs) (2.1%)</b>		
Condor Hospitality Trust, Inc. <sup>R</sup>	356	2,453
CorePoint Lodging, Inc. <sup>R</sup>	19,400	237,650
Gaming and Leisure Properties, Inc. <sup>R</sup>	20,735	669,948
Hersha Hospitality Trust <sup>R</sup>	34,906	612,251
Mack-Cali Realty Corp. <sup>R</sup>	2,900	56,374
RLJ Lodging Trust <sup>R</sup>	51,151	838,876
		<b>2,417,552</b>
<b>Food and staples retail (1.1%)</b>		
BJ's Wholesale Club Holdings, Inc. † <sup>S</sup>	35,911	795,788
Sprouts Farmers Market, Inc. †	19,255	452,685
		<b>1,248,473</b>
<b>Food products (1.0%)</b>		
Hain Celestial Group, Inc. (The) †	49,434	784,023
Limoneira Co.	6,481	126,704
SunOpta, Inc. (Canada) †	55,327	213,981
		<b>1,124,708</b>
<b>Health-care equipment and supplies (0.5%)</b>		
Accuray, Inc. †	162,048	552,584
		<b>552,584</b>
<b>Health-care providers and services (2.9%)</b>		
Acadia Healthcare Co., Inc. †	15,133	389,069
American Renal Associates Holdings, Inc. †	7,400	85,248
Brookdale Senior Living, Inc. †	97,366	652,352
Cross Country Healthcare, Inc. †	99,900	732,267
Healthscope, Ltd. (Australia)	69,157	108,625
Magellan Health, Inc. †	15,400	876,106
Select Medical Holdings Corp. †	26,723	410,198
		<b>3,253,865</b>
<b>Hotels, restaurants, and leisure (8.8%)</b>		
Bloomin' Brands, Inc.	53,810	962,661
Caesars Entertainment Corp. † <sup>S</sup>	194,845	1,322,998
Carrols Restaurant Group, Inc. †	37,261	366,648
Cedar Fair LP	65,629	3,105,092
Dave & Buster's Entertainment, Inc. <sup>S</sup>	34,235	1,525,512
Del Taco Restaurants, Inc. †	50,095	500,449
Jack in the Box, Inc.	5,100	395,913
Papa John's International, Inc. <sup>S</sup>	16,500	656,865
Penn National Gaming, Inc. †	26,600	500,878
Potbelly Corp. † <sup>S</sup>	13,675	110,084
Red Robin Gourmet Burgers, Inc. † <sup>S</sup>	14,396	384,661
		<b>9,831,761</b>
<b>Household durables (0.1%)</b>		
Roku, Inc. †	3,100	94,984
		<b>94,984</b>
<b>Industrial conglomerates (0.3%)</b>		
Rheinmetall AG (Germany)	3,350	296,160
		<b>296,160</b>
<b>Insurance (1.7%)</b>		
American Equity Investment Life Holding Co.	56,357	1,574,615
Heritage Insurance Holdings, Inc.	25,000	368,000
		<b>1,942,615</b>
<b>Interactive media and services (1.6%)</b>		
Cars.com, Inc. † <sup>S</sup>	39,001	838,522
Meet Group, Inc. (The) †	155,390	719,456
Trivago NV ADR (Germany) †	51,028	287,288
		<b>1,845,266</b>

<b>COMMON STOCKS (92.8%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Internet and direct marketing retail (1.4%)</b>		
Groupon, Inc. †	166,226	\$531,923
Shutterstock, Inc.	7,200	259,272
Vipshop Holdings, Ltd. ADR (China) †	137,250	749,385
		<b>1,540,580</b>
<b>IT Services (2.2%)</b>		
Conduent, Inc. †	21,000	223,230
Information Services Group, Inc. †	58,216	246,836
PageSeguro Digital, Ltd. Class A (Brazil) † <sup>S</sup>	43,249	810,054
Perficient, Inc. †	16,500	367,290
Perspecta, Inc.	24,216	417,000
PRGX Global, Inc. †	15,062	142,637
StoneCo., Ltd. Class A (Brazil) †	13,900	256,316
		<b>2,463,363</b>
<b>Leisure products (1.6%)</b>		
Brunswick Corp.	12,100	562,045
Clarus Corp.	90,991	920,829
MasterCraft Boat Holdings, Inc. †	14,500	271,150
		<b>1,754,024</b>
<b>Machinery (3.1%)</b>		
ATS Automation Tooling Systems, Inc. (Canada) †	40,699	428,991
Deutz AG (Germany)	139,581	822,814
DMC Global, Inc.	16,578	582,219
Evoqua Water Technologies Corp. † <sup>S</sup>	47,862	459,475
FreightCar America, Inc. †	14,681	98,216
Gates Industrial Corp PLC †	5,883	77,891
Manitex International, Inc. †	79,059	449,055
Rexnord Corp. †	12,500	286,875
Trinity Industries, Inc.	14,900	306,791
		<b>3,512,327</b>
<b>Marine (0.1%)</b>		
Stolt-Nielsen, Ltd. (United Kingdom)	11,730	138,375
		<b>138,375</b>
<b>Media (1.0%)</b>		
Beasley Broadcast Group, Inc. Class A	26,061	97,729
Gray Television, Inc. †	16,200	238,788
TEGNA, Inc.	12,200	132,614
Tribune Publishing Co. † <sup>S</sup>	59,213	671,475
		<b>1,140,606</b>
<b>Metals and mining (2.0%)</b>		
Allegheny Technologies, Inc. † <sup>S</sup>	52,438	1,141,575
Carpenter Technology Corp.	18,716	666,477
Ferroglobe Representation & Warranty Insurance Trust †	102,740	—
Major Drilling Group International, Inc. (Canada) †	71,618	241,315
Universal Stainless & Alloy Products, Inc. †	13,300	215,593
		<b>2,264,960</b>
<b>Multiline retail (0.8%)</b>		
Big Lots, Inc.	6,600	190,872
Nordstrom, Inc.	15,874	739,887
		<b>930,759</b>
<b>Oil, gas, and consumable fuels (8.0%)</b>		
Amplify Energy Corp. †	7,369	64,110
Andeavor Logistics LP (Units)	33,000	1,072,170
Berry Petroleum Corp.	31,109	272,204
Callon Petroleum Co. †	60,674	393,774
Chaparral Energy, Inc. Class A † <sup>S</sup>	43,866	215,821
CONSOL Energy, Inc. †	8,800	279,048
Encana Corp. (Canada)	38,100	220,218
Gulfport Energy Corp. †	13,000	85,150
Magnolia Oil & Gas Corp. † <sup>S</sup>	33,100	371,051



<b>COMMON STOCKS (92.8%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Oil, gas, and consumable fuels cont.</b>		
Matador Resources Co. † <sup>5</sup>	31,329	\$486,539
Newfield Exploration Co. †	43,042	630,996
Parsley Energy, Inc. Class A †	31,165	498,017
Penn Virginia Corp. †	2,100	113,526
Range Resources Corp. <sup>5</sup>	12,876	123,223
Riviera Resources, Inc./Linn †	16,815	265,677
Roan Resources, Inc. † <sup>5</sup>	46,970	393,609
SandRidge Energy, Inc. †	40,116	305,283
Southwestern Energy Co. †	45,202	154,139
Sunoco LP (Units)	13,991	380,415
Vermilion Energy, Inc. (Canada) <sup>5</sup>	103,600	2,182,490
World Fuel Services Corp.	20,900	447,469
		<b>8,954,929</b>
<b>Personal products (0.2%)</b>		
e.l.f. Beauty, Inc. † <sup>5</sup>	30,076	260,458
		<b>260,458</b>
<b>Pharmaceuticals (0.5%)</b>		
China Traditional Chinese Medicine Holdings Co., Ltd. (China)	904,000	522,597
		<b>522,597</b>
<b>Professional services (0.7%)</b>		
BancTec, Inc. 144A CVR <sup>F</sup>	152,299	—
Franklin Covey, Co. †	10,428	232,857
Kforce, Inc.	4,000	123,680
Willdan Group, Inc. †	11,255	393,700
		<b>750,237</b>
<b>Real estate management and development (0.3%)</b>		
Consolidated-Tomoka Land, Co.	3,035	159,338
Newmark Group, Inc. Class A	25,000	200,500
		<b>359,838</b>
<b>Road and rail (0.6%)</b>		
Saia, Inc. †	4,000	223,280
Schneider National, Inc. Class B	17,900	334,193
US Xpress Enterprises, Inc. Class A †	12,750	71,528
		<b>629,001</b>
<b>Semiconductors and semiconductor equipment (3.4%)</b>		
Advanced Energy Industries, Inc. †	5,500	236,115
AXT, Inc. †	13,055	56,789
Brooks Automation, Inc.	28,112	735,972
Cypress Semiconductor Corp.	68,700	873,864
Ichor Holdings, Ltd. †	5,000	81,500
Lattice Semiconductor Corp. †	98,700	683,004
Mellanox Technologies, Ltd. (Israel) †	2,400	221,712
Photronics, Inc. †	42,500	411,400
Qorvo, Inc. †	4,600	279,358
Ultra Clean Holdings, Inc. †	26,000	220,220
		<b>3,799,934</b>
<b>Software (3.8%)</b>		
A10 Networks, Inc. †	79,007	493,004
Avaya Holdings Corp. †	50,304	732,426
Cision, Ltd. †	27,100	317,070
Cloudera, Inc. †	24,200	267,652
Hortonworks, Inc. †	2,400	34,613
LogMeIn, Inc.	14,855	1,211,722
Nuance Communications, Inc. †	52,800	698,544
Progress Software Corp.	11,659	413,778
Upland Software, Inc. †	4,900	133,182
		<b>4,301,991</b>
<b>Specialty retail (1.1%)</b>		
American Eagle Outfitters, Inc.	12,852	248,429
Citi Trends, Inc.	12,300	250,797

<b>COMMON STOCKS (92.8%)* cont.</b>	<b>Shares</b>	<b>Value</b>		
<b>Specialty retail cont.</b>				
RTW RetailWinds, Inc. †	74,147	\$209,836		
Sportsman's Warehouse Holdings, Inc. † <sup>5</sup>	107,968	472,900		
		<b>1,181,962</b>		
<b>Textiles, apparel, and luxury goods (2.4%)</b>				
Carter's, Inc.	3,300	269,346		
Delta Apparel, Inc. †	30,905	532,493		
Hanesbrands, Inc. <sup>5</sup>	27,021	338,573		
PVH Corp.	2,100	195,195		
Salvatore Ferragamo SpA (Italy) <sup>5</sup>	61,108	1,236,105		
Unifi, Inc. †	6,100	139,324		
		<b>2,711,036</b>		
<b>Thriffs and mortgage finance (1.4%)</b>				
Meridian Bancorp, Inc.	36,444	521,878		
OceanFirst Financial Corp.	13,100	294,881		
Sterling Bancorp, Inc./MI	12,702	88,279		
Territorial Bancorp, Inc.	6,257	162,557		
Washington Federal, Inc.	19,400	518,174		
		<b>1,585,769</b>		
<b>Tobacco (0.5%)</b>				
Turning Point Brands, Inc.	19,400	528,068		
		<b>528,068</b>		
<b>Trading companies and distributors (0.7%)</b>				
Herc Holdings, Inc. †	14,999	389,824		
Houston Wire & Cable Co. †	30,406	153,854		
Titan Machinery, Inc. †	15,600	205,140		
		<b>748,818</b>		
<b>Transportation infrastructure (0.5%)</b>				
Macquarie Infrastructure Co., LLC	16,700	610,553		
		<b>610,553</b>		
<b>Total common stocks (cost \$120,753,186)</b>		<b>\$104,454,919</b>		
<b>INVESTMENT COMPANIES (2.0%)*</b>				
	<b>Shares</b>	<b>Value</b>		
Ares Capital Corp.	38,800	\$604,504		
Bain Capital Specialty Finance, Inc. † <sup>5</sup>	41,439	694,932		
Golub Capital BDC, Inc. <sup>5</sup>	23,092	380,787		
TriplePoint Venture Growth BDC Corp. <sup>5</sup>	51,924	565,452		
		<b>\$2,245,675</b>		
<b>PURCHASED OPTIONS</b>				
<b>OUTSTANDING (0.2%)*</b>				
<b>Counterparty</b>	<b>Expiration date/strike price</b>	<b>Notional amount</b>	<b>Contract amount</b>	<b>Value</b>
<b>Bank of America N.A.</b>				
Dril-Quip, Inc. (Call)	Mar-19/\$35.00	\$113,904	\$3,793	\$4,010
Huntsman Corp. (Call)	Feb-19/20.00	255,515	13,246	10,928
<b>Barclays Bank PLC</b>				
Callon Petroleum Co. (Call)	Jul-19/7.00	55,457	8,545	8,490
Hanesbrands, Inc. (Call)	Apr-19/13.00	63,377	5,058	5,311
TimkenSteel Corp. (Call)	Feb-19/10.00	46,776	5,352	2,157
WisdomTree Investments, Inc. (Call)	Mar-19/7.00	165,100	24,827	9,457
<b>Citibank, N.A.</b>				
American Eagle Outfitters (Call)	Feb-19/19.00	161,676	8,364	12,195
Cross Country Healthcare, Inc. (Call)	Mar-19/7.50	107,868	14,716	11,340
Donnelley Financial Solution (Call)	Apr-19/12.50	249,678	17,796	38,746
Eagle Materials, Inc. (Call)	Apr-19/65.00	212,934	3,489	11,263
Fluor Corp. (Call)	Jan-19/42.50	141,294	4,388	2
Logmein, Inc. (Call)	Mar-19/70.00	185,164	2,270	31,280

**PURCHASED OPTIONS****OUTSTANDING (0.2%)\* cont.**

Counterparty	Expiration date/strike price	Notional amount	Contract amount	Value
<b>Citibank, N.A. cont.</b>				
Stericycle, Inc. (Call)	Feb-19/\$40.00	\$236,614	\$6,449	\$7,450
W.R. Grace & Co. (Call)	Mar-19/60.00	171,168	2,637	17,244

**Morgan Stanley & Co. International PLC**

Minerals Technologies, Inc. (Call)	Feb-19/55.00	319,540	6,224	8,689
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**UBSAG**

Clean Harbors, Inc. (Call)	Apr-19/40.00	279,963	5,673	61,161
Gates Industrial Corp. PLC (Call)	Feb-19/12.50	81,572	6,161	6,867

**Total purchased options outstanding (cost \$621,628) \$246,590**

SHORT-TERM INVESTMENTS (15.4%)*	Principal amount/ shares	Value
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Putnam Cash Collateral Pool, LLC 2.58% <sup>d</sup>	Shares 13,161,273	\$13,161,273
Putnam Short Term Investment Fund 2.58% <sup>L</sup>	Shares 3,487,164	3,487,164
State Street Institutional U.S. Government Money Market Fund, Premier Class 2.27% <sup>P</sup>	Shares 70,000	70,000
U.S. Treasury Bills 2.355%, 2/7/19	\$420,000	419,007
U.S. Treasury Bills 2.342%, 2/14/19	211,000	210,396

**Total short-term investments (cost \$17,347,848) \$17,347,840**

**Total investments (cost \$141,145,114) \$124,295,024**

**Key to holding's abbreviations**

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

**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, 2018 through December 31, 2018 (the reporting period). Within the following notes to the portfolio, references to "Putnam Management" represent Putnam Investment Management, LLC, the fund's manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC and references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures*.

\* Percentages indicated are based on net assets of \$112,505,604.

† This security is non-income-producing.

<sup>d</sup> 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.

<sup>F</sup> 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).

<sup>L</sup> 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.

<sup>P</sup> This security was pledged, or purchased with cash that was pledged, to the fund for collateral on certain derivative contracts. The rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting period.

<sup>R</sup> Real Estate Investment Trust.

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

At the close of the reporting period, the fund maintained liquid assets totaling \$2,762,688 to cover certain derivative contracts.

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

144A after the name of an issuer represents securities exempt from registration under Rule 144A of the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration, normally to qualified institutional buyers.

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

**WRITTEN OPTIONS OUTSTANDING at 12/31/18 (premiums \$157,391)**

Counterparty	Expiration date/strike price	Notional Amount	Contract amount	Value
<b>Barclays Bank PLC</b>				
Axalta Coating Systems, Ltd. (Put)	Jan-19/\$21.00	\$56,442	\$2,410	\$235
FireEye, Inc. (Put)	Jan-19/16.00	112,822	6,960	1,601
Foot Locker, Inc. (Put)	Jan-19/52.50	358,887	6,746	4,386
ON Semiconductor Corp. (Put)	Jan-19/17.00	74,922	4,538	4,651
<b>Citibank, N.A.</b>				
BJ's Wholesale Club Holdings, Inc. (Call)	Jan-19/20.00	143,309	6,467	16,439
Dillard's, Inc. Class A (Put)	Jan-19/60.00	111,815	1,854	2,344
Genesco, Inc. (Put)	Jan-19/45.00	36,237	818	1,790
OceanFirst Financial Corp. (Put)	Jan-19/22.50	53,034	2,356	1,318
Outfront Media, Inc. (Put)	Jan-19/17.50	57,748	3,187	811
Sunoco LP (Put)	Jan-19/27.50	32,710	1,203	963
<b>Credit Suisse International</b>				
Genesco, Inc. (Put)	Jan-19/45.00	571,824	12,908	28,254
Mellanox Technologies, Ltd. (Put)	Jan-19/95.00	215,615	2,334	13,609
<b>Goldman Sachs International</b>				
Axalta Coating Systems, Ltd. (Put)	Jan-19/25.00	230,289	9,833	18,503
<b>UBSAG</b>				
ADTRAN, Inc. (Put)	Jan-19/11.00	62,324	5,803	3,765
Mellanox Technologies, Ltd. (Put)	Jan-19/92.50	250,442	2,711	13,420
ON Semiconductor Corp. (Put)	Jan-19/16.00	399,476	24,196	12,703
<b>Total</b>				<b>\$124,792</b>

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	\$6,381,412	\$—	\$—
Consumer discretionary	19,870,755	—	—
Consumer staples	3,857,273	—	—
Energy	11,361,536	—	—**
Financials	14,342,031	—	—
Health care	3,697,824	631,222	—
Industrials	18,598,452	—	—**
Information technology	16,742,382	—	—
Materials	6,194,642	—	—
Real estate	2,777,390	—	—
<b>Total common stocks</b>	<b>103,823,697</b>	<b>631,222</b>	<b>—</b>
Investment companies	2,245,675	—	—
Purchased options outstanding	—	246,590	—
Short-term investments	3,557,164	13,790,676	—
<b>Totals by level</b>	<b>\$109,626,536</b>	<b>\$14,668,488</b>	<b>\$—</b>

Other financial instruments:	Valuation inputs		
	Level 1	Level 2	Level 3
Written options outstanding	\$—	\$(124,792)	\$—
<b>Totals by level</b>	<b>\$—</b>	<b>\$(124,792)</b>	<b>\$—</b>

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

\*\* Value of Level 3 Security is \$—.

At the start and close of the reporting period, Level 3 investments in securities represented less than 1% of the fund's net assets and were not considered a significant portion of the fund's portfolio.

## Statement of assets and liabilities

12/31/18

### Assets

Investment in securities, at value, including \$12,724,182 of securities on loan (Notes 1 and 8):	
Unaffiliated issuers (identified cost \$124,496,677)	\$107,646,587
Affiliated issuers (identified cost \$16,648,437) (Notes 1 and 5)	16,648,437
Cash	15,511
Dividends, interest and other receivables	173,132
Receivable for shares of the fund sold	99,468
Receivable for investments sold	6,136,440
Receivable for investor servicing fees (Note 2)	60,710
<b>Total assets</b>	<b>130,780,285</b>

### Liabilities

Payable for investments purchased	4,565,033
Payable for shares of the fund repurchased	50,888
Payable for compensation of Manager (Note 2)	61,857
Payable for custodian fees (Note 2)	71,628
Payable for Trustee compensation and expenses (Note 2)	96,313
Payable for administrative services (Note 2)	1,253
Payable for distribution fees (Note 2)	16,312
Written options outstanding, at value (premiums \$157,391) (Note 1)	124,792
Collateral on securities loaned, at value (Note 1)	13,161,273
Collateral on certain derivative contracts, at value (Notes 1 and 8)	70,000
Other accrued expenses	55,332
<b>Total liabilities</b>	<b>18,274,681</b>
<b>Net assets</b>	<b>\$112,505,604</b>

### Represented by

Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$133,561,050
Total distributable earnings (Note 1)	(21,055,446)
<b>Total — Representing net assets applicable to capital shares outstanding</b>	<b>\$112,505,604</b>

### Computation of net asset value Class IA

Net assets	\$38,310,091
Number of shares outstanding	4,234,537
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$9.05

### Computation of net asset value Class IB

Net assets	\$74,195,513
Number of shares outstanding	8,346,906
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$8.89

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

# Statement of operations

Year ended 12/31/18

## Investment income

Dividends (net of foreign tax of \$31,430)	\$2,820,692
Interest (including interest income of \$236,807 from investments in affiliated issuers) (Note 5)	243,364
Securities lending (net of expenses) (Notes 1 and 5)	215,586
<b>Total investment income</b>	<b>3,279,642</b>

## Expenses

Compensation of Manager (Note 2)	916,440
Investor servicing fees (Note 2)	103,196
Custodian fees (Note 2)	123,002
Trustee compensation and expenses (Note 2)	7,390
Distribution fees (Note 2)	240,503
Administrative services (Note 2)	4,017
Other	92,362
<b>Total expenses</b>	<b>1,486,910</b>
Expense reduction (Note 2)	(196,288)
<b>Net expenses</b>	<b>1,290,622</b>
<b>Net investment income</b>	<b>1,989,020</b>

## Realized and unrealized gain (loss)

### Net realized gain (loss) on:

Securities from unaffiliated issuers (Notes 1 and 3)	(5,042,688)
Foreign currency transactions (Note 1)	(12,726)
Futures contracts (Note 1)	(1,110,383)
Written options (Note 1)	1,954,309
<b>Total net realized loss</b>	<b>(4,211,488)</b>

### Change in net unrealized appreciation (depreciation) on:

Securities from unaffiliated issuers	(25,217,068)
Assets and liabilities in foreign currencies	1,479
Written options	(6,527)
<b>Total change in net unrealized depreciation</b>	<b>(25,222,116)</b>
<b>Net loss on investments</b>	<b>(29,433,604)</b>
<b>Net decrease in net assets resulting from operations</b>	<b>\$(27,444,584)</b>

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

## Statement of changes in net assets

	Year ended 12/31/18	Year ended 12/31/17
<b>Decrease in net assets</b>		
<b>Operations:</b>		
Net investment income	\$1,989,020	\$800,769
Net realized gain (loss) on investments and foreign currency transactions	(4,211,488)	44,002,119
Net unrealized depreciation of investments and assets and liabilities in foreign currencies	(25,222,116)	(32,712,674)
<b>Net increase (decrease) in net assets resulting from operations</b>	<b>(27,444,584)</b>	<b>12,090,214</b>
Distributions to shareholders (Note 1):		
From ordinary income		
Net investment income		
Class IA	(341,687)	(519,014)
Class IB	(390,264)	(754,898)
Net realized short-term gain on investments		
Class IA	(4,376,851)	(184,854)
Class IB	(8,331,815)	(353,646)
From net realized long-term gain on investments		
Class IA	(11,275,681)	(2,054,723)
Class IB	(21,464,489)	(3,930,914)
Increase (decrease) from capital share transactions (Note 4)	26,214,379	(14,816,758)
<b>Total decrease in net assets</b>	<b>(47,410,992)</b>	<b>(10,524,593)</b>
<b>Net assets:</b>		
Beginning of year	159,916,596	170,441,189
<b>End of year</b> (Note 1)	<b>\$112,505,604</b>	<b>\$159,916,596</b>

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) <sup>a</sup>	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 (%) <sup>b,c</sup>	Net assets, end of period (in thousands)	Ratio of expenses to average net assets (%) <sup>c,d</sup>	Ratio of net investment income (loss) to average net assets (%)	Portfolio turnover (%)
<b>Class IA</b>													
12/31/18	\$16.41	.18	(2.62)	(2.44)	(.11)	(4.81)	(4.92)	\$9.05	(19.42)	\$38,310	.85	1.51	561
12/31/17	15.94	.10	1.15	1.25	(.15)	(.63)	(.78)	16.41	8.15	55,886	.82	.66	398
12/31/16	14.16	.15	3.28	3.43	(.21)	(1.44)	(1.65)	15.94	27.70	59,872	.78 <sup>e</sup>	1.14 <sup>e</sup>	67
12/31/15	16.70	.20	(.74)	(.54)	(.18)	(1.82)	(2.00)	14.16	(3.90)	52,593	.76	1.30	52
12/31/14	21.02	.17	.47	.64	(.16)	(4.80)	(4.96)	16.70	3.69	63,215	.79	1.01	55
<b>Class IB</b>													
12/31/18	\$16.20	.15	(2.59)	(2.44)	(.06)	(4.81)	(4.87)	\$8.89	(19.66)	\$74,196	1.10	1.26	561
12/31/17	15.75	.06	1.13	1.19	(.11)	(.63)	(.74)	16.20	7.87	104,031	1.07	.41	398
12/31/16	13.99	.12	3.25	3.37	(.17)	(1.44)	(1.61)	15.75	27.49	110,569	1.03 <sup>e</sup>	.89 <sup>e</sup>	67
12/31/15	16.53	.16	(.74)	(.58)	(.14)	(1.82)	(1.96)	13.99	(4.24)	96,438	1.01	1.04	52
12/31/14	20.84	.13	.46	.59	(.10)	(4.80)	(4.90)	16.53	3.43	120,747	1.04	.76	55

<sup>a</sup> Per share net investment income (loss) has been determined on the basis of the weighted average number of shares outstanding during the period.

<sup>b</sup> Total return assumes dividend reinvestment.

<sup>c</sup> The charges and expenses at the insurance company separate account level are not reflected.

<sup>d</sup> Includes amounts paid through expense offset and brokerage/service arrangements, if any (Note 2). Also excludes acquired fund fees and expenses, if any.

<sup>e</sup> 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 12/31/18

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, 2018 through December 31, 2018.

Putnam VT Small Cap Value 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. The goal of the fund is to seek capital appreciation. The fund invests mainly in common stocks of small U.S. companies, with a focus on value stocks. Value stocks are issued by companies that Putnam Management believes are currently undervalued by the market. If Putnam Management is correct and other investors ultimately recognize the value of the company, the price of its stock may rise. Under normal circumstances, Putnam Management invests at least 80% of the fund’s net assets in companies of a size similar to those in the Russell 2000 Value Index. This policy may be changed only after 60 days’ notice to shareholders. As of March 31, 2018, the index was composed of companies having market capitalizations of between approximately \$7.7 million and \$8.5 billion. 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 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.

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.

**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, 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.

All premiums/discounts are amortized/accreted on a yield-to-maturity basis.

**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.

**Options contracts** The fund uses options contracts to generate additional income for the portfolio, to enhance the return on a security owned, to gain exposure to securities and to manage downside risks.

The potential risk to the fund is that the change in value of options contracts may not correspond to the change in value of the hedged instruments. In addition, losses may arise from changes in the value of the underlying instruments if there is an illiquid secondary market for the contracts, if interest or exchange rates move unexpectedly or if the counterparty to the contract is unable to perform. Realized gains and losses on purchased options are included in realized gains and losses on investment securities. If a written call option is exercised, the premium originally received is recorded as an addition to sales proceeds. If a written put option is exercised, the premium originally received is recorded as a reduction to the cost of investments.

Exchange-traded options are valued at the last sale price or, if no sales are reported, the last bid price for purchased options and the last ask price for written options. OTC traded options are valued using prices supplied by dealers.

Options on swaps are similar to options on securities except that the premium paid or received is to buy or grant the right to enter into a previously agreed upon interest rate or credit default contract. Forward premium swap option contracts include premiums that have extended settlement dates. The delayed settlement of the premiums is factored into the daily valuation of the option contracts. In the case of interest rate cap and floor contracts, in return for a premium, ongoing payments between two parties are based on interest rates exceeding a specified rate, in the case of a cap contract, or falling below a specified rate in the case of a floor contract.

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

**Futures contracts** The fund uses futures contracts to equitize cash.

The potential risk to the fund is that the change in value of futures contracts may not correspond to the change in value of the hedged instruments. In addition, losses may arise from changes in the value of the underlying instruments, if there is an illiquid secondary market for the contracts, if interest or exchange rates move unexpectedly or if the counterparty to the contract is unable to perform. With futures, there is minimal counterparty credit risk to the fund since futures are exchange traded and the exchange's clearinghouse, as counterparty to all exchange traded futures, guarantees the futures against default. Risks may exceed amounts recognized on the Statement of assets and liabilities. When the contract is closed, 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.

Futures contracts are valued at the quoted daily settlement prices established by the exchange on which they trade. The fund and the broker agree to exchange an amount of cash equal to the daily fluctuation in the value of the futures contract. Such receipts or payments are known as "variation margin."

Futures 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 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 replugged, 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 \$60,366 on open derivative contracts subject to the Master Agreements. There was no collateral posted by the fund at period end for these 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 \$13,161,273 and the value of securities loaned amounted to \$12,824,511. Certain of these securities were sold prior to the close of the reporting period and are included in Receivable for investments sold on the Statement of assets and liabilities.

**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 LIBOR for the committed line of credit and the Federal Funds rate plus 1.30% 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 losses on wash sale transactions, nontaxable dividends and from partnership income. 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 \$193,712 to increase undistributed net investment income, and \$193,712 to increase accumulated net realized loss.

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	\$1,289,821
Unrealized depreciation	(24,906,451)
Net unrealized depreciation	(23,616,630)
Undistributed ordinary income	2,000,763
Undistributed long-term gain	43,819
Undistributed short-term gain	514,223
Cost for federal income tax purposes	\$147,786,862

For the fiscal year ended December 31, 2017, the fund had undistributed net investment income of \$550,009.

**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 38.4% 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:

0.780%	of the first \$5 billion,
0.730%	of the next \$5 billion,
0.680%	of the next \$10 billion,
0.630%	of the next \$10 billion,
0.580%	of the next \$50 billion,
0.560%	of the next \$50 billion,
0.550%	of the next \$100 billion and
0.545%	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 0.621% of the fund's average net assets.

Putnam Management has contractually agreed, through April 30, 2020, 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 plan, 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 not reduced 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 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	\$35,838
Class IB	67,358
Total	\$103,196

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. The fund also reduced expenses through brokerage/service arrangements. For the reporting period, the fund's expenses were reduced by \$1,429 under the expense offset arrangements and by \$194,859 under the brokerage/service arrangements.

Each Independent Trustee of the fund receives an annual Trustee fee, of which \$106, as a quarterly retainer, has been allocated to the fund, and an additional fee for each Trustees 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)	\$749,801,310	\$766,121,032
U.S. government securities (Long-term)	—	—
<b>Total</b>	<b>\$749,801,310</b>	<b>\$766,121,032</b>

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 12/31/18		Year ended 12/31/17		Year ended 12/31/18		Year ended 12/31/17	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	293,191	\$3,513,753	319,094	\$4,990,233	405,378	\$4,741,311	637,183	\$9,918,210
Shares issued in connection with reinvestment of distributions	1,500,396	15,994,219	179,479	2,758,591	2,874,911	30,186,567	331,543	5,039,458
	1,793,587	19,507,972	498,573	7,748,824	3,280,289	34,927,878	968,726	14,957,668
Shares repurchased	(964,991)	(11,706,008)	(847,797)	(13,274,181)	(1,356,909)	(16,515,463)	(1,565,158)	(24,249,069)
<b>Net increase (decrease)</b>	<b>828,596</b>	<b>\$7,801,964</b>	<b>(349,224)</b>	<b>\$(5,525,357)</b>	<b>1,923,380</b>	<b>\$18,412,415</b>	<b>(596,432)</b>	<b>\$(9,291,401)</b>

### 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 12/31/17	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 12/31/18
<b>Short-term investments</b>					
Putnam Cash Collateral Pool, LLC*	\$14,244,240	\$104,063,861	\$105,146,828	\$310,238	\$13,161,273
Putnam Short Term Investment Fund**	8,647,763	187,361,920	192,522,519	236,807	3,487,164
<b>Total Short-term investments</b>	<b>\$22,892,003</b>	<b>\$291,425,781</b>	<b>\$297,669,347</b>	<b>\$547,045</b>	<b>\$16,648,437</b>

\*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.

### 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:

Purchased equity option contracts (contract amount)	\$250,000
Written equity option contracts (contract amount)	\$310,000
Futures contracts (number of contracts)	—*

\*For the reporting period, there were no holdings at the end of each fiscal quarter and the transactions were considered minimal.

The following is a summary of the fair value of derivative instruments as of the close of the reporting period:

#### Fair value of derivative instruments as of the close of the reporting period

Derivatives not accounted for as hedging instruments under ASC 815	Asset derivatives		Liability derivatives	
	Statement of assets and liabilities location	Fair value	Statement of assets and liabilities location	Fair value
Equity contracts	Investments	\$246,590	Payables	\$124,792
<b>Total</b>		<b>\$246,590</b>		<b>\$124,792</b>

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	Options	Futures	Total
Equity contracts	\$286,937	\$(1,110,383)	\$(823,446)
<b>Total</b>	<b>\$286,937</b>	<b>\$(1,110,383)</b>	<b>\$(823,446)</b>

**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	Options	Total
Equity contracts	\$(250,552)	\$(250,552)
<b>Total</b>	<b>\$(250,552)</b>	<b>\$(250,522)</b>

**Note 8 — Offsetting of financial and derivative assets and liabilities**

The following table summarizes any derivatives, repurchase agreements and reverse repurchase agreements, at the end of the reporting period, that are subject to an enforceable master netting agreement or similar agreement. For securities lending transactions or borrowing transactions associated with securities sold short, if any, see Note 1. For financial reporting purposes, the fund does not offset financial assets and financial liabilities that are subject to the master netting agreements in the Statement of assets and liabilities.

	Bank of America N.A.	Barclays Bank PLC	Citibank, N.A.	Credit Suisse International	Goldman Sachs International	Morgan Stanley & Co. International PLC	UBS AG	Total
<b>Assets:</b>								
Purchased options <sup>**</sup>	\$14,938	\$25,415	\$129,520	\$—	\$—	\$8,689	\$68,028	\$246,590
<b>Total Assets</b>	<b>\$14,938</b>	<b>\$25,415</b>	<b>\$129,520</b>	<b>\$—</b>	<b>\$—</b>	<b>\$8,689</b>	<b>\$68,028</b>	<b>\$246,590</b>
<b>Liabilities:</b>								
Written options <sup>#</sup>	—	10,873	23,665	41,863	18,503	—	29,888	124,792
<b>Total Liabilities</b>	<b>\$—</b>	<b>\$10,873</b>	<b>\$23,665</b>	<b>\$41,863</b>	<b>\$18,503</b>	<b>\$—</b>	<b>\$29,888</b>	<b>\$124,792</b>
<b>Total Financial and Derivative Net Assets</b>	<b>\$14,938</b>	<b>\$14,542</b>	<b>\$105,855</b>	<b>\$(41,863)</b>	<b>\$(18,503)</b>	<b>\$8,689</b>	<b>\$38,140</b>	<b>\$121,798</b>
Total collateral received (pledged) <sup>†##</sup>	\$—	\$—	\$70,000	\$—	\$—	\$—	\$—	
Net amount	\$14,938	\$14,542	\$35,855	\$(41,863)	\$(18,503)	\$8,689	\$38,140	
<i>Controlled collateral received (including TBA commitments)<sup>**</sup></i>	\$—	\$—	\$70,000	\$—	\$—	\$—	\$—	\$70,000
<i>Uncontrolled collateral received</i>	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
<i>Collateral (pledged) (including TBA commitments)<sup>**</sup></i>	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—

<sup>\*\*</sup>Included with Investments in securities on the Statement of assets and liabilities.

<sup>†</sup>Additional collateral may be required from certain brokers based on individual agreements.

<sup>#</sup>Covered by master netting agreement (Note 1).





<sup>##</sup>Any over-collateralization of total financial and derivative net assets is not shown. Collateral may include amounts related to unsettled agreements.

**Federal tax information** (Unaudited)

Pursuant to §852 of the Internal Revenue Code, as amended, the fund hereby designates \$201,950 as a capital gain dividend with respect to the taxable year ended December 31, 2018, or, if subsequently determined to be different, the net capital gain of such year.

The fund has designated 10.84% of ordinary income distributions as qualifying for the dividends received deduction for corporations.

## About the Trustees

Name Year of birth Position held	Principal occupations during past five years	Other directorships	
<b>Independent Trustees</b>			
<b>Liaquat Ahmed</b> Born 1952 Trustee since 2012	Pulitzer Prize-winning author of <i>Lords of Finance: The Bankers Who Broke the World</i> , whose articles on economics have appeared in such publications as the <i>New York Times</i> , <i>Foreign Affairs</i> , and the <i>Financial Times</i> . Trustee of the Brookings Institution.	The Rohatyn Group, an emerging-market fund complex that manages money for institutions	
<b>Ravi Akhoury</b> Born 1947 Trustee since 2009	Trustee of the Rubin Museum. From 1992 to 2007, was Chairman and CEO of MacKay Shields, a multi-product investment management firm.	English Helper, Inc., a private software company	
<b>Barbara M. Baumann</b> Born 1955 Trustee since 2010	President and Owner of Cross Creek Energy Corporation, a strategic consultant to domestic energy firms and direct investor in energy projects. Current Treasurer of the Board and Chair of the Finance Committee, The Denver Foundation. Member of the Finance Committee, the Children's Hospital of Colorado.	Buckeye Partners, L.P., a publicly traded master limited partnership focused on pipeline transport, storage, and distribution of petroleum products; Devon Energy Corporation, a leading independent natural gas and oil exploration and production company	
<b>Katinka Domotorffy</b> Born 1975 Trustee since 2012	Voting member of the Investment Committees of the Anne Ray Charitable Trust and Margaret A. Cargill Foundation, part of the Margaret A. Cargill Philanthropies. Until 2011, Partner, Chief Investment Officer, and Global Head of Quantitative Investment Strategies at Goldman Sachs Asset Management.	Great Lakes Science Center; College Now Greater Cleveland	
<b>Catharine Bond Hill</b> 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, served as the 10th President of Vassar College. Prior to 2006, was Provost of Williams College.	Director of Yale-NUS College; Alumni Fellow to the Yale Corporation	
<b>Dr. Paul L. Joskow</b> Born 1947 Trustee since 1997	Elizabeth and James Killian Professor of Economics, Emeritus at the Massachusetts Institute of Technology (MIT). Head of the MIT Department of Economics from 1994 to 1998 and Director of the MIT Center for Energy and Environmental Policy Research from 1999 through 2007. From 2008 to 2017, President of the Alfred P. Sloan Foundation, a philanthropic institution focused primarily on research and education issues related to science, technology, and economic performance.	Yale University; Exelon Corporation, an energy company focused on power services; Boston Symphony Orchestra; Prior to April 2013, served as Director of TransCanada Corporation and TransCanada Pipelines Ltd., energy companies focused on natural gas transmission, oil pipelines and power services	
<b>Kenneth R. Leibler</b> Born 1949 Trustee since 2006 Vice Chair from 2016 to 2018, and Chair since 2018	Founder and former Chairman of Boston Options Exchange, an electronic marketplace for the trading of derivative securities. Vice Chair Emeritus of the Board of Trustees of Beth Israel Deaconess Hospital in Boston, Massachusetts, and former Director of Beth Israel Deaconess Care Organization. Until November 2010, Director of Ruder Finn Group, a global communications and advertising firm.	Eversource Corporation, which operates New England's largest energy delivery system	
<b>Robert E. Patterson</b> Born 1945 Trustee since 1984	Until 2017, Co-Chairman of Cabot Properties, Inc., a private equity firm investing in commercial real estate, and Chairman or Co-Chairman of the Investment Committees for various Cabot Funds. Past Chairman and Trustee of the Joslin Diabetes Center.	None	
<b>George Putnam, III</b> Born 1951 Trustee since 1984	Chairman of New Generation Research, Inc., a publisher of financial advisory and other research services. Founder and President of New Generation Advisors, LLC, a registered investment advisor to private funds. Director of The Boston Family Office, LLC, a registered investment advisor.	None	

Name Year of birth Position held	Principal occupations during past five years	Other directorships
<b>Manoj P. Singh</b> Born 1952 Trustee since 2017	Until 2015, Chief Operating Officer and Global Managing Director at Deloitte Touche Tohmatsu, Ltd., a global professional services organization. Served 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 focused on health, social and environmental policy, and international development. Trustee of Carnegie Mellon University. Trustee of Rubin Museum of Art. 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. Director of DXC Technology, a global IT services and consulting company



### Interested Trustee

<b>Robert L. Reynolds*</b> Born 1952 Trustee since 2008 and President of the Putnam Funds since 2009	President and Chief Executive Officer of Putnam Investments since 2008 and, since 2014, 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, and of Great-West Lifeco U.S. Inc., a holding company that owns Putnam Investments and Great-West Financial. Prior to joining Putnam Investments, served as Vice Chairman and Chief Operating Officer of Fidelity Investments from 2000 to 2007.	None
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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, 2018, there were 99 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:

**Jonathan S. Horwitz** (Born 1955)

Executive Vice President, Principal Executive Officer, and Compliance Liaison  
Since 2004

**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, Putnam Investments and Putnam Management

**Michael J. Higgins** (Born 1976)

Vice President, Treasurer, and Clerk  
Since 2010

**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

**Susan G. Malloy** (Born 1957)

Vice President and Assistant Treasurer  
Since 2007  
Head of Accounting, Middle Office, & Control Services, Putnam Investments and Putnam Management

**Mark C. Trenchard** (Born 1962)

Vice President and BSA Compliance Officer  
Since 2002  
Director of Operational Compliance, Putnam Investments and Putnam Retail Management

**Nancy E. Florek** (Born 1957)

Vice President, Director of Proxy Voting and Corporate Governance, Assistant Clerk, and Assistant Treasurer  
Since 2000

**Denere P. Poulack** (Born 1968)

Assistant Vice President, Assistant Clerk, and Assistant Treasurer  
Since 2004

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.

## 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, 2018, are available in the Individual Investors section of putnam.com and on the Securities and Exchange Commission's (SEC) website, 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

Each Putnam VT 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-Q. Shareholders may obtain the fund's Form N-Q on the SEC's website at www.sec.gov.

## Fund information

### Investment Manager

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

### Investment Sub-Advisor

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

### 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  
Robert E. Patterson  
George Putnam, III  
Robert L. Reynolds  
Manoj P. Singh

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.

