

A world of investing.®



# Putnam Variable Trust

**Annual report**

**12 | 31 | 16**

Putnam VT  
Research Fund

# Message from the Trustees

Dear Shareholder:

With 2017 under way, investor sentiment generally brightened at the prospect of moving beyond the challenges of the past year, when politics tested markets. Fortunately, market turbulence in the aftermath of key political events was in many cases followed by impressive rebounds, and annual performance in most global financial markets exceeded expectations.

Of course, uncertainties and macroeconomic risks do not simply disappear with the close of the calendar year. Conditions in the bond market have changed given the shift in the potential for inflation. As such, we believe investors should continue to focus on time-tested strategies: maintain a well-diversified portfolio, keep a long-term view, and do not overreact to short-term market fluctuations. To help ensure that your portfolio is aligned with your individual goals, time horizon, and tolerance for risk, we also believe it is a good idea to speak regularly with your financial advisor.

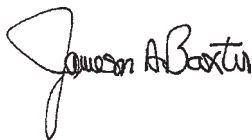
In today's environment, we favor the investment approach practiced at Putnam — active strategies based on fundamental research. Putnam portfolio managers, backed by a network of global analysts, bring years of experience to navigating changing market conditions and pursuing investment opportunities. In the following pages, you will find an overview of your fund's performance for the reporting period ended December 31, 2016, as well as an outlook for the coming months.

As always, thank you for investing with Putnam.

Respectfully yours,



**Robert L. Reynolds**  
President and Chief Executive Officer  
Putnam Investments



**Jameson A. Baxter**  
Chair, Board of Trustees

February 9, 2017

## Performance summary (as of 12/31/16)

### Investment objective

Capital appreciation

**Net asset value** December 31, 2016

**Class IA:** \$21.87

**Class IB:** \$21.83

### Total return at net asset value

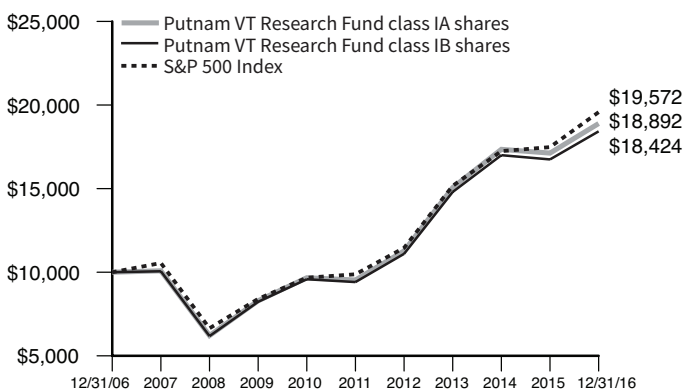
(as of 12/31/16)*	Class IA shares†	Class IB shares†	S&P 500 Index
1 year	10.32%	10.03%	11.96%
5 years	98.19	95.76	98.18
Annualized	14.66	14.38	14.66
10 years	88.92	84.24	95.72
Annualized	6.57	6.30	6.95
Life	185.50	173.45	210.77
Annualized	5.92	5.67	6.41

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

\* Recent performance may have benefited from one or more legal settlements.

† Class inception date: September 30, 1998.

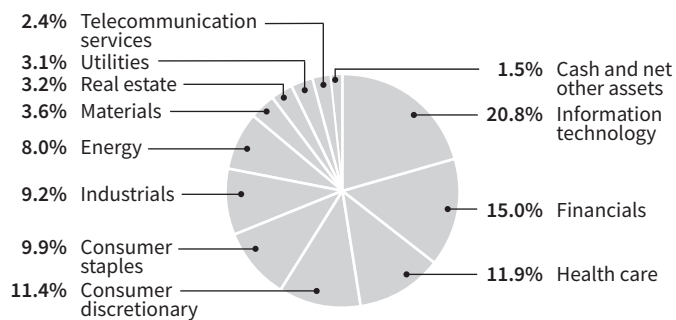
### Cumulative total returns of a \$10,000 investment in class IA and class IB shares at net asset value — since 12/31/06



The S&P 500 Index is an unmanaged index of common stock performance.

**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 managers

### **Aaron, how would you describe the market environment during the 12-month reporting period ended December 31, 2016?**

As 2016 began, the markets, which were growing increasingly alarmed by perceived economic weakness in China and serially depressed commodities prices, became anxious that the Federal Reserve had committed itself to a tightening policy agenda. These factors contributed to a risk-averse attitude on the part of many investors until roughly mid-February, at which point the markets began to stage a turnaround based on a variety of factors, including a rebounding oil price, decent U.S. economic data, declining stock market volatility, and a growing sense that the Fed would take a more gradual approach to raising interest rates.

As the period wore on, we began to see the bubbling up of inflationary pressures, including wage inflation as the labor market matured and commodity inflation as, for example, the price of oil rose off its February lows. Just prior to the U.S. presidential election, moreover, we saw the market shift its focus from dividend-paying stocks to sectors that could be beneficiaries of a reflationary macro-economic trend, including riskier-seeming sectors such as financials, industrials, and natural resources. In the last few weeks of the period, technology stocks, interestingly, lost some of their luster with investors as they began to feel comfortable seeking growth in other areas of the market.

In the wake of the U.S. presidential election, equity performance soared in anticipation of a new business-friendly administration. Led by energy, financials, and telecommunications, most non-defensive sectors turned in double-digit returns during the final calendar quarter of 2016, while major U.S. equity indexes hit record highs and delivered solid positive returns for the year overall.

### **In this context, how did Putnam VT Research Fund perform?**

The fund had a difficult first half, but performance improved markedly in the second half. Although it modestly underperformed its benchmark, the S&P 500 Index, for the year, we think the fund is well positioned to benefit from some of the regulatory and fiscal changes that may occur under a Trump administration.

### **Within different sectors, how would you characterize the fund's positioning during the reporting period?**

Within a variety of sectors, Putnam VT Research Fund has been positioned with a modestly pro-cyclical bias, which means that some parts of the portfolio were positioned to perform in line with the overall economy. In financials, for example, the fund was biased toward more interest-rate-sensitive stocks, which we thought would benefit if interest rates should rise. In natural resources, the fund had a pro-cyclical tilt as well, and we believed this would offer characteristics of relative strength as the changeover in Washington occurs. The fund's industrials-focused exposure, by contrast, was biased toward U.S. defense stocks, which is not a pro-cyclical type of exposure.

### **How would you describe U.S. corporate health at period-end?**

U.S. corporations generally may have turned a corner in the latter months of the period. A telling signal in this regard can be seen in

corporate earnings growth in the third calendar quarter. At 3% for the market overall — and 6% when you bracket the weaker-performing energy sector — this was the first time in four consecutive quarters that earnings growth was positive. When we consider corporate prospects for 2017, we expect that continued solid underlying growth in the U.S. economy, augmented by generally higher energy prices than we saw at the start of 2016, could lead to double-digit earnings growth for the U.S. market overall.

### **What is your outlook for U.S. stocks?**

We are optimistic about a number of business-building initiatives that President Trump has claimed will be priorities under his administration. At this early stage, we think it is likely that U.S. consumers will benefit from tax reform, and we also expect to see some measure of infrastructure spending get under way. We also believe that a number of promised reductions in regulatory burdens could give a boost to several areas, most notably financials. Overall, we think the regime change from President Obama to President Trump will shift the market in favor of sectors that may stand to benefit from pro-growth policies, higher interest rates, and inflationary conditions.

Accordingly, we expect long-term interest rates will rise and that the Fed may be in a position of responding to inflationary pressures by raising short-term interest rates. In our view, this economic and monetary policy environment stands a good chance of being positive for stock markets.

*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:** Growth stocks may be more susceptible to earnings disappointments, and value stocks may fail to rebound. Stock prices may fall or fail to rise over time for several reasons, including general financial market conditions and factors related to a specific company or industry. You can lose money by investing in the fund.

---

## Your fund's managers



Portfolio Manager **Aaron M. Cooper**, CFA, is Chief Investment Officer, Equities, at Putnam. He joined Putnam in 2011 and has been in the investment industry since 1999.

In addition to Aaron, your fund's managers are Jacquelyne J. Cavanaugh; Samuel Cox; Neil P. Desai; Kathryn B. Lakin; and Walter D. Scully, CPA.

Your fund's managers also manage other accounts advised by Putnam Management or an affiliate, including retail mutual fund counterparties 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 7/1/16 to 12/31/16. 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 12/31/15	0.81%	1.06%
Annualized expense ratio for the six-month period ended 12/31/16*	0.83%	1.08%

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

Expenses are shown as a percentage of average net assets.

\*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 12/31/16		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 12/31/16	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$4.34	\$5.65	\$4.22	\$5.48
Ending value (after expenses)	\$1,081.10	\$1,079.60	\$1,020.96	\$1,019.71

\*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 12/31/16. 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 Research Fund:

In our opinion, the accompanying statement of assets and liabilities, including the portfolio, and the related statements of operations and of changes in net assets and the financial highlights present fairly, in all material respects, the financial position of Putnam VT Research Fund (the “Fund”) as of December 31, 2016, the results of its operations, the changes in its net assets and the financial highlights for each of the periods indicated, in conformity with accounting principles generally accepted in the United States of America. These financial statements and financial highlights (hereafter referred to as “financial statements”) are the responsibility of the Fund’s management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits, which included confirmation of investments as of December 31, 2016 by correspondence with the custodian, brokers, transfer agent, and the application of alternative auditing procedures where securities purchased had not been received, provide a reasonable basis for our opinion.

PricewaterhouseCoopers LLP  
Boston, Massachusetts  
February 9, 2017

## The fund's portfolio 12/31/16

<b>COMMON STOCKS (98.4%)*</b>	<b>Shares</b>	<b>Value</b>
<b>Aerospace and defense (2.7%)</b>		
Airbus SE (France)	4,040	\$266,634
Northrop Grumman Corp.	1,550	360,499
Raytheon Co.	2,522	358,124
United Technologies Corp.	2,494	273,392
		<b>1,258,649</b>
<b>Air freight and logistics (0.4%)</b>		
United Parcel Service, Inc. Class B	1,533	175,743
		<b>175,743</b>
<b>Airlines (0.6%)</b>		
American Airlines Group, Inc.	2,792	130,358
United Continental Holdings, Inc. †	1,803	131,403
		<b>261,761</b>
<b>Banks (6.8%)</b>		
Bank of America Corp.	42,238	933,460
JPMorgan Chase & Co.	11,518	993,888
KeyCorp	19,082	348,628
Wells Fargo & Co.	16,280	897,191
		<b>3,173,167</b>
<b>Beverages (3.6%)</b>		
Dr. Pepper Snapple Group, Inc.	4,189	379,817
Molson Coors Brewing Co. Class B	3,207	312,073
Monster Beverage Corp. †	1,183	52,454
PepsiCo, Inc.	9,041	945,960
		<b>1,690,304</b>
<b>Biotechnology (3.6%)</b>		
Amgen, Inc.	2,796	408,803
Biogen, Inc. †	1,121	317,893
Celgene Corp. †	4,455	515,666
Gilead Sciences, Inc.	6,094	436,391
		<b>1,678,753</b>
<b>Building products (1.0%)</b>		
CaesarStone Sdot-Yam, Ltd. (Israel) †	872	24,983
Johnson Controls International PLC	10,553	434,678
		<b>459,661</b>
<b>Capital markets (3.2%)</b>		
AllianceBernstein Holding LP	6,328	148,392
Ameriprise Financial, Inc.	1,381	153,208
Charles Schwab Corp. (The)	8,733	344,692
Goldman Sachs Group, Inc. (The)	1,967	470,998
Intercontinental Exchange, Inc.	358	20,198
Invesco, Ltd.	3,621	109,861
KKR & Co. LP	16,932	260,583
		<b>1,507,932</b>
<b>Chemicals (2.5%)</b>		
Air Products & Chemicals, Inc.	599	86,148
Albemarle Corp.	1,405	120,942
Axalta Coating Systems, Ltd. †	1,794	48,797
CF Industries Holdings, Inc.	4,047	127,400
Dow Chemical Co. (The)	1,973	112,895
LANXESS AG (Germany)	938	61,460
Sherwin-Williams Co. (The)	1,253	336,731
Sociedad Quimica y Minera de Chile SA ADR (Chile)	775	22,204
Syngenta AG (Switzerland)	358	141,475
W.R. Grace & Co.	1,206	81,574
Yara International ASA (Norway)	275	10,829
		<b>1,150,455</b>

<b>COMMON STOCKS (98.4%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Commercial services and supplies (1.0%)</b>		
Rollins, Inc.	5,778	\$195,181
Stericycle, Inc. †	861	66,331
Waste Connections, Inc. (Canada)	2,324	182,643
		<b>444,155</b>
<b>Communications equipment (0.4%)</b>		
Cisco Systems, Inc.	6,044	182,650
		<b>182,650</b>
<b>Construction materials (0.3%)</b>		
Martin Marietta Materials, Inc.	281	62,250
Vulcan Materials Co.	537	67,206
		<b>129,456</b>
<b>Consumer finance (1.1%)</b>		
Oportun Financial Corp. (acquired 6/23/15, cost \$24,222) (Private) † Δ Δ F	8,499	21,800
Synchrony Financial	13,355	484,386
		<b>506,186</b>
<b>Containers and packaging (0.4%)</b>		
Ball Corp.	930	69,815
RPC Group PLC (United Kingdom)	3,383	44,259
Sealed Air Corp.	2,004	90,861
		<b>204,935</b>
<b>Distributors (0.1%)</b>		
LKQ Corp. †	1,495	45,822
		<b>45,822</b>
<b>Diversified consumer services (0.6%)</b>		
Bright Horizons Family Solutions, Inc. †	1,365	95,577
Service Corp. International/US	5,683	161,397
		<b>256,974</b>
<b>Diversified financial services (0.1%)</b>		
Berkshire Hathaway, Inc. Class B †	160	26,077
Conyers Park Acquisition Corp. (Units) †	3,870	41,990
		<b>68,067</b>
<b>Diversified telecommunication services (1.9%)</b>		
AT&T, Inc.	16,427	698,640
Zayo Group Holdings, Inc. †	5,156	169,426
		<b>868,066</b>
<b>Electric utilities (1.8%)</b>		
American Electric Power Co., Inc.	1,549	97,525
Edison International	1,965	141,460
Exelon Corp.	7,378	261,845
NextEra Energy, Inc.	1,148	137,140
PG&E Corp.	3,524	214,153
		<b>852,123</b>
<b>Energy equipment and services (1.5%)</b>		
Baker Hughes, Inc.	1,124	73,026
Halliburton Co.	5,804	313,938
Schlumberger, Ltd.	3,445	289,208
		<b>676,172</b>
<b>Equity real estate investment trusts (REITs) (2.9%)</b>		
American Tower Corp.	1,784	188,533
AvalonBay Communities, Inc.	707	125,245
Boston Properties, Inc.	929	116,850
Douglas Emmett, Inc.	1,078	39,412
Equinix, Inc.	354	126,523
Equity Lifestyle Properties, Inc.	893	64,385
Essex Property Trust, Inc.	216	50,220
Federal Realty Investment Trust	413	58,691
Gaming and Leisure Properties, Inc.	2,736	83,776
General Growth Properties	3,098	77,388
Kimco Realty Corp.	974	24,506
Pebblebrook Hotel Trust	1,023	30,434
Public Storage	505	112,868

<b>COMMON STOCKS (98.4%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Equity real estate investment trusts (REITs) cont.</b>		
Simon Property Group, Inc.	708	\$125,790
Ventas, Inc.	1,633	102,095
		<b>1,326,716</b>
<b>Food and staples retail (2.8%)</b>		
Costco Wholesale Corp.	2,091	334,790
CVS Health Corp.	2,522	199,011
Kroger Co. (The)	5,124	176,829
Wal-Mart Stores, Inc.	2,132	147,364
Walgreens Boots Alliance, Inc.	5,114	423,235
		<b>1,281,229</b>
<b>Food products (1.6%)</b>		
JM Smucker Co. (The)	2,091	267,773
Kraft Heinz Co. (The)	3,610	315,225
Mead Johnson Nutrition Co.	1,110	78,544
Nomad Foods, Ltd. (United Kingdom) †	3,684	35,256
Pinnacle Foods, Inc.	688	36,774
		<b>733,572</b>
<b>Health-care equipment and supplies (2.4%)</b>		
Abbott Laboratories	1,746	67,064
Becton Dickinson and Co.	1,197	198,163
Boston Scientific Corp. †	7,044	152,362
C.R. Bard, Inc.	742	166,698
Danaher Corp.	3,421	266,291
Edwards Lifesciences Corp. †	270	25,299
Intuitive Surgical, Inc. †	233	147,762
Medtronic PLC	1,324	94,309
		<b>1,117,948</b>
<b>Health-care providers and services (0.9%)</b>		
Aetna, Inc.	348	43,155
Cardinal Health, Inc.	237	17,057
Cigna Corp.	266	35,482
Express Scripts Holding Co. †	1,193	82,066
Henry Schein, Inc. †	388	58,863
Humana, Inc.	703	143,433
UnitedHealth Group, Inc.	329	52,653
		<b>432,709</b>
<b>Health-care technology (0.1%)</b>		
Castlight Health, Inc. Class B † §	5,142	25,453
HTG Molecular Diagnostics, Inc. †	407	912
		<b>26,365</b>
<b>Hotels, restaurants, and leisure (1.1%)</b>		
Hilton Worldwide Holdings, Inc.	6,625	180,200
Penn National Gaming, Inc. †	9,026	124,469
Restaurant Brands International, Inc. (Canada)	1,320	62,911
Wynn Resorts, Ltd. §	1,195	103,379
Yum China Holdings, Inc. (China) †	1,976	51,613
		<b>522,572</b>
<b>Household products (0.6%)</b>		
Colgate-Palmolive Co.	3,951	258,553
		<b>258,553</b>
<b>Independent power and renewable electricity producers (0.6%)</b>		
Calpine Corp. †	10,553	120,621
NRG Energy, Inc.	13,378	164,014
		<b>284,635</b>
<b>Industrial conglomerates (0.8%)</b>		
Siemens AG (Germany)	2,976	365,816
		<b>365,816</b>
<b>Insurance (3.5%)</b>		
American International Group, Inc.	6,889	449,921
Assured Guaranty, Ltd.	7,457	281,651
Chubb, Ltd.	2,399	316,956
Hartford Financial Services Group, Inc. (The)	3,856	183,738

<b>COMMON STOCKS (98.4%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Insurance cont.</b>		
MetLife, Inc.	3,387	\$182,525
Prudential PLC (United Kingdom)	11,628	231,934
		<b>1,646,725</b>
<b>Internet and direct marketing retail (3.1%)</b>		
Amazon.com, Inc. †	1,246	934,338
Ctrip.com International, Ltd. ADR (China) † §	3,437	137,480
Delivery Hero Holding GmbH (acquired 6/12/15, cost \$30,808) (Private) (Germany) † Δ Δ F	4	25,935
Expedia, Inc.	729	82,581
Priceline Group, Inc. (The) †	177	259,493
		<b>1,439,827</b>
<b>Internet software and services (5.4%)</b>		
Alibaba Group Holding, Ltd. ADR (China) † §	1,863	163,590
Alphabet, Inc. Class A †	1,623	1,286,148
Criteo SA ADR (France) †	1,179	48,433
Facebook, Inc. Class A †	6,577	756,684
GoDaddy, Inc. Class A † §	2,218	77,519
Tencent Holdings, Ltd. (China)	4,050	98,294
Wix.com, Ltd. (Israel) †	1,267	56,445
		<b>2,487,113</b>
<b>IT Services (2.5%)</b>		
Cognizant Technology Solutions Corp. Class A †	814	45,608
Computer Sciences Corp.	2,866	170,298
Fidelity National Information Services, Inc.	2,634	199,236
MasterCard, Inc. Class A	2,473	255,337
Visa, Inc. Class A	6,234	486,377
		<b>1,156,856</b>
<b>Leisure products (0.1%)</b>		
Brunswick Corp.	1,258	68,611
		<b>68,611</b>
<b>Life sciences tools and services (0.4%)</b>		
Agilent Technologies, Inc.	3,390	154,448
Illumina, Inc. †	359	45,966
		<b>200,414</b>
<b>Machinery (1.8%)</b>		
Dover Corp.	2,365	177,209
Fortive Corp.	4,922	263,967
KION Group AG (Germany)	2,494	138,607
Komatsu, Ltd. (Japan)	12,000	270,854
		<b>850,637</b>
<b>Media (3.8%)</b>		
Charter Communications, Inc. Class A †	1,360	391,571
Comcast Corp. Class A	7,535	520,292
DISH Network Corp. Class A †	1,816	105,201
Live Nation Entertainment, Inc. †	5,386	143,268
Time Warner, Inc.	954	92,090
Walt Disney Co. (The)	5,049	526,207
		<b>1,778,629</b>
<b>Metals and mining (0.4%)</b>		
ArcelorMittal SA (France) †	3,236	23,858
Barrick Gold Corp. (Canada)	775	12,385
Freeport-McMoRan, Inc. (Indonesia) †	1,445	19,060
Newmont Mining Corp.	1,395	47,528
Nucor Corp.	692	41,188
Steel Dynamics, Inc.	314	11,172
United States Steel Corp.	463	15,284
		<b>170,475</b>
<b>Multi-utilities (0.3%)</b>		
Ameren Corp.	1,697	89,025
Sempra Energy	610	61,390
		<b>150,415</b>



<b>COMMON STOCKS (98.4%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Oil, gas, and consumable fuels (6.6%)</b>		
Anadarko Petroleum Corp.	5,748	\$400,808
Arch Coal, Inc. Class A †	108	8,429
Cenovus Energy, Inc. (Canada)	9,419	142,409
Cheniere Energy, Inc. †	4,223	174,959
Chevron Corp.	1,256	147,831
Cimarex Energy Co.	268	36,421
ConocoPhillips	8,518	427,093
Devon Energy Corp.	773	35,303
EnCana Corp. (Canada)	6,019	70,651
EOG Resources, Inc.	2,474	250,121
Exxon Mobil Corp.	1,616	145,860
Hess Corp.	585	36,440
Kinder Morgan, Inc.	2,622	54,302
Marathon Oil Corp.	4,028	69,725
Noble Energy, Inc.	3,591	136,673
ONEOK, Inc.	509	29,222
Pioneer Natural Resources Co.	784	141,175
Plains All American Pipeline LP	2,848	91,962
Royal Dutch Shell PLC Class A (United Kingdom)	10,991	302,854
Seven Generations Energy, Ltd. (Canada) †	3,239	75,532
Suncor Energy, Inc. (Canada)	6,744	220,505
Williams Cos., Inc. (The)	1,261	39,268
		<b>3,037,543</b>
<b>Paper and forest products (—%)</b>		
KapStone Paper and Packaging Corp.	570	12,569
		<b>12,569</b>
<b>Personal products (0.4%)</b>		
Coty, Inc. Class A	7,074	129,525
Edgewell Personal Care Co. †	750	54,743
		<b>184,268</b>
<b>Pharmaceuticals (4.4%)</b>		
Allergan PLC †	2,296	482,183
Bristol-Myers Squibb Co.	3,951	230,896
Eli Lilly & Co.	3,425	251,909
Jazz Pharmaceuticals PLC †	404	44,048
Johnson & Johnson	1,745	201,041
Merck & Co., Inc.	5,822	342,741
Mylan NV †	3,467	132,266
Pfizer, Inc.	11,276	366,244
		<b>2,051,328</b>
<b>Real estate management and development (0.3%)</b>		
CBRE Group, Inc. Class A †	1,278	40,244
RE/MAX Holdings, Inc. Class A	1,868	104,608
		<b>144,852</b>
<b>Road and rail (0.7%)</b>		
Norfolk Southern Corp.	1,663	179,720
Union Pacific Corp.	1,288	133,540
		<b>313,260</b>
<b>Semiconductors and semiconductor equipment (4.5%)</b>		
Analog Devices, Inc.	756	54,901
Applied Materials, Inc.	9,006	290,624
Broadcom, Ltd.	1,717	303,514
Micron Technology, Inc. †	4,586	100,525
NVIDIA Corp.	717	76,533
NXP Semiconductor NV †	1,215	119,082
Qorvo, Inc. †	5,962	314,376
QUALCOMM, Inc.	2,035	132,682
Skyworks Solutions, Inc.	1,540	114,976
Sumco Corp. (Japan)	3,400	43,682

<b>COMMON STOCKS (98.4%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Semiconductors and semiconductor equipment cont.</b>		
Texas Instruments, Inc.	4,781	\$348,870
Xilinx, Inc.	3,004	181,351
		<b>2,081,116</b>
<b>Software (4.7%)</b>		
Activision Blizzard, Inc.	429	15,491
Adobe Systems, Inc. †	2,267	233,388
Electronic Arts, Inc. †	2,978	234,547
Everbridge, Inc. †	1,519	28,026
Microsoft Corp.	22,787	1,415,984
salesforce.com, Inc. †	2,675	183,131
ServiceNow, Inc. †	715	53,153
		<b>2,163,720</b>
<b>Specialty retail (2.2%)</b>		
Five Below, Inc. † <sup>S</sup>	1,621	64,775
Home Depot, Inc. (The)	3,528	473,034
O'Reilly Automotive, Inc. †	761	211,870
TJX Cos., Inc. (The)	3,585	269,341
		<b>1,019,020</b>
<b>Technology hardware, storage, and peripherals (3.4%)</b>		
Apple, Inc.	12,920	1,496,394
HP, Inc.	3,961	58,781
Western Digital Corp.	660	44,847
		<b>1,600,022</b>
<b>Textiles, apparel, and luxury goods (0.4%)</b>		
Hanesbrands, Inc.	8,434	181,921
		<b>181,921</b>
<b>Tobacco (1.0%)</b>		
Altria Group, Inc.	4,744	320,789
Philip Morris International, Inc.	1,459	133,484
		<b>454,273</b>
<b>Trading companies and distributors (0.3%)</b>		
United Rentals, Inc. †	1,258	132,820
		<b>132,820</b>
<b>Water utilities (0.3%)</b>		
American Water Works Co., Inc.	2,105	152,318
		<b>152,318</b>
<b>Wireless telecommunication services (0.5%)</b>		
T-Mobile US, Inc. †	4,052	233,031
		<b>233,031</b>
<b>Total common stocks (cost \$40,517,126)</b>		<b>\$45,652,909</b>
<b>CONVERTIBLE PREFERRED STOCKS (0.2%)*</b>		
	<b>Shares</b>	<b>Value</b>
Oportun Financial Corp. Ser. A-1, 8.00% cv. pfd. (acquired 6/23/15, cost \$66) (Private) † ΔΔ F	23	\$59
Oportun Financial Corp. Ser. B-1, 8.00% cv. pfd. (acquired 6/23/15, cost \$1,266) (Private) † ΔΔ F	402	1,140
Oportun Financial Corp. Ser. C-1, 8.00% cv. pfd. (acquired 6/23/15, cost \$2,973) (Private) † ΔΔ F	584	2,675
Oportun Financial Corp. Ser. D-1, 8.00% cv. pfd. (acquired 6/23/15, cost \$4,311) (Private) † ΔΔ F	847	3,880
Oportun Financial Corp. Ser. E-1, 8.00% cv. pfd. (acquired 6/23/15, cost \$2,416) (Private) † ΔΔ F	440	2,174
Oportun Financial Corp. Ser. F, 8.00% cv. pfd. (acquired 6/23/15, cost \$7,296) (Private) † ΔΔ F	950	6,566
Oportun Financial Corp. Ser. F-1, 8.00% cv. pfd. (acquired 6/23/15, cost \$20,463) (Private) † ΔΔ F	7,180	18,417
Oportun Financial Corp. Ser. G, 8.00% cv. pfd. (acquired 6/23/15, cost \$25,875) (Private) † ΔΔ F	9,079	23,288
Oportun Financial Corp. Ser. H, 8.00% cv. pfd. (acquired 2/6/15, cost \$39,489) (Private) † ΔΔ F	13,869	35,540
<b>Total convertible preferred stocks (cost \$104,155)</b>		<b>\$93,739</b>

<b>PURCHASED OPTIONS OUTSTANDING (—%)*</b>	<b>Expiration date/strike price</b>	<b>Contract amount</b>	<b>Value</b>
SPDR S&P 500 ETF Trust (Put)	Feb-17/\$200.00	\$37,310	\$18,846
<b>Total purchased options outstanding (cost \$90,290)</b>			<b>\$18,846</b>
<b>SHORT-TERM INVESTMENTS (2.9%)*</b>		<b>Shares</b>	<b>Value</b>
Putnam Cash Collateral Pool, LLC 0.91% <sup>d</sup>		469,250	\$469,250
Putnam Short Term Investment Fund 0.69% <sup>L</sup>		771,330	771,330
State Street Institutional U.S. Government Money Market Fund, Premier Class 0.42% <sup>P</sup>		110,000	110,000
<b>Total short-term investments (cost \$1,350,580)</b>			<b>\$1,350,580</b>
<b>Total investments (cost \$42,062,151)</b>			<b>\$47,116,074</b>

#### Key to holding's abbreviations

ADR	American Depository Receipts: represents ownership of foreign securities on deposit with a custodian bank
ETF	Exchange Traded Fund
OTC	Over-the-counter
SPDR	S&P Depository Receipts

#### 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, 2016 through December 31, 2016 (the reporting period). Within the following notes to the portfolio, references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures* and references to "OTC", if any, represent over-the-counter.

#### FORWARD CURRENCY CONTRACTS at 12/31/16 (aggregate face value \$2,831,595)

<b>Counterparty</b>	<b>Currency</b>	<b>Contract type</b>	<b>Delivery date</b>	<b>Value</b>	<b>Aggregate face value</b>	<b>Unrealized appreciation/ (depreciation)</b>
<b>Bank of America N.A.</b>						
	British Pound	Sell	3/16/17	\$127,407	\$126,348	\$(1,059)
	Canadian Dollar	Sell	1/18/17	4,321	4,420	99
<b>Citibank, N.A.</b>						
	Euro	Sell	3/16/17	911,023	918,310	7,287
<b>Goldman Sachs International</b>						
	Japanese Yen	Sell	2/16/17	322,076	342,546	20,470
<b>JPMorgan Chase Bank N.A.</b>						
	British Pound	Sell	3/16/17	433,827	445,799	11,972
	Canadian Dollar	Sell	1/18/17	709,183	722,714	13,531
	Norwegian Krone	Buy	3/16/17	1,170	1,201	(31)
	Swiss Franc	Sell	3/16/17	127,049	128,381	1,332
<b>State Street Bank and Trust Co.</b>						
	Israeli Shekel	Sell	1/18/17	138,332	141,876	3,544
<b>Total</b>						<b>\$57,145</b>

<b>WRITTEN OPTIONS OUTSTANDING at 12/31/16 (premiums \$67,158)</b>	<b>Expiration date/strike price</b>	<b>Contract amount</b>	<b>Value</b>
SPDR S&P 500 ETF Trust (Put)	Feb-17/\$195.00	\$37,310	\$12,688
<b>Total</b>			<b>\$12,688</b>

#### OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 12/31/16

<b>Swap counterparty/ Notional amount</b>	<b>Upfront premium received (paid)</b>	<b>Termination date</b>	<b>Payments received (paid) by fund per annum</b>	<b>Total return received by or paid by fund</b>	<b>Unrealized appreciation/ (depreciation)</b>
<b>Goldman Sachs International</b>					
units	156	\$—	12/15/20	1 month USD-LIBOR-BBA minus 0.58%	Russell 2000 Total Return Index
<b>Total</b>					<b>\$6,088</b>

\* Percentages indicated are based on net assets of \$46,399,167.

† This security is non-income-producing.

ΔΔ This security is restricted with regard to public resale. The total fair value of this security and any other restricted securities (excluding 144A securities), if any, held at the close of the reporting period was \$141,474, or 0.3% of net assets.

<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 may be classified as Level 2 or 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 (Note 1).

<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 \$1,303 to cover certain derivative contracts.

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*:			
Consumer discretionary	\$5,287,441	\$—	\$25,935
Consumer staples	4,602,199	—	—
Energy	3,410,861	302,854	—
Financials	6,648,343	231,934	21,800
Health care	5,507,517	—	—
Industrials	3,220,591	1,041,911	—
Information technology	9,529,501	141,976	—
Materials	1,386,009	281,881	—
Real Estate	1,471,568	—	—
Telecommunication services	1,101,097	—	—
Utilities	1,439,491	—	—
<b>Total common stocks</b>	<b>43,604,618</b>	<b>2,000,556</b>	<b>47,735</b>
Convertible preferred stocks	—	—	93,739
Purchased options outstanding	—	18,846	—
Short-term investments	881,330	469,250	—
<b>Totals by level</b>	<b>\$44,485,948</b>	<b>\$2,488,652</b>	<b>\$141,474</b>

Other financial instruments:	Valuation inputs		
	Level 1	Level 2	Level 3
Forward currency contracts	\$—	\$57,145	\$—
Written options outstanding	—	(12,688)	—
Total return swap contracts	—	6,088	—
<b>Totals by level</b>	<b>\$—</b>	<b>\$50,545</b>	<b>\$—</b>

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

During the reporting period, transfers within the fair value hierarchy, if any (other than certain transfers involving non-U.S. equity securities as described in Note 1), did not represent, in the aggregate, more than 1% of the fund's net assets measured as of the end of the period. Transfers are accounted for using the end of period pricing valuation method.

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

12/31/16

## Assets

Investment in securities, at value, including \$459,434 of securities on loan (Note 1):	
Unaffiliated issuers (identified cost \$40,821,571)	\$45,875,494
Affiliated issuers (identified cost \$1,240,580) (Notes 1 and 5)	1,240,580
Foreign currency (cost \$605) (Note 1)	605
Dividends, interest and other receivables	77,645
Receivable for shares of the fund sold	7,655
Receivable for investments sold	49,400
Unrealized appreciation on forward currency contracts (Note 1)	58,235
Unrealized appreciation on OTC swap contracts (Note 1)	6,088
<b>Total assets</b>	<b>47,315,702</b>

## Liabilities

Payable for investments purchased	14,012
Payable for shares of the fund repurchased	143,214
Payable for compensation of Manager (Note 2)	22,097
Payable for custodian fees (Note 2)	17,633
Payable for investor servicing fees (Note 2)	7,629
Payable for Trustee compensation and expenses (Note 2)	63,994
Payable for administrative services (Note 2)	480
Payable for distribution fees (Note 2)	5,529
Unrealized depreciation on forward currency contracts (Note 1)	1,090
Written options outstanding, at value (premiums \$67,158) (Notes 1 and 3)	12,688
Collateral on securities loaned, at value (Note 1)	469,250
Collateral on certain derivative contracts, at value (Note 1)	110,000
Other accrued expenses	48,919
<b>Total liabilities</b>	<b>916,535</b>
<b>Net assets</b>	<b>\$46,399,167</b>

## Represented by

Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$50,613,687
Undistributed net investment income (Note 1)	217,892
Accumulated net realized loss on investments and foreign currency transactions (Note 1)	(9,604,018)
Net unrealized appreciation of investments and assets and liabilities in foreign currencies	5,171,606
<b>Total — Representing net assets applicable to capital shares outstanding</b>	<b>\$46,399,167</b>

## Computation of net asset value Class IA

Net assets	\$20,597,325
Number of shares outstanding	941,681
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$21.87

## Computation of net asset value Class IB

Net assets	\$25,801,842
Number of shares outstanding	1,181,829
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$21.83

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

## Statement of operations

Year ended 12/31/16

### Investment income

Dividends (net of foreign tax of \$4,523)	\$863,800
Interest (including interest income of \$5,494 from investments in affiliated issuers) (Note 5)	5,886
Securities lending (net of expenses) (Notes 1 and 5)	8,459
<b>Total investment income</b>	<b>878,145</b>

### Expenses

Compensation of Manager (Note 2)	254,574
Investor servicing fees (Note 2)	32,042
Custodian fees (Note 2)	23,845
Trustee compensation and expenses (Note 2)	3,576
Distribution fees (Note 2)	64,386
Administrative services (Note 2)	1,352
Auditing and tax fees	35,265
Other	26,921
Fees waived and reimbursed by Manager (Note 2)	(644)
<b>Total expenses</b>	<b>441,317</b>

Expense reduction (Note 2) (2,461)

**Net expenses** **438,856**

**Net investment income** **439,289**

Net realized gain on investments (Notes 1 and 3) 1,868,883

Net realized loss on swap contracts (Note 1) (217,290)

Net realized gain on foreign currency transactions (Note 1) 99,499

Net realized gain on written options (Notes 1 and 3) 99,002

Net unrealized appreciation of assets and liabilities in foreign currencies during the year 25,000

Net unrealized appreciation of investments, swap contracts and written options during the year 2,110,374

**Net gain on investments** **3,985,468**

**Net increase in net assets resulting from operations** **\$4,424,757**

## Statement of changes in net assets

	Year ended 12/31/16	Year ended 12/31/15
<b>Decrease in net assets</b>		
<b>Operations</b>		
Net investment income	\$439,289	\$437,281
Net realized gain on investments and foreign currency transactions	1,850,094	4,934,658
Net unrealized appreciation (depreciation) of investments and assets and liabilities in foreign currencies	2,135,374	(5,960,657)
<b>Net increase (decrease) in net assets resulting from operations</b>	<b>4,424,757</b>	<b>(588,718)</b>
Distributions to shareholders (Note 1):		
From ordinary income		
Net investment income		
Class IA	(364,775)	(354,687)
Class IB	(399,283)	(382,705)
Decrease from capital share transactions (Note 4)	(4,894,321)	(6,771,754)
<b>Total decrease in net assets</b>	<b>(1,233,622)</b>	<b>(8,097,864)</b>
<b>Net assets</b>		
Beginning of year	47,632,789	55,730,653
<b>End of year</b> (including undistributed net investment income of \$217,892 and \$698,993, respectively)	<b>\$46,399,167</b>	<b>\$47,632,789</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	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>b,d</sup>	Ratio of net investment income (loss) to average net assets (%)	Portfolio turnover (%)
<b>Class IA</b>												
12/31/16	\$20.19	.22	1.83	2.05	(.37)	(.37)	\$21.87	10.32	\$20,597	.82 <sup>e</sup>	1.10 <sup>e</sup>	80
12/31/15	20.76	.20	(.45)	(.25)	(.32)	(.32)	20.19	(1.29)	20,684	.81	.98	90
12/31/14	18.22	.21	2.53	2.74	(.20)	(.20)	20.76	15.17	24,359	.83	1.11	94
12/31/13	13.83	.17	4.43	4.60	(.21)	(.21)	18.22	33.60	25,321	.82	1.08	90
12/31/12	11.84	.19	1.97	2.16	(.17)	(.17)	13.83	18.28	23,099	.85	1.42	89
<b>Class IB</b>												
12/31/16	\$20.15	.17	1.82	1.99	(.31)	(.31)	\$21.83	10.03	\$25,802	1.07 <sup>e</sup>	.85 <sup>e</sup>	80
12/31/15	20.71	.15	(.45)	(.30)	(.26)	(.26)	20.15	(1.50)	26,949	1.06	.73	90
12/31/14	18.18	.17	2.51	2.68	(.15)	(.15)	20.71	14.86	31,372	1.08	.87	94
12/31/13	13.79	.13	4.43	4.56	(.17)	(.17)	18.18	33.36	32,988	1.07	.83	90
12/31/12	11.81	.15	1.96	2.11	(.13)	(.13)	13.79	17.92	30,009	1.10	1.16	89

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

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

<sup>d</sup> Includes amounts paid through expense offset and/or 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 (Note 2).

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

## Notes to financial statements 12/31/16

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, 2016 through December 31, 2016.

Putnam VT Research 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 (growth or value stocks or both) of large U.S. companies that Putnam Management believes have favorable investment potential. For example, the fund may purchase stocks of companies with stock prices that reflect a value lower than that which Putnam Management places on the company. Putnam Management may also consider other factors that Putnam Management believes will cause the stock price to rise and 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 Declaration of Trust, any claims asserted against or on behalf of the Putnam Funds, including claims against Trustees and Officers, must be brought in state and federal courts located within the Commonwealth of Massachusetts.

### Note 1 — Significant accounting policies

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

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

**Security valuation** Portfolio securities and other investments are valued using policies and procedures adopted by the Board of Trustees. The Trustees have formed a Pricing Committee to oversee the implementation of these procedures and have delegated responsibility for valuing the fund’s assets in accordance with these procedures to Putnam Management. Putnam Management has established an internal Valuation Committee that is responsible for making fair value

determinations, evaluating the effectiveness of the pricing policies of the fund and reporting to the Pricing Committee.

Investments for which market quotations are readily available are valued at the last reported sales price on their principal exchange, or official closing price for certain markets, and are classified as Level 1 securities under Accounting Standards Codification 820 *Fair Value Measurements and Disclosures* (ASC 820). If no sales are reported, as in the case of some securities that are traded OTC, a security is valued at its last reported bid price and is generally categorized as a Level 2 security.

Investments in open-end investment companies (excluding exchange-traded funds), if any, which can be classified as Level 1 or Level 2 securities, are valued based on their net asset value. The net asset value of such investment companies equals the total value of their assets less their liabilities and divided by the number of their outstanding shares.

Many securities markets and exchanges outside the U.S. close prior to the scheduled close of the New York Stock Exchange and therefore the closing prices for securities in such markets or on such exchanges may not fully reflect events that occur after such close but before the scheduled close of the New York Stock Exchange. Accordingly, on certain days, the fund will fair value certain foreign equity securities taking into account multiple factors including movements in the U.S. securities markets, currency valuations and comparisons to the valuation of American Depository Receipts, exchange-traded funds and futures contracts. The foreign equity securities, which would generally be classified as Level 1 securities, will be transferred to Level 2 of the fair value hierarchy when they are valued at fair value. The number of days on which fair value prices will be used will depend on market activity and it is possible that fair value prices will be used by the fund to a significant extent. At the close of the reporting period, fair value pricing was used for certain foreign securities in the portfolio. Securities quoted in foreign currencies, if any, are translated into U.S. dollars at the current exchange rate. Short-term securities with remaining maturities of 60 days or less are valued using an independent pricing service approved by the Trustees, and are classified as Level 2 securities.

To the extent a pricing service or dealer is unable to value a security or provides a valuation that Putnam Management does not believe accurately reflects the security’s fair value, the security will be valued at fair value by Putnam Management in accordance with policies and procedures approved by the Trustees. Certain investments, including certain restricted and illiquid securities and derivatives, are also valued at fair value following procedures approved by the Trustees. These valuations consider such factors as significant market or specific security events such as interest rate or credit quality changes, various relationships with other securities, discount rates, U.S. Treasury, U.S. swap and credit yields, index levels, convexity exposures, recovery rates, sales and other multiples and resale restrictions. These securities are classified as Level 2 or as Level 3 depending on the priority of the significant inputs.

To assess the continuing appropriateness of fair valuations, the Valuation Committee reviews and affirms the reasonableness of such valuations on a regular basis after considering all relevant information that is reasonably available. Such valuations and procedures are reviewed periodically by the Trustees. The fair value of securities is generally determined as the amount that the fund could reasonably expect to realize from an orderly disposition of such securities over a reasonable period of time. By its nature, a fair value price is a good faith estimate of the value of a security in a current sale and does not reflect an actual market price, which may be different by a material amount.

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

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

**Foreign currency translation** The accounting records of the fund are maintained in U.S. dollars. The fair value of foreign securities, currency holdings, and other assets and liabilities is recorded in the books and records of the fund after translation to U.S. dollars based on the exchange rates on that day. The cost of

each security is determined using historical exchange rates. Income and withholding taxes are translated at prevailing exchange rates when earned or incurred. The fund does not isolate that portion of realized or unrealized gains or losses resulting from changes in the foreign exchange rate on investments from fluctuations arising from changes in the market prices of the securities. Such gains and losses are included with the net realized and unrealized gain or loss on investments. Net realized gains and losses on foreign currency transactions represent net realized exchange gains or losses on closed forward currency contracts, 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 open forward currency contracts and 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 hedge against changes in values of securities it owns, owned or expects to own 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.

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

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

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

**Total return swap contracts** The fund entered into OTC total return swap contracts, which are arrangements to exchange a market-linked return for a periodic payment, both based on a notional principal amount, to gain exposure to a basket of securities.

To the extent that the total return of the security, index or other financial measure underlying the transaction exceeds or falls short of the offsetting interest rate obligation, the fund will receive a payment from or make a payment to the counterparty. OTC total return swap contracts are marked to market daily based upon quotations from an independent pricing service or market makers and the change, if any, is recorded as an unrealized gain or loss. Payments received or made are recorded as realized gains or losses. Certain OTC total return swap contracts may

include extended effective dates. Payments related to these swap contracts are accrued based on the terms of the contract. The fund could be exposed to credit or market risk due to unfavorable changes in the fluctuation of interest rates or in the price of the underlying security or index, the possibility that there is no liquid market for these agreements or that the counterparty may default on its obligation to perform. The fund's maximum risk of loss from counterparty risk is the fair value of the contract. This risk may be mitigated by having a master netting arrangement between the fund and the counterparty. Risk of loss may exceed amounts recognized on the Statement of assets and liabilities.

OTC total return swap contracts outstanding, including their respective notional amounts 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 \$960 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 \$469,250 and the value of securities loaned amounted to \$459,434.

**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 the higher of (1) the Federal Funds rate and (2) the overnight LIBOR plus 1.25% 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 plus a \$25,000 flat fee 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.

At December 31, 2016, the fund had a capital loss carryover of \$9,470,861 available to the extent allowed by the Code to offset future net capital gain, if any. For any carryover, the amount of the carryover and that carryover's expiration date is:

Loss carryover			
Short-term	Long-term	Total	Expiration
\$9,470,861	N/A	\$9,470,861	12/31/17

Under the Regulated Investment Company Modernization Act of 2010, the fund will be permitted to carry forward capital losses incurred in taxable years beginning after December 22, 2010 for an unlimited period. However, any losses incurred will be required to be utilized prior to the losses incurred in pre-enactment tax years. As a result of this ordering rule, pre-enactment capital loss carryforwards may be more likely to expire unused. Additionally, post-enactment capital losses that are carried forward will retain their character as either short-term or long-term capital losses rather than being considered all short-term as under previous law.

**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, from foreign currency gains and losses, from income on swap contracts, from partnership income and from corporate action adjustments to basis and 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 \$156,332 to decrease undistributed net investment income, \$632 to decrease paid-in capital and \$156,964 to decrease accumulated net realized loss.

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	\$6,636,440
Unrealized depreciation	(1,714,984)
Net unrealized appreciation	4,921,456
Undistributed ordinary income	281,124
Capital loss carryforward	(9,470,861)
Cost for federal income tax purposes	\$42,194,618

**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 45.3% of the fund is owned by accounts of one insurance company.

## Note 2 — Management fee, administrative services and other transactions

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

0.710%	of the first \$5 billion,
0.660%	of the next \$5 billion,
0.610%	of the next \$10 billion,
0.560%	of the next \$10 billion,
0.510%	of the next \$50 billion,
0.490%	of the next \$50 billion,
0.480%	of the next \$100 billion and
0.475%	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 0.556% of the fund's average net assets.

Putnam Management has contractually agreed, through April 30, 2018, to waive fees or reimburse the fund's expenses to the extent necessary to limit the cumulative expenses of the fund, exclusive of brokerage, interest, taxes, investment-related expenses, extraordinary expenses, acquired fund fees and expenses and payments under the fund's investor servicing contract, investment management contract and distribution plans, on a fiscal year-to-date basis to an annual rate of 0.20% of the fund's average net assets over such fiscal year-to-date period. During the reporting period, the fund's expenses were not reduced as a result of this limit.

Putnam Management may from time to time voluntarily undertake to waive fees and/or reimburse certain fund expenses. Any such waiver or reimbursement would be voluntary and may be modified or discontinued by Putnam Management at any time without notice. For the reporting period, Putnam Management voluntarily waived \$644.

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

The Putnam Advisory Company, LLC (PAC), an affiliate of Putnam Management, is authorized by the Trustees to manage a separate portion of the assets of the fund, as designated from time to time by Putnam Management or PIL. PAC did not manage any portion of the assets of the fund during the reporting period. If Putnam Management or PIL were to engage the services of PAC, Putnam Management or PIL, as applicable, would pay a quarterly sub-advisory fee to PAC for its services at the annual rate of 0.35% of the average net assets of the portion of the fund's assets for which PAC is engaged as sub-adviser.

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

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

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

Class IA	\$14,019
Class IB	18,023
Total	\$32,042

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 \$8 under the expense offset arrangements and by \$2,453 under the brokerage/service arrangements.

Each Independent Trustee of the fund receives an annual Trustee fee, of which \$36, 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 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 12/31/16		Year ended 12/31/15		Year ended 12/31/16		Year ended 12/31/15	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	43,639	\$876,756	18,514	\$384,487	27,926	\$562,736	22,471	\$459,583
Shares issued in connection with reinvestment of distributions	18,451	364,775	16,874	354,687	20,196	399,283	18,207	382,705
	62,090	1,241,531	35,388	739,174	48,122	962,019	40,678	842,288
Shares repurchased	(144,907)	(2,937,439)	(184,439)	(3,834,779)	(204,006)	(4,160,432)	(217,743)	(4,518,437)
<b>Net decrease</b>	<b>(82,817)</b>	<b>\$(1,695,908)</b>	<b>(149,051)</b>	<b>\$(3,095,605)</b>	<b>(155,884)</b>	<b>\$(3,198,413)</b>	<b>(177,065)</b>	<b>\$(3,676,149)</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 at the beginning of the reporting period	Purchase cost	Sale proceeds	Investment income	Fair value at the end of the reporting period
Putnam Cash Collateral Pool, LLC *	\$1,266,075	\$9,505,529	\$10,302,354	\$5,257	\$469,250
Putnam Short Term Investment Fund ***	1,155,850	9,651,305	10,035,825	5,494	771,330
<b>Totals</b>	<b>\$2,421,925</b>	<b>\$19,156,834</b>	<b>\$20,338,179</b>	<b>\$10,751</b>	<b>\$1,240,580</b>

\*No management fees are charged to Putnam Cash Collateral Pool, LLC (See Note 1).

\*\*\*Management fees charged to Putnam Short Term Investment Fund have been waived by Putnam Management.

#### 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)	\$35,868,938	\$40,641,651
U.S. government securities (Long-term)	—	—
<b>Total</b>	<b>\$35,868,938</b>	<b>\$40,641,651</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.

Written option transactions during the reporting period are summarized as follows:

	Written option contract amounts	Written option premiums
Written options outstanding at the beginning of the reporting period	\$38,540	\$79,778
Options opened	101,041	204,869
Options exercised	—	—
Options expired	(63,731)	(137,711)
Options closed	(38,540)	(79,778)
Written options outstanding at the end of the reporting period	\$37,310	\$67,158

**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)	\$26,000
Written equity option contracts (contract amount) (Note 3)	\$26,000
Forward currency contracts (contract amount)	\$4,600,000
OTC total return swap contracts (notional)	\$950,000

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
Foreign exchange contracts	Receivables	\$58,235	Payables	\$1,090
Equity contracts	Investments, Receivables	24,934	Payables	12,688
<b>Total</b>		<b>\$83,169</b>		<b>\$13,778</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 (see 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	Forward currency contracts		Swaps	Total
	Options			
Foreign exchange contracts	\$—	\$96,875	\$—	\$96,875
Equity contracts	5,226	—	(217,290)	\$(212,064)
<b>Total</b>	<b>\$5,226</b>	<b>\$96,875</b>	<b>\$(217,290)</b>	<b>\$(115,189)</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	Forward currency contracts		Swaps	Total
	Options			
Foreign exchange contracts	\$—	\$25,011	\$—	\$25,011
Equity contracts	(11,305)	—	27,398	\$16,093
<b>Total</b>	<b>\$(11,305)</b>	<b>\$25,011</b>	<b>\$27,398</b>	<b>\$41,104</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.	Citibank, N.A.	Goldman Sachs International	JPMorgan Chase Bank N.A.	State Street Bank and Trust Co.	Total
<b>Assets:</b>						
OTC Total return swap contracts**	\$—	\$—	\$6,088	\$—	\$—	\$6,088
Forward currency contracts#	99	7,287	20,470	26,835	3,544	58,235
Purchased options***	—	—	18,846	—	—	18,846
<b>Total Assets</b>	<b>\$99</b>	<b>\$7,287</b>	<b>\$45,404</b>	<b>\$26,835</b>	<b>\$3,544</b>	<b>\$83,169</b>
<b>Liabilities:</b>						
OTC Total return swap contracts**	\$—	\$—	\$—	\$—	\$—	\$—
Forward currency contracts#	1,059	—	—	31	—	1,090
Written options#	—	—	12,688	—	—	12,688
<b>Total Liabilities</b>	<b>\$1,059</b>	<b>\$—</b>	<b>\$12,688</b>	<b>\$31</b>	<b>\$—</b>	<b>\$13,778</b>
<b>Total Financial and Derivative Net Assets</b>	<b>\$(960)</b>	<b>\$7,287</b>	<b>\$32,716</b>	<b>\$26,804</b>	<b>\$3,544</b>	<b>\$69,391</b>
Total collateral received (pledged)†##	\$—	\$—	\$—	\$26,804	\$—	
Net amount	\$(960)	\$7,287	\$32,716	\$—	\$3,544	

\* Excludes premiums, if any. Included in unrealized appreciation and depreciation on OTC swap contracts on the Statement of assets and liabilities.

\*\* Included with Investments in securities on the Statement of assets and liabilities.

† Additional collateral may be required from certain brokers based on individual agreements.

# Covered by master netting agreement (Note 1).

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






### Note 9 — New pronouncements




In October 2016, the SEC adopted amendments to rules under the Investment Company Act of 1940 (“final rules”) intended to modernize the reporting and disclosure of information by registered investment companies. The final rules amend Regulation S-X and require funds to provide standardized, enhanced derivative disclosure in fund financial statements in a format designed for individual investors. The amendments to Regulation S-X also update the disclosures for other investments and investments in and advances to affiliates and amend the rules regarding the general form and content of fund financial statements. The compliance date for the amendments to Regulation S-X is August 1, 2017. Putnam Management is currently evaluating the amendments and their impact, if any, on the fund’s financial statements.

### Federal tax information (Unaudited)


The fund designated 83.26% 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>LiaquatAhamed</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> . Director of Aspen Insurance Co., a New York Stock Exchange company, and Chair of the Aspen Board's Investment Committee. 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 American India Foundation and of the Rubin Museum. From 1992 to 2007, was Chairman and CEO of MacKay Shields, a multi-product investment management firm.	RAGE Frameworks, Inc., a private software company; 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 Board member of The Denver Foundation. Former Chair and current Board member of Girls Incorporated of Metro Denver. 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>Jameson A. Baxter</b> Born 1943 Trustee since 1994, Vice Chair from 2005 to 2011, and Chair since 2011	President of Baxter Associates, Inc., a private investment firm. Chair of Mutual Fund Directors Forum. Chair Emeritus of the Board of Trustees of Mount Holyoke College. Director of the Adirondack Land Trust and Trustee of the Nature Conservancy's Adirondack Chapter.	None	
<b>Robert J. Darretta</b> Born 1946 Trustee since 2007	From 2009 until 2012, served as Health Care Industry Advisor to Permira, a global private equity firm. Until April 2007, was Vice Chairman of the Board of Directors of Johnson & Johnson. Served as Johnson & Johnson's Chief Financial Officer for a decade.	UnitedHealth Group, a diversified health-care 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.	Reach Out and Read of Greater New York, an organization dedicated to promoting childhood literacy; Great Lakes Science Center; College Now Greater Cleveland	
<b>John A. Hill</b> Born 1942 Trustee since 1985 and Chairman from 2000 to 2011	Founder and Vice-Chairman of First Reserve Corporation, the leading private equity buyout firm focused on the worldwide energy industry. Trustee and Chairman of the Board of Trustees of Sarah Lawrence College. Member of the Advisory Board of the Millstein Center for Global Markets and Corporate Ownership at The Columbia University Law School.	None	
<b>Paul L. Joskow</b> Born 1947 Trustee since 1997	Economist and President of the Alfred P. Sloan Foundation, a philanthropic institution focused primarily on research and education on issues related to science, technology, and economic performance. Elizabeth and James Killian Professor of Economics, Emeritus at the Massachusetts Institute of Technology (MIT). Prior to 2007, served as the Director of the Center for Energy and Environmental Policy Research at MIT.	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 and Vice Chair since 2016	Founder and former Chairman of Boston Options Exchange, an electronic marketplace for the trading of derivative securities. Vice Chairman Emeritus of the Board of Trustees of Beth Israel Deaconess Hospital in Boston, Massachusetts. 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	

Name Year of birth Position held	Principal occupations during past five years	Other directorships	
<b>Robert E. Patterson</b> Born 1945 Trustee since 1984	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	
<b>W. Thomas Stephens</b> Born 1942 Trustee from 1997 to 2008 and since 2009	Retired as Chairman and Chief Executive Officer of Boise Cascade, LLC, a paper, forest products, and timberland assets company, in December 2008. Prior to 2010, Director of Boise Inc., a manufacturer of paper and packaging products.	Prior to April 2014, served as Director of TransCanada Pipelines Ltd., an energy infrastructure 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	
--	---	------	---

\*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 One Post Office Square, Boston, MA 02109.

As of December 31, 2016, there were 114 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  
Director of Fund Administration Services, Putnam Investments and Putnam Management

**Susan G. Malloy** (Born 1957)  
Vice President and Assistant Treasurer  
Since 2007  
Director of Accounting & 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 Associate Treasurer  
Since 2000

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 One Post Office Square, Boston, MA 02109.

## 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, 2016, 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. In addition, the fund's Form N-Q may be reviewed and copied at the SEC's Public Reference Room in Washington, D.C. You may call the SEC at 1-800-SEC-0330 for information about the SEC's website or the operation of the Public Reference Room.

## Fund information

### Investment Manager

Putnam Investment Management, LLC  
One Post Office Square  
Boston, MA 02109

### Investment Sub-Advisors

Putnam Investments Limited  
57-59 St James's Street  
London, England SW1A 1LD

The Putnam Advisory Company, LLC

One Post Office Square  
Boston, MA 02109

### Marketing Services

Putnam Retail Management  
One Post Office Square  
Boston, MA 02109

### Investor Servicing Agent

Putnam Investor Services, Inc.  
Mailing address:  
P.O. Box 8383  
Boston, MA 02266-8383  
1-800-225-1581

### Custodian

State Street Bank and Trust Company

### Legal Counsel

Ropes & Gray LLP

### Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP

### Trustees

Jameson A. Baxter, *Chair*  
Kenneth R. Leibler, *Vice Chair*  
Liaquat Ahamed  
Ravi Akhoury  
Barbara M. Baumann  
Robert J. Darretta  
Katinka Domotorffy  
John A. Hill  
Paul L. Joskow  
Robert E. Patterson  
George Putnam, III  
Robert L. Reynolds  
W. Thomas Stephens

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.

