

A world of investing.®



# Putnam Variable Trust

## **Putnam VT Research Fund**

**Annual report**

**12 | 31 | 20**

# Message from the Trustees

February 8, 2021

Dear Shareholder:

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

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

As always, thank you for investing with Putnam.

Respectfully yours,



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



**Kenneth R. Leibler**  
Chair, Board of Trustees

## Performance summary (as of 12/31/20)

### Investment objective

Capital appreciation

**Net asset value** December 31, 2020

Class IA: \$30.80

Class IB: \$30.66

### Total return at net asset value

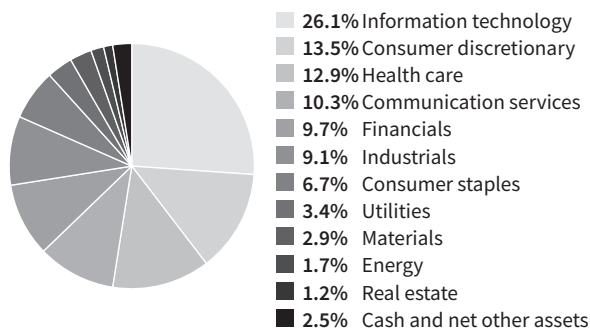
(as of 12/31/20)*	Class IA shares†	Class IB shares†	S&P 500 Index
1 year	20.23%	19.92%	18.40%
5 years	109.29	106.61	103.04
Annualized	15.92	15.62	15.22
10 years	270.67	261.19	267.00
Annualized	14.00	13.70	13.88
Life	441.61	413.50	463.58
Annualized	7.89	7.63	8.08

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.

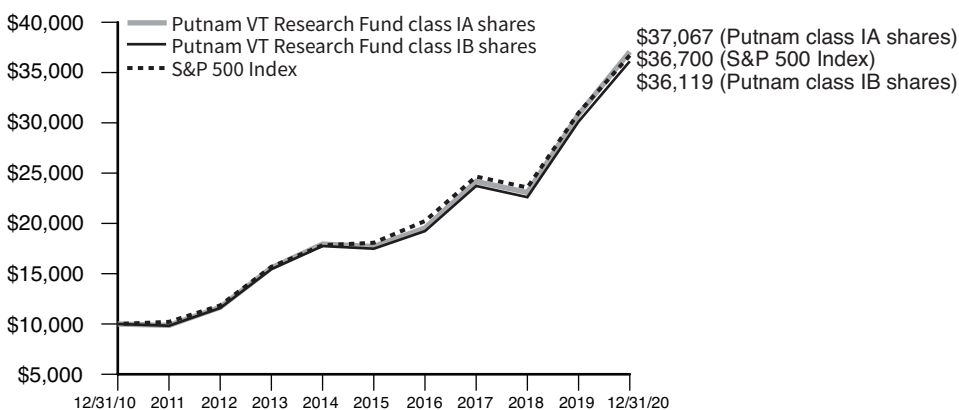
† Class inception date: September 30, 1998.

### 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.

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



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.**

## Report from your fund's managers

### Can you describe the investing environment for the 12-month reporting period ended December 31, 2020?

After a relatively calm start to 2020, the COVID-19 pandemic sent shockwaves across financial markets. In March, global shutdowns and stay-at-home orders fueled historic levels of stock market volatility. A collapse in oil prices further rattled investors. Major stock indexes tumbled to record lows in the month of March.

Massive amounts of fiscal and monetary support from governments and central banks worldwide helped boost investor confidence. The U.S. Federal Reserve slashed interest rates to near zero, and the U.S. Congress approved \$2 trillion in emergency relief — the largest stimulus package in its history. As new cases of COVID-19 began to taper off in the spring, the United States, China, Europe, and other countries began to reopen their economies. An uptick in consumer spending, equipment investment, and exports and imports helped restart global growth. The promise of a COVID-19 vaccine and additional government support contributed to stock market rallies through August.

In September, a highly contagious strain of COVID-19 was discovered in the United Kingdom, and Europe went into lockdown. Bouts of market volatility returned through October. In November, stocks were lifted when Joe Biden was declared U.S. President-elect. In December, stocks moved even higher as the world's first COVID-19 vaccine began distribution and a \$900 billion federal stimulus bill was passed in Washington.

### How did Putnam VT Research Fund perform against this backdrop?

For the 12-month period, the fund's class IA shares posted a return of 20.23%, outperforming the benchmark S&P 500 Index, which returned 18.40%.

### What were some holdings that helped fund performance relative to the benchmark?

An overweight position in Activision Blizzard, the U.S. video gaming company, was the portfolio's top contributor. Sales of Activision's multiplayer virtual games soared as consumers sought at-home entertainment while under lockdown. An overweight position in Nvidia, a California-based semiconductor chip designer serving the artificial intelligence, gaming, and cloud computing industries, also benefited the fund. A number of positive developments, including strategic M&A activity, strong quarterly earnings, and a successful new product launch helped boost Nvidia's value. We sold our position in Nvidia at a profit during the period. An out-of-benchmark position in NXP Semiconductors N.V., a Dutch American semiconductor company, also aided results. NXP benefited from a rebound in demand for its core business, which contributed to higher-than-expected operating profits in the third quarter of 2020.

### What were some holdings that detracted from fund performance relative to the benchmark?

An underweight position in technology giant Apple, which performed well over the period, was the fund's top detractor. Certain

energy holdings also dampened results. London-based oil and gas conglomerate BP and Canadian oil sands producer Cenovus Energy faced significant pandemic-related demand disruptions during the period. Combined with the temporary collapse in oil prices, these energy companies struggled with lower earnings over the period. We sold our position in BP at a loss before period-end.

### As the fund begins a new fiscal year, what is your outlook?

The pandemic has created long-term structural changes to the economy, in our view. Business workflows, human communication, and consumer-purchasing trends have continued to change. As companies adapt to the post-pandemic environment, we expect new investment opportunities to unfold. We expect to continue to favor investments in high-quality companies that we believe have solid fundamentals and can appreciate over the long term. Putnam VT Research Fund represents the top stock picks from our team of analysts. Our focus on individual stock selection and active management continue to add value to the portfolio, in our view.

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

**Consider these risks before investing:** Growth stocks may be more susceptible to earnings disappointments, and value stocks may fail to rebound. The value of investments in the fund's portfolio may fall or fail to rise over extended periods of time for a variety of reasons, including general economic, political, or financial market conditions; investor sentiment and market perceptions; government actions; geopolitical events or changes; and factors related to a specific issuer, geography, industry, or sector. These and other factors may lead to increased volatility and reduced liquidity in the fund's portfolio holdings. Our investment techniques, analyses, and judgments may not produce the outcome we intend. The investments we select for the fund may not perform as well as other securities that we do not select for the fund. We, or the fund's other service providers, may experience disruptions or operating errors that could have a negative effect on the fund. You can lose money by investing in the fund.

---

## Your fund's managers



Portfolio Manager **Kathryn B. Lakin** is Director of Equity Research. She joined Putnam in 2012 and has been in the investment industry since 2008.

Jacquelyne J. Cavanaugh; William C. Rives, CFA; Andrew N. O'Brien, CFA; and Walter D. Scully, CPA, are also Portfolio Managers of the fund.

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

## Understanding your fund's expenses

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

### Review your fund's expenses

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

### Compare your fund's expenses with those of other funds

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

### Expense ratios

	Class IA	Class IB
Total annual operating expenses for the fiscal year ended 12/31/19	0.78%	1.03%
Annualized expense ratio for the six-month period ended 12/31/20*	0.82%	1.07%

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 12/31/20		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 12/31/20	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$4.58	\$5.97	\$4.17	\$5.43
Ending value (after expenses)	\$1,221.70	\$1,220.10	\$1,021.01	\$1,019.76

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

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

## **Report of Independent Registered Public Accounting Firm**

To the Board of Trustees of Putnam Variable Trust and Shareholders of  
Putnam VT Research Fund:

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

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

### ***Basis for Opinion***

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

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

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

PricewaterhouseCoopers LLP  
Boston, Massachusetts  
February 8, 2021

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

## The fund's portfolio 12/31/20

<b>COMMON STOCKS (97.3%)*</b>	<b>Shares</b>	<b>Value</b>
<b>Aerospace and defense (1.7%)</b>		
Boeing Co. (The)	421	\$90,119
General Dynamics Corp.	972	144,653
Northrop Grumman Corp.	665	202,639
Raytheon Technologies Corp.	6,421	459,166
		<b>896,577</b>
<b>Air freight and logistics (0.2%)</b>		
FedEx Corp.	322	83,598
		<b>83,598</b>
<b>Airlines (0.3%)</b>		
Southwest Airlines Co.	3,608	168,169
		<b>168,169</b>
<b>Automobiles (1.9%)</b>		
Fisker, Inc. †	8,946	131,059
General Motors Co.	2,246	93,523
Tesla, Inc. †	1,100	776,237
		<b>1,000,819</b>
<b>Banks (1.7%)</b>		
Citigroup, Inc.	14,715	907,327
		<b>907,327</b>
<b>Beverages (2.4%)</b>		
Coca-Cola Co. (The)	7,241	397,096
Molson Coors Beverage Co. Class B	2,053	92,775
PepsiCo, Inc.	4,990	740,017
		<b>1,229,888</b>
<b>Biotechnology (2.5%)</b>		
AbbVie, Inc.	6,239	668,509
Alexion Pharmaceuticals, Inc. †	329	51,403
Amgen, Inc.	1,092	251,073
Biogen, Inc. †	685	167,729
Regeneron Pharmaceuticals, Inc. †	352	170,055
		<b>1,308,769</b>
<b>Building products (0.9%)</b>		
Fortune Brands Home & Security, Inc.	2,447	209,757
Johnson Controls International PLC	6,039	281,357
		<b>491,114</b>
<b>Capital markets (4.1%)</b>		
Charles Schwab Corp. (The)	6,082	322,589
Goldman Sachs Group, Inc. (The)	2,732	720,456
Intercontinental Exchange, Inc.	2,183	251,678
KKR & Co., Inc. Class A	8,356	338,334
Morgan Stanley	4,828	330,863
Quilter PLC (United Kingdom)	95,666	201,150
		<b>2,165,070</b>
<b>Chemicals (1.3%)</b>		
Albemarle Corp.	267	39,388
Corteva, Inc.	2,136	82,706
Dow, Inc.	1,980	109,890
DuPont de Nemours, Inc. <sup>S</sup>	823	58,524
Eastman Chemical Co.	658	65,984
Ecolab, Inc.	294	63,610
Sherwin-Williams Co. (The)	329	241,785
		<b>661,887</b>
<b>Construction materials (0.1%)</b>		
Summit Materials, Inc. Class A †	1,718	34,497
		<b>34,497</b>
<b>Containers and packaging (0.5%)</b>		
Avery Dennison Corp.	656	101,752
Ball Corp.	991	92,341
Packaging Corp. of America	389	53,647
		<b>247,740</b>

<b>COMMON STOCKS (97.3%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Diversified financial services (0.7%)</b>		
Berkshire Hathaway, Inc. Class B †	1,593	\$369,369
		<b>369,369</b>
<b>Electric utilities (3.0%)</b>		
Exelon Corp.	8,253	348,442
NextEra Energy, Inc.	5,480	422,782
NRG Energy, Inc.	17,992	675,600
Southern Co. (The)	2,303	141,473
		<b>1,588,297</b>
<b>Electrical equipment (1.2%)</b>		
Eaton Corp. PLC	3,330	400,066
Emerson Electric Co.	2,559	205,667
		<b>605,733</b>
<b>Electronic equipment, instruments, and components (0.4%)</b>		
Vontier Corp. †	6,602	220,507
		<b>220,507</b>
<b>Entertainment (2.5%)</b>		
Activision Blizzard, Inc.	9,571	888,667
Sea, Ltd. ADR (Thailand) †	1,978	393,721
		<b>1,282,388</b>
<b>Equity real estate investment trusts (REITs) (1.2%)</b>		
Boston Properties, Inc. <sup>R</sup>	1,088	102,849
Gaming and Leisure Properties, Inc. <sup>R</sup>	12,372	524,573
		<b>627,422</b>
<b>Food and staples retail (1.6%)</b>		
BJ's Wholesale Club Holdings, Inc. †	1,374	51,223
Costco Wholesale Corp.	608	229,082
Walmart, Inc.	3,858	556,131
		<b>836,436</b>
<b>Food products (0.5%)</b>		
Bunge, Ltd.	367	24,068
McCormick & Co., Inc. (non-voting shares)	2,366	226,190
		<b>250,258</b>
<b>Health-care equipment and supplies (3.7%)</b>		
Abbott Laboratories	3,278	358,908
Boston Scientific Corp. †	5,224	187,803
Cooper Cos., Inc. (The)	442	160,587
Danaher Corp.	1,520	337,653
DexCom, Inc. †	394	145,670
Edwards Lifesciences Corp. †	1,849	168,684
Medtronic PLC	3,147	368,640
Zimmer Biomet Holdings, Inc.	1,270	195,694
		<b>1,923,639</b>
<b>Health-care providers and services (2.1%)</b>		
Cigna Corp.	1,738	361,817
Humana, Inc.	288	118,158
UnitedHealth Group, Inc.	1,702	596,857
		<b>1,076,832</b>
<b>Hotels, restaurants, and leisure (1.5%)</b>		
Airbnb, Inc. Class A †	65	9,542
Aramark	3,041	117,018
Chipotle Mexican Grill, Inc. †	160	221,874
Hilton Worldwide Holdings, Inc.	2,044	227,415
Penn National Gaming, Inc. † <sup>S</sup>	1,374	118,672
Wynn Resorts, Ltd.	1,000	112,830
		<b>807,351</b>
<b>Household products (1.8%)</b>		
Procter & Gamble Co. (The)	6,851	953,248
		<b>953,248</b>
<b>Industrial conglomerates (1.0%)</b>		
General Electric Co.	12,397	133,888
Honeywell International, Inc.	1,820	387,114
		<b>521,002</b>

<b>COMMON STOCKS (97.3%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Insurance (2.9%)</b>		
AIA Group, Ltd. (Hong Kong)	11,200	\$137,958
American International Group, Inc.	10,152	384,355
Assured Guaranty, Ltd.	10,933	344,280
AXA SA (France)	12,224	293,264
Prudential PLC (United Kingdom)	20,126	371,490
		<b>1,531,347</b>
<b>Interactive media and services (5.2%)</b>		
Alphabet, Inc. Class A †	996	1,745,629
Facebook, Inc. Class A †	3,530	964,255
		<b>2,709,884</b>
<b>Internet and direct marketing retail (5.4%)</b>		
Amazon.com, Inc. †	763	2,485,038
Booking Holdings, Inc. †	147	327,409
		<b>2,812,447</b>
<b>IT Services (7.9%)</b>		
Fidelity National Information Services, Inc.	4,299	608,137
Fiserv, Inc. †	7,656	871,712
Mastercard, Inc. Class A	2,329	831,313
PayPal Holdings, Inc. †	4,544	1,064,205
Visa, Inc. Class A	3,401	743,901
		<b>4,119,268</b>
<b>Leisure products (0.3%)</b>		
Hasbro, Inc.	1,600	149,664
		<b>149,664</b>
<b>Life sciences tools and services (1.2%)</b>		
Avantor, Inc. †	5,428	152,798
Bio-Rad Laboratories, Inc. Class A †	268	156,228
Thermo Fisher Scientific, Inc.	659	306,949
		<b>615,975</b>
<b>Machinery (0.9%)</b>		
Deere & Co.	641	172,461
Otis Worldwide Corp.	3,310	223,591
Pentair PLC	1,409	74,804
		<b>470,856</b>
<b>Media (1.5%)</b>		
Charter Communications, Inc. Class A †	1,171	774,675
		<b>774,675</b>
<b>Metals and mining (1.0%)</b>		
Anglo American PLC (United Kingdom)	6,215	207,005
Freeport-McMoRan, Inc. (Indonesia)	6,070	157,941
Newmont Corp.	3,022	180,988
		<b>545,934</b>
<b>Multi-utilities (0.3%)</b>		
Ameren Corp.	2,010	156,901
		<b>156,901</b>
<b>Multiline retail (1.1%)</b>		
Dollar General Corp.	1,036	217,871
Target Corp.	2,147	379,010
		<b>596,881</b>
<b>Oil, gas, and consumable fuels (1.7%)</b>		
Cairn Energy PLC (United Kingdom) †	14,046	40,412
Cenovus Energy, Inc. (Canada)	55,308	336,741
ONEOK, Inc.	945	36,269
Phillips 66	1,197	83,718
Royal Dutch Shell PLC Class A (United Kingdom)	8,803	156,283
TOTAL SA (France)	4,842	208,875
Williams Cos., Inc. (The)	2,206	44,230
		<b>906,528</b>
<b>Pharmaceuticals (3.6%)</b>		
Bristol-Myers Squibb Co.	4,318	267,846
Eli Lilly and Co.	2,105	355,408
Innoviva, Inc. †	6,564	81,328

<b>COMMON STOCKS (97.3%)* cont.</b>	<b>Shares</b>	<b>Value</b>
<b>Pharmaceuticals cont.</b>		
Johnson & Johnson	3,036	\$477,806
Merck & Co., Inc.	3,345	273,621
Pfizer, Inc.	6,133	225,756
Viatis, Inc. †	760	14,242
Zoetis, Inc.	1,003	165,997
		<b>1,862,004</b>
<b>Professional services (0.8%)</b>		
CoStar Group, Inc. †	193	178,386
Thomson Reuters Corp. (Canada)	2,837	232,322
		<b>410,708</b>
<b>Road and rail (1.8%)</b>		
CSX Corp.	1,727	156,725
Union Pacific Corp.	3,746	779,992
		<b>936,717</b>
<b>Semiconductors and semiconductor equipment (6.2%)</b>		
Advanced Micro Devices, Inc. †	6,049	554,754
Monolithic Power Systems, Inc.	1,477	540,922
NXP Semiconductors NV	5,352	851,022
Qualcomm, Inc.	3,972	605,094
Texas Instruments, Inc.	4,112	674,903
		<b>3,226,695</b>
<b>Software (7.2%)</b>		
Adobe, Inc. †	1,768	884,212
Microsoft Corp.	12,886	2,866,104
		<b>3,750,316</b>
<b>Specialty retail (2.4%)</b>		
Advance Auto Parts, Inc.	404	63,634
Burlington Stores, Inc. †	32	8,370
CarMax, Inc. †	1,807	170,689
Home Depot, Inc. (The)	3,102	823,953
TJX Cos., Inc. (The)	2,613	178,442
		<b>1,245,088</b>
<b>Technology hardware, storage, and peripherals (4.5%)</b>		
Apple, Inc.	17,604	2,335,875
		<b>2,335,875</b>
<b>Textiles, apparel, and luxury goods (0.8%)</b>		
Levi Strauss & Co. Class A	4,573	91,826
NIKE, Inc. Class B	2,297	324,957
		<b>416,783</b>
<b>Tobacco (0.4%)</b>		
Altria Group, Inc.	5,270	216,070
		<b>216,070</b>
<b>Trading companies and distributors (0.3%)</b>		
United Rentals, Inc. †	647	150,039
Yellow Cake PLC 144A (United Kingdom) †	3,519	11,995
		<b>162,034</b>
<b>Wireless telecommunication services (1.1%)</b>		
T-Mobile US, Inc. †	4,463	601,836
		<b>601,836</b>
<b>Total common stocks (cost \$37,525,503)</b>		<b>\$50,812,423</b>
<b>CONVERTIBLE PREFERRED STOCKS (0.2%)*</b>		
	<b>Shares</b>	<b>Value</b>
KKR & Co., Inc. \$3.00 cv. pfd. <sup>S</sup>	1,521	\$87,990
<b>Total convertible preferred stocks (cost \$76,050)</b>		<b>\$87,990</b>
<b>SHORT-TERM INVESTMENTS (3.0%)*</b>		
	<b>Principal amount/ shares</b>	<b>Value</b>
Putnam Cash Collateral Pool, LLC 0.14% <sup>d</sup>	Shares 205,775	\$205,775
Putnam Short Term Investment Fund Class P 0.17% <sup>L</sup>	Shares 56,330	56,330
U.S. Treasury Bills 0.088%, 2/2/21 #	\$1,300,000	1,299,919
<b>Total short-term investments (cost \$1,562,005)</b>		<b>\$1,562,024</b>
<b>Total investments (cost \$39,163,558)</b>		<b>\$52,462,437</b>



**Key to holding's abbreviations**

**ADR** American Depository Receipts: represents ownership of foreign securities on deposit with a custodian bank

**Notes to the fund's portfolio**

Unless noted otherwise, the notes to the fund's portfolio are for the close of the fund's reporting period, which ran from January 1, 2020 through December 31, 2020 (the reporting period). Within the following notes to the portfolio, references to "Putnam Management" represent Putnam Investment Management, LLC, the fund's manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC and references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures*.

\* Percentages indicated are based on net assets of \$52,212,202.

† This security is non-income-producing.

# This security, in part or in entirety, was pledged and segregated with the broker to cover margin requirements for futures contracts at the close of the reporting period. Collateral at period end totaled \$46,995 and is included in Investments in securities on the Statement of assets and liabilities (Notes 1 and 8).

**d** 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.

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

**R** Real Estate Investment Trust.

**S** 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 \$47,226 to cover certain derivative contracts.

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

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

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

**FORWARD CURRENCY CONTRACTS at 12/31/20 (aggregate face value \$5,065,937)**

Counterparty	Currency	Contract type*	Delivery date	Value	Aggregate face value	Unrealized appreciation/(depreciation)
<b>Bank of America N.A.</b>						
	Canadian Dollar	Sell	1/20/21	\$133,957	\$128,585	\$(5,372)
<b>Barclays Bank PLC</b>						
	British Pound	Sell	3/17/21	793,370	781,377	(11,993)
	Euro	Sell	3/17/21	301,015	299,599	(1,416)
<b>Citibank, N.A.</b>						
	British Pound	Buy	3/17/21	227,928	224,532	3,396
	Canadian Dollar	Sell	1/20/21	102,137	100,313	(1,824)
	Euro	Sell	3/17/21	111,840	111,313	(527)
<b>Goldman Sachs International</b>						
	British Pound	Sell	3/17/21	727,563	716,664	(10,899)
	Canadian Dollar	Buy	1/20/21	234,758	225,382	9,376
<b>HSBC Bank USA, National Association</b>						
	British Pound	Buy	3/17/21	232,716	229,227	3,489
	Euro	Sell	3/17/21	119,305	118,768	(537)
<b>JPMorgan Chase Bank N.A.</b>						
	British Pound	Buy	3/17/21	161,848	159,428	2,420
	Canadian Dollar	Sell	1/20/21	500,942	480,903	(20,039)
	Norwegian Krone	Buy	3/17/21	1,178	1,160	18
<b>Morgan Stanley &amp; Co. International PLC</b>						
	Canadian Dollar	Buy	1/20/21	105,986	101,646	4,340
<b>State Street Bank and Trust Co.</b>						
	British Pound	Buy	3/17/21	324,790	319,943	4,847
	Canadian Dollar	Sell	1/20/21	72,989	75,159	2,170
	Hong Kong Dollar	Sell	2/17/21	120,083	120,052	(31)
	Israeli Shekel	Buy	1/20/21	405	382	23
<b>UBSAG</b>						
	British Pound	Buy	3/17/21	230,801	227,384	3,417
	Euro	Buy	3/17/21	50,047	49,812	235
<b>WestPac Banking Corp.</b>						
	British Pound	Sell	3/17/21	554,907	544,618	(10,289)
	Euro	Buy	3/17/21	49,924	49,690	234
<b>Unrealized appreciation</b>						<b>33,965</b>
<b>Unrealized (depreciation)</b>						<b>(62,927)</b>
<b>Total</b>						<b>\$(28,962)</b>

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

<b>FUTURES CONTRACTS OUTSTANDING at 12/31/20</b>	<b>Number of contracts</b>	<b>Notional amount</b>	<b>Value</b>	<b>Expiration date</b>	<b>Unrealized appreciation</b>
S&P 500 Index E-Mini (Long)	1	\$187,804	\$187,440	Mar-21	\$4,208
<b>Unrealized appreciation</b>					<b>4,208</b>
<b>Unrealized (depreciation)</b>					<b>—</b>
<b>Total</b>					<b>\$4,208</b>

ASC 820 establishes a three-level hierarchy for disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of the fund's investments. The three levels are defined as follows:

Level 1: Valuations based on quoted prices for identical securities in active markets.

Level 2: Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3: Valuations based on inputs that are unobservable and significant to the fair value measurement.

The following is a summary of the inputs used to value the fund's net assets as of the close of the reporting period:

<b>Investments in securities:</b>	<b>Valuation inputs</b>		
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Common stocks*:			
Communication services	\$5,368,783	\$—	\$—
Consumer discretionary	7,029,033	—	—
Consumer staples	3,485,900	—	—
Energy	500,958	405,570	—
Financials	3,969,251	1,003,862	—
Health care	6,787,219	—	—
Industrials	4,734,513	11,995	—
Information technology	13,652,661	—	—
Materials	1,283,053	207,005	—
Real estate	627,422	—	—
Utilities	1,745,198	—	—
<b>Total common stocks</b>	<b>49,183,991</b>	<b>1,628,432</b>	<b>—</b>
Convertible preferred stocks	—	87,990	—
Short-term investments	56,330	1,505,694	—
<b>Totals by level</b>	<b>\$49,240,321</b>	<b>\$3,222,116</b>	<b>\$—</b>

<b>Other financial instruments:</b>	<b>Valuation inputs</b>		
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Forward currency contracts	\$—	\$(28,962)	\$—
Futures contracts	4,208	—	—
<b>Totals by level</b>	<b>\$4,208</b>	<b>\$(28,962)</b>	<b>\$—</b>

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

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

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

# Statement of assets and liabilities

12/31/20

<b>Assets</b>	
Investment in securities, at value, including \$199,863 of securities on loan (Note 1):	
Unaffiliated issuers (identified cost \$38,901,453)	\$52,200,332
Affiliated issuers (identified cost \$262,105) (Notes 1 and 5)	262,105
Foreign currency (cost \$149) (Note 1)	151
Dividends, interest and other receivables	59,074
Receivable for shares of the fund sold	85,838
Receivable for investments sold	95,397
Receivable for variation margin on futures contracts (Note 1)	1,230
Unrealized appreciation on forward currency contracts (Note 1)	33,965
<b>Total assets</b>	<b>52,738,092</b>
<b>Liabilities</b>	
Payable to custodian	2
Payable for investments purchased	81,121
Payable for shares of the fund repurchased	14,198
Payable for compensation of Manager (Note 2)	26,243
Payable for custodian fees (Note 2)	30,652
Payable for investor servicing fees (Note 2)	5,865
Payable for Trustee compensation and expenses (Note 2)	53,329
Payable for administrative services (Note 2)	577
Payable for distribution fees (Note 2)	6,023
Payable for auditing and tax fees	29,058
Unrealized depreciation on forward currency contracts (Note 1)	62,927
Collateral on securities loaned, at value (Note 1)	205,775
Other accrued expenses	10,120
<b>Total liabilities</b>	<b>525,890</b>
<b>Net assets</b>	<b>\$52,212,202</b>
<b>Represented by</b>	
Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$34,850,292
Total distributable earnings (Note 1)	17,361,910
<b>Total — Representing net assets applicable to capital shares outstanding</b>	<b>\$52,212,202</b>
<b>Computation of net asset value Class IA</b>	
Net assets	\$23,097,633
Number of shares outstanding	749,900
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$30.80
<b>Computation of net asset value Class IB</b>	
Net assets	\$29,114,569
Number of shares outstanding	949,571
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$30.66

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

# Statement of operations

Year ended 12/31/20

## Investment income

Dividends (net of foreign tax of \$4,775)	\$691,621
Interest (including interest income of \$3,851 from investments in affiliated issuers) (Note 5)	4,709
Securities lending (net of expenses) (Notes 1 and 5)	1,856
<b>Total investment income</b>	<b>698,186</b>

## Expenses

Compensation of Manager (Note 2)	248,623
Investor servicing fees (Note 2)	31,788
Custodian fees (Note 2)	39,999
Trustee compensation and expenses (Note 2)	2,093
Distribution fees (Note 2)	62,784
Administrative services (Note 2)	1,336
Auditing and tax fees	29,533
Other	21,625
Fees waived and reimbursed by Manager (Note 2)	(3,287)
<b>Total expenses</b>	<b>434,494</b>
Expense reduction (Note 2)	(93)
<b>Net expenses</b>	<b>434,401</b>
<b>Net investment income</b>	<b>263,785</b>

## Realized and unrealized gain (loss)

### Net realized gain (loss) on:

Securities from unaffiliated issuers (Notes 1 and 3)	3,843,131
Foreign currency transactions (Note 1)	(2,979)
Forward currency contracts (Note 1)	24,213
Futures contracts (Note 1)	198,372
Swap contracts (Note 1)	(132,364)
<b>Total net realized gain</b>	<b>3,930,373</b>

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

Securities from unaffiliated issuers	4,538,366
Assets and liabilities in foreign currencies	147
Forward currency contracts	26,796
Futures contracts	(419)
Swap contracts	7,678
<b>Total change in net unrealized appreciation</b>	<b>4,572,568</b>
<b>Net gain on investments</b>	<b>8,502,941</b>
<b>Net increase in net assets resulting from operations</b>	<b>\$8,766,726</b>

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

## Statement of changes in net assets

	Year ended 12/31/20	Year ended 12/31/19
<b>Increase in net assets</b>		
<b>Operations:</b>		
Net investment income	\$263,785	\$403,732
Net realized gain on investments and foreign currency transactions	3,930,373	5,070,191
Change in net unrealized appreciation of investments and assets and liabilities in foreign currencies	4,572,568	7,518,956
<b>Net increase in net assets resulting from operations</b>	<b>8,766,726</b>	<b>12,992,879</b>
Distributions to shareholders (Note 1):		
From ordinary income		
Net investment income		
Class IA	(168,223)	(283,891)
Class IB	(147,353)	(291,315)
Net realized short-term gain on investments		
Class IA	(632,192)	(365,597)
Class IB	(793,832)	(460,522)
From net realized long-term gain on investments		
Class IA	(1,608,292)	(1,831,446)
Class IB	(2,019,501)	(2,306,968)
Increase (decrease) from capital share transactions (Note 4)	1,165,289	(1,105,489)
<b>Total increase in net assets</b>	<b>4,562,622</b>	<b>6,347,651</b>
<b>Net assets:</b>		
Beginning of year	47,649,580	41,301,929
<b>End of year</b>	<b>\$52,212,202</b>	<b>\$47,649,580</b>

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

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

Period ended	INVESTMENT OPERATIONS:				LESS DISTRIBUTIONS:				RATIOS AND SUPPLEMENTAL DATA:					
	Net asset value, beginning of period	Net investment income (loss) <sup>a</sup>	Net realized and unrealized gain (loss) on investments	Total from investment operations	From net investment income	From net realized gain on investments	Total distributions	Non-recurring reimbursements	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>														
12/31/20	\$29.95	.19	4.21	4.40	(.25)	(3.30)	(3.55)	—	\$30.80	20.23	\$23,098	.82 <sup>e</sup>	.72 <sup>e</sup>	74
12/31/19	25.60	.28	7.65	7.93	(.41)	(3.17)	(3.58)	—	29.95	33.59	21,027	.78	1.03	77
12/31/18	26.81	.24	(1.45)	(1.21)	—	—	—	—	25.60	(4.51)	18,198	.81	.88	76
12/31/17	21.87	.20	4.95 <sup>f</sup>	5.15	(.21)	—	(.21)	— <sup>g,h</sup>	26.81	23.70 <sup>f</sup>	22,460	.81	.83	94
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
<b>Class IB</b>														
12/31/20	\$29.81	.13	4.19	4.32	(.17)	(3.30)	(3.47)	—	\$30.66	19.92	\$29,115	1.07 <sup>e</sup>	.47 <sup>e</sup>	74
12/31/19	25.49	.21	7.61	7.82	(.33)	(3.17)	(3.50)	—	29.81	33.24	26,622	1.03	.78	77
12/31/18	26.75	.17	(1.43)	(1.26)	—	—	—	—	25.49	(4.71)	23,104	1.06	.63	76
12/31/17	21.83	.14	4.93 <sup>f</sup>	5.07	(.15)	—	(.15)	— <sup>g,h</sup>	26.75	23.34 <sup>f</sup>	27,580	1.06	.58	94
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

<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 the following amounts:

	Percentage of average net assets
12/31/20	0.01%
12/31/16	<0.01

<sup>f</sup> Reflects a non-recurring litigation payment received by the fund from Household International which amounted to the following amounts per share outstanding on May 8, 2017:

	Per share
Class IA	\$0.33
Class IB	0.33

This payment resulted in an increase to total returns of 1.52% for the period ended December 31, 2017.

<sup>g</sup> Amount represents less than \$0.01 per share.

<sup>h</sup> Reflects a non-recurring reimbursement pursuant to a settlement between the Securities and Exchange Commission (the SEC) and Countrywide Financial which amounted to less than \$0.01 per share outstanding on November 29, 2017.

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

## Notes to financial statements 12/31/20

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

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

### Note 1 — Significant accounting policies

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

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

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

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

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

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

Market quotations are not considered to be readily available for certain debt obligations (including short-term investments with remaining maturities of 60 days or less) and other investments; such investments are valued on the basis of valuations furnished by an independent pricing service approved by the Trustees or dealers selected by Putnam Management. Such services or dealers determine valuations for normal institutional-size trading units of such securities using methods based on market transactions for comparable securities and various relationships, generally recognized by institutional traders, between securities (which consider such factors as security prices, yields, maturities and ratings). These securities will generally be categorized as Level 2.

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

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

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

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

Interest income, net of any applicable withholding taxes, if any, and including amortization and accretion of premiums and discounts on debt securities, is recorded on the accrual basis. Dividend income, net of any applicable withholding taxes, is recognized on the ex-dividend date except that certain dividends from

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

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

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

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

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

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

**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 and/or centrally cleared 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 hedge out a small cap bias in the portfolio.

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 and/or centrally cleared total return swap contracts are marked to market daily based upon quotations from an independent pricing service or market maker. Any change is recorded as an unrealized gain or loss on OTC total return swaps. Daily fluctuations in the value of centrally cleared total return swaps

are settled through a central clearing agent and are recorded in variation margin on the Statement of assets and liabilities and recorded as unrealized gain or loss. Payments received or made are recorded as realized gains or losses. Certain OTC and/or centrally cleared 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 or central clearing risk is the fair value of the contract. This risk may be mitigated for OTC total return swap contracts by having a master netting arrangement between the fund and the counterparty and for centrally cleared total return swap contracts through the daily exchange of variation margin. There is minimal counterparty risk with respect to centrally cleared total return swap contracts due to the clearinghouse guarantee fund and other resources that are available in the event of a clearing member default. Risk of loss may exceed amounts recognized on the Statement of assets and liabilities.

OTC and/or centrally cleared 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 pledged to the fund is held in a segregated account by the fund's custodian and, with respect to those amounts which can be sold or repledged, is presented in the fund's portfolio.

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

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

At the close of the reporting period, the fund had a net liability position of \$47,960 on open derivative contracts subject to the Master Agreements. There was no collateral pledged 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 \$205,775 and the value of securities loaned amounted to \$199,863.

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



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

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

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

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

**Distributions to shareholders** Distributions to shareholders from net investment income are recorded by the fund on the ex-dividend date. Distributions from capital gains, if any, are recorded on the ex-dividend date and paid at least annually. The amount and character of income and gains to be distributed are determined in accordance with income tax regulations, which may differ from generally accepted accounting principles. These differences include temporary and/or permanent differences from losses on wash sale transactions, from foreign currency gains and losses, from realized gains and losses on passive foreign investment companies, from income on swap contracts and from partnership income. Reclassifications are made to the fund's capital accounts to reflect income and gains available for distribution (or available capital loss carryovers) under income tax regulations. At the close of the reporting period, the fund reclassified \$178,081 to decrease undistributed net investment income, \$23 to decrease paid-in capital and \$178,104 to increase accumulated net realized gain.

Tax cost of investments includes adjustments to net unrealized appreciation (depreciation) which may not necessarily be final tax cost basis adjustments, but closely approximate the tax basis unrealized gains and losses that may be realized and distributed to shareholders. The tax basis components of distributable earnings and the federal tax cost as of the close of the reporting period were as follows:

Unrealized appreciation	\$14,389,218
Unrealized depreciation	(1,167,677)
Net unrealized appreciation	13,221,541
Undistributed ordinary income	60,743
Undistributed short-term gain	1,280,708
Undistributed long-term gain	2,798,795
Cost for federal income tax purposes	\$39,216,142

**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 39.3% 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 0.548% of the fund's average net assets.

Putnam Management has contractually agreed, through April 30, 2022, to waive fees and/or reimburse the fund's expenses to the extent necessary to limit the cumulative expenses of the fund, exclusive of brokerage, interest, taxes, investment-related expenses, extraordinary expenses, acquired fund fees and expenses and payments under the fund's investor servicing contract, investment management contract and distribution plan, on a fiscal year-to-date basis to an annual rate of 0.20% of the fund's average net assets over such fiscal year-to-date period. During the reporting period, the fund's expenses were reduced by \$3,287 as a result of this limit.

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

The Putnam Advisory Company, LLC (PAC), an affiliate of Putnam Management, is authorized by the Trustees to manage a separate portion of the assets of the fund, as designated from time to time by Putnam Management or PIL. 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	\$14,208
Class IB	17,580
Total	\$31,788

The fund has entered into expense offset arrangements with Putnam Investor Services, Inc. and State Street whereby Putnam Investor Services, Inc.'s and State Street's fees are reduced by credits allowed on cash balances. For the reporting period, the fund's expenses were reduced by \$93 under the expense offset arrangements.

Each Independent Trustee of the fund receives an annual Trustee fee, of which \$33, as a quarterly retainer, has been allocated to the fund, and an additional fee for each Trustee's meeting attended. Trustees also are reimbursed for expenses they incur relating to their services as Trustees.

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

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

The fund has adopted a distribution plan (the Plan) with respect to its class IB shares pursuant to Rule 12b-1 under the Investment Company Act of 1940. The purpose of the Plan is to compensate Putnam Retail Management Limited Partnership, an indirect wholly-owned subsidiary of Putnam Investments, LLC, for services provided and expenses incurred in distributing shares of the fund. The

Plan provides for payment by the fund to Putnam Retail Management Limited Partnership at an annual rate of up to 0.35% of the average net assets attributable to the fund's class IB shares. The Trustees have approved payment by the fund at an annual rate of 0.25% of the average net assets attributable to the fund's class IB shares. The expenses related to distribution fees during the reporting period are included in Distribution fees in the Statement of operations.

### Note 3 — Purchases and sales of securities

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

	Cost of purchases	Proceeds from sales
Investments in securities (Long-term)	\$33,087,379	\$37,465,240
U.S. government securities (Long-term)	—	—
<b>Total</b>	<b>\$33,087,379</b>	<b>\$37,465,240</b>

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

### Note 4 — Capital shares

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

	Class IA shares				Class IB shares			
	Year ended 12/31/20		Year ended 12/31/19		Year ended 12/31/20		Year ended 12/31/19	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	39,218	\$1,065,478	23,328	\$636,974	109,500	\$2,954,668	37,337	\$1,010,676
Shares issued in connection with reinvestment of distributions	114,700	2,408,707	98,255	2,480,934	141,321	2,960,686	121,478	3,058,805
	153,918	3,474,185	121,583	3,117,908	250,821	5,915,354	158,815	4,069,481
Shares repurchased	(106,148)	(2,892,212)	(130,319)	(3,594,584)	(194,376)	(5,332,038)	(172,227)	(4,698,294)
<b>Net increase (decrease)</b>	<b>47,770</b>	<b>\$581,973</b>	<b>(8,736)</b>	<b>\$(476,676)</b>	<b>56,445</b>	<b>\$583,316</b>	<b>(13,412)</b>	<b>\$(628,813)</b>

### Note 5 — Affiliated transactions

Transactions during the reporting period with any company which is under common ownership or control were as follows:

Name of affiliate	Fair value as of 12/31/19	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 12/31/20
<b>Short-term investments</b>					
Putnam Cash Collateral Pool, LLC*	\$503,850	\$9,265,161	\$9,563,236	\$5,037	\$205,775
Putnam Short Term Investment Fund**	752,996	8,937,126	9,633,792	3,851	56,330
<b>Total Short-term investments</b>	<b>\$1,256,846</b>	<b>\$18,202,287</b>	<b>\$19,197,028</b>	<b>\$8,888</b>	<b>\$262,105</b>

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

\*\*Management fees charged to Putnam Short Term Investment Fund have been waived by Putnam Management. There were no realized or unrealized gains or losses during the period.

### Note 6 — Market, credit and other risks

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

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

**Note 7 — Summary of derivative activity**

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

Futures contracts (number of contracts)	4
Forward currency contracts (contract amount)	\$4,700,000
OTC total return swap contracts (notional)	\$420,000

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	\$33,965	Payables	\$62,927
Equity contracts	Receivables, Net assets — Unrealized appreciation	4,208*	Payables	—
<b>Total</b>		<b>\$38,173</b>		<b>\$62,927</b>

\*Includes cumulative appreciation/depreciation of futures contracts as reported in the fund's portfolio. Only current day's variation margin is reported within the Statement of assets and liabilities.

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

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

Derivatives not accounted for as hedging instruments under ASC 815	Futures	Forward currency contracts	Swaps	Total
Foreign exchange contracts	\$—	\$24,213	\$—	\$24,213
Equity contracts	198,372	—	(132,364)	\$66,008
<b>Total</b>	<b>\$198,372</b>	<b>\$24,213</b>	<b>\$(132,364)</b>	<b>\$90,221</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	Futures	Forward currency contracts	Swaps	Total
Foreign exchange contracts	\$—	\$26,796	\$—	\$26,796
Equity contracts	(419)	—	7,678	\$7,259
<b>Total</b>	<b>\$(419)</b>	<b>\$26,796</b>	<b>\$7,678</b>	<b>\$34,055</b>

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

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

	Bank of America N.A.	Barclays Bank PLC	BofA Securities, Inc.	Citibank, N.A.	Goldman Sachs International	HSBC Bank USA, National Association	JPMorgan Chase Bank N.A.	Morgan Stanley & Co. International PLC	State Street Bank and Trust Co.	UBSAG	WestPac Banking Corp.	Total
<b>Assets:</b>												
Futures contracts <sup>§</sup>	\$—	\$—	\$1,230	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$1,230
Forward currency contracts <sup>#</sup>	—	—	—	3,396	9,376	3,489	2,438	4,340	7,040	3,652	234	33,965
<b>Total Assets</b>	<b>\$—</b>	<b>\$—</b>	<b>\$1,230</b>	<b>\$3,396</b>	<b>\$9,376</b>	<b>\$3,489</b>	<b>\$2,438</b>	<b>\$4,340</b>	<b>\$7,040</b>	<b>\$3,652</b>	<b>\$234</b>	<b>\$35,195</b>
<b>Liabilities:</b>												
Futures contracts <sup>§</sup>	—	—	—	—	—	—	—	—	—	—	—	—
Forward currency contracts <sup>#</sup>	5,372	13,409	—	2,351	10,899	537	20,039	—	31	—	10,289	62,927
<b>Total Liabilities</b>	<b>\$5,372</b>	<b>\$13,409</b>	<b>\$—</b>	<b>\$2,351</b>	<b>\$10,899</b>	<b>\$537</b>	<b>\$20,039</b>	<b>\$—</b>	<b>\$31</b>	<b>\$—</b>	<b>\$10,289</b>	<b>\$62,927</b>
<b>Total Financial and Derivative Net Assets</b>	<b>\$(5,372)</b>	<b>\$(13,409)</b>	<b>\$1,230</b>	<b>\$1,045</b>	<b>\$(1,523)</b>	<b>\$2,952</b>	<b>\$(17,601)</b>	<b>\$4,340</b>	<b>\$7,009</b>	<b>\$3,652</b>	<b>\$(10,055)</b>	<b>\$(27,732)</b>
Total collateral received (pledged) <sup>†##</sup>	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
Net amount	\$(5,372)	\$(13,409)	\$1,230	\$1,045	\$(1,523)	\$2,952	\$(17,601)	\$4,340	\$7,009	\$3,652	\$(10,055)	\$—
<i>Controlled collateral received (including TBA commitments)**</i>	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
<i>Uncontrolled collateral received</i>	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
<i>Collateral (pledged) (including TBA commitments)**</i>	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—

\*\*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.




§Includes current day's variation margin only as reported on the Statement of assets and liabilities, which is not collateralized. Cumulative appreciation/(depreciation) for futures contracts and centrally cleared swap contracts is represented in the tables listed after the fund's portfolio. Collateral pledged for initial margin on futures contracts, which is not included in the table above, amounted to \$46,995.

## Federal tax information (Unaudited)

Pursuant to §852 of the Internal Revenue Code, as amended, the fund hereby designates \$3,081,282 as a capital gain dividend with respect to the taxable year ended December 31, 2020, or, if subsequently determined to be different, the net capital gain of such year.

The fund designated 31.63% of ordinary income distributions as qualifying for the dividends received deduction for corporations.

## About the Trustees

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

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

### Interested Trustee

<b>Robert L. Reynolds*</b> Born 1952 Trustee since 2008 and President and Chief Executive Officer of Putnam Investments since 2008	President and Chief Executive Officer of Putnam Investments; President and Chief Executive Officer of Great-West Financial, a financial services company that provides retirement savings plans, life insurance, and annuity and executive benefits products; President and Chief Executive Officer of Great-West Lifeco U.S. Inc., a holding company that owns Putnam Investments and Great-West Financial; and member of Putnam Investments' and Great-West Financial's Board of Directors.	Director of West Virginia University Foundation; director of the Concord Museum; director of Dana-Farber Cancer Institute; Chairman of Massachusetts Competitive Partnership; director of Boston Chamber of Commerce; member of the Chief Executives Club of Boston; member of the National Innovation Initiative; member of the Massachusetts General Hospital President's Council; member of the Council on Competitiveness; and previously the President of the Commercial Club of Boston.	
---	---	---	---

\*Mr. Reynolds is an "interested person" (as defined in the Investment Company Act of 1940) of the fund and Putnam Investments. He is President and Chief Executive Officer of Putnam Investments, as well as the President of your fund and each of the other Putnam funds.

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

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

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

## Officers

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Other important information

### Proxy voting

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

### Fund portfolio holdings

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

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

## Fund information

### Investment Manager

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

### Investment Sub-Advisors

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

The Putnam Advisory Company, LLC

100 Federal Street  
Boston, MA 02110

### Marketing Services

Putnam Retail Management  
100 Federal Street  
Boston, MA 02110

### Investor Servicing Agent

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

### Custodian

State Street Bank and Trust Company

### Legal Counsel

Ropes & Gray LLP

### Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP

### Trustees

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

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

