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# Putnam Variable Trust

**Semiannual report**

**6 | 30 | 17**

Putnam VT

American Government Income Fund

# Message from the Trustees

August 15, 2017

Dear Shareholder:

A fair amount of investor optimism has helped to fuel financial markets in 2017, and global stock and bond markets have generally fared well. At the same time, however, a number of macroeconomic and political risks around the world could disrupt the positive momentum.

While calm markets are generally welcome, we believe investors should continue to remember time-tested strategies: maintain a well-diversified portfolio, keep a long-term view, and speak regularly with your financial advisor. In the following pages, you will find a summary of your fund's performance for the reporting period.

We would like to take this opportunity to announce some changes to your fund's Board of Trustees. First, we are pleased to welcome the arrival of Catharine Bond Hill and Manoj P. Singh, who bring extensive professional and directorship experience to their new roles as Putnam Trustees. In addition, we would like to extend our appreciation and best wishes to Robert J. Darretta, John A. Hill, and W. Thomas Stephens, who retired from the Board, effective June 30, 2017. We are grateful for their years of work on behalf of you and your fellow shareholders, and we wish them well in their future endeavors.

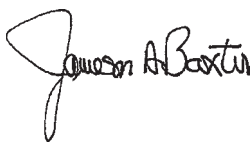
Thank you for investing with Putnam.

Respectfully yours,



**Robert L. Reynolds**

President and Chief Executive Officer  
Putnam Investments



**Jameson A. Baxter**

Chair, Board of Trustees

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*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:** Funds that invest in government securities are not guaranteed. Mortgage-backed securities are subject to prepayment risk and the risk that they may increase in value less when interest rates decline and decline in value more when interest rates rise. Bond investments are subject to interest-rate risk (the risk of bond prices falling if interest rates rise) and credit risk (the risk of an issuer defaulting on interest or principal payments). Interest-rate risk is greater for longer-term bonds, and credit risk is greater for below-investment-grade bonds. Risks associated with derivatives include increased investment exposure (which may be considered leverage) and, in the case of over-the-counter instruments, the potential inability to terminate or sell derivatives positions and the potential failure of the other party to the instrument to meet its obligations. Unlike bonds, funds that invest in bonds have fees and expenses. Bond prices may fall or fail to rise over time for several reasons, including general financial market conditions, changing market perceptions (including perceptions about the risk of default and expectations about monetary policy or interest rates), changes in government intervention in the financial markets, and factors related to a specific issuer or industry. These and other factors may lead to increased volatility and reduced liquidity in the fund's portfolio holdings. You can lose money by investing in the fund.

## Performance summary (as of 6/30/17)

### Investment objective

High current income with preservation of capital as its secondary objective

### Net asset value June 30, 2017

Class IA: \$9.48	Class IB: \$9.47
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### Total return at net asset value

(as of 6/30/17)	Class IA shares*	Class IB shares*	Bloomberg Barclays Government Bond Index
6 months	1.52%	1.42%	1.86%
1 year	-0.15	-0.35	-2.18
5 years	6.42	5.23	6.65
Annualized	1.25	1.03	1.30
10 years	59.36	55.62	47.08
Annualized	4.77	4.52	3.93
Life	132.77	123.39	126.19
Annualized	4.97	4.72	4.80

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

\*Class inception date: February 1, 2000.

The Bloomberg Barclays Government Bond Index is an unmanaged index of U.S. Treasury and agency securities.

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

### Portfolio composition

Agency pass-through	67.9%
Agency collateralized mortgage obligations	32.6%
U.S. Treasuries/agency securities	15.9%
Asset-backed securities	0.3%
Cash and net other assets	10.0%

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 use of different classifications of securities for presentation purposes, and rounding. Allocations may not total 100% because the table includes the notional value of certain derivatives (the economic value for purposes of calculating periodic payment obligations), in addition to the market value of securities. Holdings and allocations may vary over time.

### Credit quality

A-1	11.7%
AAA	115.9%
Not rated	-27.6%

Credit qualities are shown as a percentage of net assets. A bond rated BBB or higher (A-3 or higher, for short-term debt) is considered investment grade. This chart reflects the highest security rating provided by one or more of Standard & Poor's, Moody's, and Fitch. To-be-announced (TBA) mortgage commitments, if any, are included based on their issuer ratings. Ratings may vary over time.

Cash, derivative instruments, and net other assets are shown in the not-rated category. Payables and receivables for TBA mortgage commitments are included in the not-rated category and may result in negative weights. The fund itself has not been rated by an independent rating agency.

## 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 1/1/17 to 6/30/17. 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 12/31/16	0.64%	0.89%
Annualized expense ratio for the six-month period ended 6/30/17	0.67%	0.92%

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.

### Expenses per \$1,000

	Expenses and value for a \$1,000 investment, assuming actual returns for the 6 months ended 6/30/17		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 6/30/17	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$3.35	\$4.59	\$3.36	\$4.61
Ending value (after expenses)	\$1,015.20	\$1,014.20	\$1,021.47	\$1,020.23

\*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 6/30/17. 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.

## Your fund's manager



Portfolio Manager **Michael V. Salm** is Co-Head of Fixed Income at Putnam. He joined Putnam in 1997 and has been in the investment industry since 1989.

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

## ABOUT DERIVATIVES

Derivatives are an increasingly common type of investment instrument, the performance of which is *derived* from an underlying security, index, currency, or other area of the capital markets. Derivatives employed by the fund's managers generally serve one of two main purposes: to implement a strategy that may be difficult or more expensive to invest in through traditional securities, or to hedge unwanted risk associated with a particular position.

For example, the fund's managers might use currency forward contracts to capitalize on an anticipated change in exchange rates between two currencies. This approach would require a significantly smaller outlay of capital than purchasing traditional bonds denominated in the underlying currencies. In another example, the managers may identify a bond that they believe is undervalued relative to its risk of default, but may seek to reduce the interest-rate risk of that bond by using interest-rate swaps, a derivative through which two parties "swap" payments based on the movement of certain rates.

Like any other investment, derivatives may not appreciate in value and may lose money. Derivatives may amplify traditional investment risks through the creation of leverage and may be less liquid than traditional securities. And because derivatives typically represent contractual agreements between two financial institutions, derivatives entail "counterparty risk," which is the risk that the other party is unable or unwilling to pay. Putnam monitors the counterparty risks we assume. For example, Putnam often enters into collateral agreements that require the counterparties to post collateral on a regular basis to cover their obligations to the fund. Counterparty risk for exchange-traded futures and centrally cleared swaps is mitigated by the daily exchange of margin and other safeguards against default through their respective clearinghouses.

# The fund's portfolio 6/30/17 (Unaudited)

## U.S. GOVERNMENT AND AGENCY

### MORTGAGE OBLIGATIONS (90.6%)\*

	Principal amount	Value
<b>U.S. Government Guaranteed Mortgage Obligations (18.8%)</b>		
Government National Mortgage Association		
Pass-Through Certificates		
6.50%, with due dates from 4/15/28 to 7/20/36	\$56,999	\$65,855
6.00%, with due dates from 4/15/28 to 11/20/38	132,210	149,820
5.50%, 4/20/38	198,264	221,273
5.00%, TBA, 7/1/47	1,000,000	1,072,344
4.50%, with due dates from 9/20/44 to 9/20/45	1,105,255	1,181,065
4.00%, with due dates from 4/20/45 to 5/20/45	2,245,895	2,425,830
3.50%, with due dates from 1/20/45 to 6/20/45	6,307,606	6,557,268
3.00%, TBA, 7/1/47	1,000,000	1,010,391
		<b>12,683,846</b>

### U.S. Government Agency Mortgage Obligations (71.8%)

Federal Home Loan Mortgage Corporation		
Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 7/1/31	16,059	18,913
7.00%, with due dates from 11/1/26 to 4/1/32	172,499	198,506
5.50%, 12/1/33	24,754	27,501
4.50%, with due dates from 7/1/44 to 8/1/44	219,021	239,922
4.00%, with due dates from 12/1/44 to 9/1/45	1,531,169	1,625,246
3.50%, with due dates from 10/1/46 to 5/1/47	2,944,608	3,045,795
3.00%, 6/1/46	950,600	952,791

Federal National Mortgage Association		
Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 11/1/30	17,444	20,369
7.00%, with due dates from 12/1/28 to 12/1/35	424,778	490,200
6.50%, 9/1/36	11,075	12,695
6.00%, 1/1/38	152,868	173,463
5.50%, 1/1/38	610,142	678,177
5.00%, 2/1/39	17,223	18,889
4.50%, with due dates from 7/1/44 to 5/1/45	338,371	369,225
4.50%, TBA, 7/1/47	3,000,000	3,217,500
4.00%, 7/1/56 ##	883,511	934,313
4.00%, 3/1/46	489,625	521,603
4.00%, TBA, 7/1/47	1,000,000	1,051,016
3.50%, with due dates from 5/1/45 to 6/1/56	3,662,440	3,785,677
3.50%, TBA, 8/1/47	8,000,000	8,201,562
3.50%, TBA, 7/1/47	13,000,000	13,349,375
3.00%, with due dates from 5/1/45 to 1/1/47	4,465,226	4,479,365
3.00%, TBA, 7/1/47	1,000,000	998,672
2.50%, TBA, 8/1/47	1,000,000	961,953
2.50%, TBA, 7/1/47	3,000,000	2,889,844
		<b>48,262,572</b>

**Total U.S. government and agency mortgage obligations (cost \$61,294,038) \$60,946,418**

### U.S. TREASURY OBLIGATIONS (15.7%)\*

	Principal amount	Value
U.S. Treasury Bonds		
6.25%, 8/15/23	\$990,000	\$1,231,514
4.50%, 8/15/39 # Δ §	7,201,000	9,328,445
<b>Total U.S. treasury obligations (cost \$9,764,261)</b>		<b>\$10,559,959</b>

## MORTGAGE-BACKED SECURITIES (31.3%)\*

	Principal amount	Value
<b>Agency collateralized mortgage obligations (31.3%)</b>		
Federal Home Loan Mortgage Corporation		
IFB Ser. 3408, Class EK, 21.13%, 4/15/37	\$34,337	\$52,902
IFB Ser. 3072, Class SM, 19.547%, 11/15/35	46,142	66,958
IFB Ser. 3065, Class DC, 16.383%, 3/15/35	257,534	371,631
IFB Ser. 2990, Class LB, 13.984%, 6/15/34	44,501	53,480

## MORTGAGE-BACKED SECURITIES (31.3%)\* cont.

	Principal amount	Value
<b>Agency collateralized mortgage obligations cont.</b>		
Federal Home Loan Mortgage Corporation		
IFB Ser. 3232, Class KS, IO, 5.141%, 10/15/36	\$166,646	\$22,601
IFB Ser. 4136, Class ES, IO, 5.091%, 11/15/42	408,357	57,613
IFB Ser. 4436, Class SC, IO, 4.991%, 2/15/45	1,529,878	274,919
Ser. 4122, Class TI, IO, 4.50%, 10/15/42	355,656	69,104
Ser. 4018, Class DI, IO, 4.50%, 7/15/41	516,686	73,456
Ser. 4329, Class MI, IO, 4.50%, 6/15/26	546,444	61,792
Ser. 4546, Class PI, IO, 4.00%, 12/15/45	750,311	114,573
Ser. 4530, Class HI, IO, 4.00%, 11/15/45	504,667	77,517
Ser. 4500, Class GI, IO, 4.00%, 8/15/45	661,875	124,849
Ser. 4425, IO, 4.00%, 1/15/45	633,016	110,284
Ser. 4452, Class QI, IO, 4.00%, 11/15/44	503,203	98,024
Ser. 4116, Class MI, IO, 4.00%, 10/1/42	833,753	160,845
Ser. 4019, Class JI, IO, 4.00%, 5/15/41	676,906	93,142
Ser. 3996, Class IK, IO, 4.00%, 3/15/39	671,720	57,383
Ser. 4621, Class QI, IO, 3.50%, 10/15/46	1,028,138	168,399
Ser. 4165, Class AI, IO, 3.50%, 2/15/43	450,714	74,737
Ser. 4136, Class IQ, IO, 3.50%, 11/15/42	747,012	99,429
Ser. 4199, Class CI, IO, 3.50%, 12/15/37	464,798	35,092
Ser. 304, Class C37, IO, 3.50%, 12/15/27	458,069	44,822
Ser. 4150, Class DI, IO, 3.00%, 1/15/43	572,799	72,674
Ser. 4141, Class PI, IO, 3.00%, 12/15/42	546,413	63,865
Ser. 4158, Class TI, IO, 3.00%, 12/15/42	1,302,808	137,655
Ser. 4165, Class TI, IO, 3.00%, 12/15/42	1,386,304	142,096
Ser. 4171, Class NI, IO, 3.00%, 6/15/42	840,980	87,681
Ser. 4183, Class MI, IO, 3.00%, 2/15/42	439,740	40,676
Ser. 4201, Class JI, IO, 3.00%, 12/15/41	656,172	60,681
Ser. 315, PO, zero %, 9/15/43	1,112,401	894,958
Ser. 3835, Class FO, PO, zero %, 4/15/41	786,547	680,585
Ser. 3391, PO, zero %, 4/15/37	8,195	6,974
Ser. 3300, PO, zero %, 2/15/37	3,928	3,404
Ser. 3326, Class WF, zero %, 10/15/35	1,314	994
Federal National Mortgage Association		
IFB Ser. 06-62, Class PS, 32.603%, 7/25/36	27,509	50,093
IFB Ser. 06-8, Class HP, 20.108%, 3/25/36	47,259	73,873
IFB Ser. 07-53, Class SP, 19.741%, 6/25/37	53,832	79,205
IFB Ser. 05-122, Class SE, 18.844%, 11/25/35	58,035	78,356
IFB Ser. 08-24, Class SP, 18.824%, 2/25/38	232,235	317,020
IFB Ser. 05-75, Class GS, 16.602%, 8/25/35	39,163	50,996
IFB Ser. 05-106, Class JC, 16.353%, 12/25/35	60,720	88,794
IFB Ser. 05-83, Class QP, 14.232%, 11/25/34	20,601	25,278
IFB Ser. 11-4, Class CS, 10.468%, 5/25/40	114,219	131,496
IFB Ser. 11-123, Class KS, IO, 5.384%, 10/25/41	128,310	21,292
Ser. 12-118, Class PI, IO, 4.00%, 6/25/42	1,053,185	184,177
Ser. 12-96, Class PI, IO, 4.00%, 7/25/41	349,842	50,282
Ser. 12-62, Class MI, IO, 4.00%, 3/25/41	395,224	50,405
Ser. 12-104, Class HI, IO, 4.00%, 9/25/27	814,720	96,523
Ser. 16-70, Class QI, IO, 3.50%, 10/25/46	2,883,273	456,480
Ser. 15-10, Class AI, IO, 3.50%, 8/25/43	857,419	126,710
Ser. 12-124, Class JI, IO, 3.50%, 11/25/42	288,107	37,512
Ser. 13-22, Class PI, IO, 3.50%, 10/25/42	724,382	134,511
Ser. 12-114, Class NI, IO, 3.50%, 10/25/41	1,109,231	171,986
Ser. 13-55, Class IK, IO, 3.00%, 4/25/43	462,704	50,712
Ser. 13-6, Class JI, IO, 3.00%, 2/25/43	1,017,844	112,917
Ser. 12-151, Class PI, IO, 3.00%, 1/25/43	423,808	46,068
Ser. 13-8, Class NI, IO, 3.00%, 12/25/42	449,542	46,821
Ser. 12-145, Class TI, IO, 3.00%, 11/25/42	429,971	30,614
Ser. 13-35, Class IP, IO, 3.00%, 6/25/42	496,465	40,214
Ser. 13-55, Class PI, IO, 3.00%, 5/25/42	747,554	63,856
Ser. 13-53, Class JI, IO, 3.00%, 12/25/41	564,735	56,304
Ser. 13-23, Class PI, IO, 3.00%, 10/25/41	541,688	36,033

**MORTGAGE-BACKED SECURITIES (31.3%)\* cont.**

	Principal amount	Value
<b>Agency collateralized mortgage obligations cont.</b>		
Federal National Mortgage Association		
Ser. 13-30, Class IP, IO, 3.00%, 10/25/41	\$787,081	\$53,647
Ser. 13-23, Class LI, IO, 3.00%, 6/25/41	482,150	32,304
Ser. 14-28, Class AI, IO, 3.00%, 3/25/40	669,134	69,791
FRB Ser. 03-W8, Class 3F2, 1.566%, 5/25/42	4,941	4,969
FRB Ser. 07-95, Class A3, 1.466%, 8/27/36	1,868,618	1,805,255
Ser. 08-53, Class DO, PO, zero %, 7/25/38	48,593	44,305
Ser. 07-44, Class CO, PO, zero %, 5/25/37	14,991	12,460
FRB Ser. 88-12, Class B, zero %, 2/25/18	8	8

Government National Mortgage Association		
Ser. 16-75, Class LI, IO, 6.00%, 1/20/40	597,773	139,729
IFB Ser. 11-81, Class SB, IO, 5.533%, 11/16/36	362,489	30,275
IFB Ser. 13-182, Class SP, IO, 5.488%, 12/20/43	511,701	96,184
IFB Ser. 11-156, Class SK, IO, 5.388%, 4/20/38	1,201,827	256,890
Ser. 15-89, Class LI, IO, 5.00%, 12/20/44	1,175,123	249,443
Ser. 14-133, Class IP, IO, 5.00%, 9/16/44	499,842	105,827
Ser. 14-76, IO, 5.00%, 5/20/44	642,493	135,773
Ser. 13-51, Class QI, IO, 5.00%, 2/20/43	474,011	88,674
Ser. 13-3, Class IT, IO, 5.00%, 1/20/43	276,251	58,442
Ser. 13-6, Class OI, IO, 5.00%, 1/20/43	208,000	43,957
Ser. 13-16, Class IB, IO, 5.00%, 10/20/40	43,406	2,969
Ser. 10-35, Class UI, IO, 5.00%, 3/20/40	306,190	64,657
Ser. 10-9, Class UI, IO, 5.00%, 1/20/40	972,137	205,756
Ser. 09-121, Class UI, IO, 5.00%, 12/20/39	760,726	161,746
Ser. 13-34, Class HI, IO, 4.50%, 3/20/43	733,324	140,747
Ser. 12-129, IO, 4.50%, 11/16/42	560,892	129,970
Ser. 12-91, Class IN, IO, 4.50%, 5/20/42	1,111,761	211,790
Ser. 11-18, Class PI, IO, 4.50%, 8/20/40	301,564	39,604
Ser. 10-35, Class AI, IO, 4.50%, 3/20/40	702,929	137,746
Ser. 10-35, Class DI, IO, 4.50%, 3/20/40	421,199	84,240
Ser. 10-35, Class QI, IO, 4.50%, 3/20/40	251,341	50,328
Ser. 10-9, Class QI, IO, 4.50%, 1/20/40	204,380	40,653
Ser. 09-121, Class BI, IO, 4.50%, 12/16/39	206,742	48,448
Ser. 09-121, Class CI, IO, 4.50%, 12/16/39	853,980	186,391
Ser. 11-81, Class PI, IO, 4.50%, 12/20/37	17,154	50
Ser. 16-69, IO, 4.00%, 5/20/46	1,157,035	185,438
Ser. 15-64, Class IG, IO, 4.00%, 5/20/45	713,575	139,368
Ser. 15-53, Class MI, IO, 4.00%, 4/16/45	578,365	124,605
Ser. 15-40, IO, 4.00%, 3/20/45	375,836	79,474
Ser. 14-100, Class NI, IO, 4.00%, 6/20/43	1,193,033	157,719
Ser. 13-165, Class IL, IO, 4.00%, 3/20/43	231,483	40,030
Ser. 12-56, Class IB, IO, 4.00%, 4/20/42	651,267	116,424
Ser. 12-47, Class CI, IO, 4.00%, 3/20/42	289,756	50,307
Ser. 14-104, IO, 4.00%, 3/20/42	641,193	110,907
Ser. 14-4, Class IK, IO, 4.00%, 7/20/39	352,717	34,415
Ser. 11-71, Class IK, IO, 4.00%, 4/16/39	402,126	43,560
Ser. 10-114, Class MI, IO, 4.00%, 3/20/39	497,885	38,431
Ser. 14-182, Class BI, IO, 4.00%, 1/20/39	820,655	132,264
Ser. 16-156, Class PI, IO, 3.50%, 11/20/46	859,971	108,715
Ser. 16-111, Class IP, IO, 3.50%, 8/20/46	1,540,977	195,125
Ser. 16-4, Class JI, IO, 3.50%, 1/20/46	985,889	154,854
Ser. 13-79, Class PI, IO, 3.50%, 4/20/43	557,617	84,189
Ser. 15-168, Class IG, IO, 3.50%, 3/20/43	778,225	118,114
Ser. 13-37, Class JI, IO, 3.50%, 1/20/43	341,636	53,353
Ser. 13-27, Class PI, IO, 3.50%, 12/20/42	310,324	48,488
Ser. 12-136, IO, 3.50%, 11/20/42	734,958	149,359

**MORTGAGE-BACKED SECURITIES (31.3%)\* cont.**

	Principal amount	Value
<b>Agency collateralized mortgage obligations cont.</b>		
Government National Mortgage Association		
Ser. 14-46, Class JI, IO, 3.50%, 10/20/41	\$358,091	\$48,262
Ser. 13-18, Class GI, IO, 3.50%, 5/20/41	486,938	55,316
Ser. 12-71, Class JI, IO, 3.50%, 4/16/41	288,212	20,812
Ser. 14-102, Class IG, IO, 3.50%, 3/16/41	297,900	38,774
Ser. 15-52, Class KI, IO, 3.50%, 11/20/40	860,339	118,211
Ser. 12-48, Class KI, IO, 3.50%, 12/16/39	346,236	32,589
Ser. 14-147, Class MI, IO, 3.50%, 7/20/39	642,284	39,642
Ser. 15-99, Class TI, IO, 3.50%, 4/20/39	936,129	89,073
Ser. 15-24, Class AI, IO, 3.50%, 12/20/37	831,800	107,200
Ser. 14-160, Class IB, IO, 3.00%, 11/20/40	1,287,754	106,884
Ser. 14-141, Class CI, IO, 3.00%, 3/20/40	396,282	33,695
Ser. 14-174, Class AI, IO, 3.00%, 11/16/29	691,130	68,277
Ser. 16-H13, Class IK, IO, 2.583%, 6/20/66	1,570,782	207,147
Ser. 15-H22, Class GI, IO, 2.575%, 9/20/65	1,655,979	212,628
Ser. 17-H03, Class KI, IO, 2.573%, 1/20/67	1,490,034	191,213
Ser. 16-H23, Class NI, IO, 2.404%, 10/20/66	1,995,363	255,007
Ser. 17-H04, Class BI, IO, 2.403%, 2/20/67	1,041,552	145,172
Ser. 16-H04, Class HI, IO, 2.362%, 7/20/65	946,249	99,167
Ser. 17-H08, Class GI, IO, 2.32%, 2/20/67	1,055,605	147,785
Ser. 16-H24, Class JI, IO, 2.302%, 11/20/66	623,677	82,247
Ser. 15-H13, Class AI, IO, 2.29%, 6/20/65	1,461,065	156,151
Ser. 16-H27, Class GI, IO, 2.276%, 12/20/66	1,591,352	224,062
Ser. 15-H10, Class HI, IO, 2.271%, 4/20/65	2,689,633	255,515
Ser. 16-H07, Class PI, IO, 2.251%, 3/20/66	2,710,813	350,711
Ser. 17-H08, Class NI, IO, 2.194%, 3/20/67	1,080,024	129,279
Ser. 17-H06, Class MI, IO, 2.173%, 2/20/67	1,740,958	220,057
Ser. 16-H03, Class AI, IO, 2.165%, 1/20/66	1,808,439	188,756
FRB Ser. 15-H16, Class XI, IO, 2.128%, 7/20/65	975,981	104,332
Ser. 16-H24, IO, 2.096%, 9/20/66	1,024,549	123,586
Ser. 16-H17, Class DI, IO, 2.088%, 7/20/66	1,569,007	179,024
Ser. 16-H11, Class HI, IO, 2.082%, 1/20/66	3,211,340	349,233
Ser. 16-H06, Class AI, IO, 2.079%, 2/20/66	1,000,491	94,446
Ser. 16-H06, Class HI, IO, 2.061%, 2/20/66	1,259,247	119,754
Ser. 15-H24, Class HI, IO, 2.034%, 9/20/65	1,513,725	120,190
Ser. 16-H18, Class QI, IO, 2.002%, 6/20/66	1,440,023	180,867
Ser. 15-H25, Class BI, IO, 1.993%, 10/20/65	1,156,032	117,222
Ser. 15-H20, Class CI, IO, 1.985%, 8/20/65	1,617,748	174,550
Ser. 15-H04, Class AI, IO, 1.937%, 12/20/64	1,350,606	119,866
Ser. 16-H04, Class KI, IO, 1.929%, 2/20/66	1,934,578	163,230
Ser. 16-H10, Class AI, IO, 1.904%, 4/20/66	1,546,283	124,940
Ser. 16-H06, Class DI, IO, 1.904%, 7/20/65	1,555,361	137,961
Ser. 15-H22, Class AI, IO, 1.902%, 9/20/65	1,741,131	173,068
Ser. 15-H23, Class TI, IO, 1.896%, 9/20/65	1,210,827	120,841
Ser. 17-H09, IO, 1.775%, 4/20/67	972,642	107,282
Ser. 14-H21, Class AI, IO, 1.754%, 10/20/64	1,665,578	153,566
Ser. 17-H10, Class MI, IO, 1.725%, 4/20/67	1,163,409	114,479
Ser. 14-H25, Class BI, IO, 1.684%, 12/20/64	1,245,159	108,453
Ser. 17-H06, Class EI, 1.576%, 2/20/67	828,485	61,018
Ser. 16-H08, Class GI, IO, 1.434%, 4/20/66	1,161,779	75,283
FRB Ser. 11-H07, Class FI, IO, 1.236%, 2/20/61	5,010,540	197,415
Ser. 10-151, Class KO, PO, zero %, 6/16/37	40,719	35,053
Ser. 06-36, Class OD, PO, zero %, 7/16/36	2,384	2,011

**21,043,792**

**Total mortgage-backed securities (cost \$20,893,918) \$21,043,792**

**PURCHASED SWAP OPTIONS OUTSTANDING (1.0%)\***

Counterparty	Fixed right % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Contract amount	Value
<b>Bank of America N.A.</b>				
(2.214)/3 month USD-LIBOR-BBA/ Aug-19		Aug-17/2.214	\$9,722,000	\$8,750
1.495/3 month USD-LIBOR-BBA/ Jul-18		Jul-17/1.495	11,666,400	4,550
(1.495)/3 month USD-LIBOR-BBA/ Jul-18		Jul-17/1.495	11,666,400	117
<b>Citibank, N.A.</b>				
(2.124)/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.124	5,833,200	82,015
(2.518)/3 month USD-LIBOR-BBA/ May-49		May-19/2.518	855,500	78,201
2.25/3 month USD-LIBOR-BBA/ Sep-27		Sep-17/2.25	7,777,600	64,710
(2.506)/3 month USD-LIBOR-BBA/ Jul-47		Jul-17/2.506	3,158,000	48,254
(2.57)/3 month USD-LIBOR-BBA/ Nov-22		Nov-17/2.57	3,888,800	38,888
(1.975)/3 month USD-LIBOR-BBA/ Nov-22		Nov-17/1.975	3,888,800	35,816
(1.896)/3 month USD-LIBOR-BBA/ Dec-22		Dec-17/1.896	2,496,000	30,102
(2.488)/3 month USD-LIBOR-BBA/ Jul-47		Jul-17/2.488	1,579,000	27,901
2.57/3 month USD-LIBOR-BBA/ Nov-22		Nov-17/2.57	3,888,800	25,938
1.975/3 month USD-LIBOR-BBA/ Nov-22		Nov-17/1.975	3,888,800	24,849
1.6125/3 month USD-LIBOR-BBA/ Aug-18		Aug-17/1.6125	15,555,200	19,600
1.896/3 month USD-LIBOR-BBA/ Dec-22		Dec-17/1.896	2,496,000	12,730
2.34/3 month USD-LIBOR-BBA/ Jul-47		Jul-17/2.34	3,158,000	4,169
2.326/3 month USD-LIBOR-BBA/ Jul-47		Jul-17/2.326	1,579,000	1,705
1.9275/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/1.9275	5,833,200	933
2.08475/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.08475	3,888,800	272
(2.491)/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.491	3,888,800	78
<b>Credit Suisse International</b>				
2.3724/3 month USD-LIBOR-BBA/ Aug-27		Aug-17/2.3724	1,959,100	24,489
(2.325)/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.325	5,833,200	21,875
2.8472/3 month USD-LIBOR-BBA/ Aug-27		Aug-17/2.8472	1,959,100	17,103
2.06375/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.06375	13,871,800	7,213
1.446/3 month USD-LIBOR-BBA/ Jul-18		Jul-17/1.446	11,666,400	1,633
(2.7225)/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.7225	11,666,400	350

**PURCHASED SWAP OPTIONS OUTSTANDING (1.0%)\* cont.**

Counterparty	Fixed right % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Contract amount	Value
<b>Goldman Sachs International</b>				
2.525/3 month USD-LIBOR-BBA/ Aug-37		Aug-17/2.525	\$1,944,400	\$30,119
(1.83)/3 month USD-LIBOR-BBA/ Sep-22		Sep-17/1.83	2,364,000	22,529
1.884/3 month USD-LIBOR-BBA/ Jul-18		Jul-17/1.884	11,666,400	12,716
(2.234)/3 month USD-LIBOR-BBA/ Aug-19		Aug-17/2.234	9,722,000	7,680
1.83/3 month USD-LIBOR-BBA/ Sep-22		Sep-17/1.83	2,364,000	4,893
1.44/3 month USD-LIBOR-BBA/ Jul-18		Jul-17/1.44	11,666,400	1,400
<b>JPMorgan Chase Bank N.A.</b>				
(2.81025)/3 month USD-LIBOR-BBA/ Oct-27		Oct-17/2.81025	7,777,600	11,822
1.999/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/1.999	3,888,800	428
<b>Total purchased swap options outstanding (cost \$831,754)</b>				<b>\$673,828</b>

PURCHASED OPTIONS OUTSTANDING (—%)*	Expiration date/strike price	Contract amount	Value
Federal National Mortgage Association 30 yr 2.50% TBA commitments (Call)	Aug-17/\$96.53	\$1,000,000	\$4,201
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Aug-17/99.88	2,000,000	12,280
<b>Total purchased options outstanding (cost \$17,657)</b>			<b>\$16,481</b>

ASSET-BACKED SECURITIES (0.3%)*	Principal amount	Value
Station Place Securitization Trust 144A FRB Ser. 17-1, Class A, 2.116%, 2/25/49	\$222,333	\$222,333
<b>Total asset-backed securities (cost \$222,333)</b>		<b>\$222,333</b>

REPURCHASE AGREEMENTS (11.8%)*	Principal amount/ shares	Value
Interest in \$237,209,000 joint tri-party repurchase agreement dated 6/30/17 with Merrill Lynch, Pierce, Fenner and Smith, Inc. due 7/3/17 — maturity value of \$2,650,241 for an effective yield of 1.090% (collateralized by various mortgage backed securities with coupon rates ranging from 2.500% to 3.500% and due dates ranging from 2/1/30 to 5/20/47, valued at \$241,953,181)	\$2,650,000	\$2,650,000
Interest in \$188,865,000 joint tri-party repurchase agreement dated 6/30/17 with Citigroup Global Markets, Inc. due 7/3/17 — maturity value of \$2,603,236 for an effective yield of 1.090% (collateralized by various mortgage backed securities and U.S. Treasury notes with coupon rates ranging from 1.250% to 9.000% and due dates ranging from 5/31/18 to 4/1/47, valued at \$192,642,300)	2,603,000	2,603,000



<b>REPURCHASE AGREEMENTS (11.8%)*</b> <i>cont.</i>	<b>Principal amount/ shares</b>	<b>Value</b>
Interest in \$275,000,000 joint tri-party repurchase agreement dated 6/30/17 with HSBC Bank USA, National Association due 7/3/17 — maturity value of \$2,650,239 for an effective yield of 1.080% (collateralized by various U.S. Treasury notes and bonds with coupon rates ranging from 0.125% to 8.125% and due dates ranging from 7/31/17 to 11/15/45, valued at \$280,501,996)	\$2,650,000	\$2,650,000
<b>Total repurchase agreements (cost \$7,903,000)</b>		<b>\$7,903,000</b>

<b>SHORT-TERM INVESTMENTS (0.2%)*</b>	<b>Shares</b>	<b>Value</b>
State Street Institutional U.S. Government Money Market Fund, Premier Class 0.88% P	120,000	\$120,000
<b>Total short-term investments (cost \$120,000)</b>		<b>\$120,000</b>
<b>Total investments (cost \$101,046,961)</b>		<b>\$101,485,811</b>

#### Key to holding's abbreviations

<b>FRB</b>	Floating Rate Bonds: the rate shown is the current interest rate at the close of the reporting period
<b>IFB</b>	Inverse Floating Rate Bonds, which are securities that pay interest rates that vary inversely to changes in the market interest rates. As interest rates rise, inverse floaters produce less current income. The rate shown is the current interest rate at the close of the reporting period.
<b>IO</b>	Interest Only
<b>PO</b>	Principal Only
<b>TBA</b>	To Be Announced Commitments

#### 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, 2017 through June 30, 2017 (the reporting period). Within the following notes to the portfolio, references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures*, 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.

\* Percentages indicated are based on net assets of \$67,235,892.

# 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.

Δ This security, in part or in entirety, was pledged and segregated with the custodian for collateral on certain derivative contracts at the close of the reporting period.

§ This security, in part or in entirety, was pledged and segregated with the custodian for collateral on the initial margin on certain centrally cleared derivative contracts at the close of the reporting period.

## Forward commitment, in part or in entirety (Note 1).

P This security was pledged, or purchased with cash that was pledged, to the fund for collateral on certain derivative contracts. The rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting period (Note 1).

At the close of the reporting period, the fund maintained liquid assets totaling \$37,648,585 to cover certain derivative contracts and delayed delivery securities.

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.

See Note 1 to the financial statements regarding TBA commitments.

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

<b>FUTURES CONTRACTS OUTSTANDING at 6/30/17 (Unaudited)</b>	<b>Number of contracts</b>	<b>Value</b>	<b>Expiration date</b>	<b>Unrealized appreciation/ (depreciation)</b>
U.S. Treasury Bond Ultra 30yr (Long)	22	\$3,649,250	Sep-17	\$57,706
U.S. Treasury Note 5yr (Long)	17	2,003,211	Sep-17	(4,815)
U.S. Treasury Note 10yr (Long)	66	8,285,063	Sep-17	(23,334)
<b>Total</b>				<b>\$29,557</b>

#### WRITTEN SWAP OPTIONS OUTSTANDING at 6/30/17 (premiums \$948,252) (Unaudited)

<b>Counterparty</b>	<b>Fixed Obligation % to receive or (pay)/Floating rate index/ Maturity date</b>	<b>Expiration date/strike</b>	<b>Contract amount</b>	<b>Value</b>
<b>Bank of America N.A.</b>				
2.082/3 month USD-LIBOR-BBA/ Jul-20		Jul-17/2.082	\$3,888,800	\$4
(1.728)/3 month USD-LIBOR-BBA/ Jul-20		Jul-17/1.728	3,888,800	1,361
2.404/3 month USD-LIBOR-BBA/ Aug-19		Aug-17/2.404	19,444,000	4,083
2.18/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.18	3,888,800	35,233
<b>Citibank, N.A.</b>				
(1.891)/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/1.891	3,888,800	39
(2.132)/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.132	1,944,400	2,411
(2.152)/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.152	3,888,800	6,105
2.291/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.291	3,888,800	9,255
2.4175/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.4175	5,833,200	10,091
(1.642)/3 month USD-LIBOR-BBA/ Dec-19		Dec-17/1.642	7,777,600	12,211
(2.0625)/3 month USD-LIBOR-BBA/Aug-18		Aug-17/2.0625	15,555,200	16,955
1.642/3 month USD-LIBOR-BBA/ Dec-19		Dec-17/1.642	7,777,600	27,066
2.132/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.132	1,944,400	27,610
(2.257)/3 month USD-LIBOR-BBA/ Nov-27		Nov-17/2.257	3,888,800	48,960
2.152/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.152	3,888,800	49,427
2.257/3 month USD-LIBOR-BBA/ Nov-27		Nov-17/2.257	3,888,800	72,798
2.208/3 month USD-LIBOR-BBA/ May-24		May-19/2.208	3,888,800	80,615
2.204/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.204	11,666,400	95,198
<b>Credit Suisse International</b>				
(1.8225)/3 month USD-LIBOR-BBA/Jul-18		Jul-17/1.8225	11,666,400	933
(2.15375)/3 month USD-LIBOR-BBA/Jul-27		Jul-17/2.15375	6,935,900	11,097
2.465/3 month USD-LIBOR-BBA/ Jul-27		Jul-17/2.465	17,499,600	15,050
(2.5816)/3 month USD-LIBOR-BBA/Aug-37		Aug-17/2.5816	1,959,100	40,691

**WRITTEN SWAP OPTIONS OUTSTANDING at 6/30/17 (premiums \$948,252)**

(Unaudited) cont.

**Counterparty****Fixed Obligation % to receive or (pay)/Floating rate index/ Maturity date****Expiration date/strike Contract amount Value****Goldman Sachs International**

(1.674)/3 month USD-LIBOR-BBA/ Jul-18 Jul-17/1.674 \$11,666,400 \$117

(1.9245)/3 month USD-LIBOR-BBA/ Jul-18 Jul-17/1.9245 11,666,400 583

(1.779)/3 month USD-LIBOR-BBA/ Jul-18 Jul-17/1.779 11,666,400 3,150

2.419/3 month USD-LIBOR-BBA/ Aug-19 Aug-17/2.419 19,444,000 3,694

(1.563)/3 month USD-LIBOR-BBA/ Sep-19 Sep-17/1.563 7,777,600 4,744

(2.805)/3 month USD-LIBOR-BBA/ Aug-27 Aug-17/2.805 1,944,400 13,747

(2.31)/3 month USD-LIBOR-BBA/ Aug-27 Aug-17/2.31 1,944,400 17,791

1.563/3 month USD-LIBOR-BBA/ Sep-19 Sep-17/1.563 7,777,600 20,066

**JPMorgan Chase Bank N.A.**

(1.799)/3 month USD-LIBOR-BBA/ Jul-27 Jul-17/1.799 7,777,600 8

2.534/3 month USD-LIBOR-BBA/ Oct-27 Oct-17/2.534 3,888,800 21,194

(6.00 Floor)/3 month USD-LIBOR-BBA/Mar-18 Mar-18/6.00 910,000 32,000

**Total \$684,287****WRITTEN OPTIONS****OUTSTANDING at 6/30/17 (premiums \$17,656) (Unaudited)****Expiration date/ strike price Contract amount Value**

Federal National Mortgage Association 30 yr 2.50% TBA commitments (Put) Aug-17/\$96.53 \$1,000,000 \$7,400

Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call) Aug-17/99.88 2,000,000 9,314

**Total \$16,714****FORWARD PREMIUM SWAP OPTION CONTRACTS****OUTSTANDING at 6/30/17 (Unaudited)****Counterparty****Fixed right or obligation % to receive or (pay)/****Floating rate index/ Maturity date****Expiration date/strike Contract amount Premium receivable/ (payable) Unrealized appreciation/ (depreciation)****Bank of America N.A.**

2.785/3 month USD-LIBOR-BBA/ Jan-47 (Purchased) Jan-27/2.785 \$1,166,600 \$(125,176) \$3,710

(2.203)/3 month USD-LIBOR-BBA/ Jun-24 (Purchased) Jun-19/2.203 1,944,400 (38,888) 3,422

(2.647)/3 month USD-LIBOR-BBA/ Jun-29 (Purchased) Jun-24/2.647 1,944,400 (76,026) 2,994

2.5925/3 month USD-LIBOR-BBA/ Jan-27 (Purchased) Jan-19/2.5925 1,166,600 (41,123) (280)

2.647/3 month USD-LIBOR-BBA/ Jun-29 (Purchased) Jun-24/2.647 1,944,400 (76,026) (3,655)

**FORWARD PREMIUM SWAP OPTION CONTRACTS****OUTSTANDING at 6/30/17 (Unaudited) cont.****Counterparty****Fixed right or obligation % to receive or (pay)/****Floating rate index/ Maturity date****Expiration date/strike Contract amount Premium receivable/ (payable) Unrealized appreciation/ (depreciation)****Bank of America N.A. cont.**

2.203/3 month USD-LIBOR-BBA/ Jun-24 (Purchased) Jun-19/2.203 \$1,944,400 \$(38,888) \$(5,250)

(2.785)/3 month USD-LIBOR-BBA/ Jan-47 (Purchased) Jan-27/2.785 1,166,600 (125,176) (6,428)

(2.5925)/3 month USD-LIBOR-BBA/ Jan-27 (Purchased) Jan-19/2.5925 1,166,600 (41,123) (16,752)

2.7175/3 month USD-LIBOR-BBA/ Jan-47 (Written) Jan-19/2.7175 1,166,600 105,402 33,598

(2.413)/3 month USD-LIBOR-BBA/ Jun-29 (Written) Jun-19/2.413 1,944,400 74,762 9,178

(2.7175)/3 month USD-LIBOR-BBA/ Jan-47 (Written) Jan-19/2.7175 1,166,600 105,402 6,743

2.413/3 month USD-LIBOR-BBA/ Jun-29 (Written) Jun-19/2.413 1,944,400 74,762 (6,067)

**Barclays Bank PLC**

(2.205)/3 month USD-LIBOR-BBA/ Jun-24 (Purchased) Jun-19/2.205 1,944,400 (38,888) 3,325

2.43/3 month USD-LIBOR-BBA/ Feb-22 (Purchased) Feb-19/2.43 1,166,600 (16,274) 1,808

2.205/3 month USD-LIBOR-BBA/ Jun-24 (Purchased) Jun-19/2.205 1,944,400 (38,888) (5,172)

(2.43)/3 month USD-LIBOR-BBA/ Feb-22 (Purchased) Feb-19/2.43 1,166,600 (16,274) (8,680)

**Citibank, N.A.**

(2.654)/3 month USD-LIBOR-BBA/ Jun-29 (Purchased) Jun-24/2.654 1,944,400 (76,026) 2,703

2.654/3 month USD-LIBOR-BBA/ Jun-29 (Purchased) Jun-24/2.654 1,944,400 (76,026) (3,383)

(2.42)/3 month USD-LIBOR-BBA/ Jun-29 (Written) Jun-19/2.42 1,944,400 74,859 8,711

2.42/3 month USD-LIBOR-BBA/ Jun-29 (Written) Jun-19/2.42 1,944,400 74,471 (5,717)

**Goldman Sachs International**

2.8175/3 month USD-LIBOR-BBA/ Mar-47 (Purchased) Mar-27/2.8175 233,300 (29,454) 1,535

(2.33)/3 month USD-LIBOR-BBA/ Aug-27 (Purchased) Aug-17/2.33 5,833,200 (44,332) 350

(2.5975)/3 month USD-LIBOR-BBA/ Aug-27 (Purchased) Aug-17/2.5975 11,666,400 (18,666) (817)

**FORWARD PREMIUM SWAP OPTION CONTRACTS**

**OUTSTANDING at 6/30/17 (Unaudited) cont.**

Counterparty	Fixed right or obligation % to receive or (pay)/ Floating rate index/ Maturity date	Expiration date/strike	Contract amount	Premium receivable/ (payable)	Unrealized appreciation/ (depreciation)
<b>Goldman Sachs International cont.</b>					
(2.8175)/3 month USD-LIBOR-BBA/ Mar-47 (Purchased)	Mar-27/2.8175		\$233,300	\$(29,454)	\$(1,502)
2.46/3 month USD-LIBOR-BBA/ Aug-27 (Written)	Aug-17/2.46		17,499,600	62,999	(1,750)
<b>JPMorgan Chase Bank N.A.</b>					
2.8325/3 month USD-LIBOR-BBA/ Feb-52 (Purchased)	Feb-22/2.8325		1,166,600	(162,887)	8,365
(2.8325)/3 month USD-LIBOR-BBA/ Feb-52 (Purchased)	Feb-22/2.8325		1,166,600	(162,887)	(30,717)
2.79/3 month USD-LIBOR-BBA/ Feb-49 (Written)	Feb-19/2.79		1,166,600	110,769	41,543
(2.79)/3 month USD-LIBOR-BBA/ Feb-49 (Written)	Feb-19/2.79		1,166,600	110,769	(4,923)
<b>Total</b>				<b>\$(478,287)</b>	<b>\$26,892</b>

**TBA SALE COMMITMENTS**

**OUTSTANDING**

at 6/30/17 (proceeds receivable \$15,417,109) (Unaudited)	Principal amount	Settlement date	Value
Federal Home Loan Mortgage Corporation, 3.00%, 7/1/47	\$1,000,000	7/13/17	\$997,852
Federal National Mortgage Association, 4.00%, 7/1/47	1,000,000	7/13/17	1,051,016
Federal National Mortgage Association, 3.50%, 7/1/47	10,000,000	7/13/17	10,268,750
Federal National Mortgage Association, 2.50%, 7/1/47	1,000,000	7/13/17	963,281
Government National Mortgage Association, 3.50%, 7/1/47	2,000,000	7/20/17	2,071,249
<b>Total</b>			<b>\$15,352,148</b>

**CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 6/30/17 (Unaudited)**

Notional amount	Upfront premium received (paid)	Termination date	Payments made by fund per annum	Payments received by fund per annum	Unrealized appreciation/ (depreciation)
\$17,765,800 <sup>E</sup>	\$35,941	9/20/19	1.70%	3 month USD-LIBOR-BBA	\$29,561
14,109,800 <sup>E</sup>	73,192	9/20/27	2.20%	3 month USD-LIBOR-BBA	209,352
1,992,700 <sup>E</sup>	(4,269)	9/20/22	3 month USD-LIBOR-BBA	1.90%	(13,753)
1,510,800 <sup>E</sup>	(16,000)	9/20/47	3 month USD-LIBOR-BBA	2.45%	(48,092)
4,265,600	(57)	6/27/27	2.15%	3 month USD-LIBOR-BBA	47,026
2,200,000	(29)	6/26/27	3 month USD-LIBOR-BBA	2.11504%	(31,292)
1,944,400 <sup>E</sup>	(26)	7/13/27	2.18%	3 month USD-LIBOR-BBA	17,305
356,000	(5)	6/30/27	2.1965%	3 month USD-LIBOR-BBA	2,430
5,205,000	(20)	7/5/19	1.60431%	3 month USD-LIBOR-BBA	592
5,205,000	(20)	7/5/19	1.6076%	3 month USD-LIBOR-BBA	241
<b>Total</b>	<b>\$88,707</b>				<b>\$213,370</b>

<sup>E</sup> Extended effective date.

**OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/17 (Unaudited)**

Swap counterparty/ Notional amount	Upfront premium received (paid)	Termination date	Payments received (paid) by fund per annum	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
<b>Bank of America N.A.</b>					
\$207,572	\$—	1/12/41	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	\$1,029
154,824	—	1/12/41	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	767

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/17 (Unaudited) cont.

Swap counterparty/ Notional amount	Upfront premium received (paid)	Termination date	Payments received (paid) by fund per annum	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
<b>Barclays Bank PLC</b>					
\$212,111	\$—	1/12/40	4.50% (1 month USD-LIBOR)	Synthetic MBX Index 4.50% 30 year Fannie Mae pools	\$(659)
185,319	—	1/12/42	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	1,033
44,233	—	1/12/40	4.00% (1 month USD-LIBOR)	Synthetic MBX Index 4.00% 30 year Fannie Mae pools	(149)
89,726	—	1/12/39	6.00% (1 month USD-LIBOR)	Synthetic TRS Index 6.00% 30 year Fannie Mae pools	(51)
368,399	—	1/12/40	4.00% (1 month USD-LIBOR)	Synthetic MBX Index 4.00% 30 year Fannie Mae pools	(1,237)
8,084	—	1/12/38	6.50% (1 month USD-LIBOR)	Synthetic TRS Index 6.50% 30 year Fannie Mae pools	1
65,593	—	1/12/41	5.00% (1 month USD-LIBOR)	Synthetic MBX Index 5.00% 30 year Ginnie Mae II pools	(249)
8,838	—	1/12/40	4.50% (1 month USD-LIBOR)	Synthetic MBX Index 4.50% 30 year Fannie Mae pools	(27)
291,759	—	1/12/39	(6.00%) 1 month USD-LIBOR	Synthetic MBX Index 6.00% 30 year Fannie Mae pools	778
113,741	—	1/12/38	6.50% (1 month USD-LIBOR)	Synthetic TRS Index 6.50% 30 year Fannie Mae pools	17
133,648	—	1/12/41	(5.00%) 1 month USD-LIBOR	Synthetic TRS Index 5.00% 30 year Fannie Mae pools	(606)
256,901	—	1/12/41	(4.00%) 1 month USD-LIBOR	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	(1,273)
11,112	—	1/12/43	3.50% (1 month USD-LIBOR)	Synthetic TRS Index 3.50% 30 year Fannie Mae pools	40
347,421	—	1/12/40	5.00% (1 month USD-LIBOR)	Synthetic MBX Index 5.00% 30 year Fannie Mae pools	(1,427)
5,664,430	—	1/12/41	5.00% (1 month USD-LIBOR)	Synthetic MBX Index 5.00% 30 year Fannie Mae pools	(19,753)
4,553,599	—	1/12/38	(6.50%) 1 month USD-LIBOR	Synthetic MBX Index 6.50% 30 year Fannie Mae pools	2,452
407,000	—	7/3/22	(1.9225%)	USA Non Revised Consumer Price Index-Urban (CPI-U)	(582)
407,000	—	7/3/27	2.085%	USA Non Revised Consumer Price Index-Urban (CPI-U)	1,144
466,000	—	7/5/22	(1.89%)	USA Non Revised Consumer Price Index-Urban (CPI-U)	127
466,000	—	7/5/27	2.05%	USA Non Revised Consumer Price Index-Urban (CPI-U)	(344)

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/17 (Unaudited) cont.

Swap counterparty/ Notional amount	Upfront premium received (paid)	Termination date	Payments received (paid) by fund per annum	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
<b>Citibank, N.A.</b>					
\$64,593	\$—	1/12/41	5.00% (1 month USD-LIBOR)	Synthetic MBX Index 5.00% 30 year Fannie Mae pools	\$(225)
<b>Credit Suisse International</b>					
202,066	—	1/12/41	(5.00%) 1 month USD-LIBOR	Synthetic TRS Index 5.00% 30 year Fannie Mae pools	(917)
177,779	—	1/12/41	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	881
184,394	—	1/12/44	3.50% (1 month USD-LIBOR)	Synthetic TRS Index 3.50% 30 year Fannie Mae pools	895
23,739	—	1/12/43	3.50% (1 month USD-LIBOR)	Synthetic TRS Index 3.50% 30 year Fannie Mae pools	86
125,090	—	1/12/45	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	678
91,267	—	1/12/45	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	495
92,129	—	1/12/45	3.50% (1 month USD-LIBOR)	Synthetic TRS Index 3.50% 30 year Fannie Mae pools	519
392,468	—	1/12/44	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	1,760
301,590	—	1/12/41	(4.00%) 1 month USD-LIBOR	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	(1,495)
<b>Goldman Sachs International</b>					
226,995	—	1/12/38	6.50% (1 month USD-LIBOR)	Synthetic TRS Index 6.50% 30 year Fannie Mae pools	34
175,121	—	1/12/38	6.50% (1 month USD-LIBOR)	Synthetic TRS Index 6.50% 30 year Fannie Mae pools	26
541,170	—	1/12/39	6.00% (1 month USD-LIBOR)	Synthetic TRS Index 6.00% 30 year Fannie Mae pools	(309)
219,968	—	1/12/38	6.50% (1 month USD-LIBOR)	Synthetic TRS Index 6.50% 30 year Fannie Mae pools	33
459,901	—	1/12/42	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	2,564
459,901	—	1/12/42	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	2,564
324,935	—	1/12/38	(6.50%) 1 month USD-LIBOR	Synthetic MBX Index 6.50% 30 year Fannie Mae pools	175
122,069	—	1/12/38	(6.50%) 1 month USD-LIBOR	Synthetic MBX Index 6.50% 30 year Fannie Mae pools	66
96,997	—	1/12/40	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	344

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/17 (Unaudited) cont.

Swap counterparty/ Notional amount	Upfront premium received (paid)	Termination date	Payments received (paid) by fund per annum	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
<b>Goldman Sachs International cont.</b>					
\$872	\$—	1/12/39	6.00% (1 month USD-LIBOR)	Synthetic TRS Index 6.00% 30 year Fannie Mae pools	\$—
224,256	—	1/12/39	6.00% (1 month USD-LIBOR)	Synthetic TRS Index 6.00% 30 year Fannie Mae pools	(128)
445,095	—	1/12/38	(6.50%) 1 month USD-LIBOR	Synthetic MBX Index 6.50% 30 year Fannie Mae pools	240
16,493	—	1/12/38	(6.50%) 1 month USD-LIBOR	Synthetic MBX Index 6.50% 30 year Fannie Mae pools	9
43,994	—	1/12/38	(6.50%) 1 month USD-LIBOR	Synthetic MBX Index 6.50% 30 year Fannie Mae pools	24
49,599	—	1/12/38	6.50% (1 month USD-LIBOR)	Synthetic TRS Index 6.50% 30 year Fannie Mae pools	7
248,769	—	1/12/38	6.50% (1 month USD-LIBOR)	Synthetic TRS Index 6.50% 30 year Fannie Mae pools	37
307,321	—	1/12/42	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	1,713
340,370	—	1/12/42	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	1,898
379,900	—	1/12/39	6.00% (1 month USD-LIBOR)	Synthetic TRS Index 6.00% 30 year Fannie Mae pools	(217)
363,226	—	1/12/42	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	2,025
258,585	—	1/12/41	(5.00%) 1 month USD-LIBOR	Synthetic TRS Index 5.00% 30 year Fannie Mae pools	(1,173)
355,456	—	1/12/44	(3.00%) 1 month USD-LIBOR	Synthetic TRS Index 3.00% 30 year Fannie Mae pools	(969)
296,217	—	1/12/41	(4.00%) 1 month USD-LIBOR	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	(1,468)
<b>JPMorgan Chase Bank N.A.</b>					
290,112	—	1/12/41	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	1,438
24,420	—	1/12/41	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	121
258,372	—	1/12/41	(5.00%) 1 month USD-LIBOR	Synthetic TRS Index 5.00% 30 year Fannie Mae pools	(1,172)
<b>JPMorgan Securities LLC</b>					
207,109	—	1/12/44	4.00% (1 month USD-LIBOR)	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	929
2,116,037	—	1/12/42	(4.00%) 1 month USD-LIBOR	Synthetic TRS Index 4.00% 30 year Fannie Mae pools	(11,799)
<b>Total</b>	<b>\$—</b>				<b>\$(19,280)</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:

	Valuation inputs		
	Level 1	Level 2	Level 3
<b>Investments in securities:</b>			
Asset-backed securities	\$—	\$222,333	\$—
Mortgage-backed securities	—	20,784,141	259,651
Purchased options outstanding	—	16,481	—
Purchased swap options outstanding	—	673,828	—
U.S. government and agency mortgage obligations	—	60,946,418	—
U.S. treasury obligations	—	10,559,959	—
Repurchase agreements	—	7,903,000	—
Short-term investments	120,000	—	—
<b>Totals by level</b>	<b>\$120,000</b>	<b>\$101,106,160</b>	<b>\$259,651</b>

	Valuation inputs		
	Level 1	Level 2	Level 3
<b>Other financial instruments:</b>			
Futures contracts	\$29,557	\$—	\$—
Written options outstanding	—	(16,714)	—
Written swap options outstanding	—	(684,287)	—
Forward premium swap option contracts	—	26,892	—
TBA sale commitments	—	(15,352,148)	—
Interest rate swap contracts	—	124,663	—
Total return swap contracts	—	(19,280)	—
<b>Totals by level</b>	<b>\$29,557</b>	<b>\$(15,920,874)</b>	<b>\$—</b>

During the reporting period, transfers within the fair value hierarchy, if any, did not represent, in the aggregate, more than 1% of the fund's net assets measured as of the end of the period. Transfers are accounted for using the end of period pricing valuation method.

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

# Statement of assets and liabilities

6/30/17 (Unaudited)

## Assets

Investment in securities, at value (Note 1):	
Unaffiliated issuers (identified cost \$93,143,961)	\$93,582,811
Repurchase agreements (identified cost \$7,903,000) (Note 1)	7,903,000
Cash	25,395
Interest and other receivables	626,007
Receivable for shares of the fund sold	16,342
Receivable for investments sold	309,250
Receivable for sales of delayed delivery securities (Note 1)	9,243,207
Receivable for variation margin on centrally cleared swap contracts (Note 1)	400,320
Unrealized appreciation on forward premium swap option contracts (Note 1)	127,985
Unrealized appreciation on OTC swap contracts (Note 1)	26,949
<b>Total assets</b>	<b>112,261,266</b>

## Liabilities

Payable for purchases of delayed delivery securities (Note 1)	28,012,311
Payable for shares of the fund repurchased	141,756
Payable for compensation of Manager (Note 2)	21,799
Payable for custodian fees (Note 2)	27,068
Payable for investor servicing fees (Note 2)	7,908
Payable for Trustee compensation and expenses (Note 2)	74,883
Payable for administrative services (Note 2)	279
Payable for distribution fees (Note 2)	6,029
Payable for variation margin on futures contracts (Note 1)	36,610
Payable for variation margin on centrally cleared swap contracts (Note 1)	340,270
Unrealized depreciation on OTC swap contracts (Note 1)	46,229
Unrealized depreciation on forward premium swap option contracts (Note 1)	101,093
Written options outstanding, at value (premiums \$965,908) (Notes 1 and 3)	701,001
TBA sale commitments, at value (proceeds receivable \$15,417,109) (Note 1)	15,352,148
Collateral on certain derivative contracts, at value (Note 1)	120,000
Other accrued expenses	35,990
<b>Total liabilities</b>	<b>45,025,374</b>
<b>Net assets</b>	<b>\$67,235,892</b>

## Represented by

Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$82,745,415
Undistributed net investment income (Note 1)	620,530
Accumulated net realized loss on investments	(17,149,310)
Net unrealized appreciation of investments	1,019,257
<b>Total — Representing net assets applicable to capital shares outstanding</b>	<b>\$67,235,892</b>

## Computation of net asset value Class IA

Net assets	\$38,101,231
Number of shares outstanding	4,017,526
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$9.48

## Computation of net asset value Class IB

Net assets	\$29,134,661
Number of shares outstanding	3,077,512
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$9.47

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



## Statement of operations

Six months ended 6/30/17 (Unaudited)

### Investment income

Interest	\$1,187,933
<b>Total investment income</b>	<b>1,187,933</b>

### Expenses

Compensation of Manager (Note 2)	137,246
Investor servicing fees (Note 2)	24,520
Custodian fees (Note 2)	24,798
Trustee compensation and expenses (Note 2)	2,524
Distribution fees (Note 2)	38,331
Administrative services (Note 2)	823
Auditing and tax fees	28,181
Other	13,491
Fees waived and reimbursed by Manager (Note 2)	(108)
<b>Total expenses</b>	<b>269,806</b>

Expense reduction (Note 2)	(107)
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<b>Net expenses</b>	<b>269,699</b>
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<b>Net investment income</b>	<b>918,234</b>
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Net realized loss on securities from unaffiliated issuers (Notes 1 and 3)	(872,565)
Net realized loss on swap contracts (Note 1)	(795,248)
Net realized gain on futures contracts (Note 1)	224,316
Net realized gain on written options (Notes 1 and 3)	585,301
Net unrealized depreciation of securities in unaffiliated issuers and TBA sale commitments during the period	(345,151)
Net unrealized appreciation of swap contracts during the period	585,964
Net unrealized appreciation of futures contracts during the period	86,883
Net unrealized appreciation of written options during the period	622,610

<b>Net gain on investments</b>	<b>92,110</b>
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<b>Net increase in net assets resulting from operations</b>	<b>\$1,010,344</b>
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## Statement of changes in net assets

	Six months ended 6/30/17*	Year ended 12/31/16
<b>Decrease in net assets</b>		
<b>Operations:</b>		
Net investment income	\$918,234	\$1,833,069
Net realized loss on investments	(858,196)	(1,793,667)
Net unrealized appreciation of investments	950,306	236,426
<b>Net increase in net assets resulting from operations</b>	<b>1,010,344</b>	<b>275,828</b>
Distributions to shareholders (Note 1):		
From ordinary income		
Net investment income		
Class IA	(1,024,324)	(924,299)
Class IB	(695,766)	(693,310)
Decrease from capital share transactions (Note 4)	(5,717,403)	(5,085,944)
<b>Total decrease in net assets</b>	<b>(6,427,149)</b>	<b>(6,427,725)</b>
<b>Net assets:</b>		
Beginning of period	73,663,041	80,090,766
<b>End of period</b> (including undistributed net investment income of \$620,530 and \$1,422,386, respectively)	<b>\$67,235,892</b>	<b>\$73,663,041</b>

\* Unaudited.

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

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

Period ended	INVESTMENT OPERATIONS:				LESS DISTRIBUTIONS:				RATIOS AND SUPPLEMENTAL DATA:				
	Net asset value, beginning of period	Net investment income (loss) <sup>a</sup>	Net realized and unrealized gain (loss) on investments	Total from investment operations	From net investment income	From net realized gain on investments	Total distributions	Net asset value, end of period	Total return at net asset value (%) <sup>b,c</sup>	Net assets, end of period (in thousands)	Ratio of expenses to average net assets (%) <sup>b,d</sup>	Ratio of net investment income (loss) to average net assets (%)	Portfolio turnover (%)
<b>Class IA</b>													
6/30/17†	\$9.59	.13	.01	.14	(.25)	—	(.25)	\$9.48	1.52*	\$38,101	.33 <sup>e</sup>	1.37 <sup>e</sup>	675 <sup>f</sup>
12/31/16	9.76	.24	(.20)	.04	(.21)	—	(.21)	9.59	.36	40,362	.64 <sup>e</sup>	2.43 <sup>e</sup>	1,028 <sup>f</sup>
12/31/15	10.02	.19	(.22)	(.03)	(.23)	—	(.23)	9.76	(.33)	44,229	.62	1.92	905 <sup>f</sup>
12/31/14	10.01	.22	.22	.44	(.43)	—	(.43)	10.02	4.49	50,935	.62	2.17	587 <sup>f</sup>
12/31/13	10.19	.23	(.25)	(.02)	(.16)	—	(.16)	10.01	(.19)	57,347	.63	2.29	390 <sup>g</sup>
12/31/12	11.91	.23	(.01)	.22	(.33)	(1.61)	(1.94)	10.19	2.16	73,670	.64	2.18	456 <sup>g</sup>
<b>Class IB</b>													
6/30/17†	\$9.56	.12	.01	.13	(.22)	—	(.22)	\$9.47	1.42*	\$29,135	.45 <sup>e</sup>	1.24 <sup>e</sup>	675 <sup>f</sup>
12/31/16	9.72	.21	(.19)	.02	(.18)	—	(.18)	9.56	.20	33,301	.89 <sup>e</sup>	2.18 <sup>e</sup>	1,028 <sup>f</sup>
12/31/15	9.99	.16	(.22)	(.06)	(.21)	—	(.21)	9.72	(.65)	35,862	.87	1.67	905 <sup>f</sup>
12/31/14	9.97	.19	.23	.42	(.40)	—	(.40)	9.99	4.31	41,287	.87	1.89	587 <sup>f</sup>
12/31/13	10.15	.20	(.25)	(.05)	(.13)	—	(.13)	9.97	(.48)	33,075	.88	2.04	390 <sup>g</sup>
12/31/12	11.87	.20	(.02)	.18	(.29)	(1.61)	(1.90)	10.15	1.85	41,454	.89	1.94	456 <sup>g</sup>

\* Not annualized.

† Unaudited.

<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 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 waivers, the expenses of each class reflect a reduction of less than 0.01% as a percentage of average net assets.

<sup>f</sup> Portfolio turnover includes TBA purchase and sale commitments.

<sup>g</sup> Portfolio turnover excludes TBA purchase and sale commitments. Including TBA purchase and sale commitments to conform with current year presentation, the portfolio turnover would have been the following:

	Portfolio turnover %
December 31, 2013	965%
December 31, 2012	1,041

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

## Notes to financial statements 6/30/17 (Unaudited)

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, 2017 through June 30, 2017.

Putnam VT American Government Income 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 high current income with preservation of capital as its secondary objective. The fund invests mainly in bonds and securitized debt instruments (such as mortgage-backed investments) that are obligations of the U.S. government, its agencies and instrumentalities and accordingly are backed by the full faith and credit of the United States (e.g., U.S. Treasury bonds and Ginnie Mae mortgage-backed bonds) or by only the credit of a federal agency or government-sponsored entity (e.g., Fannie Mae and Freddie Mac mortgage-backed bonds), and that have short- to long-term maturities. Under normal circumstances, the fund invests at least 80% of the fund’s net assets in U.S. government securities. The fund may invest up to 20% of the fund’s net assets in mortgage-backed and other asset-backed securities of private (non-governmental) issuers and securities issued by money market funds, in each case rated AAA or its equivalent at the time of purchase by a nationally recognized securities rating agency or, if unrated, that Putnam Management determines to be of comparable quality. This policy may be changed only after 60 days’ notice to shareholders. Putnam Management may consider, among other factors, credit, interest rate and prepayment risks, as well as general market conditions, when deciding whether to buy or sell investments. The fund typically uses to a significant extent derivatives, such as futures, options, and swap contracts, for both hedging and non-hedging purposes.

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

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

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

Under the fund’s 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, including mortgage backed securities and short-term investments with remaining maturities of 60 days or less, are valued on the basis of valuations provided by an independent pricing service approved by the Trustees or dealers selected by Putnam Management. Such service providers use information with respect to transactions in bonds, quotations from bond dealers, market transactions in comparable securities and various relationships between securities in determining value. These securities will generally be categorized as Level 2.

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. Certain securities may be valued on the basis of a price provided by a single source. 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.

**Joint trading account** Pursuant to an exemptive order from the SEC, the fund may transfer uninvested cash balances into a joint trading account along with the cash of other registered investment companies and certain other accounts managed by Putnam Management. These balances may be invested in issues of short-term investments having maturities of up to 90 days.

**Repurchase agreements** The fund, or any joint trading account, through its custodian, receives delivery of the underlying securities, the fair value of which at the time of purchase is required to be in an amount at least equal to the resale price, including accrued interest. Collateral for certain tri-party repurchase agreements is held at the counterparty’s custodian in a segregated account for the benefit of the fund and the counterparty. Putnam Management is responsible for determining that the value of these underlying securities is at all times at least equal to the resale price, including accrued interest. In the event of default or bankruptcy by the other party to the agreement, retention of the collateral may be subject to legal proceedings.

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

Interest income, net of any applicable withholding taxes, is recorded on the accrual basis. All premiums/discounts are amortized/accreted on a yield-to-maturity basis.

Securities purchased or sold on a forward commitment or delayed delivery basis may be settled at a future date beyond customary settlement time; interest income is accrued based on the terms of the securities. Losses may arise due to changes in the fair value of the underlying securities or if the counterparty does not perform under the contract.

**Stripped securities** The fund may invest in stripped securities which represent a participation in securities that may be structured in classes with rights to receive different portions of the interest and principal. Interest-only securities receive all of the interest and principal-only securities receive all of the principal. If the

interest-only securities experience greater than anticipated prepayments of principal, the fund may fail to recoup fully its initial investment in these securities. Conversely, principal-only securities increase in value if prepayments are greater than anticipated and decline if prepayments are slower than anticipated. The fair value of these securities is highly sensitive to changes in interest rates.

**Options contracts** The fund uses options contracts to hedge duration and convexity, to isolate prepayment risk and to manage downside risks.

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

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

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

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

**Futures contracts** The fund uses futures contracts for hedging treasury term structure risk and for yield curve positioning.

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.

**Interest rate swap contracts** The fund entered into OTC and/or centrally cleared interest rate swap contracts, which are arrangements between two parties to exchange cash flows based on a notional principal amount, for hedging term structure risk and for yield curve positioning.

An OTC and centrally cleared interest rate swap can be purchased or sold with an upfront premium. For OTC interest rate swap contracts, an upfront payment received by the fund is recorded as a liability on the fund's books. An upfront payment made by the fund is recorded as an asset on the fund's books. OTC and centrally cleared interest rate swap contracts are marked to market daily based upon quotations from an independent pricing service or market makers. Any change is recorded as an unrealized gain or loss on OTC interest rate swaps. Daily fluctuations in the value of centrally cleared interest rate 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, including upfront premiums, received or made are recorded as realized gains or losses at the reset date or the closing of the contract. Certain OTC and centrally cleared interest rate 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 if the counterparty defaults, in the case of OTC interest rate contracts, or the central clearing agency or a clearing member defaults, in the case of centrally cleared interest rate swap contracts, on its respective obligation to perform under the contract. 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 interest rate swap contracts by having a master netting arrangement between the fund and the counterparty and for centrally cleared interest rate swap contracts through the daily exchange of variation margin. There is minimal counterparty risk with respect to centrally cleared interest rate 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 centrally cleared interest rate swap contracts outstanding, including their respective notional amounts at period end, if any, are listed after the fund's portfolio.

**Total return swap contracts** The fund entered into OTC total return swap contracts, which are arrangements to exchange a market-linked return for a periodic payment, both based on a notional principal amount, to hedge sector exposure and for gaining exposure to specific sectors.

To the extent that the total return of the security, index or other financial measure underlying the transaction exceeds or falls short of the offsetting interest rate obligation, the fund will receive a payment from or make a payment to the counterparty. OTC total return swap contracts are marked to market daily based upon quotations from an independent pricing service or market makers and the change, if any, is recorded as an unrealized gain or loss. Payments received or made are recorded as realized gains or losses. Certain OTC total return swap contracts may include extended effective dates. Payments related to these swap contracts are accrued based on the terms of the contract. The fund could be exposed to credit or market risk due to unfavorable changes in the fluctuation of interest rates or in the price of the underlying security or index, the possibility that there is no liquid market for these agreements or that the counterparty may default on its obligation to perform. The fund's maximum risk of loss from counterparty risk is the fair value of the contract. This risk may be mitigated by having a master netting arrangement between the fund and the counterparty. Risk of loss may exceed amounts recognized on the Statement of assets and liabilities.

OTC total return swap contracts outstanding, including their respective notional amounts at period end, if any, are listed after the fund's portfolio.

**TBA commitments** The fund may enter into TBA (to be announced) commitments to purchase securities for a fixed unit price at a future date beyond customary settlement time. Although the unit price and par amount have been established, the actual securities have not been specified. However, it is anticipated that the amount of the commitments will not significantly differ from the principal amount. The fund holds, and maintains until settlement date, cash or high-grade debt obligations in an amount sufficient to meet the purchase price, or the fund may enter into offsetting contracts for the forward sale of other securities it owns. Income on the securities will not be earned until settlement date.

The fund may also enter into TBA sale commitments to hedge its portfolio positions, to sell mortgage-backed securities it owns under delayed delivery arrangements or to take a short position in mortgage-backed securities. Proceeds of TBA sale commitments are not received until the contractual settlement date. During the time a TBA sale commitment is outstanding, either equivalent deliverable securities or an offsetting TBA purchase commitment deliverable on or before the sale commitment date are held as "cover" for the transaction, or other liquid assets in an amount equal to the notional value of the TBA sale commitment are segregated. If the TBA sale commitment is closed through the acquisition of an offsetting TBA purchase commitment, the fund realizes a gain or loss. If the fund delivers securities under the commitment, the fund realizes a gain or a loss from the sale of the securities based upon the unit price established at the date the commitment was entered into.

TBA commitments, which are accounted for as purchase and sale transactions, may be considered securities themselves, and involve a risk of loss due to changes in the value of the security prior to the settlement date as well as the risk that the counterparty to the transaction will not perform its obligations. Counterparty risk is mitigated by having a master agreement between the fund and the counterparty.

Unsettled TBA commitments are valued at their fair value according to the procedures described under "Security valuation" above. The contract is marked to market daily and the change in fair value is recorded by the fund as an unrealized gain or loss. Based on market circumstances, Putnam Management will determine

whether to take delivery of the underlying securities or to dispose of the TBA commitments prior to settlement.

TBA purchase commitments outstanding at period end, if any, are listed within the fund's portfolio and TBA sale commitments outstanding at period end, if any, are listed after the fund's portfolio.

**Master agreements** The fund is a party to ISDA (International Swaps and Derivatives Association, Inc.) Master Agreements that govern OTC derivative and foreign exchange contracts and Master Securities Forward Transaction Agreements that govern transactions involving mortgage-backed and other asset-backed securities that may result in delayed delivery (Master Agreements) with certain counterparties entered into from time to time. The Master Agreements may contain provisions regarding, among other things, the parties' general obligations, representations, agreements, collateral requirements, events of default and early termination. With respect to certain counterparties, in accordance with the terms of the Master Agreements, collateral posted to the fund is held in a segregated account by the fund's custodian and, with respect to those amounts which can be sold or repledged, are presented in the fund's portfolio. Collateral posted to the fund which cannot be sold or repledged totaled \$22,017 at the close of the reporting period.

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.

With respect to ISDA Master Agreements, 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 or 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 \$71,139 on open derivative contracts subject to the Master Agreements. Collateral posted by the fund at period end for these agreements totaled \$77,726 and may include amounts related to unsettled agreements.

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

**Lines of credit** The fund participates, along with other Putnam funds, in a \$317.5 million unsecured committed line of credit and a \$235.5 million unsecured uncommitted line of credit, both provided by State Street. Borrowings may be made for temporary or emergency purposes, including the funding of shareholder redemption requests and trade settlements. Interest is charged to the fund based on the fund's borrowing at a rate equal to the higher of (1) the Federal Funds rate and (2) the overnight LIBOR plus 1.25% for the committed line of credit and the Federal Funds rate plus 1.30% for the uncommitted line of credit. A closing fee equal to 0.04% of the committed line of credit plus a \$25,000 flat fee and 0.04% of the uncommitted line of credit has been paid by the participating funds. In addition, a commitment fee of 0.21% per annum on any unutilized portion of the committed line of credit is allocated to the participating funds based on their relative net assets and paid quarterly. During the reporting period, the fund had no borrowings against these arrangements.

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

The fund is subject to the provisions of Accounting Standards Codification 740 *Income Taxes* (ASC 740). ASC 740 sets forth a minimum threshold for financial statement recognition of the benefit of a tax position taken or expected to be taken in a tax return. The fund did not have a liability to record for any unrecognized tax benefits in the accompanying financial statements. No provision has been made for federal taxes on income, capital gains or unrealized appreciation on securities

held nor for excise tax on income and capital gains. Each of the fund's federal tax returns for the prior three fiscal years remains subject to examination by the Internal Revenue Service.

Under the Regulated Investment Company Modernization Act of 2010, the fund will be permitted to carry forward capital losses incurred for an unlimited period and the carry forwards will retain their character as either short-term or long-term capital losses. At December 31, 2016, the fund had the following capital loss carryovers available, to the extent allowed by the Code, to offset future net capital gain, if any:

Loss carryover		
Short-term	Long-term	Total
\$14,882,324	\$118,136	\$15,000,460

The aggregate identified cost on a tax basis is \$102,298,203, resulting in gross unrealized appreciation and depreciation of \$1,191,585 and \$2,003,977, respectively, or net unrealized depreciation of \$812,392.

**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. Dividend sources are estimated at the time of declaration. Actual results may vary. Any non-taxable return of capital cannot be determined until final tax calculations are completed after the end of the fund's fiscal year. 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.

**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 35.8% 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:

0.550%	of the first \$5 billion,
0.500%	of the next \$5 billion,
0.450%	of the next \$10 billion,
0.400%	of the next \$10 billion,
0.350%	of the next \$50 billion,
0.330%	of the next \$50 billion,
0.320%	of the next \$100 billion and
0.315%	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 0.196% of the fund's average net assets.

Putnam Management has contractually agreed, through April 30, 2019, to waive fees or reimburse the fund's expenses to the extent necessary to limit the cumulative expenses of the fund, exclusive of brokerage, interest, taxes, investment-related expenses, extraordinary expenses, acquired fund fees and expenses and payments under the fund's investor servicing contract, investment management contract and distribution plans, on a fiscal year-to-date basis to an annual rate of 0.20% of the fund's average net assets over such fiscal year-to-date period. During the reporting period, the fund's expenses were reduced by \$108 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 0.25% of the average net assets of the portion of the fund managed by PIL.

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

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

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

Class IA	\$13,692
Class IB	10,828
Total	\$24,520

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 \$107 under the expense offset arrangements.

Each Independent Trustee of the fund receives an annual Trustee fee, of which \$52, as a quarterly retainer, has been allocated to the fund, and an additional fee for each Trustees meeting attended. Trustees also are reimbursed for expenses they incur relating to their services as Trustees.

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

The fund has adopted an unfunded noncontributory defined benefit pension plan (the Pension Plan) covering all Trustees of the fund who have served as a Trustee for at least five years and were first elected prior to 2004. Benefits under

the Pension Plan are equal to 50% of the Trustee's average annual attendance and retainer fees for the three years ended December 31, 2005. The retirement benefit is payable during a Trustee's lifetime, beginning the year following retirement, for the number of years of service through December 31, 2006. Pension expense for the fund is included in Trustee compensation and expenses in the Statement of operations. Accrued pension liability is included in Payable for Trustee compensation and expenses in the Statement of assets and liabilities. The Trustees have terminated the Pension Plan with respect to any Trustee first elected after 2003.

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

### Note 3 — Purchases and sales of securities

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

	Cost of purchases	Proceeds from sales
Investments in securities, including TBA commitments (Long-term)	\$557,544,431	\$567,167,339
U.S. government securities (Long-term)	—	—
<b>Total</b>	<b>\$557,544,431</b>	<b>\$567,167,339</b>

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

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

	Written swap option contract amounts	Written swap option premiums	Written option contract amounts	Written option premiums
Written options outstanding at the beginning of the reporting period	\$76,741,600	\$330,088	\$17,000,000	\$95,781
Options opened	746,555,600	2,332,371	65,000,000	328,984
Options exercised	(27,934,200)	(148,550)	—	—
Options expired	(256,401,200)	(549,042)	—	—
Options closed	(273,662,800)	(1,016,615)	(79,000,000)	(407,109)
Written options outstanding at the end of the reporting period	\$265,299,000	\$948,252	\$3,000,000	\$17,656

### 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			
	Six months ended 6/30/17		Year ended 12/31/16		Six months ended 6/30/17		Year ended 12/31/16	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	120,050	\$1,142,424	558,537	\$5,434,808	195,268	\$1,862,515	998,210	\$9,692,019
Shares issued in connection with reinvestment of distributions	109,087	1,024,324	96,382	924,299	74,175	695,766	72,446	693,310
	229,137	2,166,748	654,919	6,359,107	269,443	2,558,281	1,070,656	10,385,329
Shares repurchased	(419,387)	(3,998,149)	(979,542)	(9,511,732)	(675,790)	(6,444,283)	(1,274,898)	(12,318,648)
<b>Net decrease</b>	<b>(190,250)</b>	<b>\$(1,831,401)</b>	<b>(324,623)</b>	<b>\$(3,152,625)</b>	<b>(406,347)</b>	<b>\$(3,886,002)</b>	<b>(204,242)</b>	<b>\$(1,933,319)</b>

**Note 5 — 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. The fund may invest a significant portion of its assets in securitized debt instruments, including mortgage-backed and asset-backed investments. The yields and values of these investments are sensitive to changes in interest rates, the rate of principal payments on the underlying assets and the market's perception of the issuers. The market for these investments may be volatile and limited, which may make them difficult to buy or sell.

**Note 6 — Summary of derivative activity**

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

Purchased TBA commitment option contracts (contract amount)	\$9,300,000
Purchased swap option contracts (contract amount)	\$196,300,000
Written TBA commitment option contracts (contract amount) (Note 3)	\$15,300,000
Written swap option contracts (contract amount) (Note 3)	\$208,700,000
Futures contracts (number of contracts)	100
Centrally cleared interest rate swap contracts (notional)	\$48,600,000
OTC total return swap contracts (notional)	\$24,700,000

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
Interest rate contracts	Investments, Receivables, Net assets — Unrealized appreciation	\$1,106,831*	Payables, Net assets — Unrealized depreciation	\$955,691*
<b>Total</b>		<b>\$1,106,831</b>		<b>\$955,691</b>

\* Includes cumulative appreciation/depreciation of futures contracts and/or centrally cleared swaps 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 (see Note 1):

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

Derivatives not accounted for as hedging instruments under ASC 815	Options	Futures	Swaps	Total
Interest rate contracts	\$(123,956)	\$224,316	\$(795,248)	\$(694,888)
<b>Total</b>	<b>\$(123,956)</b>	<b>\$224,316</b>	<b>\$(795,248)</b>	<b>\$(694,888)</b>

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

Derivatives not accounted for as hedging instruments under ASC 815	Options	Futures	Swaps	Total
Interest rate contracts	\$162,664	\$86,883	\$585,964	\$835,511
<b>Total</b>	<b>\$162,664</b>	<b>\$86,883</b>	<b>\$585,964</b>	<b>\$835,511</b>

**Note 7 — 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	Barclays Capital, Inc. (clearing broker)	Citibank, N.A.	Citigroup Global Markets, Inc.	Credit Suisse International	Goldman Sachs International	HSBC Bank USA, National Association	JPMorgan Chase Bank N.A.	JPMorgan Securities LLC	Merrill Lynch, Pierce, Fenner & Smith, Inc.	Total
<b>Assets:</b>												
Centrally cleared interest rate swap contracts <sup>§</sup>	\$—	\$—	\$400,320	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$400,320
OTC Total return swap contracts**	1,796	5,592	—	—	—	5,314	11,759	—	1,559	929	—	26,949
Futures contracts <sup>§</sup>	—	—	—	—	—	—	—	—	—	—	—	—
Forward premium swap option contracts#	59,645	5,133	—	11,414	—	—	1,885	—	49,908	—	—	127,985
Purchased swap options**#	13,417	—	—	496,161	—	72,663	79,337	—	12,250	—	—	673,828
Purchased options**#	—	—	—	—	—	—	—	—	16,481	—	—	16,481
Repurchase agreements**	—	—	—	—	2,603,000	—	—	2,650,000	—	—	2,650,000	7,903,000
<b>Total Assets</b>	<b>\$74,858</b>	<b>\$10,725</b>	<b>\$400,320</b>	<b>\$507,575</b>	<b>\$2,603,000</b>	<b>\$77,977</b>	<b>\$92,981</b>	<b>\$2,650,000</b>	<b>\$80,198</b>	<b>\$929</b>	<b>\$2,650,000</b>	<b>\$9,148,563</b>
<b>Liabilities:</b>												
Centrally cleared interest rate swap contracts <sup>§</sup>	—	—	340,270	—	—	—	—	—	—	—	—	340,270
OTC Total return swap contracts**	—	26,357	—	225	—	2,412	4,264	—	1,172	11,799	—	46,229
Futures contracts <sup>§</sup>	—	—	—	—	—	—	—	—	—	—	36,610	36,610
Forward premium swap option contracts#	38,432	13,852	—	9,100	—	—	4,069	—	35,640	—	—	101,093
Written swap options#	40,681	—	—	458,741	—	67,771	63,892	—	53,202	—	—	684,287
Written options#	—	—	—	—	—	—	—	—	16,714	—	—	16,714
<b>Total Liabilities</b>	<b>\$79,113</b>	<b>\$40,209</b>	<b>\$340,270</b>	<b>\$468,066</b>	<b>\$—</b>	<b>\$70,183</b>	<b>\$72,225</b>	<b>\$—</b>	<b>\$106,728</b>	<b>\$11,799</b>	<b>\$36,610</b>	<b>\$1,225,203</b>
<b>Total Financial and Derivative Net Assets</b>	<b>\$(4,255)</b>	<b>\$(29,484)</b>	<b>\$60,050</b>	<b>\$39,509</b>	<b>\$2,603,000</b>	<b>\$7,794</b>	<b>\$20,756</b>	<b>\$2,650,000</b>	<b>\$(26,530)</b>	<b>\$(10,870)</b>	<b>\$2,613,390</b>	<b>\$7,923,360</b>
Total collateral received (pledged)†##	\$—	\$—	\$—	\$39,509	\$2,603,000	\$—	\$20,756	\$2,650,000	\$(26,530)	\$—	\$2,613,390	
Net amount	\$(4,255)	\$(29,484)	\$60,050	\$—	\$—	\$7,794	\$—	\$—	\$—	\$(10,870)	\$—	

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

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

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

#Covered by master netting agreement (Note 1).

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

§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.

**Note 8 — New pronouncements**

In October 2016, the SEC adopted amendments to rules under the Investment Company Act of 1940 ("final rules") intended to modernize the reporting and disclosure of information by registered investment companies. The final rules amend Regulation S-X and require funds to provide standardized, enhanced derivative disclosure in fund financial statements in a format designed for individual investors. The amendments to Regulation S-X also update the disclosures for other investments and investments in and advances to affiliates and amend the rules regarding the general form and content of fund financial statements. The compliance date for the amendments to Regulation S-X is August 1, 2017. Putnam Management has evaluated the amendments and its adoption will have no effect on the fund's net assets or results of operations.



## Trustee approval of management contract

### General conclusions

The Board of Trustees of The Putnam Funds oversees the management of each fund and, as required by law, determines annually whether to approve the continuance of your fund's management contract with Putnam Investment Management, LLC ("Putnam Management") and the sub-management contract with respect to your fund between Putnam Management and its affiliate, Putnam Investments Limited ("PIL"). The Board, with the assistance of its Contract Committee, requests and evaluates all information it deems reasonably necessary under the circumstances in connection with its annual contract review. The Contract Committee consists solely of Trustees who are not "interested persons" (as this term is defined in the Investment Company Act of 1940, as amended (the "1940 Act")) of The Putnam Funds ("Independent Trustees").

At the outset of the review process, members of the Board's independent staff and independent legal counsel discussed with representatives of Putnam Management the annual contract review materials furnished to the Contract Committee during the course of the previous year's review, identifying possible changes in these materials that might be necessary or desirable for the coming year. Following these discussions and in consultation with the Contract Committee, the Independent Trustees' independent legal counsel requested that Putnam Management and its affiliates furnish specified information, together with any additional information that Putnam Management considered relevant, to the Contract Committee. Over the course of several months ending in June 2017, the Contract Committee met on a number of occasions with representatives of Putnam Management, and separately in executive session, to consider the information that Putnam Management provided. Throughout this process, the Contract Committee was assisted by the members of the Board's independent staff and by independent legal counsel for The Putnam Funds and the Independent Trustees.

In May 2017, the Contract Committee met in executive session to discuss and consider its recommendations with respect to the continuance of the contracts. At the Trustees' June 2017 meeting, the Contract Committee met in executive session with the other Independent Trustees to review a summary of the key financial, performance and other data that the Contract Committee considered in the course of its review. The Contract Committee then presented its written report, which summarized the key factors that the Committee had considered and set forth its recommendations. The Contract Committee recommended, and the Independent Trustees approved, the continuance of your fund's management and sub-management contracts, effective July 1, 2017. (Because PIL is an affiliate of Putnam Management and Putnam Management remains fully responsible for all services provided by PIL, the Trustees have not attempted to evaluate PIL as a separate entity, and all subsequent references to Putnam Management below should be deemed to include reference to PIL as necessary or appropriate in the context.)

The Independent Trustees' approval was based on the following conclusions:

- That the fee schedule in effect for your fund represented reasonable compensation in light of the nature and quality of the services being provided to the fund, the fees paid by competitive funds, the costs incurred by Putnam Management in providing services to the fund, and the continued application of certain reductions and waivers noted below; and

- That the fee schedule in effect for your fund represented an appropriate sharing between fund shareholders and Putnam Management of such economies of scale as may exist in the management of the fund at current asset levels.

These conclusions were based on a comprehensive consideration of all information provided to the Trustees and were not the result of any single factor. Some of the factors that figured particularly in the Trustees' deliberations and how the Trustees considered these factors are described below, although individual Trustees may have evaluated the information presented differently, giving different weights to various factors. It is also important to recognize that the management arrangements for your fund and the other Putnam funds are the result of many years of review and discussion between the Independent Trustees and Putnam Management, that some aspects of the arrangements may receive greater scrutiny in some years than others, and that the Trustees' conclusions may be based, in part, on their consideration of fee arrangements in previous years. For example, with some minor exceptions, the funds' current fee arrangements under the management contracts were first implemented at the beginning of 2010 following extensive review by the Contract Committee and discussions with representatives of Putnam Management, as well as approval by shareholders.

### Management fee schedules and total expenses

The Trustees reviewed the management fee schedules in effect for all Putnam funds, including fee levels and breakpoints. The Trustees also reviewed the total expenses of each Putnam fund, recognizing that in most cases management fees represented the major, but not the sole, determinant of total costs to fund shareholders. (In a few instances, funds have implemented so-called "all-in" management fees covering substantially all routine fund operating costs.)

In reviewing fees and expenses, the Trustees generally focus their attention on material changes in circumstances — for example, changes in assets under management, changes in a fund's investment strategy, changes in Putnam Management's operating costs or profitability, or changes in competitive practices in the mutual fund industry — that suggest that consideration of fee changes might be warranted. The Trustees concluded that the circumstances did not indicate that changes to the management fee structure for your fund would be appropriate at this time.

Under its management contract, your fund has the benefit of breakpoints in its management fee schedule that provide shareholders with economies of scale in the form of reduced fee rates as assets under management in the Putnam family of funds increase. The Trustees concluded that the fee schedule in effect for your fund represented an appropriate sharing of economies of scale between fund shareholders and Putnam Management.

As in the past, the Trustees also focused on the competitiveness of each fund's total expense ratio. In order to support the effort to have fund expenses meet competitive standards, the Trustees and Putnam Management have implemented a contractual expense limitation applicable to specified open-end funds, including your fund, of 20 basis points on so-called "other expenses" (i.e., all expenses exclusive of management fees, distribution fees, investor servicing fees, investment-related expenses, interest, taxes, brokerage commissions, acquired fund fees and expenses and extraordinary expenses). This expense limitation attempts to maintain competitive expense levels for the funds. Most funds,

including your fund, had sufficiently low expenses that this expense limitation was not operative during their fiscal years ending in 2016. Putnam Management has agreed to maintain this expense limitation until at least April 30, 2019 and has agreed to implement a contractual expense limitation applicable to specified retail open-end funds, including your fund, of 25 basis points on investor servicing fees and expenses until at least August 31, 2018. Putnam Management's support for these expense limitation arrangements was an important factor in the Trustees' decision to approve the continuance of your fund's management and sub-management contracts.

The Trustees reviewed comparative fee and expense information for a custom group of competitive funds selected by Broadridge Financial Solutions, Inc. ("Broadridge"). This comparative information included your fund's percentile ranking for effective management fees and total expenses (excluding any applicable 12b-1 fee), which provides a general indication of your fund's relative standing. In the custom peer group, your fund ranked in the first quintile in effective management fees (determined for your fund and the other funds in the custom peer group based on fund asset size and the applicable contractual management fee schedule) and in the fourth quintile in total expenses (excluding any applicable 12b-1 fees) as of December 31, 2016. The first quintile represents the least expensive funds and the fifth quintile the most expensive funds. The fee and expense data reported by Broadridge as of December 31, 2016 reflected the most recent fiscal year-end data available in Broadridge's database at that time.

In connection with their review of fund management fees and total expenses, the Trustees also reviewed the costs of the services provided and the profits realized by Putnam Management and its affiliates from their contractual relationships with the funds. This information included trends in revenues, expenses and profitability of Putnam Management and its affiliates relating to the investment management, investor servicing and distribution services provided to the funds. In this regard, the Trustees also reviewed an analysis of Putnam Management's revenues, expenses and profitability, allocated on a fund-by-fund basis, with respect to the funds' management, distribution, and investor servicing contracts. For each fund, the analysis presented information about revenues, expenses and profitability for each of the agreements separately and for the agreements taken together on a combined basis. The Trustees concluded that, at current asset levels, the fee schedules in place represented reasonable compensation for the services being provided and represented an appropriate sharing between fund shareholders and Putnam Management of such economies of scale as may exist in the management of the Putnam funds at that time.

The information examined by the Trustees in connection with their annual contract review for the Putnam funds included information regarding fees charged by Putnam Management and its affiliates to institutional clients, including defined benefit pension and profit-sharing plans, charities, college endowments, foundations, sub-advised third-party mutual funds, state, local and non-U.S. government entities, and corporations. This information included, in cases where an institutional product's investment strategy corresponds with a fund's strategy, comparisons of those fees with fees charged to the Putnam funds, as well as an assessment of the differences in the services provided to these different types of clients as compared to the services provided to the Putnam Funds. The Trustees observed that the differences in fee rates between these clients and the Putnam funds are by no means uniform when examined by individual asset sectors, suggesting that differences in the pricing of investment management services to these types of clients may reflect,

among other things, historical competitive forces operating in separate markets. The Trustees considered the fact that in many cases fee rates across different asset classes are higher on average for mutual funds than for institutional clients, as well as the differences between the services that Putnam Management provides to the Putnam funds and those that it provides to its other clients. The Trustees did not rely on these comparisons to any significant extent in concluding that the management fees paid by your fund are reasonable.

### **Investment performance**

The quality of the investment process provided by Putnam Management represented a major factor in the Trustees' evaluation of the quality of services provided by Putnam Management under your fund's management contract. The Trustees were assisted in their review of the Putnam funds' investment process and performance by the work of the investment oversight committees of the Trustees, which meet on a regular basis with the funds' portfolio teams and with the Chief Investment Officers and other senior members of Putnam Management's Investment Division throughout the year. In addition, in response to a request from the Independent Trustees, Putnam Management provided the Trustees with in-depth presentations regarding each of the equity and fixed income investment teams, including the operation of the teams and their investment approaches. The Trustees concluded that Putnam Management generally provides a high-quality investment process — based on the experience and skills of the individuals assigned to the management of fund portfolios, the resources made available to them, and in general Putnam Management's ability to attract and retain high-quality personnel — but also recognized that this does not guarantee favorable investment results for every fund in every time period.

The Trustees considered that 2016 was a challenging year for the performance of the Putnam funds, with generally disappointing results for the international and global equity funds and taxable fixed income funds, mixed results for small-cap equity, Spectrum, global asset allocation, equity research and tax exempt fixed income funds, but generally strong results for U.S. equity funds. The Trustees noted, however, that they were encouraged by the positive performance trend since mid-year 2016 across most Putnam Funds. In particular, from May 1, 2016 through April 30, 2017, 51% of Putnam Fund assets were in the top quartile and 87% were above the median of the Putnam Funds' competitive industry rankings. They noted that the longer-term performance of the Putnam funds generally continued to be strong, exemplified by the fact that the Putnam funds were ranked by the Barron's/Lipper Fund Families survey as the 5th-best performing mutual fund complex out of 54 complexes for the five-year period ended December 31, 2016. In addition, while the survey ranked the Putnam Funds 52nd out of 61 mutual fund complexes for the one-year period ended 2016, the Putnam Funds have ranked 1st or 2nd in the survey for the one-year period three times since 2009 (most recently in 2013). They also noted, however, the disappointing investment performance of some funds for periods ended December 31, 2016 and considered information provided by Putnam Management regarding the factors contributing to the underperformance and actions being taken to improve the performance of these particular funds. The Trustees indicated their intention to continue to monitor closely the performance of those funds, including the effectiveness of any efforts Putnam Management has undertaken to address underperformance and whether additional actions to address areas of underperformance are warranted.

For purposes of the Trustees' evaluation of the Putnam Funds' investment performance, the Trustees generally focus on a competitive industry ranking of each fund's total net return over a one-year, three-year

and five-year period. For a number of Putnam funds with relatively unique investment mandates for which Putnam Management informed the Trustees that meaningful competitive performance rankings are not considered to be available, the Trustees evaluated performance based on their total gross and net returns and, in most cases, comparisons of those returns with the returns of selected investment benchmarks. In the case of your fund, the Trustees considered that its class IA share cumulative total return performance at net asset value was in the following quartiles of its Lipper Inc. (“Lipper”) peer group (Lipper VP (Underlying Funds) — General U.S. Government Funds) for the one-year, three-year and five-year periods ended December 31, 2016 (the first quartile representing the best-performing funds and the fourth quartile the worst-performing funds):

One-year period	Three-year period	Five-year period
4th	3rd	3rd

Over the one-year, three-year and five-year periods ended December 31, 2016, there were 55, 53 and 50 funds, respectively, in your fund’s Lipper peer group. (When considering performance information, shareholders should be mindful that past performance is not a guarantee of future results.)

The Trustees expressed concern about your fund’s fourth quartile performance over the one-year period ended December 31, 2016 and considered the circumstances that may have contributed to this disappointing performance. The Trustees considered Putnam Management’s observation that the fund’s underperformance over the one-year period was largely attributable to the fund’s relative emphasis on shorter duration investments (which reduced the fund’s sensitivity to interest rate changes but detracted from performance).

The Trustees considered that Putnam Management remained confident in the fund’s portfolio managers. The Trustees also considered Putnam Management’s continued efforts to support fund performance through the appointment of an additional portfolio manager in February 2017 and through initiatives including structuring compensation for portfolio managers and research analysts to enhance accountability for fund performance, emphasizing accountability in the portfolio management process, and affirming its commitment to a fundamental-driven approach to investing. The Trustees noted further that Putnam Management continued to strengthen its fundamental research capabilities by adding new investment personnel.

As a general matter, the Trustees believe that cooperative efforts between the Trustees and Putnam Management represent the most effective way to address investment performance concerns that may arise from time to time. The Trustees noted that investors in the Putnam funds have, in effect, placed their trust in the Putnam organization, under the oversight of the funds’ Trustees, to make appropriate decisions regarding the management of the funds. Based on Putnam Management’s willingness

to take appropriate measures to address fund performance issues and Putnam Management’s responsiveness to Trustee concerns about investment performance, the Trustees concluded that it continues to be advisable to seek change within Putnam Management to address performance shortcomings. In the Trustees’ view, the alternative of engaging a new investment adviser for an underperforming fund would entail significant disruptions and would not likely provide any greater assurance of improved investment performance.

#### **Brokerage and soft-dollar allocations; investor servicing**

The Trustees considered various potential benefits that Putnam Management may receive in connection with the services it provides under the management contract with your fund. These include benefits related to brokerage allocation and the use of soft dollars, whereby a portion of the commissions paid by a fund for brokerage may be used to acquire research services that are expected to be useful to Putnam Management in managing the assets of the fund and of other clients. Subject to policies established by the Trustees, soft dollars generated by these means are used predominantly to acquire brokerage and research services (including third-party research and market data) that enhance Putnam Management’s investment capabilities and supplement Putnam Management’s internal research efforts. However, the Trustees noted that a portion of available soft dollars continues to be used to pay fund expenses. The Trustees indicated their continued intent to monitor regulatory and industry developments in this area with the assistance of their Brokerage Committee, including any developments with respect to the European Union’s updated Markets in Financial Instruments Directive and its potential impact on PIL’s use of client commissions to obtain investment research. The Trustees also indicated their continued intent to monitor the allocation of the Putnam funds’ brokerage in order to ensure that the principle of seeking best price and execution remains paramount in the portfolio trading process.

Putnam Management may also receive benefits from payments that the funds make to Putnam Management’s affiliates for investor or distribution services. In conjunction with the annual review of your fund’s management and sub-management contracts, the Trustees reviewed your fund’s investor servicing agreement with Putnam Investor Services, Inc. (“PSERV”) and its distributor’s contracts and distribution plans with Putnam Retail Management Limited Partnership (“PRM”), both of which are affiliates of Putnam Management. The Trustees concluded that the fees payable by the funds to PSERV and PRM, as applicable, for such services are fair and reasonable in relation to the nature and quality of such services, the fees paid by competitive funds, and the costs incurred by PSERV and PRM, as applicable, in providing such services. Furthermore, the Trustees believed that the services provided were required for the operation of the funds, and that they were of a quality at least equal to those provided by other providers.

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## Other important information

### Proxy voting

Putnam is committed to managing our mutual funds in the best interests of our shareholders. The Putnam funds' proxy voting guidelines and procedures, as well as information regarding how your fund voted proxies relating to portfolio securities during the 12-month period ended June 30, 2017, are available in the Individual Investors section of putnam.com and on the Securities and Exchange Commission's [SEC] website, www.sec.gov. If you have questions about finding forms on the SEC's website, you may call the SEC at 1-800-SEC-0330. You may also obtain the Putnam funds' proxy voting guidelines and procedures at no charge by calling Putnam's Shareholder Services at 1-800-225-1581.

### Fund portfolio holdings

Each Putnam VT fund will file a complete schedule of its portfolio holdings with the SEC for the first and third quarters of each fiscal year on Form N-Q. Shareholders may obtain the fund's Form N-Q on the SEC's website at www.sec.gov. In addition, the fund's Form N-Q may be reviewed and copied at the SEC's Public Reference Room in Washington, D.C. You may call the SEC at 1-800-SEC-0330 for information about the SEC's website or the operation of the Public Reference Room.

## Fund information

### Investment Manager

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

### Investment Sub-Advisor

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

### Marketing Services

Putnam Retail Management  
One Post Office Square  
Boston, MA 02109

### Investor Servicing Agent

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

### Custodian

State Street Bank and Trust Company

### Legal Counsel

Ropes & Gray LLP

### Trustees

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Kenneth R. Leibler, *Vice Chair*  
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Ravi Akhoury  
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Katinka Domotorffy  
Catharine Bond Hill  
Paul L. Joskow  
Robert E. Patterson  
George Putnam, III  
Robert L. Reynolds  
Manoj P. Singh

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

