

A world of investing.®



Putnam Variable Trust

Annual report

12 | 31 | 17

Putnam VT
American Government Income Fund

Message from the Trustees

February 13, 2018

Dear Shareholder:

We enter 2018 on the heels of an impressive year for global stock markets. While bond market performance was a bit uneven in 2017, stocks in most regions worldwide delivered solid advances and encountered very little volatility. As seasoned investors, we realize that benign markets like this rarely last long, and we are monitoring risks accordingly.

Although no one can predict the direction of the markets in the months ahead, Putnam's experienced investment professionals actively seek to position their fund portfolios for all types of conditions. They take a research-intensive approach to investing that includes risk management strategies designed to serve investors through changing markets.

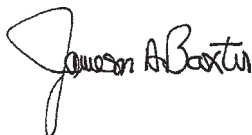
In all environments, we believe investors should remain focused on time-tested strategies: maintain a well-diversified portfolio, think about long-term goals, and speak regularly with your financial advisor. In the following pages, you will find an overview of your fund's performance for the reporting period as well as an outlook for the coming months.

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

Performance summary (as of 12/31/17)

Investment objective

High current income with preservation of capital as its secondary objective

Net asset value December 31, 2017

Class IA: \$9.55	Class IB: \$9.52
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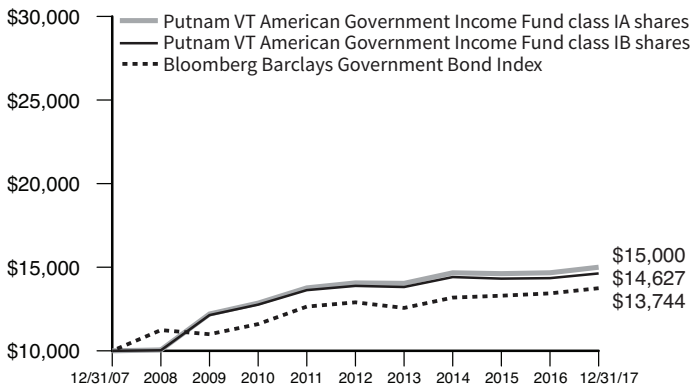
Total return at net asset value

(as of 12/31/17)	Class IA shares*	Class IB shares*	Bloomberg Barclays Government Bond Index
1 year	2.27%	1.96%	2.30%
5 years	6.68	5.37	6.54
Annualized	1.30	1.05	1.28
10 years	50.00	46.27	37.44
Annualized	4.14	3.88	3.23
Life	134.49	124.57	127.16
Annualized	4.87	4.62	4.69

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

* Class inception date: February 1, 2000.

Cumulative total returns of a \$10,000 investment in class IA and class IB shares at net asset value — since 12/31/07



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	63.4%
Agency collateralized mortgage obligations	31.4%
U.S. Treasuries/agency securities	17.0%
Asset-backed securities	0.6%
Cash and net other assets	10.8%

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	11.1%
AAA	111.6%
Not rated	-22.7%

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.

Report from your fund's manager

Please describe the investment environment for the 12-month reporting period ended December 31, 2017.

It was a solid year for many risky fixed-income assets as bond spreads narrowed, supported by positive economic momentum globally, heightened investor appetite for risk, and low volatility. The 10-year U.S. Treasury yield ended the year at 2.41%, very close to where it began 2017. However, rates at the front end of the yield curve rose, driven mainly by the Federal Reserve's monetary policies, causing the curve to flatten materially. The Fed surprised many market participants by delivering three rate hikes during the reporting period.

The Fed also began tapering its balance sheet in October by gradually reducing repurchases of mortgage-backed securities and Treasuries. The reduction started at \$10 billion a month — \$6 billion in Treasuries and \$4 billion in agency mortgage-backed securities. The Fed plans to increase this to \$50 billion a month by the end of 2018, effectively shrinking its balance sheet from \$4.5 trillion to about \$3 trillion. While the Fed indicated that the federal funds rate will be the primary tool for controlling monetary policy, we view the tapering program as a form of monetary tightening. Ultimately, the Fed is stepping away from markets that influence key interest rates in the economy.

How did Putnam VT American Government Income Fund perform in this environment?

For the 12-month reporting period, the fund's IA shares returned 2.27% while its benchmark, the Bloomberg Barclays Government Bond Index, returned 2.30%.

What holdings helped fund performance?

Agency mortgage-backed securities contributed to returns. Our positions in agency collateralized mortgage obligations [CMOs], specifically interest-only [IO] securities, benefited from relatively low volatility and investors' willingness to take on risk to gain access to higher yields throughout 2017. In particular, exposure to reverse mortgage IO securities posted strong performance late in the reporting period after the U.S. Department of Housing and Urban Development announced changes to the Home Equity Conversion Mortgage [HECM] program that decreased the likelihood of voluntary prepayments on existing loans.

What holdings detracted from fund performance?

The primary detractor was our term-structure positioning. We maintained an underweight duration position and yield curve steepening bias through most of 2017. Ultimately, our steepening bias worked against us. While the yield on the 10-year Treasury was essentially unchanged, yields on short- to intermediate-term notes rose, resulting in a distinctly flatter yield curve.

How did you use derivatives?

We used futures and interest-rate swaps to help hedge term-structure risks and for yield-curve positioning. Options were used as a means to hedge duration, isolate prepayment risk, and manage downside risks in our positions.

What is your investment outlook for 2018?

As of December 31, 2017, the fund's duration was modestly shorter than that of the benchmark. We plan to keep it that way for now, given our expectations for moderately higher interest rates in the months ahead. We also plan to take a tactical approach toward our mortgage-basis positioning. We think the Fed's plan for reducing its bond portfolio has been well telegraphed, and therefore we believe the market impact for MBS is likely to be minimal.

We think IO CMOs remain attractive, since relatively tight mortgage-lending standards may continue to curb refinancing activity. Lastly, we continue to like reverse-mortgage IOs. In addition to broadening the fund's diversification, we think they offer a combination of reduced rate sensitivity, reasonable liquidity [ease of trading at favorable bid/ask spreads], and attractive yield spreads.

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 debt not backed by the full faith and credit of the U.S. government. 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.

Your fund's managers



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.

In addition to Mike, your fund is managed by Jatin Misra, Ph.D., CFA.

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

Shareholders were informed through a supplement to the fund's prospectus that Putnam Management has recommended, and the fund's Board of Trustees has approved, changes to the fund's investment goal and strategy. The fund's goal will be to seek as high a level of current income as Putnam Management believes is consistent with the preservation of capital and the new investment strategy will broaden the fund's exposure across a number of mortgage sub-sectors. In connection with these changes, the fund's name will change to Putnam VT Mortgage Securities Fund. Putnam Management anticipates that the changes will be effective on or about April 30, 2018. See the prospectus supplement for more information.

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.

Understanding your fund's expenses

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

Review your fund's expenses

The two left-hand columns of the Expenses per \$1,000 table show the expenses you would have paid on a \$1,000 investment in your fund from 7/1/17 to 12/31/17. 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 12/31/17*	0.66%	0.91%

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

Expenses are shown as a percentage of average net assets.

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

Expenses per \$1,000

	Expenses and value for a \$1,000 investment, assuming actual returns for the 6 months ended 12/31/17		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 12/31/17	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$3.34	\$4.60	\$3.36	\$4.63
Ending value (after expenses)	\$1,007.40	\$1,005.30	\$1,021.88	\$1,020.62

*Expenses for each share class are calculated using the fund's annualized expense ratio for each class, which represents the ongoing expenses as a percentage of average net assets for the six months ended 12/31/17. 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.

Report of Independent Registered Public Accounting Firm

To the Trustees of Putnam Variable Trust
and Shareholders of Putnam VT American Government Income Fund

Opinion on the Financial Statements

We have audited the accompanying statement of assets and liabilities, including the portfolio, of Putnam VT American Government Income Fund (one of the funds constituting Putnam Variable Trust, referred to hereafter as the “Fund”) as of December 31, 2017, the related statement of operations for the year ended December 31, 2017, the statement of changes in net assets for each of the two years in the period ended December 31, 2017, including the related notes, and the financial highlights for each of the five years in the period ended December 31, 2017 (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Fund as of December 31, 2017, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period ended December 31, 2017 and the financial highlights for each of the five years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our procedures included confirmation of securities owned as of December 31, 2017 by correspondence with the custodian and brokers; when replies were not received from brokers, we performed other auditing procedures. We believe that our audits provide a reasonable basis for our opinion.

PricewaterhouseCoopers LLP
Boston, Massachusetts
February 13, 2018

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

The fund's portfolio 12/31/17

U.S. GOVERNMENT AND AGENCY

MORTGAGE OBLIGATIONS (84.4%)*

	Principal amount	Value
U.S. Government Guaranteed Mortgage Obligations (19.3%)		
Government National Mortgage Association		
Pass-Through Certificates		
6.50%, with due dates from 4/15/28 to 7/20/36	\$52,719	\$60,813
6.00%, with due dates from 4/15/28 to 11/20/38	119,111	134,508
5.50%, 4/20/38	174,658	192,779
5.00%, TBA, 1/1/47	1,000,000	1,066,484
4.70%, 8/20/67	101,180	112,436
4.50%, with due dates from 2/20/34 to 9/20/45	1,657,739	1,766,639
4.50%, TBA, 1/1/48	2,000,000	2,098,438
4.00%, with due dates from 4/20/45 to 10/20/45	3,127,910	3,307,639
3.50%, with due dates from 1/20/45 to 11/20/47	3,349,094	3,474,646

12,214,382

U.S. Government Agency Mortgage Obligations (65.1%)

Federal Home Loan Mortgage Corporation		
Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 7/1/31	14,229	16,546
7.00%, with due dates from 11/1/26 to 4/1/32	153,970	175,845
5.50%, 12/1/33	19,690	21,772
4.50%, with due dates from 7/1/44 to 8/1/44	204,251	219,910
4.00%, with due dates from 12/1/44 to 9/1/45	1,321,983	1,390,101
3.50%, with due dates from 10/1/46 to 5/1/47	2,875,439	2,974,075
3.00%, 6/1/46	906,551	909,773

Federal National Mortgage Association

Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 11/1/30	16,365	18,870
7.00%, with due dates from 12/1/28 to 12/1/35	407,021	466,229
6.50%, 9/1/36	7,827	8,902
6.00%, 1/1/38	126,705	142,759
5.50%, 1/1/38	545,873	603,786
5.00%, 2/1/39	14130	15319
4.50%, with due dates from 7/1/44 to 5/1/45	295,048	316,845
4.00%, 3/1/46	485,313	512,973
4.00%, TBA, 2/1/48	2,000,000	2,089,062
4.00%, TBA, 1/1/48	2,000,000	2,091,875
3.50%, with due dates from 5/1/45 to 6/1/56	4,567,563	4,716,355
3.50%, TBA, 2/1/48	6,000,000	6,152,813
3.50%, TBA, 1/1/48	7,000,000	7,189,766
3.00%, with due dates from 5/1/45 to 1/1/47	4,346,447	4,370,043
3.00%, TBA, 1/1/48	4,000,000	4,000,938
2.50%, TBA, 1/1/48	3,000,000	2,897,344

41,301,901

Total U.S. government and agency mortgage obligations (cost \$53,753,558)

\$53,516,283

U.S. TREASURY OBLIGATIONS (16.7%)*

	Principal amount	Value
U.S. Treasury Bonds		
6.25%, 8/15/23	\$990,000	\$1,198,983
4.50%, 8/15/39 # §	7,201,000	9,406,306

Total U.S. treasury obligations (cost \$9,731,867)

\$10,605,289

MORTGAGE-BACKED SECURITIES (30.2%)*

Agency collateralized mortgage obligations (30.2%)

Federal Home Loan Mortgage Corporation		
IFB Ser. 3408, Class EK (-4.024 x 1 Month US LIBOR) + 25.79%, 19.85%, 4/15/37	\$30,836	\$45,671
IFB Ser. 3072, Class SM (-3.667 x 1 Month US LIBOR) + 23.80%, 18.381%, 11/15/35	42,285	59,191
IFB Ser. 3065, Class DC (-3 x 1 Month US LIBOR) + 19.86%, 15.429%, 3/15/35	245,441	337,260

MORTGAGE-BACKED

SECURITIES (30.2%)* cont.

Principal amount

Value

Agency collateralized mortgage obligations cont.

IFB Ser. 2990, Class LB (-2.556 x 1 Month US LIBOR) + 16.95%, 13.171%, 6/15/34	\$39,905	\$46,250
IFB Ser. 4136, Class ES, IO (-1 x 1 Month US LIBOR) + 6.25%, 4.773%, 11/15/42	371,922	46,164
IFB Ser. 4436, Class SC, IO (-1 x 1 Month US LIBOR) + 6.15%, 4.673%, 2/15/45	1,364,364	228,594
Ser. 4122, Class TI, IO, 4.50%, 10/15/42	326,975	62,012
Ser. 4018, Class DI, IO, 4.50%, 7/15/41	449,424	62,921
Ser. 4546, Class PI, IO, 4.00%, 12/15/45	677,163	111,134
Ser. 4530, Class HI, IO, 4.00%, 11/15/45	448,437	72,933
Ser. 4500, Class GI, IO, 4.00%, 8/15/45	538,070	91,789
Ser. 4425, IO, 4.00%, 1/15/45	561,370	86,440
Ser. 4452, Class QI, IO, 4.00%, 11/15/44	455,296	98,287
Ser. 4019, Class JI, IO, 4.00%, 5/15/41	581,386	83,652
Ser. 3996, Class IK, IO, 4.00%, 3/15/39	554,691	36,330
Ser. 4621, Class QI, IO, 3.50%, 10/15/46	983,299	149,874
Ser. 4165, Class AI, IO, 3.50%, 2/15/43	427,541	69,732
Ser. 4136, Class IQ, IO, 3.50%, 11/15/42	687,963	89,250
Ser. 4199, Class CI, IO, 3.50%, 12/15/37	395,099	25,904
Ser. 304, Class C37, IO, 3.50%, 12/15/27	401,613	36,106
Ser. 4150, Class DI, IO, 3.00%, 1/15/43	531,514	67,104
Ser. 4141, Class PI, IO, 3.00%, 12/15/42	498,615	55,790
Ser. 4158, Class TI, IO, 3.00%, 12/15/42	1,201,925	118,882
Ser. 4165, Class TI, IO, 3.00%, 12/15/42	1,255,215	122,563
Ser. 4171, Class NI, IO, 3.00%, 6/15/42	761,870	75,753
Ser. 4183, Class MI, IO, 3.00%, 2/15/42	397,344	35,642
Ser. 4201, Class JI, IO, 3.00%, 12/15/41	594,317	49,408
Ser. 315, PO, zero %, 9/15/43	1,046,223	855,366
Ser. 3835, Class FO, PO, zero %, 4/15/41	675,692	586,340
Ser. 3391, PO, zero %, 4/15/37	7,588	6,428
Ser. 3300, PO, zero %, 2/15/37	3,490	3,012
Ser. 3326, Class WF, zero %, 10/15/35 W	1,314	970

Federal National Mortgage Association

IFB Ser. 06-62, Class PS (-6 x 1 Month US LIBOR) + 39.90%, 30.587%, 7/25/36	24,510	42,801
IFB Ser. 06-8, Class HP (-3.667 x 1 Month US LIBOR) + 24.57%, 18.876%, 3/25/36	42,981	64,703
IFB Ser. 07-53, Class SP (-3.667 x 1 Month US LIBOR) + 24.20%, 18.509%, 6/25/37	49,262	70,070
IFB Ser. 05-122, Class SE (-3.5 x 1 Month US LIBOR) + 23.10%, 17.668%, 11/25/35	50,321	65,663
IFB Ser. 08-24, Class SP (-3.667 x 1 Month US LIBOR) + 23.28%, 17.592%, 2/25/38	210,187	277,069
IFB Ser. 05-75, Class GS (-3 x 1 Month US LIBOR) + 20.25%, 15.594%, 8/25/35	33,779	42,538
IFB Ser. 05-106, Class JC (-3.101 x 1 Month US LIBOR) + 20.12%, 15.311%, 12/25/35	57,498	81,716
IFB Ser. 05-83, Class QP (-2.6 x 1 Month US LIBOR) + 17.39%, 13.358%, 11/25/34	18,351	21,722
IFB Ser. 11-4, Class CS (-2 x 1 Month US LIBOR) + 12.90%, 9.796%, 5/25/40	102,274	117,196
IFB Ser. 11-123, Class KS, IO (-1 x 1 Month US LIBOR) + 6.60%, 5.048%, 10/25/41	115,976	17,456
Ser. 12-118, Class PI, IO, 4.00%, 6/25/42	956,284	163,152
Ser. 12-62, Class MI, IO, 4.00%, 3/25/41	344,009	41,522
Ser. 12-104, Class HI, IO, 4.00%, 9/25/27	694,677	80,972
Ser. 16-70, Class QI, IO, 3.50%, 10/25/46	2,751,452	406,059
Ser. 15-10, Class AI, IO, 3.50%, 8/25/43	759,761	106,980
Ser. 12-124, Class JI, IO, 3.50%, 11/25/42	256,369	31,054
Ser. 13-22, Class PI, IO, 3.50%, 10/25/42	674,143	126,560
Ser. 12-114, Class NI, IO, 3.50%, 10/25/41	1,011,956	151,653
Ser. 13-55, Class IK, IO, 3.00%, 4/25/43	418,287	45,198

**MORTGAGE-BACKED
SECURITIES (30.2%)* cont.**

	Principal amount	Value
Agency collateralized mortgage obligations cont.		
Federal National Mortgage Association		
Ser. 13-6, Class JI, IO, 3.00%, 2/25/43	\$914,117	\$99,410
Ser. 12-151, Class PI, IO, 3.00%, 1/25/43	383,000	41,954
Ser. 12-145, Class TI, IO, 3.00%, 11/25/42	373,068	25,548
Ser. 13-35, Class IP, IO, 3.00%, 6/25/42	444,182	33,500
Ser. 13-55, Class PI, IO, 3.00%, 5/25/42	663,284	52,824
Ser. 13-53, Class JI, IO, 3.00%, 12/25/41	516,419	49,823
Ser. 13-23, Class PI, IO, 3.00%, 10/25/41	467,455	28,066
Ser. 13-30, Class IP, IO, 3.00%, 10/25/41	674,048	41,629
Ser. 13-23, Class LI, IO, 3.00%, 6/25/41	434,999	27,090
Ser. 14-28, Class AI, IO, 3.00%, 3/25/40	615,049	64,609
FRB Ser. 03-W8, Class 3F2, 1 Month US LIBOR + 0.35%, 1.902%, 5/25/42	4,507	4,532
FRB Ser. 07-95, Class A3, 1 Month US LIBOR + 0.25%, 1.802%, 8/27/36	1,868,618	1,803,930
Ser. 08-53, Class DO, PO, zero %, 7/25/38	43,473	39,384
Ser. 07-44, Class CO, PO, zero %, 5/25/37	14,390	11,885
Government National Mortgage Association		
Ser. 16-75, Class LI, IO, 6.00%, 1/20/40	535,018	127,067
IFB Ser. 11-81, Class SB, IO (-1 x 1 Month US LIBOR) + 6.71%, 5.214%, 11/16/36	285,159	19,493
IFB Ser. 13-182, Class SP, IO (-1 x 1 Month US LIBOR) + 6.70%, 5.199%, 12/20/43	453,377	83,113
IFB Ser. 11-156, Class SK, IO (-1 x 1 Month US LIBOR) + 6.60%, 5.099%, 4/20/38	1,089,944	222,076
Ser. 15-89, Class LI, IO, 5.00%, 12/20/44	1,036,555	222,414
Ser. 14-133, Class IP, IO, 5.00%, 9/16/44	446,185	94,239
Ser. 14-76, IO, 5.00%, 5/20/44	564,536	117,229
Ser. 13-51, Class QI, IO, 5.00%, 2/20/43	424,140	77,022
Ser. 13-3, Class IT, IO, 5.00%, 1/20/43	245,394	52,318
Ser. 13-6, Class OI, IO, 5.00%, 1/20/43	183,578	39,311
Ser. 13-16, Class IB, IO, 5.00%, 10/20/40	26,169	2,054
Ser. 10-35, Class UI, IO, 5.00%, 3/20/40	269,644	57,946
Ser. 10-9, Class UI, IO, 5.00%, 1/20/40	854,181	183,649
Ser. 09-121, Class UI, IO, 5.00%, 12/20/39	668,602	142,158
Ser. 13-34, Class HI, IO, 4.50%, 3/20/43	644,927	123,265
Ser. 12-129, IO, 4.50%, 11/16/42	500,802	113,111
Ser. 12-91, Class IN, IO, 4.50%, 5/20/42	1,036,790	186,333
Ser. 11-18, Class PI, IO, 4.50%, 8/20/40	256,880	32,893
Ser. 10-35, Class AI, IO, 4.50%, 3/20/40	624,305	122,601
Ser. 10-35, Class DI, IO, 4.50%, 3/20/40	372,491	75,355
Ser. 10-35, Class QI, IO, 4.50%, 3/20/40	222,292	43,214
Ser. 10-9, Class QI, IO, 4.50%, 1/20/40	181,392	35,317
Ser. 09-121, Class BI, IO, 4.50%, 12/16/39	184,758	42,112
Ser. 09-121, Class CI, IO, 4.50%, 12/16/39	759,452	158,322
Ser. 16-69, IO, 4.00%, 5/20/46	1,014,470	166,434
Ser. 15-64, Class IG, IO, 4.00%, 5/20/45	648,930	122,992
Ser. 15-53, Class MI, IO, 4.00%, 4/16/45	533,080	115,892
Ser. 15-40, IO, 4.00%, 3/20/45	346,189	70,657
Ser. 14-100, Class NI, IO, 4.00%, 6/20/43	1,037,291	133,893
Ser. 13-165, Class IL, IO, 4.00%, 3/20/43	206,768	35,663
Ser. 12-56, Class IB, IO, 4.00%, 4/20/42	577,830	104,185
Ser. 12-47, Class CI, IO, 4.00%, 3/20/42	257,313	44,992
Ser. 14-104, IO, 4.00%, 3/20/42	577,533	92,394
Ser. 14-4, Class IK, IO, 4.00%, 7/20/39	298,992	28,082
Ser. 11-71, Class IK, IO, 4.00%, 4/16/39	353,431	34,447
Ser. 10-114, Class MI, IO, 4.00%, 3/20/39	402,702	29,481
Ser. 14-182, Class BI, IO, 4.00%, 1/20/39	781,119	99,592
Ser. 16-156, Class PI, IO, 3.50%, 11/20/46	780,880	96,829
Ser. 16-111, Class IP, IO, 3.50%, 8/20/46	1,372,442	149,459

**MORTGAGE-BACKED
SECURITIES (30.2%)* cont.**

	Principal amount	Value
Agency collateralized mortgage obligations cont.		
Government National Mortgage Association		
Ser. 16-4, Class JI, IO, 3.50%, 1/20/46	\$850,281	\$123,155
Ser. 13-79, Class PI, IO, 3.50%, 4/20/43	490,540	68,636
Ser. 15-168, Class IG, IO, 3.50%, 3/20/43	686,834	101,437
Ser. 13-37, Class JI, IO, 3.50%, 1/20/43	305,386	45,903
Ser. 13-27, Class PI, IO, 3.50%, 12/20/42	265,432	39,536
Ser. 12-136, IO, 3.50%, 11/20/42	677,743	137,876
Ser. 14-46, Class JI, IO, 3.50%, 10/20/41	329,752	43,638
Ser. 13-18, Class GI, IO, 3.50%, 5/20/41	442,525	46,069
Ser. 12-71, Class JI, IO, 3.50%, 4/16/41	239,686	14,908
Ser. 14-102, Class IG, IO, 3.50%, 3/16/41	259,687	32,932
Ser. 15-52, Class KI, IO, 3.50%, 11/20/40	774,153	99,092
Ser. 12-48, Class KI, IO, 3.50%, 12/16/39	292,268	25,632
Ser. 14-147, Class MI, IO, 3.50%, 7/20/39	510,346	29,462
Ser. 15-99, Class TI, IO, 3.50%, 4/20/39	812,676	70,638
Ser. 15-24, Class AI, IO, 3.50%, 12/20/37	752,704	84,041
Ser. 14-160, Class IB, IO, 3.00%, 11/20/40	1,106,315	88,097
Ser. 14-141, Class CI, IO, 3.00%, 3/20/40	339,760	26,467
Ser. 14-174, Class AI, IO, 3.00%, 11/16/29	641,856	58,794
Ser. 16-H13, Class IK, IO, 2.597%, 6/20/66 W	1,508,354	201,742
Ser. 15-H22, Class GI, IO, 2.569%, 9/20/65 W	1,533,156	204,523
Ser. 16-H23, Class NI, IO, 2.449%, 10/20/66 W	1,975,306	256,395
Ser. 17-H04, Class BI, IO, 2.433%, 2/20/67 W	1,029,171	147,377
Ser. 17-H03, Class KI, IO, 2.377%, 1/20/67 W	1,500,562	205,680
Ser. 16-H04, Class HI, IO, 2.364%, 7/20/65 W	908,955	96,531
Ser. 16-H24, Class JI, IO, 2.347%, 11/20/66 W	621,782	81,609
Ser. 16-H18, Class QI, IO, 2.329%, 6/20/66 W	1,406,122	177,624
Ser. 17-H08, Class GI, IO, 2.327%, 2/20/67 W	998,627	143,553
Ser. 16-H27, Class GI, IO, 2.296%, 12/20/66 W	1,587,999	225,283
Ser. 17-H08, Class EI, IO, 2.267%, 2/20/67 W	1,414,621	190,974
Ser. 16-H07, Class PI, IO, 2.255%, 3/20/66 W	2,547,905	337,597
Ser. 17-H08, Class NI, IO, 2.23%, 3/20/67 W	1,065,841	137,920
FRB Ser. 15-H16, Class XI, IO, 2.228%, 7/20/65	907,948	102,053
Ser. 15-H20, Class CI, IO, 2.203%, 8/20/65 W	1,516,119	171,955
Ser. 17-H06, Class MI, IO, 2.188%, 2/20/67 W	1,731,357	216,911
Ser. 17-H14, Class JI, IO, 2.153%, 6/20/67 W	554,289	80,372
Ser. 15-H13, Class AI, IO, 2.145%, 6/20/65 W	1,342,039	139,237
Ser. 16-H17, Class DI, IO, 2.108%, 7/20/66 W	1,519,628	172,495
Ser. 16-H24, IO, 2.097%, 9/20/66 W	1,001,100	121,383
Ser. 15-H25, Class BI, IO, 2.09%, 10/20/65 W	1,071,612	109,733
Ser. 16-H11, Class HI, IO, 2.083%, 1/20/66 W	3,049,306	316,365
Ser. 16-H06, Class HI, IO, 2.06%, 2/20/66	1,196,149	109,894
Ser. 15-H22, Class AI, IO, 2.037%, 9/20/65 W	1,646,424	169,252
Ser. 15-H24, Class HI, IO, 2.031%, 9/20/65 W	1,349,218	101,202
Ser. 15-H10, Class HI, IO, 2.03%, 4/20/65 W	2,469,481	243,244
Ser. 16-H06, Class DI, IO, 1.939%, 7/20/65	1,453,489	127,551
Ser. 16-H03, Class AI, IO, 1.937%, 1/20/66 W	1,653,648	165,365
Ser. 15-H23, Class TI, IO, 1.896%, 9/20/65 W	1,150,575	123,112
Ser. 16-H06, Class AI, IO, 1.829%, 2/20/66	869,266	83,831
Ser. 15-H04, Class AI, IO, 1.816%, 12/20/64 W	1,245,433	110,532
Ser. 14-H21, Class AI, IO, 1.811%, 10/20/64 W	1,580,188	138,496
Ser. 17-H09, IO, 1.778%, 4/20/67 W	965,363	106,646
Ser. 17-H10, Class MI, IO, 1.764%, 4/20/67 W	1,154,547	125,615
Ser. 16-H04, Class KI, IO, 1.73%, 2/20/66 W	1,772,028	148,407
Ser. 16-H10, Class AI, IO, 1.725%, 4/20/66 W	1,441,056	110,879
Ser. 14-H25, Class BI, IO, 1.682%, 12/20/64 W	1,184,022	98,302
Ser. 17-H16, Class HI, IO, 1.639%, 8/20/67 W	895,493	88,430
Ser. 17-H06, Class EI, 1.577%, 2/20/67 W	780,298	59,406
Ser. 16-H08, Class GI, IO, 1.432%, 4/20/66 W	1,070,434	65,858
FRB Ser. 11-H07, Class FI, IO, 1.235%, 2/20/61 W	4,795,715	177,441

MORTGAGE-BACKED SECURITIES (30.2%)* cont.	Principal amount	Value
Agency collateralized mortgage obligations cont.		
Government National Mortgage Association		
Ser. 10-151, Class KO, PO, zero %, 6/16/37	\$36,667	\$31,022
Ser. 06-36, Class OD, PO, zero %, 7/16/36	2,045	1,712
		19,152,446
Total mortgage-backed securities (cost \$19,264,648)		\$19,152,446

PURCHASED SWAP OPTIONS OUTSTANDING (1.0%)*	Expiration date/strike	Notional/Contract amount	Value
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Bank of America N.A.

(1.9325)/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/1.9325	\$19,444,000	\$82,831
(2.2625)/3 month USD-LIBOR-BBA/ Aug-22	Aug-21/2.2625	8,749,800	44,186
2.2625/3 month USD-LIBOR-BBA/ Aug-22	Aug-21/2.2625	8,749,800	35,524
1.9325/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/1.9325	19,444,000	8,166

Citibank, N.A.

(2.518)/3 month USD-LIBOR-BBA/ May-49	May-19/2.518	855,500	54,230
2.363/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.363	10,121,400	25,202
2.28/3 month USD-LIBOR-BBA/ Feb-28	Feb-18/2.28	7,777,600	23,099
2.298/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.298	10,115,000	19,117
(2.526)/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.526	10,115,000	15,678
(2.493)/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.493	10,121,400	11,336
(2.478)/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.478	10,121,400	9,919
2.318/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.318	10,121,400	9,818
1.9175/3 month USD-LIBOR-BBA/ Mar-19	Mar-18/1.9175	11,667,000	817
2.205/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.205	6,779,800	203

Credit Suisse International

2.33875/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.33875	7,777,600	20,377
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Goldman Sachs International

2.695/3 month USD-LIBOR-BBA/ Oct-23	Oct-18/2.695	1,633,300	19,191
2.485/3 month USD-LIBOR-BBA/ Mar-48	Mar-18/2.485	777,800	13,923
2.27/3 month USD-LIBOR-BBA/ Mar-28	Mar-18/2.27	1,866,600	7,914
2.2875/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.2875	5,085,000	3,407
1.9175/3 month USD-LIBOR-BBA/ Oct-19	Oct-18/1.9175	7,077,600	3,114
2.218/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.218	5,085,000	1,017
2.10125/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.10125	5,088,000	763

PURCHASED SWAP OPTIONS OUTSTANDING (1.0%)* cont.	Expiration date/strike	Notional/Contract amount	Value
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JPMorgan Chase Bank N.A.

(1.919)/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/1.919	\$19,444,000	\$84,776
(2.25)/3 month USD-LIBOR-BBA/ Aug-22	Aug-21/2.25	8,749,800	44,711
2.25/3 month USD-LIBOR-BBA/ Aug-22	Aug-21/2.25	8,749,800	35,087
(1.964)/3 month USD-LIBOR-BBA/ Jan-21	Jan-18/1.964	3,889,000	23,101
1.919/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/1.919	19,444,000	7,778
1.964/3 month USD-LIBOR-BBA/ Jan-21	Jan-18/1.964	3,889,000	4

Morgan Stanley & Co. International PLC

1.85125/3 month USD-LIBOR-BBA/ Apr-19	Apr-18/1.85125	11,666,400	1,870
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Total purchased swap options outstanding (cost \$872,201) \$607,159

PURCHASED OPTIONS OUTSTANDING (0.1%)*

Counterparty	Expiration date/Strike price	Notional amount	Contract amount	Value
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JPMorgan Chase Bank N.A.

Federal National Mortgage Association 30 yr 2.50% TBA commitments (Call)	Jan-18/\$96.60	\$1,000,000	\$1,000,000	\$1,833
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/99.81	2,000,000	2,000,000	8,714
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/99.88	2,000,000	2,000,000	8,034
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.00	2,000,000	2,000,000	6,778
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.03	2,000,000	2,000,000	6,486
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/99.34	2,000,000	2,000,000	6,566
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/99.21	2,000,000	2,000,000	5,772
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/99.09	2,000,000	2,000,000	5,066
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Jan-18/100.03	2,000,000	2,000,000	3,322

Total purchased options outstanding (cost \$97,813) \$52,571

ASSET-BACKED SECURITIES (0.6%)*	Principal amount	Value
Loan Depot Station Place Agency Securitization Trust 144A FRB Ser. 17-LD1, Class A, 1 Month US LIBOR + 0.80%, 2.352%, 11/25/50	\$133,000	\$133,000
Station Place Securitization Trust 144A FRB Ser. 17-1, Class A, 1 Month US LIBOR + 0.90%, 2.452%, 2/25/49	222,333	222,333
Total asset-backed securities (cost \$355,333)		\$355,333
REPURCHASE AGREEMENTS (11.1%)*	Principal amount	Value
Interest in \$300,000,000 joint tri-party repurchase agreement dated 12/29/17 with HSBC Bank USA, National Association due 1/2/18 - maturity value of \$7,021,069 for an effective yield of 1.370% (collateralized by a U.S. Treasury note and a U.S. Treasury bond with coupon rates ranging from 2.250% to 2.750% and due dates ranging from 2/15/27 to 11/15/47, valued at \$306,002,415)	\$7,020,000	\$7,020,000
Total repurchase agreements (cost \$7,020,000)		\$7,020,000
Total investments (cost \$91,095,420)		\$91,309,081

Key to holding's abbreviations

FRB	Floating Rate Bonds: the rate shown is the current interest rate at the close of the reporting period. Rates may be subject to a cap or floor. For certain securities, the rate may represent a fixed rate currently in place at the close of the reporting period.
IFB	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. Rates may be subject to a cap or floor.
IO	Interest Only
PO	Principal Only
TBA	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 December 31, 2017 (the reporting period). Within the following notes to the portfolio, references to "Putnam Management" represent Putnam Investment Management, LLC, the fund's manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC and references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures*.

* Percentages indicated are based on net assets of \$63,376,414.

This security, in part or in entirety, was pledged and segregated with the broker to cover margin requirements for futures contracts at the close of the reporting period. Collateral at period end totaled \$195,841 and is included in Investments in securities on the Statement of assets and liabilities (Notes 1 and 6).

§ 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. Collateral at period end totaled \$1,386,766 and is included in Investments in securities on the Statement of assets and liabilities (Notes 1 and 6).

W The rate shown represents the weighted average coupon associated with the underlying mortgage pools. Rates may be subject to a cap or floor.

At the close of the reporting period, the fund maintained liquid assets totaling \$24,597,243 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.

FUTURES CONTRACTS OUTSTANDING at 12/31/17	Number of contracts	Notional amount	Value	Expiration date	Unrealized appreciation/ (depreciation)
U.S. Treasury Bond Ultra 30 yr (Long)	22	\$3,688,438	\$3,688,438	Mar-18	\$7,175
U.S. Treasury Note 5 yr (Long)	17	1,974,789	1,974,789	Mar-18	(10,659)
U.S. Treasury Note 10 yr (Long)	66	8,187,094	8,187,094	Mar-18	(36,094)
Unrealized appreciation					7,175
Unrealized (depreciation)					(46,753)
Total					\$(39,578)

WRITTEN SWAP OPTIONS OUTSTANDING at 12/31/17 (premiums \$992,453)

Counterparty	Fixed Obligation % to receive or (pay)/Floating rate index/ Maturity date	Expiration date/strike	Notional/ Contract amount	Value
Bank of America N.A.				
(2.2625)/3 month USD-LIBOR-BBA/Aug-19		Aug-18/2.2625	\$8,749,800	\$11,812
2.2625/3 month USD-LIBOR-BBA/Aug-19		Aug-18/2.2625	8,749,800	20,475
(1.9325)/3 month USD-LIBOR-BBA/Aug-20		Aug-19/1.9325	19,444,000	20,611
1.9325/3 month USD-LIBOR-BBA/Aug-20		Aug-19/1.9325	19,444,000	95,276
Citibank, N.A.				
2.505/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.505	6,779,800	1,763
(2.05)/3 month USD-LIBOR-BBA/Mar-19		Mar-18/2.05	11,667,000	2,217
2.675/3 month USD-LIBOR-BBA/Feb-28		Feb-18/2.675	7,777,600	8,089
2.428/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.428	5,060,700	13,816
(2.398)/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.398	5,060,700	16,852
2.398/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.398	5,060,700	17,055
2.412/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.412	5,057,500	24,276
(2.428)/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.428	5,060,700	26,974
(2.412)/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.412	5,057,500	28,575
2.208/3 month USD-LIBOR-BBA/May-24		May-19/2.208	3,888,800	67,510
Credit Suisse International				
2.63625/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.63625	7,777,600	2,722
Goldman Sachs International				
2.68675/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.68675	5,088,000	916
(2.357)/3 month USD-LIBOR-BBA/Jan-28		Jan-18/2.357	5,085,000	10,272
(2.3025)/3 month USD-LIBOR-BBA/Oct-19		Oct-18/2.3025	15,555,200	21,000
(2.46)/3 month USD-LIBOR-BBA/Mar-38		Mar-18/2.46	2,100,000	24,045

WRITTEN SWAP OPTIONS OUTSTANDING at 12/31/17 (premiums \$992,453)

cont.

Counterparty Fixed Obligation % to receive or (pay)/Floating rate index/ Maturity date	Expiration date/strike	Notional/ Contract amount	Value
JPMorgan Chase Bank N.A.			
(2.3205)/3 month USD-LIBOR-BBA/Jan-28	Jan-18/2.3205	\$1,252,000	\$701
2.4115/3 month USD-LIBOR-BBA/ Jan-28	Jan-18/2.4115	1,252,000	2,567
(6.00 Floor)/3 month USD-LIBOR-BBA/Mar-18	Mar-18/6.00 Floor	910,000	10,176
(2.25)/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/2.25	8,749,800	11,375
(1.919)/3 month USD-LIBOR-BBA/ Aug-20	Aug-19/1.919	19,444,000	20,027
2.25/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/2.25	8,749,800	21,000
1.919/3 month USD-LIBOR-BBA/ Aug-20	Aug-19/1.919	19,444,000	97,026
Morgan Stanley & Co. International PLC			
(2.01)/3 month USD-LIBOR-BBA/ Apr-19	Apr-18/2.01	11,666,400	3,378
Total			\$580,506

**WRITTEN OPTIONS
OUTSTANDING at
12/31/17
(premiums \$97,813)**

Counterparty	Expiration date/strike price	Notional amount	Contract amount	Value
JPMorgan Chase Bank N.A.				
Federal National Mortgage Association 30 yr 2.50% TBA commitments (Put)	Jan-18/\$96.60	\$1,000,000	\$1,000,000	\$1,898
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.21	2,000,000	2,000,000	4,942
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.29	2,000,000	2,000,000	4,402
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.40	2,000,000	2,000,000	3,664
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.45	2,000,000	2,000,000	3,410

**WRITTEN OPTIONS
OUTSTANDING at
12/31/17 (premiums
\$97,813) cont.**

Counterparty	Expiration date/strike price	Notional amount	Contract amount	Value
JPMorgan Chase Bank N.A. cont.				
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Jan-18/\$100.03	\$2,000,000	\$2,000,000	\$3,322
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.62	2,000,000	2,000,000	2,532
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.70	2,000,000	2,000,000	2,170
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.80	2,000,000	2,000,000	\$1,798
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Call)	Feb-18/100.86	2,000,000	2,000,000	1,622
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/98.84	2,000,000	2,000,000	3,886
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/98.71	2,000,000	2,000,000	3,398
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/98.59	2,000,000	2,000,000	2,970
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/98.34	2,000,000	2,000,000	2,262
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/98.21	2,000,000	2,000,000	1,970
Federal National Mortgage Association 30 yr 3.00% TBA commitments (Put)	Mar-18/98.09	2,000,000	2,000,000	1,712
Total				\$45,958

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 12/31/17

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.				
(2.203)/3 month USD-LIBOR-BBA/Jan-24 (Purchased)	Jun-19/2.203	\$1,944,400	\$(38,888)	\$(3,403)
2.785/3 month USD-LIBOR-BBA/Jan-47 (Purchased)	Jan-27/2.785	1,166,600	(125,176)	(7,011)
2.647/3 month USD-LIBOR-BBA/Jan-29 (Purchased)	Jun-24/2.647	1,944,400	(76,026)	(10,733)
(2.647)/3 month USD-LIBOR-BBA/Jan-29 (Purchased)	Jun-24/2.647	1,944,400	(76,026)	(12,483)
2.5925/3 month USD-LIBOR-BBA/Jan-27 (Purchased)	Jan-19/2.5925	1,166,600	(41,123)	(12,588)
2.203/3 month USD-LIBOR-BBA/Jan-24 (Purchased)	Jun-19/2.203	1,944,400	(38,888)	(19,852)
(2.5925)/3 month USD-LIBOR-BBA/Jan-27 (Purchased)	Jan-19/2.5925	1,166,600	(41,123)	(25,549)

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 12/31/17 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.				
(2.785)/3 month USD-LIBOR-BBA/Jan-47 (Purchased)	Jan-27/2.785	\$1,166,600	\$(125,176)	\$(29,667)
2.7175/3 month USD-LIBOR-BBA/Jan-47 (Written)	Jan-19/2.7175	1,166,600	105,402	62,915
(2.413)/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.413	1,944,400	74,762	30,410
(2.7175)/3 month USD-LIBOR-BBA/Jan-47 (Written)	Jan-19/2.7175	1,166,600	105,402	27,252
2.413/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.413	1,944,400	74,762	15,691
Barclays Bank PLC				
(2.205)/3 month USD-LIBOR-BBA/Jun-24 (Purchased)	Jun-19/2.205	1,944,400	(38,888)	(3,519)
2.43/3 month USD-LIBOR-BBA/Feb-22 (Purchased)	Feb-19/2.43	1,166,600	(16,274)	(6,346)
(2.43)/3 month USD-LIBOR-BBA/Feb-22 (Purchased)	Feb-19/2.43	1,166,600	(16,274)	(9,613)
2.205/3 month USD-LIBOR-BBA/Jun-24 (Purchased)	Jun-19/2.205	1,944,400	(38,888)	(19,794)
Citibank, N.A.				
(2.34)/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.34	237,000	(4,396)	(209)
2.34/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.34	237,000	(4,396)	(936)
2.689/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.689	237,000	(30,514)	(1,458)
(2.689)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.689	237,000	(30,514)	(4,195)
2.654/3 month USD-LIBOR-BBA/Jun-29 (Purchased)	Jun-24/2.654	1,944,400	(76,026)	(10,441)
(2.654)/3 month USD-LIBOR-BBA/Jun-29 (Purchased)	Jun-24/2.654	1,944,400	(76,026)	(12,755)
(2.42)/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.42	1,944,400	74,859	29,963
2.42/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.42	1,944,400	74,471	16,061
2.615/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.615	237,000	18,960	3,342
(2.615)/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.615	237,000	18,960	1,261
Goldman Sachs International				
2.8175/3 month USD-LIBOR-BBA/Mar-47 (Purchased)	Mar-27/2.8175	233,300	(29,454)	(555)
3.005/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/3.005	395,400	(35,981)	(945)
(2.47)/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.47	395,400	(14,037)	(961)
2.7725/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.7725	395,400	(18,979)	(1,522)
(2.7725)/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.7725	395,400	(10,083)	(1,617)
2.725/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.725	395,400	(31,691)	(1,807)
2.47/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.47	395,400	(14,037)	(2,602)
(2.725)/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.725	395,400	(31,691)	(2,985)
(3.005)/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/3.005	395,400	(27,401)	(3,120)
(2.8175)/3 month USD-LIBOR-BBA/Mar-47 (Purchased)	Mar-27/2.8175	233,300	(29,454)	(6,094)
2.875/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.875	395,400	16,686	3,270
(2.584)/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.584	395,400	23,665	3,005
2.584/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.584	395,400	23,665	2,594
(2.875)/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.875	395,400	32,462	1,024
JPMorgan Chase Bank N.A.				
2.2525/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.2525	395,400	(4,745)	3,211
2.50/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.50	395,400	(22,854)	2,096
(2.553)/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.553	237,000	(3,152)	(97)
2.553/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.553	237,000	(5,807)	(1,081)
2.902/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.902	237,000	(36,640)	(2,197)
(2.902)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.902	237,000	(25,430)	(3,546)
(2.2525)/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.2525	395,400	(24,515)	(6,805)
(2.50)/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.50	395,400	(41,122)	(7,141)
2.8325/3 month USD-LIBOR-BBA/Feb-52 (Purchased)	Feb-22/2.8325	1,166,600	(162,887)	(7,175)
(2.8325)/3 month USD-LIBOR-BBA/Feb-52 (Purchased)	Feb-22/2.8325	1,166,600	(162,887)	(64,081)
2.79/3 month USD-LIBOR-BBA/Feb-49 (Written)	Feb-19/2.79	1,166,600	110,769	71,326
(2.79)/3 month USD-LIBOR-BBA/Feb-49 (Written)	Feb-19/2.79	1,166,600	110,769	14,909
2.36/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.36	395,400	43,099	13,622
2.826/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.826	237,000	13,296	2,292

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 12/31/17 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)
JPMorgan Chase Bank N.A. cont.				
(2.826)/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.826	\$237,000	\$26,094	\$2,007
(2.36)/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.36	395,400	6,524	(7,509)
Morgan Stanley & Co. International PLC				
2.3388/3 month USD-LIBOR-BBA/Feb-28 (Purchased)	Feb-18/2.3388	10,100,000	(29,847)	1,616
(2.155)/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.155	237,000	(5,925)	(531)
2.155/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.155	237,000	(3,105)	(536)
2.505/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.505	237,000	(25,501)	(607)
(2.505)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.505	237,000	(36,308)	(5,522)
(2.5012)/3 month USD-LIBOR-BBA/Feb-28 (Purchased)	Feb-18/2.5012	10,100,000	(29,116)	(6,060)
2.42/3 month USD-LIBOR-BBA/Feb-28 (Written)	Feb-18/2.42	5,050,000	29,708	5,353
2.43/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.43	237,000	25,975	5,216
(2.43)/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.43	237,000	13,177	40
(2.42)/3 month USD-LIBOR-BBA/Feb-28 (Written)	Feb-18/2.42	5,050,000	29,255	(2,423)
Unrealized appreciation				318,476
Unrealized (depreciation)				(328,071)
Total				\$(9,595)

**TBA SALE COMMITMENTS
OUTSTANDING**

at 12/31/17 (proceeds receivable \$13,396,914)	Principal amount	Settlement date	Value
Federal Home Loan Mortgage Corporation, 3.00%, 1/1/48	\$1,000,000	1/11/18	\$1,000,273
Federal National Mortgage Association, 4.50%, 1/1/48	1,000,000	1/11/18	1,063,906
Federal National Mortgage Association, 4.00%, 1/1/48	2,000,000	1/11/18	2,091,875
Federal National Mortgage Association, 3.50%, 1/1/48	6,000,000	1/11/18	6,162,656
Government National Mortgage Association, 4.00%, 1/1/48	1,000,000	1/22/18	1,042,656
Government National Mortgage Association, 3.50%, 1/1/48	2,000,000	1/22/18	2,068,439
Total			\$13,429,805

CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 12/31/17

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments made by fund	Payments received by fund	Unrealized appreciation/ (depreciation)
\$25,849,500	\$26,186 ^E	\$(24,055)	3/21/20	2.10%—Semiannually	3 month USD-LIBOR-BBA—Quarterly	\$2,131
13,746,200	16,001 ^E	7,752	3/21/23	3 month USD-LIBOR-BBA—Quarterly	2.30%—Semiannually	23,752
22,235,600	58,146 ^E	(53,349)	3/21/28	2.45%—Semiannually	3 month USD-LIBOR-BBA—Quarterly	(111,494)
571,400	41 ^E	8,609	3/21/48	3 month USD-LIBOR-BBA—Quarterly	2.55%—Semiannually	8,650
2,877,700	21,275 ^E	(23)	1/30/28	2.48875%—Semiannually	3 month USD-LIBOR-BBA—Quarterly	(21,298)
2,722,000	16,207 ^E	(22)	2/26/28	2.48%—Semiannually	3 month USD-LIBOR-BBA—Quarterly	(16,230)
Total		\$(61,088)				\$(114,489)

^E Extended effective date.

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 12/31/17

Swap counterparty/ Notional amount	Value	Upfront premium received (paid)	Termination date	Payments received (paid) by fund	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
Bank of America N.A.						
\$40,894	\$40,154	\$—	1/12/41	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	\$(373)
30,502	29,950	—	1/12/41	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(278)
Barclays Bank PLC						
204,596	203,882	—	1/12/40	4.50% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 4.50% 30 year Fannie Mae pools—Monthly	(426)
38,050	37,495	—	1/12/42	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(229)
42,307	42,276	—	1/12/40	4.00% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 4.00% 30 year Fannie Mae pools—Monthly	20
19,426	18,970	—	1/12/39	6.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools—Monthly	(222)
279,832	279,624	—	1/12/40	4.00% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 4.00% 30 year Fannie Mae pools—Monthly	129
1,936	1,896	—	1/12/38	6.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools—Monthly	(17)
63,404	63,168	—	1/12/41	5.00% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 5.00% 30 year Ginnie Mae II pools—Monthly	(133)
8,525	8,495	—	1/12/40	4.50% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 4.50% 30 year Fannie Mae pools—Monthly	(18)
290,417	289,455	—	1/12/39	(6.00%) 1 month USD-LIBOR—Monthly	Synthetic MBX Index 6.00% 30 year Fannie Mae pools—Monthly	383
27,247	26,681	—	1/12/38	6.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools—Monthly	(243)
27,329	26,735	—	1/12/41	(5.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools—Monthly	302
50,613	49,696	—	1/12/41	(4.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	462
2,127	2,101	—	1/12/43	3.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools—Monthly	(8)
337,190	335,883	—	1/12/40	5.00% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools—Monthly	(760)
5,487,794	5,468,122	—	1/12/41	5.00% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools—Monthly	(10,786)
4,655,381	4,644,680	—	1/12/38	(6.50%) 1 month USD-LIBOR—Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools—Monthly	616
Citibank, N.A.						
62,579	62,355	—	1/12/41	5.00% (1 month USD-LIBOR)—Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools—Monthly	(123)

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 12/31/17 cont.

Swap counterparty/ Notional amount	Value	Upfront premium received (paid)	Termination date	Payments received (paid) by fund	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
Credit Suisse International						
\$41,320	\$40,422	\$—	1/12/41	(5.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools—Monthly	\$457
35,025	34,390	—	1/12/41	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(320)
35,444	34,831	—	1/12/44	3.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools—Monthly	(326)
4,544	4,489	—	1/12/43	3.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools—Monthly	(18)
24,245	23,788	—	1/12/45	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(239)
17,689	17,356	—	1/12/45	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(174)
17,286	16,969	—	1/12/45	3.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools—Monthly	(174)
78,939	77,496	—	1/12/44	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(757)
59,417	58,341	—	1/12/41	(4.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	542
Goldman Sachs International						
54,378	53,248	—	1/12/38	6.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools—Monthly	(484)
41,951	41,079	—	1/12/38	6.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools—Monthly	(374)
117,163	114,412	—	1/12/39	6.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools—Monthly	(1,338)
52,694	51,599	—	1/12/38	6.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools—Monthly	(469)
94,428	93,050	—	1/12/42	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(567)
94,428	93,050	—	1/12/42	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(567)
332,198	331,434	—	1/12/38	(6.50%) 1 month USD-LIBOR—Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools—Monthly	44
124,797	124,511	—	1/12/38	(6.50%) 1 month USD-LIBOR—Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools—Monthly	17
18,891	18,574	—	1/12/40	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(146)
189	184	—	1/12/39	6.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools—Monthly	(2)
48,551	47,411	—	1/12/39	6.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools—Monthly	(554)

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 12/31/17 cont.

Swap counterparty/ Notional amount	Value	Upfront premium received (paid)	Termination date	Payments received (paid) by fund	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
Goldman Sachs International cont.						
\$455,043	\$453,998	\$—	1/12/38	(6.50%) 1 month USD-LIBOR—Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools—Monthly	\$60
16,861	16,822	—	1/12/38	(6.50%) 1 month USD-LIBOR—Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools—Monthly	2
44,977	44,874	—	1/12/38	(6.50%) 1 month USD-LIBOR—Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools—Monthly	6
11,882	11,635	—	1/12/38	6.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools—Monthly	(106)
59,593	58,355	—	1/12/38	6.50% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools—Monthly	(531)
63,100	62,179	—	1/12/42	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(379)
69,885	68,866	—	1/12/42	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(420)
82,248	80,317	—	1/12/39	6.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools—Monthly	(939)
74,578	73,490	—	1/12/42	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(448)
52,877	51,728	—	1/12/41	(5.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools—Monthly	585
63,320	61,393	—	1/12/44	(3.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 3.00% 30 year Fannie Mae pools—Monthly	1,450
58,359	57,302	—	1/12/41	(4.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	533
JPMorgan Chase Bank N.A.						
57,156	56,121	—	1/12/41	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(522)
4,811	4,724	—	1/12/41	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(44)
52,834	51,685	—	1/12/41	(5.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools—Monthly	585
JPMorgan Securities LLC						
41,657	40,895	—	1/12/44	4.00% (1 month USD-LIBOR)—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	(399)
434,469	428,129	—	1/12/42	(4.00%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools—Monthly	2,610
35,444	34,831	—	1/12/44	(3.50%) 1 month USD-LIBOR—Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools—Monthly	324
Upfront premium received		—	Unrealized appreciation		9,127	
Upfront premium (paid)		—	Unrealized (depreciation)		(23,913)	
Total		\$—	Total		\$(14,786)	

CENTRALLY CLEARED TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 12/31/17

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments received (paid) by fund	Total return received by or paid by fund	Unrealized appreciation/ (depreciation)
\$407,000	\$4,022	\$—	7/3/22	(1.9225%)—At maturity	USA Non Revised Consumer Price Index-Urban (CPI-U)—At maturity	\$4,022
407,000	5,468	—	7/3/27	2.085%—At maturity	USA Non Revised Consumer Price Index-Urban (CPI-U)—At maturity	(5,468)
466,000	5,390	—	7/5/22	(1.89%)—At maturity	USA Non Revised Consumer Price Index-Urban (CPI-U)—At maturity	5,390
466,000	7,917	—	7/5/27	2.05%—At maturity	USA Non Revised Consumer Price Index-Urban (CPI-U)—At maturity	(7,918)
Total		\$—				\$(3,974)

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

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

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

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

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

Investments in securities:	Valuation inputs		
	Level 1	Level 2	Level 3
Asset-backed securities	\$—	\$355,333	\$—
Mortgage-backed securities	—	19,152,446	—
Purchased options outstanding	—	52,571	—
Purchased swap options outstanding	—	607,159	—
U.S. government and agency mortgage obligations	—	53,516,283	—
U.S. treasury obligations	—	10,605,289	—
Repurchase agreements	—	7,020,000	—
Totals by level	\$—	\$91,309,081	\$—

Other financial instruments:	Valuation inputs		
	Level 1	Level 2	Level 3
Futures contracts	\$(39,578)	\$—	\$—
Written options outstanding	—	(45,958)	—
Written swap options outstanding	—	(580,506)	—
Forward premium swap option contracts	—	(9,595)	—
TBA sale commitments	—	(13,429,805)	—
Interest rate swap contracts	—	(53,401)	—
Total return swap contracts	—	(18,760)	—
Totals by level	\$(39,578)	\$(14,138,025)	\$—

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.

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

Statement of assets and liabilities

12/31/17

Assets	
Investment in securities, at value (Note 1):	
Unaffiliated issuers (identified cost \$84,075,420)	\$84,289,081
Repurchase agreement (identified cost \$7,020,000) (Note 1)	7,020,000
Cash	920
Interest and other receivables	563,601
Receivable for shares of the fund sold	13,473
Receivable for sales of delayed delivery securities (Note 1)	10,342,701
Receivable for variation margin on futures contracts (Note 1)	24,625
Receivable for variation margin on centrally cleared swap contracts (Note 1)	20,575
Unrealized appreciation on forward premium swap option contracts (Note 1)	318,476
Unrealized appreciation on OTC swap contracts (Note 1)	9,127
Total assets	102,602,579

Liabilities	
Payable for purchases of delayed delivery securities (Note 1)	24,500,572
Payable for shares of the fund repurchased	69,004
Payable for compensation of Manager (Note 2)	21,253
Payable for custodian fees (Note 2)	19,546
Payable for investor servicing fees (Note 2)	7,473
Payable for Trustee compensation and expenses (Note 2)	75,221
Payable for administrative services (Note 2)	654
Payable for distribution fees (Note 2)	5,862
Payable for variation margin on centrally cleared swap contracts (Note 1)	58,592
Unrealized depreciation on OTC swap contracts (Note 1)	23,913
Unrealized depreciation on forward premium swap option contracts (Note 1)	328,071
Written options outstanding, at value (premiums \$1,090,266) (Note 1)	626,464
TBA sale commitments, at value (proceeds receivable \$13,396,914) (Note 1)	13,429,805
Other accrued expenses	59,735
Total liabilities	39,226,165
Net assets	\$63,376,414

Represented by	
Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$78,465,769
Undistributed net investment income (Note 1)	1,461,272
Accumulated net realized loss on investments	(17,012,777)
Net unrealized appreciation of investments	462,150
Total — Representing net assets applicable to capital shares outstanding	\$63,376,414

Computation of net asset value Class IA	
Net assets	\$35,851,997
Number of shares outstanding	3,754,047
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$9.55

Computation of net asset value Class IB	
Net assets	\$27,524,417
Number of shares outstanding	2,890,845
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$9.52

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

Statement of operations

Year ended 12/31/17

Investment income	
Interest	\$2,365,423
Total investment income	2,365,423
Expenses	
Compensation of Manager (Note 2)	265,916
Investor servicing fees (Note 2)	47,222
Custodian fees (Note 2)	50,273
Trustee compensation and expenses (Note 2)	1,411
Distribution fees (Note 2)	73,563
Administrative services (Note 2)	1,989
Auditing and tax fees	53,600
Other	27,110
Total expenses	521,084
Expense reduction (Note 2)	(421)
Net expenses	520,663
Net investment income	1,844,760
Net realized loss on securities from unaffiliated issuers (Notes 1 and 3)	(2,608,691)
Net realized loss on swap contracts (Note 1)	(477,060)
Net realized gain on futures contracts (Note 1)	288,044
Net realized gain on written options (Note 1)	1,990,258
Net unrealized depreciation of securities in unaffiliated issuers and TBA sale commitments during the year	(924,984)
Net unrealized appreciation of swap contracts during the year	258,625
Net unrealized appreciation of futures contracts during the year	17,748
Net unrealized appreciation of written options during the year	1,041,810
Net loss on investments	(414,250)
Net increase in net assets resulting from operations	\$1,430,510

Statement of changes in net assets

	Year ended 12/31/17	Year ended 12/31/16
Decrease in net assets		
Operations:		
Net investment income	\$1,844,760	\$1,833,069
Net realized loss on investments	(807,449)	(1,793,667)
Net unrealized appreciation of investments	393,199	236,426
Net increase in net assets resulting from operations	1,430,510	275,828
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)	(9,997,047)	(5,085,944)
Total decrease in net assets	(10,286,627)	(6,427,725)
Net assets:		
Beginning of year	73,663,041	80,090,766
End of year (including undistributed net investment income of \$1,461,272 and \$1,422,386, respectively)	\$63,376,414	\$73,663,041

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

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

Period ended	INVESTMENT OPERATIONS:				LESS DISTRIBUTIONS:		RATIOS AND SUPPLEMENTAL DATA:					
	Net asset value, beginning of period	Net investment income (loss) ^a	Net realized and unrealized gain (loss) on investments	Total from investment operations	From net investment income	Total distributions	Net asset value, end of period	Total return at net asset value (%) ^{b,c}	Net assets, end of period (in thousands)	Ratio of expenses to average net assets (%) ^{b,d}	Ratio of net investment income (loss) to average net assets (%)	Portfolio turnover (%)
Class IA												
12/31/17	\$9.59	.27	(.06)	.21	(.25)	(.25)	\$9.55	2.27	\$35,852	.66	2.85	1,188 ^f
12/31/16	9.76	.24	(.20)	.04	(.21)	(.21)	9.59	.36	40,362	.64 ^e	2.43 ^e	1,028 ^f
12/31/15	10.02	.19	(.22)	(.03)	(.23)	(.23)	9.76	(.33)	44,229	.62	1.92	905 ^f
12/31/14	10.01	.22	.22	.44	(.43)	(.43)	10.02	4.49	50,935	.62	2.17	587 ^f
12/31/13	10.19	.23	(.25)	(.02)	(.16)	(.16)	10.01	(.19)	57,347	.63	2.29	390 ^g
Class IB												
12/31/17	\$9.56	.25	(.07)	.18	(.22)	(.22)	\$9.52	1.96	\$27,524	.91	2.60	1,188 ^f
12/31/16	9.72	.21	(.19)	.02	(.18)	(.18)	9.56	.20	33,301	.89 ^e	2.18 ^e	1,028 ^f
12/31/15	9.99	.16	(.22)	(.06)	(.21)	(.21)	9.72	(.65)	35,862	.87	1.67	905 ^f
12/31/14	9.97	.19	.23	.42	(.40)	(.40)	9.99	4.31	41,287	.87	1.89	587 ^f
12/31/13	10.15	.20	(.25)	(.05)	(.13)	(.13)	9.97	(.48)	33,075	.88	2.04	390 ^g

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

^b The charges and expenses at the insurance company separate account level are not reflected.

^c Total return assumes dividend reinvestment.

^d Includes amounts paid through expense offset arrangements, if any (Note 2). Also excludes acquired fund fees and expenses, if any.

^e 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.

^f Portfolio turnover includes TBA purchase and sale commitments.

^g 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%

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

Notes to financial statements 12/31/17

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 December 31, 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 Agreement and Declaration of Trust, any claims asserted against or on behalf of the Putnam Funds, including claims against Trustees and Officers, must be brought in state and federal courts located within the Commonwealth of Massachusetts.

Note 1 — Significant accounting policies

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

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

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

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

Investments, 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, which totaled \$7,160,457, 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 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 and/or centrally cleared total return swap contracts, which are arrangements to exchange a market-linked return for a periodic payment, both based on a notional principal amount, to hedge 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 and/or centrally cleared total return swap contracts are marked to market daily based upon quotations from an independent pricing service or market maker. Any change is recorded as an unrealized gain or loss on OTC total return swaps. Daily fluctuations in the value of centrally cleared total return swaps are settled through a central clearing agent and are recorded in variation margin on the Statement of assets and liabilities and recorded as unrealized gain or loss. Payments received or made are recorded as realized gains or losses. Certain OTC and/or centrally cleared total return swap contracts may include extended effective dates. Payments related to these swap contracts are accrued based on the terms of the contract. The fund could be exposed to credit or market risk due to unfavorable changes in the fluctuation of interest rates or in the price of the underlying security or index, the possibility that there is no liquid market for these agreements or that the counterparty may default on its obligation to perform. The fund's maximum risk of loss from counterparty risk or central clearing risk is the fair value of the contract. This risk may be mitigated for OTC total return swap contracts by having a master netting arrangement between the fund and the counterparty and for centrally cleared total return swap contracts through the daily exchange of variation margin. There is minimal counterparty risk with respect to centrally cleared total return swap contracts due to the clearinghouse guarantee fund and other resources that are available in the event of a clearing member default. Risk of loss may exceed amounts recognized on the Statement of assets and liabilities.

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

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 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 \$96,208 on open derivative contracts subject to the Master Agreements. There was no collateral posted by the fund at period end for these 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 1.25% plus the higher of (1) the Federal Funds rate and (2) the overnight LIBOR for the committed line of credit and the Federal Funds rate plus 1.30% for the uncommitted line of credit. A closing fee equal to 0.04% of the committed line of credit 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, 2017, 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
\$15,459,542	\$166,109	\$15,625,651

Distributions to shareholders Distributions to shareholders from net investment income are recorded by the fund on the ex-dividend date. Distributions from capital gains, if any, are recorded on the ex-dividend date and paid at least annually. The amount and character of income and gains to be distributed are determined in accordance with income tax regulations, which may differ from generally accepted accounting principles. These differences include temporary and/or permanent differences from unrealized gains and losses on certain futures contracts, income on swap contracts and interest-only securities. Reclassifications are made to the fund's capital accounts to reflect income and gains available for distribution (or available capital loss carryovers) under income tax regulations. At the close of the reporting period, the fund reclassified \$85,784 to decrease undistributed net investment income, \$2 to decrease paid-in capital and \$85,786 to decrease accumulated net realized loss.

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

Unrealized appreciation	\$1,748,062
Unrealized depreciation	(2,811,024)
Net unrealized depreciation	(1,062,962)
Undistributed ordinary income	1,599,258
Capital loss carryforward	(15,625,651)
Cost for federal income tax purposes	\$78,194,440

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 35.4% of the fund is owned by accounts of one insurance company.

Note 2 — Management fee, administrative services and other transactions

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

0.550%	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 0.394% 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 not reduced as a result of this limit.

Putnam Investments Limited (PIL), an affiliate of Putnam Management, is authorized by the Trustees to manage a separate portion of the assets of the fund as determined by Putnam Management from time to time. PIL did not manage any portion of the assets of the fund during the reporting period. If Putnam Management were to engage the services of PIL, Putnam Management would pay a quarterly sub-management fee to PIL for its services at an annual rate of 0.25% 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	\$26,610
Class IB	20,612
Total	\$47,222

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 \$421 under the expense offset arrangements.

Each Independent Trustee of the fund receives an annual Trustee fee, of which \$47, 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.

Note 4 — Capital shares

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

	Class IA shares				Class IB shares			
	Year ended 12/31/17		Year ended 12/31/16		Year ended 12/31/17		Year ended 12/31/16	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	175,414	\$1,671,461	558,537	\$5,434,808	434,602	\$4,135,307	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
	284,501	2,695,785	654,919	6,359,107	508,777	4,831,073	1,070,656	10,385,329
Shares repurchased	(738,230)	(7,036,350)	(979,542)	(9,511,732)	(1,101,791)	(10,487,555)	(1,274,898)	(12,318,648)
Net decrease	(453,729)	\$(4,340,565)	(324,623)	\$(3,152,625)	(593,014)	\$(5,656,482)	(204,242)	\$(1,933,319)

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

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)	\$918,966,090	\$933,915,564
U.S. government securities (Long-term)	—	—
Total	\$918,966,090	\$933,915,564

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.

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 — 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.	Credit Suisse International
Assets:					
Centrally cleared interest rate swap contracts [§]	\$—	\$—	\$19,731	\$—	\$—
OTC Total return swap contracts* [#]	—	1,912	—	—	999
Centrally cleared total return swap contracts [§]	—	—	844	—	—
Futures contracts [§]	—	—	—	—	—
Forward premium swap option contracts [#]	136,268	—	—	50,627	—
Purchased swap options** [#]	170,707	—	—	169,419	20,377
Purchased options** [#]	—	—	—	—	—
Repurchase agreements**	—	—	—	—	—
Total Assets	\$306,975	\$1,912	\$20,575	\$220,046	\$21,376
Liabilities:					
Centrally cleared interest rate swap contracts [§]	—	—	57,603	—	—
OTC Total return swap contracts* [#]	651	12,842	—	123	2,008
Centrally cleared total return swap contracts [§]	—	—	989	—	—
Futures contracts [§]	—	—	—	—	—
Forward premium swap option contracts [#]	121,286	39,272	—	29,994	—
Written swap options [#]	148,174	—	—	207,127	2,722
Written options [#]	—	—	—	—	—
Total Liabilities	\$270,111	\$52,114	\$58,592	\$237,244	\$4,730
Total Financial and Derivative Net Assets	\$36,864	\$(50,202)	\$(38,017)	\$(17,198)	\$16,646
Total collateral received (pledged) [†] [#]	\$—	\$—	\$—	\$—	\$—
Net amount	\$36,864	\$(50,202)	\$(38,017)	\$(17,198)	\$16,646
<i>Controlled collateral received (including TBA commitments)**</i>	\$—	\$—	\$—	\$—	\$—
<i>Uncontrolled collateral received</i>	\$—	\$—	\$—	\$—	\$—
<i>Collateral (pledged) (including TBA commitments)**</i>	\$—	\$—	\$—	\$—	\$—

* 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. Collateral pledged for initial margin on futures contracts and centrally cleared swap contracts, which is not included in the table above, amounted to \$195,841 and \$1,386,766, respectively.

Goldman Sachs International	HSBC Bank USA, National Association	JPMorgan Chase Bank N.A.	JPMorgan Securities LLC	Merrill Lynch, Pierce, Fenner & Smith, Inc.	Morgan Stanley & Co. International PLC	Total
\$—	\$—	\$—	\$—	\$—	\$—	\$19,731
2,697	—	585	2,934	—	—	9,127
—	—	—	—	—	—	844
—	—	—	—	24,625	—	24,625
9,893	—	109,463	—	—	12,225	318,476
49,329	—	195,457	—	—	1,870	607,159
—	—	52,571	—	—	—	52,571
—	7,020,000	—	—	—	—	7,020,000
\$61,919	\$7,020,000	\$358,076	\$2,934	\$24,625	\$14,095	\$8,052,533
—	—	—	—	—	—	57,603
7,324	—	566	399	—	—	23,913
—	—	—	—	—	—	989
—	—	—	—	—	—	—
22,208	—	99,632	—	—	15,679	328,071
56,233	—	162,872	—	—	3,378	580,506
—	—	45,958	—	—	—	45,958
\$85,765	\$—	\$309,028	\$399	\$—	\$19,057	\$1,037,040
\$(23,846)	\$7,020,000	\$49,048	\$2,535	\$24,625	\$(4,962)	\$7,015,493
\$—	\$7,020,000	\$—	\$—	\$—	\$—	\$—
\$(23,846)	\$—	\$49,048	\$2,535	\$24,625	\$(4,962)	\$—
\$—	\$—	\$—	\$—	\$—	\$—	\$—
\$—	\$7,160,457	\$—	\$—	\$—	\$—	\$7,160,457
\$—	\$—	\$—	\$—	\$—	\$—	\$—

Note 7 — Summary of derivative activity

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

Purchased TBA commitment option contracts (contract amount)	\$11,900,000
Purchased swap option contracts (contract amount)	\$291,600,000
Written TBA commitment option contracts (contract amount)	\$20,700,000
Written swap option contracts (contract amount)	\$272,400,000
Futures contracts (number of contracts)	100
Centrally cleared interest rate swap contracts (notional)	\$59,100,000
OTC total return swap contracts (notional)	\$16,800,000
Centrally cleared total return swap contracts (notional)	\$810,000

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	\$1,046,147*	Payables, Net assets — Unrealized depreciation	\$1,134,215*
Total		\$1,046,147		\$1,134,215

*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	\$(310,969)	\$288,044	\$(477,060)	\$(499,985)
Total	\$(310,969)	\$288,044	\$(477,060)	\$(499,985)










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	\$173,890	\$17,748	\$258,625	\$450,263
Total	\$173,890	\$17,748	\$258,625	\$450,263

Note 8 — Strategy and name change


Shareholders were informed through a supplement to the fund's prospectus that Putnam Management has recommended, and the fund's Board of Trustees has approved, changes to the fund's investment goal and strategy. The fund's goal will be to seek as high a level of current income as Putnam Management believes is consistent with the preservation of capital and the new investment strategy will broaden the fund's exposure across a number of mortgage sub-sectors. In connection with these changes, the fund's name will change to Putnam VT Mortgage Securities Fund. Putnam Management anticipates that the changes will be effective on or about April 30, 2018. See the prospectus supplement for more information.

About the Trustees

Name Year of birth Position held	Principal occupations during past five years	Other directorships	
Independent Trustees			
LiaquatAhamed Born 1952 Trustee since 2012	Pulitzer Prize-winning author of <i>Lords of Finance: The Bankers Who Broke the World</i> , whose articles on economics have appeared in such publications as the <i>New York Times</i> , <i>Foreign Affairs</i> , and the <i>Financial Times</i> . Director of Aspen Insurance Co., a New York Stock Exchange company, and Chair of the Aspen Board's Investment Committee. Trustee of the Brookings Institution.	The Rohatyn Group, an emerging-market fund complex that manages money for institutions	
Ravi Akhoury Born 1947 Trustee since 2009	Trustee of American India Foundation and of the Rubin Museum. From 1992 to 2007, was Chairman and CEO of MacKay Shields, a multi-product investment management firm.	RAGE Frameworks, Inc., a private software company; English Helper, Inc., a private software company	
Barbara M. Baumann Born 1955 Trustee since 2010	President and Owner of Cross Creek Energy Corporation, a strategic consultant to domestic energy firms and direct investor in energy projects. Current Board member of The Denver Foundation. Former Chair and current Board member of Girls Incorporated of Metro Denver. Member of the Finance Committee, the Children's Hospital of Colorado.	Buckeye Partners, L.P., a publicly traded master limited partnership focused on pipeline transport, storage, and distribution of petroleum products; Devon Energy Corporation, a leading independent natural gas and oil exploration and production company	
Jameson A. Baxter Born 1943 Trustee since 1994, Vice Chair from 2005 to 2011, and Chair since 2011	President of Baxter Associates, Inc., a private investment firm. Chair of Mutual Fund Directors Forum. Chair Emeritus of the Board of Trustees of Mount Holyoke College. Director of the Adirondack Land Trust and Trustee of the Nature Conservancy's Adirondack Chapter.	None	
Katinka Domotorffy Born 1975 Trustee since 2012	Voting member of the Investment Committees of the Anne Ray Charitable Trust and Margaret A. Cargill Foundation, part of the Margaret A. Cargill Philanthropies. Until 2011, Partner, Chief Investment Officer, and Global Head of Quantitative Investment Strategies at Goldman Sachs Asset Management.	Reach Out and Read of Greater New York, an organization dedicated to promoting childhood literacy; Great Lakes Science Center; College Now Greater Cleveland	
Catharine Bond Hill Born 1954 Trustee since 2017	Managing Director of Ithaca S+R, a not-for-profit service that helps the academic community navigate economic and technological change. From 2006 to 2016, served as the 10th President of Vassar College. Prior to 2006, was Provost of Williams College.	Director of Yale-NUS College; Alumni Fellow to the Yale Corporation	
Dr. Paul L. Joskow Born 1947 Trustee since 1997	Elizabeth and James Killian Professor of Economics, Emeritus at the Massachusetts Institute of Technology (MIT). Until 2017, President of the Alfred P. Sloan Foundation, a philanthropic institution focused primarily on research and education issues related to science, technology, and economic performance. Prior to 2007, served as the Director of the Center for Energy and Environmental Policy Research at MIT. Prior to 1998, served as Head of the Department of Economics at MIT.	Yale University; Exelon Corporation, an energy company focused on power services; Boston Symphony Orchestra; Prior to April 2013, served as Director of TransCanada Corporation and TransCanada Pipelines Ltd., energy companies focused on natural gas transmission, oil pipelines and power services	
Kenneth R. Leibler Born 1949 Trustee since 2006 and Vice Chair since 2016	Founder and former Chairman of Boston Options Exchange, an electronic marketplace for the trading of derivative securities. Vice Chairman Emeritus of the Board of Trustees of Beth Israel Deaconess Hospital in Boston, Massachusetts. Director of Beth Israel Deaconess Care Organization. Until November 2010, director of Ruder Finn Group, a global communications and advertising firm.	Eversource Corporation, which operates New England's largest energy delivery system	
Robert E. Patterson Born 1945 Trustee since 1984	Co-Chairman of Cabot Properties, Inc., a private equity firm investing in commercial real estate, and Chairman or Co-Chairman of the Investment Committees for various Cabot Funds. Past Chairman and Trustee of the Joslin Diabetes Center.	None	

Name Year of birth Position held	Principal occupations during past five years	Other directorships	
George Putnam, III Born 1951 Trustee since 1984	Chairman of New Generation Research, Inc., a publisher of financial advisory and other research services. Founder and President of New Generation Advisors, LLC, a registered investment advisor to private funds. Director of The Boston Family Office, LLC, a registered investment advisor.	None	
Manoj P. Singh Born 1952 Trustee since 2017	Until 2015, Chief Operating Officer and Global Managing Director at Deloitte Touche Tohmatsu, Ltd., a global professional services organization. Served on the Deloitte U.S. Board of Directors and the boards of Deloitte member firms in China, Mexico, and Southeast Asia.	Director of Abt Associates, a global research firm focused on health, social and environmental policy, and international development. Trustee of Carnegie Mellon University. Trustee of Rubin Museum of Art. Director of Pratham USA, an organization dedicated to children's education in India. Member of the Advisory Board of Altimetrik, a business transformation and technology solutions firm. Director of DXC Technology, a global IT services and consulting company	

Interested Trustee

Robert L. Reynolds* Born 1952 Trustee since 2008 and President of the Putnam Funds since 2009	President and Chief Executive Officer of Putnam Investments since 2008 and, since 2014, President and Chief Executive Officer of Great-West Financial, a financial services company that provides retirement savings plans, life insurance, and annuity and executive benefits products, and of Great-West Lifeco U.S. Inc., a holding company that owns Putnam Investments and Great-West Financial. Prior to joining Putnam Investments, served as Vice Chairman and Chief Operating Officer of Fidelity Investments from 2000 to 2007.	None	
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*Mr. Reynolds is an "interested person" (as defined in the Investment Company Act of 1940) of the fund and Putnam Investments. He is President and Chief Executive Officer of Putnam Investments, as well as the President of your fund and each of the other Putnam funds.

The address of each Trustee is One Post Office Square, Boston, MA 02109.

As of December 31, 2017, there were 106 Putnam funds. All Trustees serve as Trustees of all Putnam funds.

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

Officers

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

Jonathan S. Horwitz (Born 1955)

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

Robert T. Burns (Born 1961)

Vice President and Chief Legal Officer
Since 2011
General Counsel, Putnam Investments, Putnam Management, and Putnam Retail Management

James F. Clark (Born 1974)

Vice President and Chief Compliance Officer
Since 2016
Chief Compliance Officer, Putnam Investments and Putnam Management

Michael J. Higgins (Born 1976)

Vice President, Treasurer, and Clerk
Since 2010

Janet C. Smith (Born 1965)

Vice President, Principal Financial Officer, Principal Accounting Officer, and Assistant Treasurer
Since 2007
Head of Fund Administration Services, Putnam Investments and Putnam Management

Susan G. Malloy (Born 1957)

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

Mark C. Trenchard (Born 1962)

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

Nancy E. Florek (Born 1957)

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

Denere P. Poulack (Born 1968)

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

The principal occupations of the officers for the past five years have been with the employers as shown above, although in some cases they have held different positions with such employers. The address of each officer is One Post Office Square, Boston, MA 02109.

Other important information

Proxy voting

Putnam is committed to managing our mutual funds in the best interests of our shareholders. The Putnam funds' proxy voting guidelines and procedures, as well as information regarding how your fund voted proxies relating to portfolio securities during the 12-month period ended June 30, 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
16 St James's Street
London, England SW1A 1ER

Marketing Services

Putnam Retail Management
One Post Office Square
Boston, MA 02109

Investor Servicing Agent

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

Custodian

State Street Bank and Trust Company

Legal Counsel

Ropes & Gray LLP

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP

Trustees

Jameson A. Baxter, *Chair*
Kenneth R. Leibler, *Vice Chair*
Liaquat Ahamed
Ravi Akhoury
Barbara M. Baumann
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.

