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Putnam Variable Trust

Semiannual report

6 | 30 | 18

Putnam VT
Income Fund

Message from the Trustees

August 10, 2018

Dear Shareholder:

During the first half of 2018, conditions became more challenging for global financial markets. After an extended period of record advances and low volatility, a downturn early in the year pushed stocks into a brief correction. The market has since rallied, but both stocks and bonds have been more volatile, due in part to uncertainty surrounding trade policy and interest rates. Fortunately, navigating a change in market trends is nothing new to Putnam's experienced investment professionals, who continue to monitor risks and seek opportunities.

We would like to take this opportunity to extend our thanks to Jameson A. Baxter, who retired from her position as Chair of your Board of Trustees on June 30, 2018. It is hard to express in a few words the extent of Jamie's commitment to protecting the interests of Putnam shareholders like you. In addition to her professional and directorship experience, Jamie brought intelligence, insight, and compassion to a board she served for decades. Jamie began as a Trustee in 1994, served as Vice Chair for six years, and became Chair in 2011. We are also pleased to announce the appointment of Kenneth R. Leibler as your new Board of Trustees Chair. Ken became a Trustee in 2006, has served as Vice Chair since 2016, and now leads the Board in overseeing your fund and protecting your interests.

Thank you for investing with Putnam.

Respectfully yours,



Robert L. Reynolds
President and Chief Executive Officer
Putnam Investments



Kenneth R. Leibler
Chair, Board of Trustees

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 investments carry the risk that they may increase in value less than other bonds when interest rates decline and decline in value more than other bonds 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). The fund may have to invest the proceeds from prepaid investments, including mortgage-backed investments, in other investments with less attractive terms and yields. Interest-rate risk is greater for longer-term bonds, and credit risk is greater for below-investment-grade bonds. Risks associated with derivatives include increased investment exposure (which may be considered leverage) and, in the case of over-the-counter instruments, the potential inability to terminate or sell derivatives positions and the potential failure of the other party to the instrument to meet its obligations. Unlike bonds, funds that invest in bonds have fees and expenses. Bond prices may fall or fail to rise over time for several reasons, including general financial market conditions, changing market perceptions (including perceptions about the risk of default and expectations about monetary policy or interest rates), changes in government intervention in the financial markets, and factors related to a specific issuer or industry. These and other factors may lead to increased volatility and reduced liquidity in the fund's portfolio holdings. You can lose money by investing in the fund.

Performance summary (as of 6/30/18)

Investment objective

High current income consistent with what Putnam Investment Management, LLC believes to be prudent risk

Net asset value June 30, 2018

Class IA: \$10.79 | Class IB: \$10.69

Total return at net asset value

(as of 6/30/18)	Class IA shares*	Class IB shares†	Bloomberg Barclays U.S. Aggregate Bond Index
6 months	0.18%	0.11%	-1.62%
1 year	2.02	1.77	-0.40
5 years	17.50	16.03	11.89
Annualized	3.28	3.02	2.27
10 years	70.52	66.32	44.09
Annualized	5.48	5.22	3.72
Life	539.88	501.35	497.91
Annualized	6.29	6.08	6.07

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

* Class inception date: February 1, 1988.

† Class inception date: April 30, 1998.

The Bloomberg Barclays U.S. Aggregate Bond Index is an unmanaged index of U.S. investment-grade fixed-income 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. Performance of class IB shares before their inception is derived from the historical performance of class IA shares, adjusted to reflect the higher operating expenses applicable to such shares. 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	35.4%
Commercial mortgage-backed securities (MBS)	28.8%
Investment-grade corporate bonds	25.9%
Agency collateralized mortgage obligations	19.0%
Non-agency residential MBS	8.2%
Asset-backed securities	1.2%
Municipal bonds	0.5%
High-yield corporate bonds	-4.3%
Cash and net other assets	12.5%

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.

A negative percentage reflects the effect of fund strategies that are designed to enhance performance if certain securities decline in value.

Credit quality

A-1+	2.8%
AAA	55.6%
AA	4.9%
A	11.1%
BBB	22.5%
BB	8.6%
B	2.4%
CCC and below	1.0%
Not rated	-8.9%

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

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

Understanding your fund's expenses

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

Review your fund's expenses

The two left-hand columns of the Expenses per \$1,000 table show the expenses you would have paid on a \$1,000 investment in your fund from 1/1/18 to 6/30/18. They also show how much a \$1,000 investment would be worth at the close of the period, *assuming actual returns and expenses*. To estimate the ongoing expenses you paid over the period, divide your account value by \$1,000, then multiply the result by the number in the first line for the class of shares you own.

Compare your fund's expenses with those of other funds

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

Expense ratios

	Class IA	Class IB
Total annual operating expenses for the fiscal year ended 12/31/17	0.58%	0.83%
Annualized expense ratio for the six-month period ended 6/30/18	0.58%	0.83%

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

Expenses are shown as a percentage of average net assets.

Expenses per \$1,000

	Expenses and value for a \$1,000 investment, assuming actual returns for the 6 months ended 6/30/18		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 6/30/18	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$2.88	\$4.12	\$2.91	\$4.16
Ending value (after expenses)	\$1,001.80	\$1,001.10	\$1,021.92	\$1,020.68

*Expenses for each share class are calculated using the fund's annualized expense ratio for each class, which represents the ongoing expenses as a percentage of average net assets for the six months ended 6/30/18. The expense ratio may differ for each share class.

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

Your fund's managers



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



Portfolio Manager **Brett S. Kozlowski, CFA**, joined Putnam in 2008 and has been in the investment industry since 1997.



Portfolio Manager **Emily E. Shanks** joined Putnam in 2012 and has been in the investment industry since 1999.

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.

ABOUT DERIVATIVES

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

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

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

The fund's portfolio 6/30/18 (Unaudited)

U.S. GOVERNMENT AND AGENCY

MORTGAGE OBLIGATIONS (47.3%)*

	Principal amount	Value
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U.S. Government Guaranteed Mortgage Obligations (12.9%)

Government National Mortgage Association Pass-Through Certificates		
5.00%, with due dates from 5/20/48 to 6/20/48	\$2,995,927	\$3,151,340
4.70%, with due dates from 5/20/67 to 8/20/67	313,136	335,578
4.629%, 6/20/67	101,315	108,027
4.501%, 3/20/67	94,336	99,642
4.50%, TBA, 7/1/48	5,000,000	5,196,485
4.50%, 5/20/48	699,005	732,840
4.00%, TBA, 7/1/48	6,000,000	6,148,125
3.50%, TBA, 8/1/48	5,000,000	5,011,328
3.50%, TBA, 7/1/48	5,000,000	5,017,188
3.50%, with due dates from 2/20/47 to 1/20/48	4,480,240	4,496,831
3.00%, TBA, 7/1/48	1,000,000	978,125

31,275,509

U.S. Government Agency Mortgage Obligations (34.4%)

Federal Home Loan Mortgage Corporation Pass-Through Certificates		
4.50%, with due dates from 7/1/44 to 3/1/45	889,888	932,839
4.00%, 9/1/45	1,400,912	1,434,621
3.50%, with due dates from 8/1/43 to 2/1/47	5,776,475	5,769,090
3.00%, with due dates from 3/1/43 to 6/1/46	1,436,587	1,398,095
3.00%, 9/1/36 ¹	111,546	110,028

Federal National Mortgage Association Pass-Through Certificates		
6.00%, TBA, 7/1/48	2,000,000	2,182,500
5.50%, TBA, 7/1/48	2,000,000	2,143,438
5.00%, 3/1/38	13,196	14,141
4.50%, TBA, 7/1/48	1,000,000	1,041,250
4.50%, TBA, 8/1/47	1,000,000	1,039,531
4.50%, with due dates from 7/1/44 to 5/1/45	1,590,898	1,665,845
4.00%, TBA, 7/1/48	2,000,000	2,039,062
4.00%, with due dates from 9/1/45 to 6/1/46	2,112,927	2,162,719
3.50%, TBA, 8/1/48	12,000,000	11,927,813
3.50%, TBA, 7/1/48	12,000,000	11,941,874
3.50%, with due dates from 7/1/43 to 1/1/57	11,146,679	11,108,508
3.00%, TBA, 8/1/48	9,000,000	8,708,203
3.00%, TBA, 7/1/48	9,000,000	8,717,344
3.00%, with due dates from 9/1/42 to 3/1/47	5,335,170	5,194,022
2.50%, TBA, 7/1/48	4,000,000	3,749,688

83,280,611

Total U.S. government and agency mortgage obligations (cost \$115,498,297) \$114,556,120

MORTGAGE-BACKED SECURITIES (41.6%)*

	Principal amount	Value
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Agency collateralized mortgage obligations (18.2%)

Bellemeade Re, Ltd. 144A FRB Ser. 17-1, Class M1, (1 Month US LIBOR + 1.70%), 3.791%, 10/25/27 (Bermuda)	\$479,802	\$479,203
Federal Home Loan Mortgage Corporation IFB Ser. 3408, Class EK, ((-4.024 x 1 Month US LIBOR) + 25.79%), 17.451%, 4/15/37	202,282	273,806
IFB Ser. 2976, Class LC, ((-3.667 x 1 Month US LIBOR) + 24.42%), 16.818%, 5/15/35	31,466	41,013
IFB Ser. 3072, Class SM, ((-3.667 x 1 Month US LIBOR) + 23.80%), 16.195%, 11/15/35	146,441	188,126
IFB Ser. 3065, Class DC, ((-3 x 1 Month US LIBOR) + 19.86%), 13.64%, 3/15/35	314,160	381,107
IFB Ser. 2990, Class LB, ((-2.556 x 1 Month US LIBOR) + 16.95%), 11.647%, 6/15/34	160,939	176,967

MORTGAGE-BACKED SECURITIES (41.6%)* cont.

	Principal amount	Value
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Agency collateralized mortgage obligations cont.

Federal Home Loan Mortgage Corporation Structured Agency Credit Risk Debt FRN Ser. 16-DNA2, Class M3, (1 Month US LIBOR + 4.65%), 6.741%, 10/25/28	\$801,000	\$923,873
Structured Agency Credit Risk Debt FRN Ser. 15-DN1, Class M3, (1 Month US LIBOR + 4.15%), 6.241%, 1/25/25	1,916,438	2,064,070
Structured Agency Credit Risk Debt FRN Ser. 15-DNA3, Class M2, (1 Month US LIBOR + 2.85%), 4.941%, 4/25/28	1,675,459	1,733,636
Structured Agency Credit Risk Debt FRN Ser. 15-DNA2, Class M2, (1 Month US LIBOR + 2.60%), 4.691%, 12/25/27	467,649	478,026
IFB Ser. 4074, Class KS, IO, ((-1 x 1 Month US LIBOR) + 6.70%), 4.627%, 2/15/41	1,362,919	194,216
Ser. 4601, Class PI, IO, 4.50%, 12/15/45	1,505,290	318,024
Ser. 4132, Class IP, IO, 4.50%, 11/15/42	1,150,061	199,669
Ser. 4122, Class TI, IO, 4.50%, 10/15/42	524,428	119,918
Ser. 4018, Class DI, IO, 4.50%, 7/15/41	537,802	72,756
Ser. 3707, Class PI, IO, 4.50%, 7/15/25	252,187	14,145
Structured Agency Credit Risk Debt FRN Ser. 16-DNA2, Class M2, (1 Month US LIBOR + 2.20%), 4.291%, 10/25/28	258,888	261,834
Ser. 4546, Class TI, IO, 4.00%, 12/15/45	1,792,141	380,830
Ser. 4500, Class GI, IO, 4.00%, 8/15/45	1,167,328	229,730
IFB Ser. 3852, Class NT, ((-1 x 1 Month US LIBOR) + 6.00%), 3.927%, 5/15/41	359,907	333,107
Ser. 4165, Class AI, IO, 3.50%, 2/15/43	1,622,066	281,753
Ser. 4663, Class KI, IO, 3.50%, 11/15/42	3,124,463	398,869
Ser. 4182, Class GI, IO, 3.00%, 1/15/43	2,432,638	180,574
Ser. 4141, Class PI, IO, 3.00%, 12/15/42	1,359,528	151,492
Ser. 4158, Class TI, IO, 3.00%, 12/15/42	3,210,148	314,883
Ser. 4176, Class DI, IO, 3.00%, 12/15/42	3,030,542	302,600
Ser. 4183, Class MI, IO, 3.00%, 2/15/42	1,263,713	111,839
Ser. 4206, Class IP, IO, 3.00%, 12/15/41	1,265,775	117,746
Ser. 315, PO, zero %, 9/15/43	2,175,246	1,714,563
Ser. 3835, Class FO, PO, zero %, 4/15/41	1,075,934	888,514
Ser. 3369, Class BO, PO, zero %, 9/15/37	5,741	4,654
Ser. 3391, PO, zero %, 4/15/37	32,970	27,171
Ser. 3300, PO, zero %, 2/15/37	46,575	39,154
Ser. 3175, Class MO, PO, zero %, 6/15/36	9,327	7,590
Ser. 3210, PO, zero %, 5/15/36	16,369	14,781
Ser. 3326, Class WF, zero %, 10/15/35 ^W	6,267	4,587
FRB Ser. 3117, Class AF, (1 Month US LIBOR + 0.00%), zero %, 2/15/36	6,874	5,115

Federal Home Loan Mortgage Corporation Structures Agency Credit risk Debt FRN Ser. 15-HQ1, Class M3, (1 Month US LIBOR + 3.80%), 5.891%, 3/25/25	250,000	267,775
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Federal National Mortgage Association IFB Ser. 06-62, Class PS, ((-6 x 1 Month US LIBOR) + 39.90%), 27.353%, 7/25/36	124,422	196,858
IFB Ser. 06-8, Class HP, ((-3.667 x 1 Month US LIBOR) + 24.57%), 16.899%, 3/25/36	176,636	252,782
IFB Ser. 07-53, Class SP, ((-3.667 x 1 Month US LIBOR) + 24.20%), 16.533%, 6/25/37	121,373	157,959
IFB Ser. 05-122, Class SE, ((-3.5 x 1 Month US LIBOR) + 23.10%), 15.781%, 11/25/35	220,476	269,282
IFB Ser. 05-75, Class GS, ((-3 x 1 Month US LIBOR) + 20.25%), 13.977%, 8/25/35	116,438	136,434
IFB Ser. 05-106, Class JC, ((-3.101 x 1 Month US LIBOR) + 20.12%), 13.64%, 12/25/35	141,288	185,932
IFB Ser. 05-83, Class QP, ((-2.6 x 1 Month US LIBOR) + 17.39%), 11.957%, 11/25/34	33,680	37,926

MORTGAGE-BACKED SECURITIES (41.6%)* cont.

	Principal amount	Value
Agency collateralized mortgage obligations cont.		
Federal National Mortgage Association		
IFB Ser. 11-4, Class CS, ((-2 x 1 Month US LIBOR) + 12.90%), 8.718%, 5/25/40	\$177,851	\$192,763
Connecticut Avenue Securities FRB Ser. 16-C02, Class 1M2, (1 Month US LIBOR + 6.00%), 8.091%, 9/25/28	1,667,000	1,973,404
Connecticut Avenue Securities FRB Ser. 14-C04, Class 1M2, (1 Month US LIBOR + 4.90%), 6.991%, 11/25/24	688,286	787,795
Connecticut Avenue Securities FRB Ser. 14-C03, Class 2M2, (1 Month US LIBOR + 2.90%), 4.991%, 7/25/24	383,405	408,476
IFB Ser. 10-35, Class SG, IO, ((-1 x 1 Month US LIBOR) + 6.40%), 4.309%, 4/25/40	811,612	137,974
Connecticut Avenue Securities FRB Ser. 16-C03, Class 1M1, (1 Month US LIBOR + 2.00%), 4.091%, 10/25/28	1,025,665	1,039,595
Ser. 17-2, Class KI, IO, 4.00%, 2/25/47	2,378,423	491,668
Ser. 15-3, Class BI, IO, 4.00%, 3/25/44	1,090,218	192,802
Ser. 12-124, Class UI, IO, 4.00%, 11/25/42	3,360,979	691,881
Ser. 12-118, Class PI, IO, 4.00%, 6/25/42	1,162,176	216,349
Ser. 12-62, Class EI, IO, 4.00%, 4/25/41	1,659,552	257,194
Ser. 12-22, Class CI, IO, 4.00%, 3/25/41	1,253,308	199,727
Ser. 13-18, Class IN, IO, 3.50%, 3/25/43	1,023,466	153,997
Ser. 13-55, Class IK, IO, 3.00%, 4/25/43	1,073,661	125,143
Ser. 12-144, Class KI, IO, 3.00%, 11/25/42	3,512,467	357,309
Ser. 13-55, Class PI, IO, 3.00%, 5/25/42	1,604,903	130,206
Ser. 13-67, Class IP, IO, 3.00%, 2/25/42	1,909,854	148,409
Ser. 13-30, Class IP, IO, 3.00%, 10/25/41	967,152	57,710
Ser. 13-23, Class LI, IO, 3.00%, 6/25/41	1,142,974	67,652
Ser. 14-28, Class AI, IO, 3.00%, 3/25/40	2,631,882	269,557
Ser. 07-64, Class LO, PO, zero %, 7/25/37	12,026	10,685
Ser. 372, Class 1, PO, zero %, 8/25/36	23,766	20,500
Government National Mortgage Association		
Ser. 09-79, Class IC, IO, 6.00%, 8/20/39	1,122,953	220,559
Ser. 17-38, Class DI, IO, 5.00%, 3/16/47	936,940	214,653
Ser. 15-35, Class AI, IO, 5.00%, 3/16/45	1,390,556	303,315
Ser. 14-76, IO, 5.00%, 5/20/44	829,230	191,227
Ser. 14-25, Class QI, IO, 5.00%, 1/20/44	1,206,058	258,521
Ser. 13-3, Class IT, IO, 5.00%, 1/20/43	688,810	150,558
Ser. 11-116, Class IB, IO, 5.00%, 10/20/40	39,639	3,166
Ser. 13-16, Class IB, IO, 5.00%, 10/20/40	95,118	8,381
Ser. 10-35, Class UI, IO, 5.00%, 3/20/40	443,301	101,603
Ser. 10-9, Class UI, IO, 5.00%, 1/20/40	3,513,277	766,109
Ser. 09-121, Class UI, IO, 5.00%, 12/20/39	1,838,678	418,593
Ser. 17-132, Class IA, IO, 4.50%, 9/20/47	1,363,801	282,989
Ser. 14-108, Class IP, IO, 4.50%, 12/20/42	394,998	65,222
Ser. 12-129, IO, 4.50%, 11/16/42	834,040	193,781
Ser. 10-35, Class QI, IO, 4.50%, 3/20/40	704,162	152,085
Ser. 10-9, Class QI, IO, 4.50%, 1/20/40	697,413	141,321
Ser. 09-121, Class BI, IO, 4.50%, 12/16/39	780,192	179,351
Ser. 11-116, Class IA, IO, 4.50%, 10/20/39	468,966	47,375
Ser. 13-34, Class PI, IO, 4.50%, 8/20/39	1,212,919	123,524
IFB Ser. 13-129, Class SN, IO, ((-1 x 1 Month US LIBOR) + 6.15%), 4.066%, 9/20/43	539,045	78,625
Ser. 15-149, Class KI, IO, 4.00%, 10/20/45	1,909,065	376,296
Ser. 15-94, IO, 4.00%, 7/20/45	330,839	74,144
Ser. 15-99, Class LI, IO, 4.00%, 7/20/45	460,763	68,678
Ser. 15-53, Class MI, IO, 4.00%, 4/16/45	1,798,241	398,690
Ser. 17-45, Class IM, IO, 4.00%, 10/20/44	1,708,528	275,500
Ser. 14-2, Class IL, IO, 4.00%, 1/16/44	2,098,461	394,699
Ser. 14-63, Class PI, IO, 4.00%, 7/20/43	901,553	141,128

MORTGAGE-BACKED SECURITIES (41.6%)* cont.

	Principal amount	Value
Agency collateralized mortgage obligations cont.		
Government National Mortgage Association		
Ser. 15-52, Class IE, IO, 4.00%, 1/16/43	\$953,697	\$164,370
Ser. 13-4, Class IC, IO, 4.00%, 9/20/42	1,175,673	269,593
Ser. 12-56, Class IB, IO, 4.00%, 4/20/42	1,448,461	285,697
Ser. 12-50, Class PI, IO, 4.00%, 12/20/41	907,037	155,545
Ser. 14-4, Class IK, IO, 4.00%, 7/20/39	1,047,010	105,891
Ser. 14-162, Class DI, IO, 4.00%, 11/20/38	783,183	41,985
IFB Ser. 11-17, Class S, IO, ((-1 x 1 Month US LIBOR) + 6.05%), 3.966%, 2/20/41	2,123,385	299,181
Ser. 16-111, Class IP, IO, 3.50%, 8/20/46	3,086,638	357,183
Ser. 15-69, Class XI, IO, 3.50%, 5/20/45	1,470,072	181,732
Ser. 15-77, Class DI, IO, 3.50%, 5/20/45	1,088,944	201,280
Ser. 16-136, Class YI, IO, 3.50%, 3/20/45	2,120,880	323,434
Ser. 17-6, Class DI, IO, 3.50%, 1/20/44	1,789,453	200,820
Ser. 13-37, Class JI, IO, 3.50%, 1/20/43	845,517	142,512
Ser. 13-27, Class PI, IO, 3.50%, 12/20/42	1,030,720	170,832
Ser. 12-136, IO, 3.50%, 11/20/42	1,649,762	338,480
Ser. 12-113, Class ID, IO, 3.50%, 9/20/42	1,211,958	260,564
Ser. 14-46, Class JI, IO, 3.50%, 10/20/41	1,082,772	147,550
Ser. 13-18, Class GI, IO, 3.50%, 5/20/41	1,065,291	118,502
Ser. 15-52, Class KI, IO, 3.50%, 11/20/40	1,801,481	237,372
Ser. 12-48, Class KI, IO, 3.50%, 12/16/39	686,689	64,701
Ser. 15-26, Class AI, IO, 3.50%, 5/20/39	2,456,756	236,903
Ser. 14-100, Class JI, IO, 3.50%, 7/16/29	2,270,266	235,956
Ser. 13-23, Class IK, IO, 3.00%, 9/20/37	845,201	80,319
Ser. 14-46, Class KI, IO, 3.00%, 6/20/36	752,612	53,939
Ser. 17-H18, Class CI, IO, 2.455%, 9/20/67 W	2,707,493	399,355
Ser. 16-H27, Class BI, IO, 2.395%, 12/20/66 W	1,772,419	214,994
Ser. 17-H14, Class EI, IO, 2.115%, 6/20/67 W	5,321,290	478,916
Ser. 17-H08, Class NI, IO, 2.098%, 3/20/67 W	4,019,216	485,521
Ser. 15-H13, Class AI, IO, 2.091%, 6/20/65 W	4,471,017	441,513
Ser. 16-H11, Class HI, IO, 2.086%, 1/20/66 W	3,382,521	334,024
Ser. 15-H15, Class JI, IO, 1.943%, 6/20/65 W	1,896,200	189,241
Ser. 17-H12, Class QI, IO, 1.907%, 5/20/67 W	3,456,018	428,156
Ser. 17-H09, Class DI, IO, 1.893%, 3/20/67 W	3,879,697	383,702
Ser. 15-H12, Class AI, IO, 1.845%, 5/20/65 W	2,978,145	274,272
Ser. 16-H23, Class NI, IO, 1.829%, 10/20/66 W	7,109,139	880,111
Ser. 15-H20, Class AI, IO, 1.821%, 8/20/65 W	1,508,872	139,872
Ser. 15-H10, Class CI, IO, 1.803%, 4/20/65 W	1,806,094	173,414
Ser. 15-H12, Class GI, IO, 1.79%, 5/20/65 W	3,565,730	316,993
FRB Ser. 15-H16, Class XI, IO, 1.762%, 7/20/65 W	1,700,843	182,330
Ser. 16-H24, Class JI, IO, 1.722%, 11/20/66 W	1,427,038	180,164
Ser. 15-H12, Class EI, IO, 1.693%, 4/20/65 W	3,881,670	323,343
Ser. 15-H09, Class BI, IO, 1.689%, 3/20/65 W	2,322,515	193,886
Ser. 16-H14, IO, 1.67%, 6/20/66 W	4,504,368	317,716
Ser. 15-H01, Class CI, IO, 1.631%, 12/20/64 W	2,812,137	154,308
Ser. 15-H22, Class EI, IO, 1.611%, 8/20/65 W	1,493,511	82,591
Ser. 15-H25, Class AI, IO, 1.606%, 9/20/65 W	3,197,027	255,762
Ser. 15-H17, Class CI, IO, 1.606%, 6/20/65 W	3,005,190	160,453
Ser. 17-H10, Class MI, IO, 1.601%, 4/20/67 W	3,898,334	394,901
Ser. 16-H06, Class AI, IO, 1.55%, 2/20/66	3,750,725	348,964
Ser. 15-H28, Class DI, IO, 1.548%, 8/20/65 W	3,048,914	210,381
Ser. 14-H08, Class CI, IO, 1.484%, 3/20/64 W	3,648,544	191,592
Ser. 14-H11, Class GI, IO, 1.473%, 6/20/64 W	6,700,386	493,644
Ser. 15-H25, Class CI, IO, 1.46%, 10/20/65 W	2,491,783	247,683
Ser. 14-H07, Class BI, IO, 1.456%, 5/20/64 W	6,137,523	475,658
Ser. 10-H19, Class GI, IO, 1.408%, 8/20/60 W	4,361,494	251,846
Ser. 16-H04, Class KI, IO, 1.392%, 2/20/66 W	3,313,396	256,788
Ser. 16-H02, Class HI, IO, 1.336%, 1/20/66 W	7,912,444	676,514
Ser. 15-H04, Class AI, IO, 1.282%, 12/20/64 W	3,650,773	310,316
Ser. 10-151, Class KO, PO, zero %, 6/16/37	116,962	95,251
Ser. 06-36, Class OD, PO, zero %, 7/16/36	3,193	2,592

44,116,886

MORTGAGE-BACKED SECURITIES (41.6%)* cont.	Principal amount	Value
Commercial mortgage-backed securities (15.2%)		
Banc of America Commercial Mortgage Trust FRB Ser. 07-1, Class XW, IO, 0.412%, 1/15/49 W	\$856,530	\$2,143
Banc of America Commercial Mortgage Trust 144A		
FRB Ser. 04-4, Class XC, IO, 0.059%, 7/10/42 W	208,389	30
FRB Ser. 07-5, Class XW, IO, zero %, 2/10/51 W	1,670,388	17
Banc of America Merrill Lynch Commercial Mortgage, Inc. FRB Ser. 05-1, Class B, 5.688%, 11/10/42 W	444,671	357,304
Banc of America Merrill Lynch Commercial Mortgage, Inc. 144A		
FRB Ser. 04-5, Class XC, IO, 0.579%, 11/10/41 W	654,500	3,205
FRB Ser. 05-1, Class XW, IO, zero %, 11/10/42 W	8,145,255	8
Bear Stearns Commercial Mortgage Securities Trust		
FRB Ser. 07-T26, Class AJ, 5.566%, 1/12/45 W	534,000	491,280
FRB Ser. 04-PR31, Class X1, IO, zero %, 2/11/41 W	32,920	3
Bear Stearns Commercial Mortgage Securities Trust 144A		
FRB Ser. 06-PW11, Class B, 5.283%, 3/11/39 W	1,126,719	732,341
FRB Ser. 06-PW14, Class X1, IO, 0.514%, 12/11/38 W	266,163	3,859
Capmark Mortgage Securities, Inc. FRB Ser. 97-C1, Class X, IO, 1.578%, 7/15/29 W	266,892	4,578
CD Commercial Mortgage Trust 144A FRB Ser. 07-CD4, Class XW, IO, 0.784%, 12/11/49 W	247,284	25
CFCRE Commercial Mortgage Trust 144A		
FRB Ser. 11-C2, Class D, 5.947%, 12/15/47 W	241,000	239,098
FRB Ser. 11-C2, Class E, 5.947%, 12/15/47 W	597,000	578,299
Citigroup Commercial Mortgage Trust		
FRB Ser. 13-GC17, Class XA, IO, 1.544%, 11/10/46 W	5,566,744	241,586
FRB Ser. 14-GC19, Class XA, IO, 1.347%, 3/10/47 W	15,007,482	675,622
Citigroup Commercial Mortgage Trust 144A		
FRB Ser. 14-GC21, Class D, 4.996%, 5/10/47 W	965,000	843,179
FRB Ser. 12-GC8, Class XA, IO, 1.97%, 9/10/45 W	3,534,725	203,844
COBALT CMBS Commercial Mortgage Trust FRB Ser. 07-C3, Class AJ, 6.015%, 5/15/46 W	256,376	259,861
COMM Mortgage Trust		
FRB Ser. 14-CR17, Class C, 4.898%, 5/10/47 W	795,000	798,853
FRB Ser. 14-UBS6, Class C, 4.613%, 12/10/47 W	154,000	149,774
FRB Ser. 12-CR1, Class XA, IO, 2.05%, 5/15/45 W	3,231,967	192,789
FRB Ser. 14-LC15, Class XA, IO, 1.465%, 4/10/47 W	7,323,016	318,786
FRB Ser. 14-CR19, Class XA, IO, 1.355%, 8/10/47 W	8,828,340	394,069
FRB Ser. 14-CR16, Class XA, IO, 1.314%, 4/10/47 W	1,802,624	71,640
FRB Ser. 13-CR11, Class XA, IO, 1.279%, 8/10/50 W	9,263,028	362,527
FRB Ser. 14-UBS6, Class XA, IO, 1.114%, 12/10/47 W	9,465,372	404,238
FRB Ser. 15-CR23, Class XA, IO, 1.111%, 5/10/48 W	5,828,416	262,521
COMM Mortgage Trust 144A		
Ser. 13-LC13, Class E, 3.719%, 8/10/46 W	542,000	368,222
FRB Ser. 12-LC4, Class XA, IO, 2.382%, 12/10/44 W	4,598,867	256,695
FRB Ser. 06-C8, Class XS, IO, 0.844%, 12/10/46 W	1,799,351	44

MORTGAGE-BACKED SECURITIES (41.6%)* cont.	Principal amount	Value
Commercial mortgage-backed securities cont.		
Credit Suisse Commercial Mortgage Trust 144A		
FRB Ser. 07-C4, Class C, 6.236%, 9/15/39 W	\$292,431	\$296,352
FRB Ser. 07-C2, Class AX, IO, 0.101%, 1/15/49 W	4,423,849	10
CSAIL Commercial Mortgage Trust 144A FRB Ser. 15-C1, Class D, 3.94%, 4/15/50 W	537,000	477,331
DBUBS Mortgage Trust 144A FRB Ser. 11-LC3A, Class D, 5.515%, 8/10/44 W	386,000	400,488
GE Commercial Mortgage Corp. Trust 144A FRB Ser. 07-C1, Class XC, IO, 0.458%, 12/10/49 W	15,419,529	27,843
GMAC Commercial Mortgage Securities, Inc. Trust 144A FRB Ser. 05-C1, Class X1, IO, 1.175%, 5/10/43 W	144,123	8
GS Mortgage Securities Trust		
FRB Ser. 14-GC18, Class C, 5.108%, 1/10/47 W	719,000	704,522
FRB Ser. 13-GC10, Class XA, IO, 1.692%, 2/10/46 W	6,845,081	420,500
FRB Ser. 13-GC12, Class XA, IO, 1.578%, 6/10/46 W	3,981,533	221,222
FRB Ser. 14-GC18, Class XA, IO, 1.272%, 1/10/47 W	6,574,639	272,085
FRB Ser. 14-GC22, Class XA, IO, 1.16%, 6/10/47 W	16,914,257	704,513
FRB Ser. 14-GC24, Class XA, IO, 0.953%, 9/10/47 W	5,968,245	213,249
GS Mortgage Securities Trust 144A		
FRB Ser. 10-C1, Class D, 6.196%, 8/10/43 W	288,000	295,803
FRB Ser. 12-GC6, Class D, 5.84%, 1/10/45 W	139,000	138,509
FRB Ser. 13-GC10, Class E, 4.558%, 2/10/46 W	538,000	413,085
FRB Ser. 11-GC5, Class XA, IO, 1.516%, 8/10/44 W	5,872,433	196,221
JPMBB Commercial Mortgage Securities Trust		
FRB Ser. 13-C14, Class C, 4.717%, 8/15/46 W	301,000	299,788
FRB Ser. 14-C25, Class XA, IO, 1.103%, 11/15/47 W	3,890,660	160,307
FRB Ser. 14-C22, Class XA, IO, 1.046%, 9/15/47 W	11,550,994	491,048
FRB Ser. 13-C17, Class XA, IO, 1.01%, 1/15/47 W	6,992,729	252,111
JPMBB Commercial Mortgage Securities Trust 144A		
FRB Ser. 13-C14, Class E, 4.717%, 8/15/46 W	399,000	324,584
FRB Ser. C14, Class D, 4.717%, 8/15/46 W	915,000	827,990
Ser. 14-C25, Class E, 3.332%, 11/15/47 W	517,000	313,663
JPMorgan Chase Commercial Mortgage Securities Corp. FRB Ser. 12-LC9, Class XA, IO, 1.702%, 12/15/47 W	5,352,892	306,142
JPMorgan Chase Commercial Mortgage Securities Trust		
FRB Ser. 13-LC11, Class XA, IO, 1.422%, 4/15/46 W	4,816,993	254,922
FRB Ser. 13-C16, Class XA, IO, 1.226%, 12/15/46 W	5,969,017	223,386
FRB Ser. 07-LDPX, Class X, IO, 0.332%, 1/15/49 W	3,219,938	12,571
FRB Ser. 06-LDP8, Class X, IO, 0.286%, 5/15/45 W	548,331	857
JPMorgan Chase Commercial Mortgage Securities Trust 144A		
FRB Ser. 07-CB20, Class E, 6.441%, 2/12/51 W	350,000	353,500
FRB Ser. 11-C3, Class E, 5.865%, 2/15/46 W	168,000	164,037
FRB Ser. 11-C3, Class F, 5.865%, 2/15/46 W	635,000	615,171
FRB Ser. 11-C5, Class D, 5.585%, 8/15/46 W	375,000	375,746
FRB Ser. 12-C6, Class E, 5.312%, 5/15/45 W	588,000	518,816
FRB Ser. 12-C8, Class D, 4.809%, 10/15/45 W	413,000	395,026
FRB Ser. 12-LC9, Class D, 4.518%, 12/15/47 W	127,000	126,596
FRB Ser. 13-LC11, Class E, 3.25%, 4/15/46 W	498,000	358,168

MORTGAGE-BACKED**SECURITIES (41.6%)* cont.****Principal amount****Value****Commercial mortgage-backed securities cont.**

JPMorgan Chase Commercial Mortgage Securities Trust 144A

FRB Ser. 05-CB12, Class X1, IO, 0.406%, 9/12/37 W	\$1,211,304	\$1,897
FRB Ser. 06-LDP6, Class X1, IO, zero %, 4/15/43 W	514,155	5

LB-UBS Commercial Mortgage Trust

FRB Ser. 06-C6, Class C, 5.482%, 9/15/39 (In default) † W	571,000	51,276
FRB Ser. 06-C6, Class B, 5.472%, 9/15/39 (In default) † W	687,000	56,457
FRB Ser. 07-C2, Class XW, IO, 0.347%, 2/15/40 W	181,668	9

LB-UBS Commercial Mortgage Trust 144A

FRB Ser. 05-C7, Class XCL, IO, 0.524%, 11/15/40 W	1,404,343	5,146
FRB Ser. 07-C2, Class XCL, IO, 0.347%, 2/15/40 W	3,936,097	203

LSTAR Commercial Mortgage Trust 144A FRB

Ser. 15-3, Class C, 3.246%, 4/20/48 W	435,000	379,076
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Merrill Lynch Mortgage Trust 144A

FRB Ser. 04-KEY2, Class XC, IO, 1.081%, 8/12/39 W	169,062	496
FRB Ser. 05-MCP1, Class XC, IO, 0.002%, 6/12/43 W	486,154	—

Mezz Cap Commercial Mortgage Trust 144A

FRB Ser. 05-C3, Class X, IO, 7.137%, 5/15/44 W	5,191	227
FRB Ser. 06-C4, Class X, IO, 6.641%, 7/15/45 W	86,744	3,444

ML-CFC Commercial Mortgage Trust 144A FRB

Ser. 06-4, Class XC, IO, 0.71%, 12/12/49 W	1,411,072	11,712
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Morgan Stanley Bank of America Merrill Lynch Trust

FRB Ser. 13-C7, Class XA, IO, 1.523%, 2/15/46 W	8,710,272	444,581
FRB Ser. 14-C17, Class XA, IO, 1.355%, 8/15/47 W	4,855,408	199,887
FRB Ser. 15-C25, Class XA, IO, 1.279%, 10/15/48 W	4,628,631	276,402
FRB Ser. 15-C26, Class XA, IO, 1.23%, 10/15/48 W	4,919,643	289,136
FRB Ser. 13-C12, Class XA, IO, 0.991%, 10/15/46 W	14,338,718	344,220

Morgan Stanley Bank of America Merrill Lynch

Ser. 14-C17, Class D, 4.86%, 8/15/47 W	778,000	663,848
FRB Ser. 12-C6, Class F, 4.727%, 11/15/45 W	508,000	407,078
FRB Ser. 13-C11, Class D, 4.503%, 8/15/46 W	562,000	505,608
FRB Ser. 13-C10, Class E, 4.219%, 7/15/46 W	893,000	713,915
Ser. 14-C17, Class E, 3.50%, 8/15/47	290,000	187,530
FRB Ser. 13-C13, Class XB, IO, 0.152%, 11/15/46 W	55,988,000	388,893

Morgan Stanley Capital I Trust

FRB Ser. 16-BNK2, Class XA, IO, 1.235%, 11/15/49 W	4,035,480	273,927
FRB Ser. 16-UB12, Class XA, IO, 0.952%, 12/15/49 W	6,141,942	307,004

Morgan Stanley Capital I Trust 144A

FRB Ser. 08-T29, Class F, 6.368%, 1/11/43 W	320,000	310,400
FRB Ser. 12-C4, Class XA, IO, 2.271%, 3/15/45 W	1,934,588	118,372

TIAA Real Estate CDO, Ltd. 144A Ser. 03-1A, Class E, 8.00%, 12/28/38

	859,373	70,898
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UBS Commercial Mortgage Trust 144A FRB

Ser. 12-C1, Class XA, IO, 2.258%, 5/10/45 W	3,916,304	248,965
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UBS-Barclays Commercial Mortgage Trust 144A

FRB Ser. 12-C2, Class E, 5.05%, 5/10/63 W	816,000	675,248
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Ser. 12-C2, Class F, 5.00%, 5/10/63 W	629,000	423,204
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MORTGAGE-BACKED**SECURITIES (41.6%)* cont.****Principal amount****Value****Commercial mortgage-backed securities cont.**

UBS-Barclays Commercial Mortgage Trust 144A

Ser. 13-C6, Class E, 3.50%, 4/10/46	\$421,000	\$295,040
FRB Ser. 12-C2, Class XA, IO, 1.492%, 5/10/63 W	10,642,366	461,354
FRB Ser. 13-C6, Class XA, IO, 1.279%, 4/10/46 W	5,651,853	246,064

Wachovia Bank Commercial Mortgage Trust

FRB Ser. 06-C26, Class AJ, 6.23%, 6/15/45 W	104,761	98,475
FRB Ser. 06-C29, IO, 0.377%, 11/15/48 W	1,335,772	53
FRB Ser. 07-C34, IO, 0.17%, 5/15/46 W	1,418,631	709

Wachovia Bank Commercial Mortgage Trust

144A FRB Ser. 06-C26, Class XC, IO, 0.051%, 6/15/45 W	1,008,899	202
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Wells Fargo Commercial Mortgage Trust FRB

Ser. 14-LC16, Class XA, IO, 1.501%, 8/15/50 W	9,894,204	501,536
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Wells Fargo Commercial Mortgage Trust 144A

Ser. 14-LC16, Class D, 3.938%, 8/15/50	305,000	249,737
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WF-RBS Commercial Mortgage Trust

FRB Ser. 13-C17, Class C, 5.293%, 12/15/46 W	600,000	611,136
FRB Ser. 14-C22, Class XA, IO, 1.04%, 9/15/57 W	17,638,661	703,853
FRB Ser. 14-C24, Class XA, IO, 1.032%, 11/15/47 W	7,116,098	291,315
FRB Ser. 13-C14, Class XA, IO, 0.884%, 6/15/46 W	18,733,328	589,442

WF-RBS Commercial Mortgage Trust 144A

FRB Ser. 11-C2, Class D, 5.838%, 2/15/44 W	793,000	780,858
Ser. 11-C4, Class E, 5.399%, 6/15/44 W	92,000	85,084
FRB Ser. 14-C19, Class E, 5.137%, 3/15/47 W	858,000	628,696
Ser. 11-C4, Class F, 5.00%, 6/15/44 W	402,000	273,958
FRB Ser. 12-C7, Class D, 4.979%, 6/15/45 W	231,000	211,640
FRB Ser. 13-C15, Class D, 4.628%, 8/15/46 W	919,000	780,796
FRB Ser. 12-C10, Class D, 4.592%, 12/15/45 W	1,274,000	1,080,909
Ser. 12-C7, Class F, 4.50%, 6/15/45 W	645,000	400,630
Ser. 13-C12, Class E, 3.50%, 3/15/48	413,000	304,850
FRB Ser. 12-C9, Class XA, IO, 2.051%, 11/15/45 W	4,373,624	312,847
FRB Ser. 11-C5, Class XA, IO, 1.91%, 11/15/44 W	4,304,862	192,113
FRB Ser. 12-C10, Class XA, IO, 1.721%, 12/15/45 W	6,880,426	385,015
FRB Ser. 13-C11, Class XA, IO, 1.365%, 3/15/45 W	6,189,004	274,214
FRB Ser. 12-C9, Class XB, IO, 0.844%, 11/15/45 W	8,807,000	244,306

Residential mortgage-backed securities (non-agency) (8.2%) 36,736,506BCAP, LLC Trust 144A FRB Ser. 15-RR5, Class 2A2, 2.534%, 1/26/46 **W**

	1,300,000	1,232,282
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Bellemeade Re, Ltd. 144A FRB Ser. 17-1, Class M2,

(1 Month US LIBOR + 3.35%), 5.441%, 10/25/27 (Bermuda)

	1,530,000	1,581,159
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Carrington Mortgage Loan Trust FRB Ser. 06-NC2,

Class A4, (1 Month US LIBOR + 0.24%), 2.331%, 6/25/36

	210,000	196,350
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Chevy Chase Funding, LLC Mortgage-Backed

Certificates 144A FRB Ser. 04-3A, Class A2,

(1 Month US LIBOR + 0.30%), 2.391%, 8/25/35

	207,141	204,779
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Federal Home Loan Mortgage Corporation

Structured Agency Credit Risk Debt FRN

Ser. 16-HQA1, Class M3, (1 Month US LIBOR

+ 6.35%), 8.441%, 9/25/28

	1,155,080	1,430,570
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Structured Agency Credit Risk Debt FRN

Ser. 16-HQA2, Class M3, (1 Month US LIBOR

+ 5.15%), 7.241%, 11/25/28

	586,000	697,706
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MORTGAGE-BACKED SECURITIES (41.6%)* cont.	Principal amount	Value
Residential mortgage-backed securities (non-agency) cont.		
Federal Home Loan Mortgage Corporation		
FRB Ser. 16-DNA3, Class M3, (1 Month US LIBOR +5.00%), 7.091%, 12/25/28	\$710,000	\$827,029
Structured Agency Credit Risk Debt FRN Ser. 13-DN2, Class M2, (1 Month US LIBOR + 4.25%), 6.341%, 11/25/23	307,259	341,001
Structured Agency Credit Risk Debt FRN Ser. 14-DN2, Class M3, (1 Month US LIBOR + 3.60%), 5.691%, 4/25/24	310,000	343,898
FRB Ser. 17-HQA1, Class M2, (1 Month US LIBOR + 3.55%), 5.641%, 8/25/29	401,000	435,285
Federal National Mortgage Association		
Connecticut Avenue Securities FRB Ser. 16-C03, Class 2M2, (1 Month US LIBOR + 5.90%), 7.991%, 10/25/28	1,729,690	2,016,953
Connecticut Avenue Securities FRB Ser. 15-C04, Class 2M2, (1 Month US LIBOR + 5.55%), 7.641%, 4/25/28	189,060	214,015
Connecticut Avenue Securities FRB Ser. 16-C03, Class 1M2, (1 Month US LIBOR + 5.30%), 7.391%, 10/25/28	2,192,000	2,589,205
Connecticut Avenue Securities FRB Ser. 16-C06, Class 1M2, (1 Month US LIBOR + 4.25%), 6.341%, 4/25/29	100,000	113,596
Connecticut Avenue Securities FRB Ser. 15-C02, Class 2M2, (1 Month US LIBOR + 4.00%), 6.091%, 5/25/25	250,794	271,133
Connecticut Avenue Securities FRB Ser. 17-C01, Class 1M2, (1 Month US LIBOR + 3.55%), 5.641%, 7/25/29	1,115,000	1,207,736
Connecticut Avenue Securities FRB Ser. 17-C06, Class 2M2, (1 Month US LIBOR + 2.80%), 4.891%, 2/25/30	110,000	114,342
Connecticut Avenue Securities FRB Ser. 14-C02, Class 1M2, (1 Month US LIBOR + 2.60%), 4.691%, 5/25/24	160,000	169,866
FIRSTPLUS Home Loan Owner Trust Ser. 97-3, Class B1, 7.79%, 11/10/23 (In default) †	77,731	8
Morgan Stanley Resecuritization Trust 144A Ser. 15-R4, Class CB1, 0.598%, 8/26/47	180,000	173,107
NovaStar Mortgage Funding Trust FRB Ser. 04-2, Class M4, (1 Month US LIBOR + 1.80%), 3.891%, 9/25/34	473,231	467,655
Radnor Re, Ltd. 144A FRB Ser. 18-1, Class M2, (1 Month US LIBOR + 2.70%), 4.791%, 3/25/28 (Bermuda)	200,000	199,688
Structured Asset Investment Loan Trust FRB Ser. 04-10, Class A10, (1 Month US LIBOR + 0.90%), 2.991%, 11/25/34	317,959	317,550
Structured Asset Securities Corp. Mortgage Loan Trust FRB Ser. 06-AM1, Class A4, (1 Month US LIBOR + 0.16%), 2.251%, 4/25/36	314,896	313,817
WaMu Mortgage Pass-Through Certificates Trust		
FRB Ser. 05-AR1, Class A2B, (1 Month US LIBOR + 0.80%), 2.891%, 1/25/45	165,098	162,248
FRB Ser. 05-AR11, Class A1C3, (1 Month US LIBOR + 0.51%), 2.601%, 8/25/45	449,646	450,917
FRB Ser. 05-AR13, Class A1C4, (1 Month US LIBOR + 0.43%), 2.521%, 10/25/45	2,433,203	2,431,738
FRB Ser. 05-AR17, Class A1B2, (1 Month US LIBOR + 0.41%), 2.501%, 12/25/45	1,366,580	1,330,365

MORTGAGE-BACKED SECURITIES (41.6%)* cont.	Principal amount	Value
Residential mortgage-backed securities (non-agency) cont.		
Wells Fargo Mortgage Backed Securities Trust FRB Ser. 05-AR16, Class 6A4, 4.097%, 10/25/35 ^W		
	\$116,067	\$115,946
		19,949,944
Total mortgage-backed securities (cost \$101,293,915)		\$100,803,336
CORPORATE BONDS AND NOTES (27.5%)*	Principal amount	Value
Basic materials (1.2%)		
Celanese US Holdings, LLC company guaranty sr. unsec. notes 5.875%, 6/15/21 (Germany)	\$130,000	\$137,381
Celanese US Holdings, LLC company guaranty sr. unsec. unsub. notes 4.625%, 11/15/22 (Germany)	50,000	51,403
CF Industries, Inc. 144A company guaranty sr. notes 4.50%, 12/1/26	920,000	913,479
Eastman Chemical Co. sr. unsec. notes 3.80%, 3/15/25	208,000	205,675
Georgia-Pacific, LLC sr. unsec. unsub. notes 7.75%, 11/15/29	70,000	93,737
Georgia-Pacific, LLC 144A company guaranty sr. unsec. notes 5.40%, 11/1/20	110,000	115,230
Glencore Finance Canada, Ltd. 144A company guaranty sr. unsec. unsub. notes 6.00%, 11/15/41 (Canada)	7,000	7,246
Glencore Funding, LLC 144A company guaranty sr. unsec. unsub. notes 4.625%, 4/29/24	11,000	11,060
Glencore Funding, LLC 144A company guaranty sr. unsec. unsub. notes 4.00%, 4/16/25	129,000	124,131
International Paper Co. sr. unsec. unsub. notes 3.00%, 2/15/27	95,000	85,995
Nutrien, Ltd. sr. unsec. bonds 5.25%, 1/15/45 (Canada)	46,000	47,610
Sherwin-Williams Co. (The) sr. unsec. unsub. bonds 3.45%, 6/1/27	331,000	312,719
Sherwin-Williams Co. (The) sr. unsec. unsub. notes 2.75%, 6/1/22	50,000	48,450
Westlake Chemical Corp. company guaranty sr. unsec. unsub. bonds 4.375%, 11/15/47	45,000	41,469
Westlake Chemical Corp. company guaranty sr. unsec. unsub. notes 3.60%, 8/15/26	217,000	205,884
WestRock MWV, LLC company guaranty sr. unsec. unsub. notes 8.20%, 1/15/30	230,000	304,119
WestRock MWV, LLC company guaranty sr. unsec. unsub. notes 7.95%, 2/15/31	39,000	51,171
Weyerhaeuser Co. sr. unsec. unsub. notes 7.375%, 3/15/32 ^R	147,000	186,852
		2,943,611
Capital goods (0.7%)		
Johnson Controls International PLC sr. unsec. unsub. bonds 4.50%, 2/15/47	135,000	128,874
L3 Technologies, Inc. company guaranty sr. unsec. bonds 3.85%, 12/15/26	35,000	33,679
Northrop Grumman Systems Corp. company guaranty sr. unsec. unsub. notes 7.875%, 3/1/26	55,000	68,769
Oshkosh Corp. sr. unsec. sub. notes 4.60%, 5/15/28	655,000	653,363
Republic Services, Inc. sr. unsec. notes 3.95%, 5/15/28	435,000	429,115
Rockwell Collins, Inc. sr. unsec. bonds 4.35%, 4/15/47	528,000	504,282
		1,818,082

CORPORATE BONDS**AND NOTES (27.5%)* cont.**

	Principal amount	Value
Communication services (2.7%)		
American Tower Corp. sr. unsec. unsubs. bonds 3.55%, 7/15/27 R	\$310,000	\$288,320
American Tower Corp. sr. unsec. unsubs. bonds 3.375%, 10/15/26 R	25,000	23,140
AT&T, Inc. sr. unsec. unsubs. notes 4.75%, 5/15/46	235,000	209,920
AT&T, Inc. sr. unsec. unsubs. notes 3.40%, 5/15/25	235,000	220,369
AT&T, Inc. 144A sr. unsec. notes 4.10%, 2/15/28	643,000	614,433
CC Holdings GSV, LLC/Crown Castle GS III Corp. company guaranty sr. notes 3.849%, 4/15/23	49,000	48,556
Charter Communications Operating, LLC/Charter Communications Operating Capital Corp. company guaranty sr. sub. bonds 6.484%, 10/23/45	304,000	320,427
Charter Communications Operating, LLC/Charter Communications Operating Capital Corp. company guaranty sr. sub. notes 4.908%, 7/23/25	83,000	83,820
Charter Communications Operating, LLC/Charter Communications Operating Capital Corp. company guaranty sr. sub. bonds 5.375%, 5/1/47	405,000	367,780
Comcast Corp. company guaranty sr. unsec. unsubs. bonds 3.999%, 11/1/49	192,000	168,758
Comcast Corp. company guaranty sr. unsec. unsubs. notes 6.50%, 11/15/35	49,000	58,193
Comcast Corp. company guaranty sr. unsec. unsubs. notes 3.15%, 3/1/26	380,000	356,834
Cox Communications, Inc. 144A sr. unsec. bonds 3.50%, 8/15/27	215,000	200,006
Crown Castle International Corp. sr. unsec. bonds 3.80%, 2/15/28 R	567,000	531,471
Crown Castle International Corp. sr. unsec. bonds 3.65%, 9/1/27 R	58,000	53,949
Crown Castle International Corp. sr. unsec. notes 4.875%, 4/15/22 R	43,000	44,353
Crown Castle International Corp. sr. unsec. notes 4.75%, 5/15/47 R	72,000	67,872
Crown Castle International Corp. sr. unsec. notes 3.15%, 7/15/23 R	50,000	47,864
Crown Castle Towers, LLC 144A company guaranty sr. notes 4.883%, 8/15/20	326,000	334,339
Rogers Communications, Inc. company guaranty sr. unsec. unsubs. notes 4.50%, 3/15/43 (Canada)	95,000	93,530
Sprint Spectrum Co., LLC/Sprint Spectrum Co. II, LLC/Sprint Spectrum Co. III, LLC 144A company guaranty sr. notes 3.36%, 9/20/21	390,000	385,613
Telefonica Emisiones SAU company guaranty sr. unsec. bonds 4.895%, 3/6/48 (Spain)	508,000	468,251
Verizon Communications, Inc. sr. unsec. unsubs. notes 4.522%, 9/15/48	169,000	154,079
Verizon Communications, Inc. sr. unsec. unsubs. notes 4.40%, 11/1/34	85,000	79,274
Verizon Communications, Inc. sr. unsec. unsubs. notes 4.125%, 3/16/27	120,000	118,757
Verizon Communications, Inc. sr. unsec. unsubs. notes 2.625%, 8/15/26	300,000	266,262
Videotron, Ltd./Videotron Ltee. 144A sr. unsec. notes 5.125%, 4/15/27 (Canada)	287,000	278,447
Vodafone Group PLC sr. unsec. unsubs. notes 4.375%, 5/30/28 (United Kingdom)	615,000	607,689
	6,492,306	

CORPORATE BONDS**AND NOTES (27.5%)* cont.**

	Principal amount	Value
Consumer cyclicals (2.5%)		
21st Century Fox America, Inc. company guaranty sr. unsec. notes 7.85%, 3/1/39	\$140,000	\$193,208
21st Century Fox America, Inc. company guaranty sr. unsec. notes 7.75%, 1/20/24	61,000	72,408
21st Century Fox America, Inc. company guaranty sr. unsec. unsubs. notes 7.75%, 12/1/45	217,000	305,811
Alimentation Couche-Tard, Inc. 144A company guaranty sr. unsec. notes 3.55%, 7/26/27 (Canada)	144,000	135,950
Amazon.com, Inc. sr. unsec. notes 4.05%, 8/22/47	150,000	146,941
Amazon.com, Inc. sr. unsec. notes 3.15%, 8/22/27	273,000	261,449
Autonation, Inc. company guaranty sr. unsec. notes 4.50%, 10/1/25	30,000	29,796
Autonation, Inc. company guaranty sr. unsec. unsubs. notes 5.50%, 2/1/20	181,000	186,381
CBS Corp. company guaranty sr. unsec. unsubs. bonds 2.90%, 1/15/27	105,000	93,543
CBS Corp. company guaranty sr. unsec. unsubs. notes 4.60%, 1/15/45	319,000	294,324
CBS Corp. company guaranty sr. unsec. unsubs. notes 4.00%, 1/15/26	25,000	24,245
D.R. Horton, Inc. company guaranty sr. unsec. sub. notes 5.75%, 8/15/23	120,000	128,938
Dollar General Corp. sr. unsec. sub. notes 3.25%, 4/15/23	135,000	132,655
Ecolab, Inc. sr. unsec. unsubs. notes 3.25%, 12/1/27	180,000	172,345
Ford Motor Co. sr. unsec. unsubs. notes 4.346%, 12/8/26	392,000	384,713
General Motors Co. sr. unsec. notes 4.875%, 10/2/23	130,000	133,645
General Motors Financial Co., Inc. company guaranty sr. unsec. notes 4.00%, 10/6/26	159,000	150,737
General Motors Financial Co., Inc. company guaranty sr. unsec. unsubs. notes 4.30%, 7/13/25	37,000	36,299
Hilton Domestic Operating Co., Inc. company guaranty sr. unsec. sub. notes 4.25%, 9/1/24	50,000	47,500
Hilton Worldwide Finance, LLC/Hilton Worldwide Finance Corp. company guaranty sr. unsec. notes 4.875%, 4/1/27	288,000	277,920
Host Hotels & Resorts LP sr. unsec. unsubs. notes 6.00%, 10/1/21 R	78,000	82,741
Host Hotels & Resorts LP sr. unsec. unsubs. notes 5.25%, 3/15/22 R	37,000	38,546
IHS Markit, Ltd. 144A company guaranty notes 4.75%, 2/15/25 (United Kingdom)	321,000	317,790
IHS Markit, Ltd. 144A company guaranty sr. unsec. notes 4.00%, 3/1/26 (United Kingdom)	106,000	100,436
Lear Corp. sr. unsec. unsubs. bonds 3.80%, 9/15/27	471,000	442,237
Moody's Corp. sr. unsec. notes 3.25%, 1/15/28	261,000	244,995
NVR, Inc. sr. unsec. notes 3.95%, 9/15/22	90,000	90,727
Omnicom Group, Inc. company guaranty sr. unsec. unsubs. notes 3.60%, 4/15/26	130,000	124,396
QVC, Inc. company guaranty sr. notes 4.85%, 4/1/24	148,000	146,887
S&P Global, Inc. company guaranty sr. unsec. unsubs. notes 4.40%, 2/15/26	145,000	148,669
Sirius XM Radio, Inc. 144A sr. unsec. bonds 5.00%, 8/1/27	755,000	704,038
Standard Industries, Inc. 144A sr. unsec. notes 5.00%, 2/15/27	115,000	106,663

CORPORATE BONDS AND NOTES (27.5%)* cont.	Principal amount	Value
Consumer cyclicals cont.		
Time Warner, Inc. company guaranty sr. unsec. unsub. bonds 3.80%, 2/15/27	\$100,000	\$94,437
Time Warner, Inc. company guaranty sr. unsec. unsub. bonds 2.95%, 7/15/26	85,000	76,412
Wyndham Destinations, Inc. sr. unsec. unsub. bonds 4.50%, 4/1/27	257,000	249,933
		6,177,715
Consumer staples (1.5%)		
Anheuser-Busch InBev Finance, Inc. company guaranty sr. unsec. unsub. bonds 4.90%, 2/1/46	272,000	279,719
Anheuser-Busch InBev Finance, Inc. company guaranty sr. unsec. unsub. bonds 3.65%, 2/1/26	365,000	357,314
Anheuser-Busch InBev Worldwide, Inc. company guaranty sr. unsec. unsub. bonds 4.95%, 1/15/42	55,000	57,082
Ashtead Capital, Inc. 144A notes 4.375%, 8/15/27	535,000	497,550
CVS Pass-Through Trust sr. notes 6.036%, 12/10/28	25,398	27,121
CVS Pass-Through Trust 144A sr. mtge. notes 7.507%, 1/10/32	314,994	369,277
CVS Pass-Through Trust 144A sr. mtge. notes 4.704%, 1/10/36	117,805	115,306
ERAC USA Finance, LLC 144A company guaranty sr. unsec. bonds 4.50%, 2/15/45	40,000	37,707
ERAC USA Finance, LLC 144A company guaranty sr. unsec. notes 7.00%, 10/15/37	90,000	112,473
ERAC USA Finance, LLC 144A company guaranty sr. unsec. notes 5.625%, 3/15/42	183,000	198,389
ERAC USA Finance, LLC 144A company guaranty sr. unsec. notes 3.85%, 11/15/24	37,000	36,811
Kraft Heinz Co. (The) company guaranty sr. unsec. bonds 4.375%, 6/1/46	45,000	38,930
Kraft Heinz Co. (The) company guaranty sr. unsec. notes Ser. 144A, 6.875%, 1/26/39	30,000	35,372
Kraft Heinz Co. (The) company guaranty sr. unsec. unsub. notes 6.50%, 2/9/40	211,000	237,801
Lamb Weston Holdings, Inc. 144A company guaranty sr. unsec. unsub. notes 4.875%, 11/1/26	129,000	125,453
Maple Escrow Subsidiary, Inc. 144A company guaranty sr. unsec. notes 4.597%, 5/25/28	714,000	715,434
Newell Brands, Inc. sr. unsec. unsub. notes 4.20%, 4/1/26	190,000	183,551
Walgreens Boots Alliance, Inc. sr. unsec. bonds 3.45%, 6/1/26	5,000	4,660
Walgreens Boots Alliance, Inc. sr. unsec. unsub. notes 3.30%, 11/18/21	205,000	203,770
		3,633,720
Energy (1.8%)		
Anadarko Petroleum Corp. sr. unsec. notes 7.20%, 3/15/29	91,000	104,578
Anadarko Petroleum Corp. sr. unsec. unsub. notes 5.55%, 3/15/26	110,000	117,652
BP Capital Markets PLC company guaranty sr. unsec. bonds 3.119%, 5/4/26 (United Kingdom)	397,000	377,768
Canadian Natural Resources, Ltd. sr. unsec. unsub. bonds 3.85%, 6/1/27 (Canada)	147,000	143,406
Cheniere Corpus Christi Holdings, LLC company guaranty sr. notes 5.125%, 6/30/27	231,000	228,979
Concho Resources, Inc. company guaranty sr. unsec. notes 3.75%, 10/1/27	298,000	286,659
Devon Energy Corp. sr. unsec. unsub. notes 5.85%, 12/15/25	110,000	121,098

CORPORATE BONDS AND NOTES (27.5%)* cont.	Principal amount	Value
Energy cont.		
Energy Transfer Partners LP jr. unsec. sub. FRB Ser. B, 6.625%, perpetual maturity	\$499,000	\$455,338
Energy Transfer Partners LP sr. unsec. unsub. bonds 6.125%, 12/15/45	175,000	174,900
Energy Transfer Partners LP sr. unsec. unsub. notes 6.50%, 2/1/42	36,000	37,307
Energy Transfer Partners LP sr. unsec. unsub. notes 5.20%, 2/1/22	35,000	36,316
EQT Corp. sr. unsec. unsub. notes 3.90%, 10/1/27	383,000	357,175
Equinor ASA company guaranty sr. unsec. notes 5.10%, 8/17/40 (Norway)	41,000	45,633
Hess Corp. sr. unsec. unsub. notes 7.30%, 8/15/31	100,000	116,217
Sabine Pass Liquefaction, LLC sr. bonds 4.20%, 3/15/28	124,000	120,046
Sabine Pass Liquefaction, LLC sr. notes 5.00%, 3/15/27	244,000	247,950
Shell International Finance BV company guaranty sr. unsec. unsub. notes 2.875%, 5/10/26 (Netherlands)	230,000	218,564
Spectra Energy Partners LP sr. unsec. notes 3.375%, 10/15/26	145,000	133,591
Targa Resources Partners LP/Targa Resources Partners Finance Corp. 144A company guaranty sr. unsec. unsub. bonds 5.00%, 1/15/28	143,000	132,990
Transcanada Trust company guaranty jr. unsec. sub. FRB 5.30%, 3/15/77 (Canada)	286,000	270,418
Williams Partners LP sr. unsec. sub. notes 4.30%, 3/4/24	623,000	622,367
		4,348,952
Financials (10.4%)		
Air Lease Corp. sr. unsec. unsub. notes 3.625%, 4/1/27	245,000	224,629
Ally Financial, Inc. sub. unsec. notes 5.75%, 11/20/25	150,000	152,813
American Express Co. jr. unsec. sub. FRN Ser. C, 4.90%, perpetual maturity	234,000	234,878
American International Group, Inc. jr. unsec. sub. FRB 8.175%, 5/15/58	520,000	655,200
Aon PLC company guaranty sr. unsec. unsub. notes 4.25%, 12/12/42	264,000	238,723
Australia & New Zealand Banking Group, Ltd./United Kingdom 144A jr. unsec. sub. FRB 6.75%, perpetual maturity (United Kingdom)	200,000	203,250
AXA SA 144A jr. unsec. sub. FRN 6.379%, perpetual maturity (France)	279,000	294,956
Banco Santander SA sr. unsec. unsub. notes 4.379%, 4/12/28 (Spain)	600,000	572,721
Banco Santander SA unsec. sub. notes 5.179%, 11/19/25 (Spain)	200,000	201,548
Bank of America Corp. jr. unsec. sub. FRN Ser. AA, 6.10%, perpetual maturity	245,000	253,575
Bank of America Corp. jr. unsec. sub. FRN Ser. Z, 6.50%, perpetual maturity	140,000	148,750
Bank of America Corp. unsec. sub. FRN (BBA LIBOR USD 3 Month + 0.76%), 3.101%, 9/15/26	100,000	96,204
Bank of America Corp. unsec. sub. notes 6.11%, 1/29/37	300,000	345,265
Bank of Montreal unsec. sub. FRN 3.803%, 12/15/32 (Canada)	202,000	187,114
Berkshire Hathaway Finance Corp. company guaranty sr. unsec. notes 4.30%, 5/15/43	268,000	270,925

CORPORATE BONDS**AND NOTES (27.5%)* cont.**

	Principal amount	Value
Financials cont.		
BGC Partners, Inc. sr. unsec. notes 5.125%, 5/27/21	\$45,000	\$46,248
BPCE SA 144A unsec. sub. notes 4.50%, 3/15/25 (France)	717,000	698,995
Cantor Fitzgerald LP 144A unsec. notes 6.50%, 6/17/22	74,000	78,557
Capital One Financial Corp. unsec. sub. notes 4.20%, 10/29/25	225,000	218,512
CBRE Services, Inc. company guaranty sr. unsec. notes 5.25%, 3/15/25	22,000	23,155
CBRE Services, Inc. company guaranty sr. unsec. unsub. notes 4.875%, 3/1/26	163,000	168,668
CIT Group, Inc. sr. unsec. sub. notes 5.00%, 8/1/23	100,000	101,000
CIT Group, Inc. sr. unsec. unsub. notes 5.25%, 3/7/25	181,000	182,358
Citigroup, Inc. sr. unsec. FRB 3.668%, 7/24/28	780,000	742,136
Citigroup, Inc. unsec. sub. bonds 4.75%, 5/18/46	85,000	80,829
Citigroup, Inc. unsec. sub. bonds 4.45%, 9/29/27	1,104,000	1,085,930
CNO Financial Group, Inc. sr. unsec. unsub. notes 5.25%, 5/30/25	70,000	69,475
Cooperatieve Centrale Raiffeisen-Boerenleenbank BA/Netherlands company guaranty unsec. sub. notes 4.625%, 12/1/23 (Netherlands)	250,000	251,484
Cooperatieve Rabobank UA 144A jr. unsec. sub. FRN 11.00%, perpetual maturity (Netherlands)	175,000	187,469
Credit Agricole SA 144A unsec. sub. FRN 4.00%, 1/10/33 (France)	400,000	363,723
Credit Suisse Group AG 144A jr. unsec. sub. FRN 6.25%, perpetual maturity (Switzerland)	225,000	222,188
Credit Suisse Group AG 144A sr. unsec. bonds 4.282%, 1/9/28 (Switzerland)	250,000	243,187
Digital Realty Trust LP company guaranty sr. unsec. bonds 4.45%, 7/15/28 R	855,000	857,669
Duke Realty LP company guaranty sr. unsec. unsub. notes 3.875%, 2/15/21 R	45,000	45,477
Fairfax Financial Holdings, Ltd. 144A sr. unsec. notes 4.85%, 4/17/28 (Canada)	910,000	899,945
Fairfax US, Inc. 144A company guaranty sr. unsec. notes 4.875%, 8/13/24	25,000	25,413
Fifth Third Bancorp jr. unsec. sub. FRB 5.10%, perpetual maturity	114,000	112,230
Five Corners Funding Trust 144A sr. unsec. bonds 4.419%, 11/15/23	235,000	241,196
GE Capital International Funding Co. Unlimited Co. company guaranty sr. unsec. notes 3.373%, 11/15/25 (Ireland)	200,000	191,964
Goldman Sachs Group, Inc. (The) sr. unsec. FRB 4.223%, 5/1/29	2,215,000	2,181,554
Goldman Sachs Group, Inc. (The) sr. unsec. unsub. notes 3.85%, 1/26/27	517,000	496,490
Goldman Sachs Group, Inc. (The) unsec. sub. notes 6.75%, 10/1/37	382,000	453,098
Hartford Financial Services Group, Inc. (The) sr. unsec. unsub. notes 6.625%, 3/30/40	46,000	58,101
Hospitality Properties Trust sr. unsec. notes 4.375%, 2/15/30 R	202,000	186,902
Hospitality Properties Trust sr. unsec. unsub. notes 4.50%, 3/15/25 R	116,000	113,523
HSBC Holdings PLC jr. unsec. sub. FRB 6.375%, perpetual maturity (United Kingdom)	500,000	490,625

CORPORATE BONDS**AND NOTES (27.5%)* cont.**

	Principal amount	Value
Financials cont.		
ING Bank NV 144A unsec. sub. notes 5.80%, 9/25/23 (Netherlands)	\$520,000	\$548,431
JPMorgan Chase & Co. jr. unsec. bonds 6.10%, perpetual maturity	87,000	89,836
JPMorgan Chase & Co. jr. unsec. sub. FRB Ser. Z, 5.30%, perpetual maturity	342,000	348,327
JPMorgan Chase & Co. sr. unsec. unsub. FRB 3.964%, 11/15/48	1,221,000	1,097,848
KKR Group Finance Co., LLC 144A company guaranty sr. unsec. unsub. notes 6.375%, 9/29/20	45,000	47,885
Liberty Mutual Group, Inc. 144A company guaranty jr. unsec. sub. FRN (BBA LIBOR USD 3 Month + 2.91%), 5.246%, 3/15/37	220,000	214,500
Massachusetts Mutual Life Insurance Co. 144A unsec. sub. notes 8.875%, 6/1/39	399,000	624,582
MetLife Capital Trust IV 144A jr. unsec. sub. notes 7.875%, 12/15/37	659,000	817,107
MetLife, Inc. jr. unsec. sub. notes 6.40%, 12/15/36	85,000	90,100
Mid-America Apartments LP sr. unsec. notes 4.30%, 10/15/23 R	86,000	87,997
Mitsubishi UFJ Financial Group, Inc. sr. unsec. unsub. notes 3.85%, 3/1/26 (Japan)	200,000	199,012
Morgan Stanley sr. unsec. unsub. notes 4.375%, 1/22/47	760,000	725,775
Neuberger Berman Group, LLC/Neuberger Berman Finance Corp. 144A sr. unsec. notes 4.875%, 4/15/45	75,000	72,904
OneAmerica Financial Partners, Inc. 144A sr. unsec. notes 7.00%, 10/15/33	515,000	640,599
Peachtree Corners Funding Trust 144A company guaranty sr. unsec. unsub. bonds 3.976%, 2/15/25	100,000	97,297
Prudential Financial, Inc. jr. unsec. sub. FRN 5.625%, 6/15/43	149,000	154,588
Prudential Financial, Inc. jr. unsec. sub. FRN 5.20%, 3/15/44	164,000	163,796
Prudential Financial, Inc. sr. unsec. notes 6.625%, 6/21/40	39,000	50,111
Realty Income Corp. sr. unsec. notes 4.65%, 8/1/23 R	40,000	41,370
Royal Bank of Canada unsec. sub. notes Ser. GMTN, 4.65%, 1/27/26 (Canada)	140,000	142,034
Royal Bank of Scotland Group PLC sr. unsec. unsub. FRB 4.892%, 5/18/29 (United Kingdom)	400,000	396,824
Royal Bank of Scotland Group PLC sr. unsec. unsub. notes 3.875%, 9/12/23 (United Kingdom)	200,000	194,284
Santander UK PLC 144A unsec. sub. notes 5.00%, 11/7/23 (United Kingdom)	50,000	50,795
SL Green Realty Corp company guaranty sr. unsec. unsub. notes 5.00%, 8/15/18 R	98,000	98,160
Sumitomo Mitsui Financial Group, Inc. 144A unsec. sub. bonds 4.436%, 4/2/24 (Japan)	410,000	413,426
Teachers Insurance & Annuity Association of America 144A unsec. sub. notes 6.85%, 12/16/39	231,000	305,852
Toronto-Dominion Bank (The) unsec. sub. FRB 3.625%, 9/15/31 (Canada)	180,000	169,399
UBS Group AG jr. unsec. sub. FRN 6.875%, perpetual maturity (Switzerland)	247,000	244,768
VEREIT Operating Partnership LP company guaranty sr. unsec. notes 4.60%, 2/6/24 R	256,000	256,095

CORPORATE BONDS AND NOTES (27.5%)* cont.	Principal amount	Value
Financials cont.		
VEREIT Operating Partnership LP company guaranty sr. unsec. unsub. bonds 4.875%, 6/1/26 ^R	\$20,000	\$20,025
Wells Fargo & Co. jr. unsec. sub. FRB Ser. U, 5.875%, perpetual maturity	115,000	117,875
Wells Fargo Bank, NA unsec. sub. notes Ser. BKNT, 6.60%, 1/15/38	860,000	1,071,960
Willis Towers Watson PLC company guaranty sr. unsec. unsub. notes 5.75%, 3/15/21	145,000	152,865
WP Carey, Inc. sr. unsec. unsub. notes 4.60%, 4/1/24 ^R	195,000	197,547
		25,142,626
Health care (2.0%)		
AbbVie, Inc. sr. unsec. notes 3.60%, 5/14/25	145,000	140,434
Allergan Funding SCS company guaranty sr. unsec. notes 3.45%, 3/15/22 (Luxembourg)	37,000	36,408
Allergan Funding SCS company guaranty sr. unsec. unsub. notes 3.80%, 3/15/25 (Luxembourg)	130,000	126,236
Amgen, Inc. sr. unsec. bonds 4.663%, 6/15/51	304,000	300,593
Amgen, Inc. sr. unsec. unsub. notes 2.60%, 8/19/26	163,000	147,126
Anthem, Inc. sr. unsec. unsub. notes 4.625%, 5/15/42	47,000	45,559
Becton Dickinson and Co. sr. unsec. unsub. bonds 4.669%, 6/6/47	355,000	343,080
Becton Dickinson and Co. sr. unsec. unsub. bonds 3.70%, 6/6/27	304,000	287,768
CVS Health Corp. sr. unsec. notes 4.75%, 12/1/22	80,000	82,987
CVS Health Corp. sr. unsec. unsub. bonds 5.05%, 3/25/48	238,000	242,212
CVS Health Corp. sr. unsec. unsub. notes 4.78%, 3/25/38	712,000	700,303
GlaxoSmithKline Capital, Inc. company guaranty sr. unsec. unsub. notes 3.875%, 5/15/28	90,000	90,709
HCA, Inc. company guaranty sr. bonds 5.25%, 6/15/26	109,000	108,259
HCA, Inc. company guaranty sr. sub. bonds 5.50%, 6/15/47	149,000	136,708
HCA, Inc. company guaranty sr. sub. notes 5.00%, 3/15/24	95,000	95,000
Merck & Co., Inc. sr. unsec. unsub. notes 3.70%, 2/10/45	160,000	152,109
Novartis Capital Corp. company guaranty sr. unsec. unsub. bonds 4.00%, 11/20/45	265,000	265,741
Omega Healthcare Investors, Inc. company guaranty sr. unsec. bonds 5.25%, 1/15/26 ^R	15,000	15,113
Omega Healthcare Investors, Inc. company guaranty sr. unsec. notes 4.50%, 4/1/27 ^R	95,000	90,488
Omega Healthcare Investors, Inc. company guaranty sr. unsec. unsub. notes 4.95%, 4/1/24 ^R	125,000	126,804
Pfizer, Inc. sr. unsec. unsub. notes 3.00%, 12/15/26	125,000	120,550
Service Corp. International sr. unsec. notes 4.625%, 12/15/27	105,000	99,183
Shire Acquisitions Investments Ireland DAC company guaranty sr. unsec. unsub. notes 3.20%, 9/23/26 (Ireland)	175,000	159,887
Shire Acquisitions Investments Ireland DAC company guaranty sr. unsec. unsub. notes 2.875%, 9/23/23 (Ireland)	90,000	84,672

CORPORATE BONDS AND NOTES (27.5%)* cont.	Principal amount	Value
Health care cont.		
UnitedHealth Group, Inc. sr. unsec. notes 2.95%, 10/15/27	\$160,000	\$149,302
UnitedHealth Group, Inc. sr. unsec. unsub. notes 3.85%, 6/15/28	705,000	706,095
		4,853,326
Technology (2.5%)		
Alphabet, Inc. sr. unsec. notes 1.998%, 8/15/26	596,000	532,532
Apple, Inc. sr. unsec. notes 3.45%, 5/6/24	200,000	200,105
Apple, Inc. sr. unsec. unsub. notes 4.375%, 5/13/45	349,000	359,273
Broadcom Corp./Broadcom Cayman Finance, Ltd. company guaranty sr. unsec. unsub. notes 3.875%, 1/15/27	454,000	429,417
Cisco Systems, Inc. sr. unsec. unsub. notes 2.50%, 9/20/26	120,000	111,157
Diamond 1 Finance Corp./Diamond 2 Finance Corp. 144A sr. bonds 8.35%, 7/15/46	64,000	77,077
Diamond 1 Finance Corp./Diamond 2 Finance Corp. 144A sr. notes 5.45%, 6/15/23	167,000	174,789
Fidelity National Information Services, Inc. sr. unsec. sub. notes Ser. 10Y, 4.25%, 5/15/28	505,000	502,928
Legrand France SA sr. unsec. unsub. notes 8.50%, 2/15/25 (France)	219,000	271,592
Microchip Technology, Inc. 144A company guaranty sr. notes 4.333%, 6/1/23	630,000	631,459
Microsoft Corp. sr. unsec. unsub. bonds 2.40%, 8/8/26	545,000	504,150
Oracle Corp. sr. unsec. unsub. notes 3.25%, 11/15/27	311,000	297,829
Oracle Corp. sr. unsec. unsub. notes 2.65%, 7/15/26	324,000	298,803
salesforce.com, Inc. sr. unsec. unsub. notes 3.70%, 4/11/28	1,053,000	1,045,470
VMware, Inc. sr. unsec. notes 3.90%, 8/21/27	135,000	124,656
Western Digital Corp. company guaranty sr. unsec. notes 4.75%, 2/15/26	479,000	465,828
		6,027,065
Transportation (0.2%)		
Penske Truck Leasing Co. LP/PTL Finance Corp. 144A sr. unsec. bonds 3.40%, 11/15/26	219,000	204,217
Southwest Airlines Co. Pass Through Trust pass-through certificates Ser. 07-1, Class A, 6.15%, 8/1/22	102,086	107,707
United Airlines, Inc. Pass-Through Trust pass-through certificates Ser. 07-1, Class A, 6.636%, 7/2/22	101,716	106,310
		418,234
Utilities and power (2.0%)		
AES Corp./Virginia (The) sr. unsec. unsub. bonds 5.125%, 9/1/27	127,000	126,683
Appalachian Power Co. sr. unsec. unsub. notes Ser. L, 5.80%, 10/1/35	74,000	86,669
Berkshire Hathaway Energy Co. sr. unsec. bonds 6.50%, 9/15/37	45,000	59,155
Berkshire Hathaway Energy Co. sr. unsec. unsub. bonds 6.125%, 4/1/36	35,000	43,165
Commonwealth Edison Co. sr. mtge. bonds 5.875%, 2/1/33	47,000	54,392
Consolidated Edison Co. of New York, Inc. sr. unsec. unsub. notes 4.20%, 3/15/42	120,000	118,041

CORPORATE BONDS**AND NOTES (27.5%)* cont.**

	Principal amount	Value
Utilities and power cont.		
Duke Energy Corp. sr. unsec. notes 3.15%, 8/15/27	\$180,000	\$167,077
El Paso Natural Gas Co., LLC company guaranty sr. unsec. unsub. notes 8.375%, 6/15/32	287,000	356,980
Emera US Finance LP company guaranty sr. unsec. notes 3.55%, 6/15/26	100,000	94,156
Enbridge, Inc. sr. unsec. unsub. bonds 4.25%, 12/1/26 (Canada)	180,000	178,368
Energy Transfer Equity LP sr. sub. notes 5.875%, 1/15/24	411,000	421,275
Enterprise Products Operating, LLC company guaranty sr. unsec. unsub. bonds 4.25%, 2/15/48	466,000	433,581
FirstEnergy Corp. sr. unsec. unsub. bonds Ser. B, 3.90%, 7/15/27	40,000	38,804
FirstEnergy Corp. sr. unsec. unsub. bonds Ser. C, 4.85%, 7/15/47	115,000	117,584
FirstEnergy Transmission, LLC 144A sr. unsec. unsub. notes 5.45%, 7/15/44	542,000	606,624
Iberdrola International BV company guaranty sr. unsec. unsub. bonds 6.75%, 7/15/36 (Spain)	113,000	144,063
IPALCO Enterprises, Inc. sr. sub. notes 3.70%, 9/1/24	162,000	157,085
Kinder Morgan Energy Partners LP company guaranty sr. unsec. notes 5.40%, 9/1/44	86,000	83,206
Kinder Morgan, Inc. company guaranty sr. unsec. unsub. notes 3.15%, 1/15/23	85,000	82,069
NextEra Energy Capital Holdings, Inc. company guaranty jr. unsec. sub. FRB 4.80%, 12/1/77	373,000	347,823
Oncor Electric Delivery Co., LLC sr. notes 7.00%, 9/1/22	161,000	183,411
Oncor Electric Delivery Co., LLC sr. notes 4.10%, 6/1/22	48,000	49,194
PacifiCorp sr. mtge. bonds 6.25%, 10/15/37	59,000	75,238
PPL Capital Funding, Inc. company guaranty sr. unsec. unsub. notes 3.40%, 6/1/23	10,000	9,835
Texas-New Mexico Power Co. 144A 1st sr. bonds Ser. A, 9.50%, 4/1/19	297,000	311,026
WEC Energy Group, Inc. jr. unsec. sub. FRN Ser. A, (BBA LIBOR USD 3 Month + 2.11%), 4.455%, 5/15/67	552,000	544,438
	4,889,942	
Total corporate bonds and notes (cost \$67,638,012)		\$66,745,579

PURCHASED SWAP OPTIONS OUTSTANDING(2.1%)*

Counterparty	Fixed right % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Notional/ Contract amount	Value
Bank of America N.A.				
(1.9325)/3 month USD-LIBOR-BBA/Aug-19		Aug-18/1.9325	\$65,441,000	\$666,844
(2.2625)/3 month USD-LIBOR-BBA/Aug-22		Aug-21/2.2625	29,448,500	258,558
2.2625/3 month USD-LIBOR-BBA/ Aug-22		Aug-21/2.2625	29,448,500	75,683
1.9325/3 month USD-LIBOR-BBA/Aug-19		Aug-18/1.9325	65,441,000	65
Barclays Bank PLC				
2.89/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.89	36,451,000	124,298

PURCHASED SWAP OPTIONS OUTSTANDING(2.1%)* cont.

Counterparty	Fixed right % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Notional/ Contract amount	Value
Barclays Bank PLC cont.				
2.655/3 month USD-LIBOR-BBA/Sep-28		Sep-18/2.655	\$12,516,100	\$20,526
(3.255)/3 month USD-LIBOR-BBA/Sep-28		Sep-18/3.255	12,516,100	16,271
Citibank, N.A.				
2.945/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.945	36,343,400	123,204
(3.031)/3 month USD-LIBOR-BBA/Jun-49		Jun-19/3.031	2,909,000	119,822
2.826/3 month USD-LIBOR-BBA/Aug-28		Aug-18/2.826	18,225,500	47,204
2.884/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.884	19,332,500	45,818
(3.115)/3 month USD-LIBOR-BBA/Jul-28		Jul-18/3.115	36,343,400	1,817
2.47/3 month USD-LIBOR-BBA/Aug-19		Aug-18/2.47	26,176,400	1,047
Credit Suisse International				
3.056/3 month USD-LIBOR-BBA/Sep-20		Sep-18/3.056	32,322,400	103,108
2.8475/3 month USD-LIBOR-BBA/Aug-28		Aug-18/2.8475	19,332,500	77,137
2.895/3 month USD-LIBOR-BBA/Sep-20		Sep-18/2.895	32,322,400	69,816
(3.056)/3 month USD-LIBOR-BBA/Sep-20		Sep-18/3.056	32,322,400	46,867
(2.895)/3 month USD-LIBOR-BBA/Sep-20		Sep-18/2.895	32,322,400	44,605
2.85/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.85	18,225,500	42,283
2.80/3 month USD-LIBOR-BBA/Jul-20		Jul-18/2.80	25,776,700	21,395
Goldman Sachs International				
2.965/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.965	36,451,000	193,190
3.04375/3 month USD-LIBOR-BBA/Sep-19		Sep-18/3.04375	51,553,400	70,628
3.005/3 month USD-LIBOR-BBA/Sep-19		Sep-18/3.005	51,553,400	58,255
(3.005)/3 month USD-LIBOR-BBA/Sep-19		Sep-18/3.005	51,553,400	56,709
(3.04375)/3 month USD-LIBOR-BBA/Sep-19		Sep-18/3.04375	51,553,400	50,522
2.73375/3 month USD-LIBOR-BBA/Sep-19		Sep-18/2.73375	51,553,400	38,150
2.70/3 month USD-LIBOR-BBA/Sep-19		Sep-18/2.70	51,553,400	30,417
(2.70)/3 month USD-LIBOR-BBA/Sep-19		Sep-18/2.70	51,553,400	28,870
(2.73375)/3 month USD-LIBOR-BBA/Sep-19		Sep-18/2.73375	51,553,400	25,777
2.695/3 month USD-LIBOR-BBA/Oct-23		Oct-18/2.695	5,497,000	7,641
(3.135)/3 month USD-LIBOR-BBA/Jul-28		Jul-18/3.135	36,451,000	6,197
1.9175/3 month USD-LIBOR-BBA/Oct-19		Oct-18/1.9175	23,820,500	24

PURCHASED SWAP OPTIONS OUTSTANDING(2.1%)* cont.

Counterparty	Fixed right % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Notional/ Contract amount	Value
JPMorgan Chase Bank N.A.				
(1.919)/3 month USD-LIBOR- BBA/Aug-19		Aug-18/1.919	\$65,441,000	\$674,697
(2.25)/3 month USD-LIBOR- BBA/Aug-22		Aug-21/2.25	29,448,500	260,914
2.25/3 month USD-LIBOR- BBA/Aug-22		Aug-21/2.25	29,448,500	74,799
(2.68)/3 month USD-LIBOR- BBA/Jul-20		Jul-18/2.68	26,176,400	66,226
(2.895)/3 month USD-LIBOR- BBA/Sep-20		Sep-18/2.895	38,786,900	53,526
2.865/3 month USD-LIBOR- BBA/Jul-28		Jul-18/2.865	12,150,300	36,937
(3.115)/3 month USD-LIBOR- BBA/Jul-28		Jul-18/3.115	12,150,300	12,150
1.919/3 month USD-LIBOR- BBA/Aug-19		Aug-18/1.919	65,441,000	65

Morgan Stanley & Co. International PLC

3.00/3 month USD-LIBOR- BBA/Apr-72		Apr-47/3.00	3,110,300	357,964
3.00/3 month USD-LIBOR- BBA/Apr-72		Apr-47/3.00	3,110,300	357,809
2.9125/3 month USD-LIBOR- BBA/Jul-28		Jul-18/2.9125	48,601,400	190,031
2.89/3 month USD-LIBOR- BBA/Sep-28		Sep-18/2.89	24,300,700	189,545
(2.8225)/3 month USD-LIBOR- BBA/Oct-20		Oct-18/2.8225	51,553,400	134,039
(2.92875)/3 month USD- LIBOR-BBA/Nov-20		Nov-18/2.92875	25,776,700	65,731
2.745/3 month USD-LIBOR- BBA/Aug-28		Aug-18/2.745	18,171,700	47,246
2.78/3 month USD-LIBOR- BBA/Jul-20		Jul-18/2.78	25,776,700	14,950
(2.9525)/3 month USD-LIBOR- BBA/Jul-28		Jul-18/2.9525	12,516,100	6,133
Total purchased swap options outstanding (cost \$4,925,272) \$5,015,510				

PURCHASED OPTIONS OUTSTANDING (—%)*

Counterparty	Expiration date/Strike price	Notional amount	Contract amount	Value
JPMorgan Chase Bank N.A.				
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/\$98.84	\$8,000,000	\$8,000,000	\$28,384
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/98.68	8,000,000	8,000,000	24,376
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/98.52	8,000,000	8,000,000	20,864
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/98.91	8,000,000	8,000,000	576

PURCHASED OPTIONS OUTSTANDING (—%)* cont.

Counterparty	Expiration date/Strike price	Notional amount	Contract amount	Value
JPMorgan Chase Bank N.A.				
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/\$98.75	\$8,000,000	\$8,000,000	\$208
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/98.59	8,000,000	8,000,000	64
Total purchased options outstanding (cost \$266,250)				\$74,472

ASSET-BACKED SECURITIES (1.2%)*

	Principal amount	Value
loanDepot Station Place Agency Securitization Trust 144A FRB Ser. 17-LD1, Class A, (1 Month US LIBOR + 0.80%), 2.891%, 11/25/50	\$91,000	\$91,000
Station Place Securitization Trust 144A FRB Ser. 18-1, Class A, (1 Month US LIBOR + 0.90%), 2.861%, 4/24/19	1,534,000	1,534,000
FRB Ser. 18-3, Class A, (1 Month US LIBOR + 0.70%), 2.791%, 7/24/19	1,207,000	1,207,000
Total asset-backed securities (cost \$2,832,000)		\$2,832,000

**MUNICIPAL BONDS
AND NOTES (0.5%)***

	Principal amount	Value
CA State G.O. Bonds, (Build America Bonds), 7.50%, 4/1/34	\$350,000	\$492,587
North TX, Tollway Auth. Rev. Bonds, (Build America Bonds), 6.718%, 1/1/49	285,000	405,786
OH State U. Rev. Bonds, (Build America Bonds), 4.91%, 6/1/40	255,000	293,061
Total municipal bonds and notes (cost \$892,074)		\$1,191,434

**SHORT-TERM
INVESTMENTS (13.0%)***

	Principal amount/shares	Value
Federal Home Loan Bank 1.450%, 01/28/20 ⁱ	\$130,000	\$127,920
Putnam Short Term Investment Fund 2.04% ^L	Shares 24,351,026	24,351,026
State Street Institutional U.S. Government Money Market Fund, Premier Class 1.82% ^P	Shares 220,000	220,000
U.S. Treasury Bills 1.932%, 9/13/18 # Δ \$	\$3,448,000	3,434,855
U.S. Treasury Bills 1.909%, 9/6/18 # Δ \$	3,006,000	2,995,653
U.S. Treasury Bills 1.909%, 9/20/18 Δ \$	381,000	379,413
U.S. Treasury Bills 1.838%, 7/19/18 \$	58,000	57,952
U.S. Treasury Bills 1.883%, 8/9/18 Δ	40,000	39,923

Total short-term investments (cost \$31,606,274) \$31,606,742

Total investments (cost \$324,952,094) \$322,825,193

Key to holding's abbreviations

BKNT	Bank Note
bp	Basis Points
DAC	Designated Activity Company
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.
FRN	Floating Rate Notes: the rate shown is the current interest rate or yield 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.
GMTN	Global Medium Term Notes
G.O. Bonds	General Obligation Bonds

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, 2018 through June 30, 2018 (the reporting period). Within the following notes to the portfolio, references to "Putnam Management" represent Putnam Investment Management, LLC, the fund's manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC and references to "ASC 820" represent Accounting Standards Codification 820 Fair Value Measurements and Disclosures.

* Percentages indicated are based on net assets of \$242,339,794.

† This security is non-income-producing.

This security, in part or in entirety, was pledged and segregated with the broker to cover margin requirements for futures contracts at the close of the reporting period. Collateral at period end totaled \$583,845 and is included in Investments in securities on the Statement of assets and liabilities (Notes 1 and 8).

Δ This security, in part or in entirety, was pledged and segregated with the custodian for collateral on certain derivative contracts at the close of the reporting period. Collateral at period end totaled \$1,610,799 and is included in Investments in securities on the Statement of assets and liabilities (Notes 1 and 8).

§ 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 \$4,607,963 and is included in Investments in securities on the Statement of assets and liabilities (Notes 1 and 8).

i This security was pledged, or purchased with cash that was pledged, to the fund for collateral on certain derivative contracts (Note 1).

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

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

R Real Estate Investment Trust.

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 \$51,071,034 to cover certain derivative contracts and the settlement of certain securities.

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

Debt obligations are considered secured unless otherwise indicated.

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 6/30/18 (Unaudited)					
	Number of contracts	Notional amount	Value	Expiration date	Unrealized appreciation/ (depreciation)
U.S. Treasury Bond 30yr (Long)	23	\$3,335,000	\$3,335,000	Sep-18	\$68,235
U.S. Treasury Bond Ultra 30yr (Long)	53	8,456,813	8,456,813	Sep-18	207,738

FUTURES CONTRACTS OUTSTANDING at 6/30/18 (Unaudited)					
	Number of contracts	Notional amount	Value	Expiration date	Unrealized appreciation/ (depreciation)
U.S. Treasury Note 2yr (Long)	96	\$20,335,500	\$20,335,500	Sep-18	\$10,761
U.S. Treasury Note 5yr (Long)	293	33,289,836	33,289,836	Sep-18	134,469
U.S. Treasury Note 10yr (Long)	129	15,504,188	15,504,188	Sep-18	117,656
U.S. Treasury Note 10yr (Short)	72	8,653,500	8,653,500	Sep-18	(61,644)
U.S. Treasury Note Ultra 10yr (Long)	31	3,975,266	3,975,266	Sep-18	47,219
Unrealized appreciation					586,078
Unrealized (depreciation)					(61,644)
Total					\$524,434

WRITTEN SWAP OPTIONS OUTSTANDING at 6/30/18 (premiums \$5,387,309) (Unaudited)

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	\$29,448,500	\$294
(1.9325)/3 month USD-LIBOR-BBA/Aug-20		Aug-19/1.9325	65,441,000	17,015
2.2625/3 month USD-LIBOR-BBA/Aug-19		Aug-18/2.2625	29,448,500	182,875
1.9325/3 month USD-LIBOR-BBA/Aug-20		Aug-19/1.9325	65,441,000	683,858
Barclays Bank PLC				
2.9425/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.9425	5,006,500	3,855
(2.9425)/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.9425	5,006,500	8,862
2.813/3 month USD-LIBOR-BBA/Jan-21		Jan-19/2.813	25,685,000	123,031
(2.98)/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.98	18,225,500	133,046
Citibank, N.A.				
(2.6325)/3 month USD-LIBOR-BBA/Aug-19		Aug-18/2.6325	26,176,400	2,618
(2.739)/3 month USD-LIBOR-BBA/Jul-28		Jul-18/2.739	19,332,500	6,766
3.03/3 month USD-LIBOR-BBA/Jul-28		Jul-18/3.03	18,171,700	7,450
3.126/3 month USD-LIBOR-BBA/Aug-28		Aug-18/3.126	18,225,500	22,417
3.029/3 month USD-LIBOR-BBA/Jul-28		Jul-18/3.029	19,332,500	24,746
3.09/3 month USD-LIBOR-BBA/Jun-24		Jun-19/3.09	12,929,000	118,818
(3.03)/3 month USD-LIBOR-BBA/Jul-28		Jul-18/3.03	18,171,700	163,364
2.663/3 month USD-LIBOR-BBA/Jan-21		Jan-19/2.663	25,685,000	171,833

WRITTEN SWAP OPTIONS OUTSTANDING at 6/30/18 (premiums \$5,387,309)

(Unaudited) cont.

Counterparty

**Fixed Obligation % to receive
or (pay)/Floating rate index/
Maturity date**

**Expiration
date/strike**

**Notional/
Contract
amount**

Value

Credit Suisse International

3.3575/3 month USD-LIBOR-BBA/ Aug-28	Aug-18/3.3575	\$19,332,500	\$5,026
3.10/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/3.10	18,225,500	16,950
(2.915)/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/2.915	5,799,800	24,881
2.973/3 month USD-LIBOR-BBA/ Sep-22	Sep-18/2.973	32,322,400	90,503
(2.973)/3 month USD-LIBOR-BBA/ Sep-22	Sep-18/2.973	32,322,400	171,309

Goldman Sachs International

(2.3025)/3 month USD-LIBOR-BBA/Oct-19	Oct-18/2.3025	52,352,800	7,329
3.05/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/3.05	18,225,500	13,122
2.8875/3 month USD-LIBOR-BBA/ Sep-20	Sep-18/2.8875	51,553,400	73,206
2.85/3 month USD-LIBOR-BBA/ Sep-20	Sep-18/2.85	51,553,400	83,517
(2.85)/3 month USD-LIBOR-BBA/ Sep-20	Sep-18/2.85	51,553,400	85,063
(2.8875)/3 month USD-LIBOR-BBA/Sep-20	Sep-18/2.8875	51,553,400	106,716
(3.05)/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/3.05	18,225,500	199,569

JPMorgan Chase Bank N.A.

(2.25)/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/2.25	29,448,500	294
(1.919)/3 month USD-LIBOR-BBA/ Aug-20	Aug-19/1.919	65,441,000	16,360
3.055/3 month USD-LIBOR-BBA/ Sep-20	Sep-18/3.055	38,786,900	16,678
2.975/3 month USD-LIBOR-BBA/ Sep-20	Sep-18/2.975	38,786,900	31,030
2.25/3 month USD-LIBOR-BBA/ Aug-19	Aug-18/2.25	29,448,500	186,115
2.77/3 month USD-LIBOR-BBA/ Jan-21	Jan-19/2.77	52,352,800	271,711
1.919/3 month USD-LIBOR-BBA/ Aug-20	Aug-19/1.919	65,441,000	691,711

Morgan Stanley & Co. International PLC

3.0625/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/3.0625	12,516,100	13
(2.8425)/3 month USD-LIBOR-BBA/Jul-28	Jul-18/2.8425	12,516,100	125
(2.8525)/3 month USD-LIBOR-BBA/Jul-28	Jul-18/2.8525	5,799,800	10,150
3.1225/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/3.1225	24,300,700	14,094
3.255/3 month USD-LIBOR-BBA/ Aug-28	Aug-18/3.255	18,171,700	19,444
3.24/3 month USD-LIBOR-BBA/ Sep-28	Sep-18/3.24	12,150,300	27,217
2.75/3 month USD-LIBOR-BBA/ Aug-20	Aug-18/2.75	25,776,700	66,762
3.02/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/3.02	36,686,600	92,083

WRITTEN SWAP OPTIONS OUTSTANDING at 6/30/18 (premiums \$5,387,309)

(Unaudited) cont.

Counterparty

**Fixed Obligation % to receive
or (pay)/Floating rate index/
Maturity date**

**Expiration
date/strike**

**Notional/
Contract
amount**

Value

Morgan Stanley & Co. International PLC cont.

2.655/3 month USD-LIBOR-BBA/ Jul-20	Jul-18/2.655	\$51,553,400	\$139,194
(2.99)/3 month USD-LIBOR-BBA/ Sep-28	Sep-18/2.99	12,150,300	146,168
(2.9725)/3 month USD-LIBOR-BBA/Jul-28	Jul-18/2.9725	24,300,700	161,114
(3.00)/3 month USD-LIBOR-BBA/ Apr-48	Apr-25/3.00	3,110,300	309,444
(3.00)/3 month USD-LIBOR-BBA/ Apr-48	Apr-25/3.00	3,110,300	309,755
(3.02)/3 month USD-LIBOR-BBA/ Jul-28	Jul-18/3.02	36,686,600	364,297

Total

\$5,421,798

WRITTEN OPTIONS OUTSTANDING at 6/30/18 (premiums \$266,250)

(Unaudited)

Counterparty	Expiration date/strike price	Notional amount	Contract amount	Value
JPMorgan Chase Bank N.A.				
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/\$98.27	\$8,000,000	\$8,000,000	\$16,040
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/98.11	8,000,000	8,000,000	13,640
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/97.95	8,000,000	8,000,000	11,576
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/97.70	8,000,000	8,000,000	8,784
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/97.54	8,000,000	8,000,000	7,408
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Sep-18/97.38	8,000,000	8,000,000	6,224
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/98.55	8,000,000	8,000,000	40
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/98.23	8,000,000	8,000,000	8
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/98.39	8,000,000	8,000,000	8
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/98.03	8,000,000	8,000,000	8

WRITTEN OPTIONS OUTSTANDING at 6/30/18 (premiums \$266,250)
(Unaudited) cont.

Counterparty	Expiration date/strike price	Notional amount	Contract amount	Value
JPMorgan Chase Bank N.A. cont.				
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/\$98.19	\$8,000,000	\$8,000,000	\$8
Federal National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-18/97.88	8,000,000	8,000,000	8
Total				\$63,752

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 6/30/18 (Unaudited)

Counterparty Fixed right or obligation % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Contract amount	Premium receivable/ (payable)	Unrealized appreciation/ (depreciation)
Bank of America N.A.				
(2.203)/3 month USD-LIBOR-BBA/Jun-24 (Purchased)	Jun-19/2.203	\$6,544,100	\$(130,882)	\$111,381
(2.647)/3 month USD-LIBOR-BBA/Jun-29 (Purchased)	Jun-24/2.647	6,544,100	(255,874)	20,418
(2.5925)/3 month USD-LIBOR-BBA/Jan-27 (Purchased)	Jan-19/2.5925	3,926,500	(138,409)	(17,316)
(2.785)/3 month USD-LIBOR-BBA/Jan-47 (Purchased)	Jan-27/2.785	3,926,500	(421,313)	(19,358)
2.647/3 month USD-LIBOR-BBA/Jun-29 (Purchased)	Jun-24/2.647	6,544,100	(255,874)	(74,603)
2.785/3 month USD-LIBOR-BBA/Jan-47 (Purchased)	Jan-27/2.785	3,926,500	(421,313)	(103,738)
2.203/3 month USD-LIBOR-BBA/Jun-24 (Purchased)	Jun-19/2.203	6,544,100	(130,882)	(112,493)
2.5925/3 month USD-LIBOR-BBA/Jan-27 (Purchased)	Jan-19/2.5925	3,926,500	(138,409)	(116,617)
(2.7175)/3 month USD-LIBOR-BBA/Jan-47 (Written)	Jan-19/2.7175	3,926,500	354,759	280,156
(2.413)/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.413	6,544,100	251,621	205,092
2.7175/3 month USD-LIBOR-BBA/Jan-47 (Written)	Jan-19/2.7175	3,926,500	354,759	98,084
2.413/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.413	6,544,100	251,621	(112,493)
Barclays Bank PLC				
(2.205)/3 month USD-LIBOR-BBA/Jun-24 (Purchased)	Jun-19/2.205	6,544,100	(130,882)	110,857
(2.43)/3 month USD-LIBOR-BBA/Feb-22 (Purchased)	Feb-19/2.43	3,926,500	(54,775)	10,052
2.43/3 month USD-LIBOR-BBA/Feb-22 (Purchased)	Feb-19/2.43	3,926,500	(54,775)	(48,414)
2.205/3 month USD-LIBOR-BBA/Jun-24 (Purchased)	Jun-19/2.205	6,544,100	(130,882)	(112,428)
Citibank, N.A.				
(2.654)/3 month USD-LIBOR-BBA/Jun-29 (Purchased)	Jun-24/2.654	6,544,100	(255,874)	19,305
(2.34)/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.34	875,000	(16,231)	13,204
(2.689)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.689	875,000	(112,656)	10,780
2.34/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.34	875,000	(16,231)	(11,051)
2.689/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.689	875,000	(112,656)	(23,923)
2.654/3 month USD-LIBOR-BBA/Jun-29 (Purchased)	Jun-24/2.654	6,544,100	(255,874)	(73,817)
(2.42)/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.42	6,544,100	251,948	204,699
(2.615)/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.615	875,000	70,000	39,165
2.615/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.615	875,000	70,000	(19,101)
2.42/3 month USD-LIBOR-BBA/Jun-29 (Written)	Jun-19/2.42	6,544,100	250,639	(110,203)
Goldman Sachs International				
(2.47)/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.47	1,458,100	(51,763)	29,789
(2.7725)/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.7725	1,458,100	(37,182)	18,285
(2.725)/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.725	1,458,100	(116,867)	8,180
(3.005)/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/3.005	1,458,100	(101,046)	5,803
(2.8175)/3 month USD-LIBOR-BBA/Mar-47 (Purchased)	Mar-27/2.8175	785,300	(99,144)	(1,751)
2.8175/3 month USD-LIBOR-BBA/Mar-47 (Purchased)	Mar-27/2.8175	785,300	(99,144)	(15,235)
3.005/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/3.005	1,458,100	(132,687)	(16,462)
2.725/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.725	1,458,100	(116,867)	(17,278)
2.47/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.47	1,458,100	(51,763)	(34,003)
2.7725/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.7725	1,458,100	(69,989)	(39,864)

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 6/30/18 (Unaudited) cont.

Counterparty Fixed right or obligation % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Contract amount	Premium receivable/ (payable)	Unrealized appreciation/ (depreciation)
Goldman Sachs International cont.				
(2.875)/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.875	\$1,458,100	\$119,710	\$60,847
(2.584)/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.584	1,458,100	87,267	52,317
2.875/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.875	1,458,100	61,532	(20,282)
2.584/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.584	1,458,100	87,267	(36,350)
JPMorgan Chase Bank N.A.				
(2.2525)/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.2525	1,458,100	(90,402)	13,867
(2.553)/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.553	875,000	(11,638)	11,288
(2.902)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.902	875,000	(93,888)	10,544
2.50/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.50	1,458,100	(84,278)	(1,808)
(2.50)/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.50	1,458,100	(151,642)	(5,147)
2.2525/3 month USD-LIBOR-BBA/Nov-29 (Purchased)	Nov-19/2.2525	1,458,100	(17,497)	(6,182)
2.553/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.553	875,000	(21,438)	(14,053)
2.902/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.902	875,000	(135,275)	(30,153)
(2.8325)/3 month USD-LIBOR-BBA/Feb-52 (Purchased)	Feb-22/2.8325	3,926,500	(548,238)	(96,945)
2.8325/3 month USD-LIBOR-BBA/Feb-52 (Purchased)	Feb-22/2.8325	3,926,500	(548,238)	(168,172)
(2.79)/3 month USD-LIBOR-BBA/Feb-49 (Written)	Feb-19/2.79	3,926,500	372,821	265,746
2.79/3 month USD-LIBOR-BBA/Feb-49 (Written)	Feb-19/2.79	3,926,500	372,821	140,412
(2.826)/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.826	875,000	96,338	51,240
(2.36)/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.36	1,458,100	24,059	2,275
2.36/3 month USD-LIBOR-BBA/Nov-39 (Written)	Nov-19/2.36	1,458,100	158,933	(4,826)
2.826/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.826	875,000	49,088	(15,505)
Morgan Stanley & Co. International PLC				
(2.155)/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.155	875,000	(21,875)	13,746
(2.505)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.505	875,000	(134,050)	8,015
2.155/3 month USD-LIBOR-BBA/Nov-24 (Purchased)	Nov-19/2.155	875,000	(11,463)	(7,718)
2.505/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.505	875,000	(94,150)	(17,981)
(2.43)/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.43	875,000	48,650	26,985
2.43/3 month USD-LIBOR-BBA/Nov-49 (Written)	Nov-19/2.43	875,000	95,900	(18,196)
Unrealized appreciation				1,842,532
Unrealized (depreciation)				(1,523,466)
Total				\$319,066

TBA SALE COMMITMENTS OUTSTANDING at 6/30/18 (proceeds receivable \$28,598,906) (Unaudited)	Principal amount	Settlement date	Value
Federal Home Loan Mortgage Corporation, 3.50%, 7/1/48	\$1,000,000	7/12/18	\$994,570
Federal Home Loan Mortgage Corporation, 3.00%, 7/1/48	1,000,000	7/12/18	967,813
Federal National Mortgage Association, 4.50%, 7/1/48	1,000,000	7/12/18	1,041,250
Federal National Mortgage Association, 3.50%, 7/1/48	12,000,000	7/12/18	11,941,874
Federal National Mortgage Association, 3.00%, 7/1/48	9,000,000	7/12/18	8,717,344
Government National Mortgage Association, 3.50%, 7/1/48	5,000,000	7/19/18	5,017,188
Total			\$28,680,039

CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 6/30/18 (Unaudited)

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments made by fund	Payments received by fund	Unrealized appreciation/ (depreciation)
\$46,498,000	\$81,511 ^E	\$(58,298)	6/7/20	3 month USD-LIBOR-BBA — Semiannually	2.79375% — Quarterly	\$23,213
46,498,000	32,270 ^E	39,348	6/7/20	3 month USD-LIBOR-BBA — Quarterly	2.90375% — Semiannually	7,078
73,923,700	449,308	(372,803)	6/20/23	2.75% — Semiannually	3 month USD-LIBOR- BBA — Quarterly	66,900
18,171,700	50,336	117,633	7/3/28	3 month USD-LIBOR-BBA — Quarterly	2.899% — Semiannually	67,297
89,009,600	19,938 ^E	32,424	9/19/20	2.875% — Semiannually	3 month USD-LIBOR- BBA — Quarterly	12,486

CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 6/30/18 (Unaudited) cont.

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments made by fund	Payments received by fund	Unrealized appreciation/ (depreciation)
\$6,419,500	\$87,921 ^E	\$(47,804)	9/19/48	3 month USD-LIBOR-BBA — Quarterly	3.00% — Semiannually	\$40,117
5,684,600	1,614 ^E	4,631	9/19/23	3 month USD-LIBOR-BBA — Quarterly	2.90% — Semiannually	3,016
18,026,300	14,133 ^E	(23,677)	9/19/28	2.95% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(37,810)
3,150,000	12,893	(42)	6/26/28	3 month USD-LIBOR-BBA — Semiannually	2.9715% — Quarterly	(13,211)
7,837,000	29,812 ^E	(111)	8/7/28	3 month USD-LIBOR-BBA — Semiannually	2.976% — Quarterly	(29,923)
8,116,400	31,759 ^E	(115)	7/27/28	3 month USD-LIBOR-BBA — Semiannually	2.975% — Quarterly	(31,874)
1,409,400	6,132 ^E	(20)	7/27/28	3 month USD-LIBOR-BBA — Semiannually	2.98% — Quarterly	(6,152)
11,009,000	11,438	(89)	6/27/23	3 month USD-LIBOR-BBA — Semiannually	2.9035% — Quarterly	(12,220)
3,581,000	4,723	(47)	6/28/28	3 month USD-LIBOR-BBA — Semiannually	2.9398% — Quarterly	(4,951)
3,153,000	5,581	(42)	7/2/28	3 month USD-LIBOR-BBA — Semiannually	2.91024% — Quarterly	5,539
4,749,000	1,947	(63)	7/3/28	3 month USD-LIBOR-BBA — Semiannually	2.92594% — Quarterly	1,884
5,983,700	4,069	(79)	7/3/28	3 month USD-LIBOR-BBA — Semiannually	2.92287% — Quarterly	3,989
Total		\$(309,154)				\$95,378

^E Extended effective date.

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/18 (Unaudited)

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.						
\$40,986	\$40,126	\$—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	\$(529)
64,410	62,807	—	1/12/41	4.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.50% 30 year Fannie Mae pools — Monthly	(1,048)
Barclays Bank PLC						
355,437	356,180	—	1/12/40	4.50% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 4.50% 30 year Fannie Mae pools — Monthly	1,165
82,641	82,957	—	1/12/40	4.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 4.00% 30 year Fannie Mae pools — Monthly	397
45,136	43,573	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(1,066)
545,839	547,926	—	1/12/40	4.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 4.00% 30 year Fannie Mae pools — Monthly	2,625
8,479	8,269	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(114)
84,105	83,946	—	1/12/41	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Ginnie Mae II pools — Monthly	(43)
220,168	220,628	—	1/12/40	4.50% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 4.50% 30 year Fannie Mae pools — Monthly	722

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/18 (Unaudited) 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)
Barclays Bank PLC cont.						
\$616,352	\$614,203	\$—	1/12/39	(6.00%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.00% 30 year Fannie Mae pools — Monthly	\$1,072
86,275	84,138	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(1,163)
26,091	24,243	—	1/12/41	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	1,607
63,952	62,049	—	1/12/43	3.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	(1,436)
31,106	30,181	—	1/12/43	3.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	(698)
940,845	941,945	—	1/12/40	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools — Monthly	2,404
8,900,709	9,030,533	—	1/12/41	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools — Monthly	142,137
9,952,256	9,923,851	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	9,455
Citibank, N.A.						
704,989	715,271	—	1/12/41	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools — Monthly	11,258
1,234,004	1,252,003	—	1/12/41	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools — Monthly	19,706
Credit Suisse International						
85,446	80,979	—	1/12/39	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	3,592
133,688	124,221	—	1/12/41	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	8,233
640,223	613,023	—	1/12/41	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Ginnie Mae II pools — Monthly	(21,035)
76,567	74,961	—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(989)
274,245	260,614	—	1/12/45	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(11,504)
5,796	5,624	—	1/12/43	(3.50%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	130
60,228	57,235	—	1/12/45	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(2,527)
59,588	56,910	—	1/12/45	3.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	(2,256)
171,308	167,715	—	1/12/41	(4.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	2,212

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/18 (Unaudited) 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						
\$107,733	\$105,065	\$—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	\$(1,453)
83,112	81,054	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(1,121)
262,800	253,700	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(6,204)
104,393	101,808	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(1,408)
31,470	30,687	—	1/12/41	4.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.50% 30 year Fannie Mae pools — Monthly	(512)
638,536	636,713	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	607
239,882	239,197	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	228
3,300	3,231	—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(43)
12,187	11,765	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(288)
110,783	106,947	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(2,615)
344,287	343,304	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	327
874,749	872,252	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	831
413,144	411,965	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	393
32,429	32,337	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	31
86,503	86,256	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	82
55,612	54,235	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(750)
118,072	115,148	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(1,592)
183,063	176,724	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(4,322)
188,667	175,306	—	1/12/41	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	11,619
59,807	56,834	—	1/12/45	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(2,509)

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/18 (Unaudited) 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.						
\$66,946	\$64,955	\$—	1/12/43	(3.50%) 1 month USD- LIBOR — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	\$1,503
150,278	147,810	—	1/12/44	(3.00%) 1 month USD- LIBOR — Monthly	Synthetic TRS Index 3.00% 30 year Fannie Mae pools — Monthly	1,439
JPMorgan Chase Bank N.A.						
50,455	49,397	—	1/12/41	4.00% (1 month USD- LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(652)
188,667	175,306	—	1/12/41	(5.00%) 1 month USD- LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	11,619
JPMorgan Securities LLC						
121,180	114,478	—	1/12/44	4.00% (1 month USD- LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(5,767)
22,315	21,652	—	1/12/43	(3.50%) 1 month USD- LIBOR — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	501
417,086	399,366	—	1/12/41	(5.00%) 1 month USD- LIBOR — Monthly	Synthetic MBX Index 5.00% 30 year Ginnie Mae II pools — Monthly	13,708
Upfront premium received		—		Unrealized appreciation		249,603
Upfront premium (paid)		—		Unrealized (depreciation)		(73,644)
Total		\$—		Total		\$175,959

CENTRALLY CLEARED TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/18 (Unaudited)

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)
\$1,261,000	\$25,903	\$—	7/3/22	(1.9225%) — At maturity	USA Non Revised Consumer Price Index- Urban (CPI-U) — At maturity	\$25,903
1,261,000	34,765	—	7/3/27	2.085% — At maturity	USA Non Revised Consumer Price Index- Urban (CPI-U) — At maturity	(34,765)
1,446,000	32,181	—	7/5/22	(1.89%) — At maturity	USA Non Revised Consumer Price Index- Urban (CPI-U) — At maturity	32,181
1,446,000	44,893	—	7/5/27	2.05% — At maturity	USA Non Revised Consumer Price Index- Urban (CPI-U) — At maturity	(44,892)
Total		\$—				\$(21,573)

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/18 (Unaudited)

Swap counterparty/ Referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments received by fund	Unrealized appreciation/ (depreciation)
Bank of America N.A.							
CMBXNA BBB-.6 Index	BBB-/P	\$3,281	\$48,000	\$4,978	5/11/63	300 bp — Monthly	\$(1,673)
CMBXNA BBB-.6 Index	BBB-/P	6,388	106,000	10,992	5/11/63	300 bp — Monthly	(4,551)

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/18 (Unaudited) cont.

Swap counterparty/ Referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments received by fund	Unrealized appreciation/ (depreciation)
Bank of America N.A. cont.							
CMBXNA BBB-.6 Index	BBB-/P	\$13,088	\$212,000	\$21,984	5/11/63	300 bp— Monthly	\$(8,791)
CMBXNA BBB-.6 Index	BBB-/P	12,483	219,000	22,710	5/11/63	300 bp— Monthly	(10,118)
Citigroup Global Markets, Inc.							
CMBXNAA.6 Index	A/P	(10)	27,000	143	5/11/63	200 bp— Monthly	(145)
CMBXNAA.6 Index	A/P	36	31,000	164	5/11/63	200 bp— Monthly	(118)
CMBXNAA.6 Index	A/P	24	31,000	164	5/11/63	200 bp— Monthly	(130)
CMBXNAA.6 Index	A/P	163	105,000	557	5/11/63	200 bp— Monthly	(359)
CMBXNAA.6 Index	A/P	1,054	108,000	572	5/11/63	200 bp— Monthly	517
CMBXNAA.7 Index	A-/P	(15)	10,000	40	1/17/47	200 bp— Monthly	29
CMBXNA BBB-.6 Index	BBB-/P	5,301	54,000	5,600	5/11/63	300 bp— Monthly	(272)
CMBXNA BBB-.6 Index	BBB-/P	26,990	253,000	26,236	5/11/63	300 bp— Monthly	881
Credit Suisse International							
CMBXNAA.6 Index	A/P	13,561	272,000	1,442	5/11/63	200 bp— Monthly	12,210
CMBXNAA.6 Index	A/P	372,811	7,346,000	38,934	5/11/63	200 bp— Monthly	336,325
CMBXNAA.7 Index	A-/P	4,007	102,000	408	1/17/47	200 bp— Monthly	4,449
CMBXNA BBB-.6 Index	BBB-/P	29,254	231,000	23,955	5/11/63	300 bp— Monthly	5,414
CMBXNA BBB-.6 Index	BBB-/P	39,219	371,000	38,473	5/11/63	300 bp— Monthly	931
CMBXNA BBB-.6 Index	BBB-/P	45,859	395,000	40,962	5/11/63	300 bp— Monthly	5,095
CMBXNA BBB-.6 Index	BBB-/P	74,615	686,000	71,138	5/11/63	300 bp— Monthly	3,819
CMBXNA BBB-.6 Index	BBB-/P	379,034	3,545,000	367,617	5/11/63	300 bp— Monthly	13,190
CMBXNA BBB-.7 Index	BBB-/P	4,347	55,000	3,894	1/17/47	300 bp— Monthly	481
CMBXNA BBB-.7 Index	BBB-/P	110,059	1,489,000	105,421	1/17/47	300 bp— Monthly	5,383
Goldman Sachs International							
CMBXNAA.6 Index	A/P	5,821	115,000	610	5/11/63	200 bp— Monthly	5,250
CMBXNAA.6 Index	A/P	9,260	141,000	747	5/11/63	200 bp— Monthly	8,560
CMBXNAA.6 Index	A/P	4,580	146,000	774	5/11/63	200 bp— Monthly	3,855
CMBXNAA.6 Index	A/P	6,398	210,000	1,113	5/11/63	200 bp— Monthly	5,355
CMBXNAA.6 Index	A/P	10,621	215,000	1,140	5/11/63	200 bp— Monthly	9,554
CMBXNAA.6 Index	A/P	13,401	240,000	1,272	5/11/63	200 bp— Monthly	12,209
CMBXNAA.6 Index	A/P	15,762	306,000	1,622	5/11/63	200 bp— Monthly	14,243

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/18 (Unaudited) cont.

Swap counterparty/ Referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments received by fund	Unrealized appreciation/ (depreciation)
Goldman Sachs International cont.							
CMBX NAA.6 Index	A/P	\$18,917	\$384,000	\$2,035	5/11/63	200 bp— Monthly	\$17,010
CMBX NAA.6 Index	A/P	20,610	405,000	2,147	5/11/63	200 bp— Monthly	18,599
CMBX NAA.6 Index	A/P	12,866	416,000	2,205	5/11/63	200 bp— Monthly	10,800
CMBX NAA.6 Index	A/P	37,833	727,000	3,853	5/11/63	200 bp— Monthly	34,222
CMBX NAA.6 Index	A/P	36,802	727,000	3,853	5/11/63	200 bp— Monthly	33,191
CMBX NA BBB-.6 Index	BBB-/P	7,595	90,000	9,333	5/11/63	300 bp— Monthly	(1,693)
CMBX NA BBB-.6 Index	BBB-/P	7,675	97,000	10,059	5/11/63	300 bp— Monthly	(2,335)
CMBX NA BBB-.6 Index	BBB-/P	5,425	104,000	10,785	5/11/63	300 bp— Monthly	(5,308)
CMBX NA BBB-.6 Index	BBB-/P	5,208	105,000	10,889	5/11/63	300 bp— Monthly	(5,628)
CMBX NA BBB-.6 Index	BBB-/P	5,119	105,000	10,889	5/11/63	300 bp— Monthly	(5,717)
CMBX NA BBB-.6 Index	BBB-/P	11,693	108,000	11,200	5/11/63	300 bp— Monthly	547
CMBX NA BBB-.6 Index	BBB-/P	11,308	134,000	13,896	5/11/63	300 bp— Monthly	(2,521)
CMBX NA BBB-.6 Index	BBB-/P	22,647	193,000	20,014	5/11/63	300 bp— Monthly	2,729
CMBX NA BBB-.6 Index	BBB-/P	13,217	194,000	20,118	5/11/63	300 bp— Monthly	(6,804)
CMBX NA BBB-.6 Index	BBB-/P	10,113	206,000	21,362	5/11/63	300 bp— Monthly	(11,146)
CMBX NA BBB-.6 Index	BBB-/P	18,393	213,000	22,088	5/11/63	300 bp— Monthly	(3,589)
CMBX NA BBB-.6 Index	BBB-/P	23,812	216,000	22,399	5/11/63	300 bp— Monthly	1,521
CMBX NA BBB-.6 Index	BBB-/P	33,182	239,000	24,784	5/11/63	300 bp— Monthly	8,517
CMBX NA BBB-.6 Index	BBB-/P	20,522	273,000	28,310	5/11/63	300 bp— Monthly	(7,652)
CMBX NA BBB-.6 Index	BBB-/P	25,932	536,000	55,583	5/11/63	300 bp— Monthly	(29,383)
CMBX NA BBB-.7 Index	BBB-/P	7,955	101,000	7,151	1/17/47	300 bp— Monthly	854
CMBX NA BBB-.7 Index	BBB-/P	8,573	123,000	8,708	1/17/47	300 bp— Monthly	(74)
CMBX NA BBB-.7 Index	BBB-/P	11,309	153,000	10,832	1/17/47	300 bp— Monthly	553
CMBX NA BBB-.7 Index	BBB-/P	15,690	193,000	13,664	1/17/47	300 bp— Monthly	2,123
JPMorgan Securities LLC							
CMBX NAA.6 Index	A/P	107	2,000	11	5/11/63	200 bp— Monthly	97
CMBX NAA.6 Index	A/P	1,357	27,000	143	5/11/63	200 bp— Monthly	1,223
CMBX NAA.6 Index	A/P	4,782	146,000	774	5/11/63	200 bp— Monthly	4,057
CMBX NAA.6 Index	A/P	10,059	208,000	1,102	5/11/63	200 bp— Monthly	9,026
CMBX NAA.6 Index	A/P	13,708	253,000	1,341	5/11/63	200 bp— Monthly	12,451

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/18 (Unaudited) cont.

Swap counterparty/ Referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments received by fund	Unrealized appreciation/ (depreciation)
JPMorgan Securities LLC cont.							
CMBX NAA.6 Index	A/P	\$21,116	\$417,000	\$2,210	5/11/63	200 bp— Monthly	\$19,045
CMBX NAA.6 Index	A/P	27,958	515,000	2,730	5/11/63	200 bp— Monthly	25,401
CMBX NAA.6 Index	A/P	19,350	588,000	3,116	5/11/63	200 bp— Monthly	16,430
CMBX NAA.6 Index	A/P	19,964	696,000	3,689	5/11/63	200 bp— Monthly	16,507
CMBX NAA.6 Index	A/P	44,896	885,000	4,691	5/11/63	200 bp— Monthly	40,500
CMBX NAA.6 Index	A/P	32,542	986,000	5,226	5/11/63	200 bp— Monthly	27,645
CMBX NAA.6 Index	A/P	58,908	1,000,000	5,300	5/11/63	200 bp— Monthly	53,942
CMBX NAA.6 Index	A/P	147,480	2,500,000	13,250	5/11/63	200 bp— Monthly	135,064
CMBX NAA.7 Index	A-/P	4,999	114,000	456	1/17/47	200 bp— Monthly	5,493
CMBX NA BBB-.6 Index	BBB-/P	315	3,000	311	5/11/63	300 bp— Monthly	5
CMBX NA BBB-.6 Index	BBB-/P	9,012	58,000	6,015	5/11/63	300 bp— Monthly	3,027
CMBX NA BBB-.6 Index	BBB-/P	12,001	107,000	11,096	5/11/63	300 bp— Monthly	959
CMBX NA BBB-.6 Index	BBB-/P	11,862	108,000	11,200	5/11/63	300 bp— Monthly	717
CMBX NA BBB-.6 Index	BBB-/P	15,648	111,000	11,511	5/11/63	300 bp— Monthly	4,193
CMBX NA BBB-.6 Index	BBB-/P	14,000	112,000	11,614	5/11/63	300 bp— Monthly	2,442
CMBX NA BBB-.6 Index	BBB-/P	12,938	114,000	11,822	5/11/63	300 bp— Monthly	1,173
CMBX NA BBB-.6 Index	BBB-/P	13,662	127,000	13,170	5/11/63	300 bp— Monthly	555
CMBX NA BBB-.6 Index	BBB-/P	13,662	127,000	13,170	5/11/63	300 bp— Monthly	555
CMBX NA BBB-.6 Index	BBB-/P	17,829	162,000	16,799	5/11/63	300 bp— Monthly	1,111
CMBX NA BBB-.6 Index	BBB-/P	29,801	270,000	27,999	5/11/63	300 bp— Monthly	1,937
CMBX NA BBB-.6 Index	BBB-/P	195,683	1,634,000	169,446	5/11/63	300 bp— Monthly	27,054
CMBX NA BBB-.6 Index	BBB-/P	203,106	1,682,000	174,423	5/11/63	300 bp— Monthly	29,523
CMBX NA BBB-.6 Index	BBB-/P	661,847	3,762,000	390,119	5/11/63	300 bp— Monthly	273,608
CMBX NA BBB-.7 Index	BBB-/P	3,209	58,000	4,106	1/17/47	300 bp— Monthly	(868)
CMBX NA BBB-.7 Index	BBB-/P	7,774	79,000	5,593	1/17/47	300 bp— Monthly	2,221
CMBX NA BBB-.7 Index	BBB-/P	6,329	120,000	8,496	1/17/47	300 bp— Monthly	(2,107)
CMBX NA BBB-.7 Index	BBB-/P	17,188	130,000	9,204	1/17/47	300 bp— Monthly	8,049
CMBX NA BBB-.7 Index	BBB-/P	6,065	232,000	16,426	1/17/47	300 bp— Monthly	(10,245)
Merrill Lynch International							
CMBX NA BBB-.6 Index	BBB-/P	16,243	146,000	15,140	5/11/63	300 bp— Monthly	1,176

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/18 (Unaudited) cont.

Swap counterparty/ Referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments received by fund	Unrealized appreciation/ (depreciation)
Morgan Stanley & Co. International PLC							
CMBXNA BBB-.6 Index	BBB-/P	\$30,432	\$220,000	\$22,814	5/11/63	300 bp— Monthly	\$7,728
CMBXNAA.6 Index	A/P	76	28,000	148	5/11/63	200 bp— Monthly	(63)
CMBXNAA.6 Index	A/P	—	52,000	276	5/11/63	200 bp— Monthly	(258)
CMBXNAA.7 Index	A-/P	(13)	13,000	52	1/17/47	200 bp— Monthly	44
Upfront premium received		3,305,721					Unrealized appreciation
Upfront premium (paid)		(38)					Unrealized (depreciation)
Total		\$3,305,683					Total
							\$1,189,826

* Payments related to the referenced debt are made upon a credit default event.

** Upfront premium is based on the difference between the original spread on issue and the market spread on day of execution.

*** Ratings for an underlying index represent the average of the ratings of all the securities included in that index. The Moody's, Standard & Poor's or Fitch ratings are believed to be the most recent ratings available at June 30, 2018. Securities rated by Fitch are indicated by "/F." Securities rated by Putnam are indicated by "/P." The Putnam rating categories are comparable to the Standard & Poor's classifications.

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION PURCHASED at 6/30/18 (Unaudited)

Swap counterparty/ Referenced debt*	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments (paid) by fund	Unrealized appreciation/ (depreciation)
Citigroup Global Markets, Inc.						
CMBXNA BB.9 Index	\$(24,758)	\$160,000	\$26,784	9/17/58	(500 bp) — Monthly	\$1,892
CMBXNA BB.9 Index	(24,647)	160,000	26,784	9/17/58	(500 bp) — Monthly	2,004
CMBXNA BB.9 Index	(12,524)	80,000	13,392	9/17/58	(500 bp) — Monthly	801
Credit Suisse International						
CMBXNA BB.7 Index	(167,448)	1,018,000	148,119	1/17/47	(500 bp) — Monthly	(20,177)
CMBXNA BB.7 Index	(11,332)	642,000	123,328	5/11/63	(500 bp) — Monthly	111,462
CMBXNA BB.7 Index	(68,990)	374,000	54,417	1/17/47	(500 bp) — Monthly	(14,885)
CMBXNA BB.9 Index	(39,427)	247,000	41,348	9/17/58	(500 bp) — Monthly	1,715
Goldman Sachs International						
CMBXNA BB.6 Index	(43,273)	423,000	81,258	5/11/63	(500 bp) — Monthly	37,633
CMBXNA BB.7 Index	(23,304)	154,000	22,407	1/17/47	(500 bp) — Monthly	(1,026)
CMBXNA BB.6 Index	(11,542)	79,000	15,176	5/11/63	(500 bp) — Monthly	3,568
CMBXNA BB.7 Index	(108,429)	534,000	77,697	1/17/47	(500 bp) — Monthly	(31,177)
CMBXNA BB.7 Index	(34,659)	205,000	29,828	1/17/47	(500 bp) — Monthly	(5,003)
CMBXNA BB.7 Index	(26,051)	159,000	23,135	1/17/47	(500 bp) — Monthly	(3,049)
JPMorgan Securities LLC						
CMBXNA BB.7 Index	(1,745)	9,000	1,310	1/17/47	(500 bp) — Monthly	(443)
CMBXNA BB.6 Index	(23,053)	159,000	30,544	5/11/63	(500 bp) — Monthly	7,358
CMBXNA BB.6 Index	(18,697)	130,000	24,973	5/11/63	(500 bp) — Monthly	6,167
CMBXNA BB.6 Index	(13,694)	103,000	19,786	5/11/63	(500 bp) — Monthly	6,006
CMBXNA BB.6 Index	(11,389)	81,000	15,560	5/11/63	(500 bp) — Monthly	4,104
CMBXNA BB.7 Index	(98,093)	573,000	83,372	1/17/47	(500 bp) — Monthly	(15,199)
CMBXNA BB.7 Index	(36,217)	223,000	32,447	1/17/47	(500 bp) — Monthly	(3,956)
CMBXNA BB.7 Index	(22,640)	114,000	16,587	1/17/47	(500 bp) — Monthly	(6,148)
CMBXNA BB.7 Index	(18,486)	94,000	13,677	1/17/47	(500 bp) — Monthly	(4,888)
CMBXNA BB.7 Index	(14,939)	83,000	12,077	1/17/47	(500 bp) — Monthly	(2,931)
CMBXNA BB.7 Index	(12,053)	77,000	11,204	1/17/47	(500 bp) — Monthly	(914)
CMBXNA BB.7 Index	(12,093)	77,000	11,204	1/17/47	(500 bp) — Monthly	(954)
CMBXNA BBB-.7 Index	(9,344)	127,000	8,992	1/17/47	(300 bp) — Monthly	(416)
CMBXNA BBB-.7 Index	(9,344)	127,000	8,992	1/17/47	(300 bp) — Monthly	(416)
Merrill Lynch International						
CMBXNA BB.7 Index	(71,648)	413,000	60,092	1/17/47	(500 bp) — Monthly	(11,900)
CMBXNA BB.9 Index	(12,327)	80,000	13,392	9/17/58	(500 bp) — Monthly	999

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION PURCHASED at 6/30/18 (Unaudited) cont.

Swap counterparty/ Referenced debt*	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments (paid) by fund	Unrealized appreciation/ (depreciation)
Merrill Lynch International cont.						
CMBX NA BB.9 Index	\$(12,438)	\$80,000	\$13,392	9/17/58	(500 bp) — Monthly	\$888
CMBX NA BBB-.7 Index	(11,964)	146,000	10,337	1/17/47	(300 bp) — Monthly	(1,701)
Morgan Stanley & Co. International PLC						
CMBX NA BBB-.7 Index	(22,416)	220,000	15,576	1/17/47	(300 bp) — Monthly	(6,950)
CMBX NA BB.7 Index	(37,602)	195,000	28,373	1/17/47	(500 bp) — Monthly	(9,391)
Upfront premium received	—					Unrealized appreciation
						184,597
Upfront premium (paid)	(1,066,566)					Unrealized (depreciation)
						(141,524)
Total	\$(1,066,566)					Total
						\$43,073

* Payments related to the referenced debt are made upon a credit default event.

** Upfront premium is based on the difference between the original spread on issue and the market spread on day of execution.

CENTRALLY CLEARED CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION PURCHASED at 6/30/18 (Unaudited)

Referenced debt*	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments (paid) by fund	Unrealized appreciation/ (depreciation)
NA HY Series 30 Index	\$971,016	\$14,077,000	\$827,587	6/20/23	(500 bp) — Quarterly	\$121,922
Total	\$971,016					\$121,922

* Payments related to the referenced debt are made upon a credit default event.

** Upfront premium is based on the difference between the original spread on issue and the market spread on day of execution.

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	\$—	\$2,832,000	\$—
Corporate bonds and notes	—	66,745,579	—
Mortgage-backed securities	—	100,803,336	—
Municipal bonds and notes	—	1,191,434	—
Purchased options outstanding	—	74,472	—
Purchased swap options outstanding	—	5,015,510	—
U.S. government and agency mortgage obligations	—	114,556,120	—
Short-term investments	24,571,026	7,035,716	—
Totals by level	\$24,571,026	\$298,254,167	\$—

Other financial instruments:	Valuation inputs		
	Level 1	Level 2	Level 3
Futures contracts	\$524,434	\$—	\$—
Written options outstanding	—	(63,752)	—
Written swap options outstanding	—	(5,421,798)	—
Forward premium swap option contracts	—	319,066	—
TBA sale commitments	—	(28,680,039)	—
Interest rate swap contracts	—	404,532	—
Total return swap contracts	—	154,386	—
Credit default contracts	—	(1,855,312)	—
Totals by level	\$524,434	\$(35,142,917)	\$—

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

6/30/18 (Unaudited)

Assets

Investment in securities, at value (Notes 1 and 8):	
Unaffiliated issuers (identified cost \$300,601,068)	\$298,474,167
Affiliated issuers (identified cost \$24,351,026) (Notes 1 and 5)	24,351,026
Interest and other receivables	6,822,392
Receivable for shares of the fund sold	163,851
Receivable for investments sold	1,699,442
Receivable for sales of delayed delivery securities (Note 1)	23,743,335
Receivable for variation margin on centrally cleared swap contracts (Note 1)	77,344
Unrealized appreciation on forward premium swap option contracts (Note 1)	1,842,532
Unrealized appreciation on OTC swap contracts (Note 1)	1,745,574
Premium paid on OTC swap contracts (Note 1)	1,066,604
Total assets	359,986,267

Liabilities

Payable for investments purchased	291,970
Payable for purchases of delayed delivery securities (Note 1)	76,768,776
Payable for shares of the fund repurchased	296,262
Payable for compensation of Manager (Note 2)	77,309
Payable for custodian fees (Note 2)	39,139
Payable for investor servicing fees (Note 2)	28,058
Payable for Trustee compensation and expenses (Note 2)	177,073
Payable for administrative services (Note 2)	895
Payable for distribution fees (Note 2)	22,866
Payable for variation margin on futures contracts (Note 1)	12,461
Payable for variation margin on centrally cleared swap contracts (Note 1)	54,653
Unrealized depreciation on OTC swap contracts (Note 1)	336,716
Premium received on OTC swap contracts (Note 1)	3,305,721
Unrealized depreciation on forward premium swap option contracts (Note 1)	1,523,466
Written options outstanding, at value (premiums \$5,653,559) (Note 1)	5,485,550
TBA sale commitments, at value (proceeds receivable \$28,598,906) (Note 1)	28,680,039
Collateral on certain derivative contracts, at value (Notes 1 and 8)	457,948
Other accrued expenses	87,571
Total liabilities	117,646,473

Net assets

\$242,339,794

Represented by

Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$285,907,032
Undistributed net investment income (Note 1)	3,630,933
Accumulated net realized loss on investments (Note 1)	(47,606,231)
Net unrealized appreciation of investments	408,060
Total — Representing net assets applicable to capital shares outstanding	\$242,339,794

Computation of net asset value Class IA

Net assets	\$128,730,063
Number of shares outstanding	11,927,144
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$10.79

Computation of net asset value Class IB

Net assets	\$113,609,731
Number of shares outstanding	10,624,991
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$10.69

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

Statement of operations

Six months ended 6/30/18 (Unaudited)

Investment income

Interest (including interest income of \$219,623 from investments in affiliated issuers) (Note 5)	\$5,710,562
Total investment income	5,710,562

Expenses

Compensation of Manager (Note 2)	472,239
Investor servicing fees (Note 2)	84,977
Custodian fees (Note 2)	43,649
Trustee compensation and expenses (Note 2)	7,022
Distribution fees (Note 2)	138,950
Administrative services (Note 2)	2,645
Auditing and tax fees	54,474
Other	39,100

Total expenses	843,056
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Expense reduction (Note 2)	(284)
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Net expenses	842,772
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Net investment income	4,867,790
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Realized and unrealized gain (loss)

Net realized gain (loss) on:

Securities from unaffiliated issuers (Notes 1 and 3)	(6,384,450)
Futures contracts (Note 1)	(1,730,995)
Swap contracts (Note 1)	2,864,352
Written options (Note 1)	4,011,402

Total net realized loss	(1,239,691)
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Change in net unrealized appreciation (depreciation) on:

Securities from unaffiliated issuers and TBA sale commitments	(4,159,718)
Futures contracts	629,064
Swap contracts	2,044,454
Written options	(1,768,349)

Total change in net unrealized (depreciation)	(3,254,549)
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Net loss on investments	(4,494,240)
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Net increase in net assets resulting from operations	\$373,550
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The accompanying notes are an integral part of these financial statements.

Statement of changes in net assets

	Six months ended 6/30/18*	Year ended 12/31/17
Increase (decrease) in net assets		
Operations:		
Net investment income	\$4,867,790	\$9,980,378
Net realized loss on investments	(1,239,691)	(1,403,240)
Net unrealized appreciation (depreciation) of investments	(3,254,549)	5,419,732
Net increase in net assets resulting from operations	373,550	13,996,870
Distributions to shareholders (Note 1):		
From ordinary income		
Net investment income		
Class IA	(4,285,332)	(6,434,702)
Class IB	(3,347,903)	(4,745,856)
Increase in capital from settlement payments	—	26,899
Increase (decrease) from capital share transactions (Note 4)	(1,935,114)	1,160,627
Total increase (decrease) in net assets	(9,194,799)	4,003,838
Net assets:		
Beginning of period	251,534,593	247,530,755
End of period (including undistributed net investment income of \$3,630,932 and \$6,396,378, respectively)	\$242,339,794	\$251,534,593

* Unaudited.

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

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

Period ended	INVESTMENT OPERATIONS:				LESS DISTRIBUTIONS:			RATIOS AND SUPPLEMENTAL DATA:					
	Net asset value, beginning of period	Net investment income (loss) ^a	Net realized and unrealized gain (loss) on investments	Total from investment operations	From net investment income	Total distributions	Non-recurring reimbursements	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 (%) ^{c,d}	Ratio of net investment income (loss) to average net assets (%)	Portfolio turnover (%)
Class IA													
6/30/18†	\$11.13	.22	(.20)	.02	(.36)	(.36)	—	\$10.79	.18*	\$128,730	.29*	2.06*	329* ^e
12/31/17	11.01	.45	.18	.63	(.51)	(.51)	— ^h	11.13	5.90	135,029	.58	4.08	848 ^e
12/31/16	11.29	.48	(.24)	.24	(.52)	(.52)	—	11.01	2.27	142,226	.58 ^g	4.38 ^g	974 ^e
12/31/15	12.01	.44	(.57)	(.13)	(.59)	(.59)	—	11.29	(1.19)	157,239	.56	3.74	868 ^e
12/31/14	12.01	.54	.24	.78	(.78)	(.78)	—	12.01	6.68	185,043	.58	4.51	455 ^e
12/31/13	12.24	.58	(.32)	.26	(.49)	(.49)	—	12.01	2.13	202,468	.59	4.82	254 ^f
Class IB													
6/30/18†	\$11.01	.21	(.20)	.01	(.33)	(.33)	—	\$10.69	.11*	\$113,610	.41*	1.94*	329* ^e
12/31/17	10.90	.42	.17	.59	(.48)	(.48)	— ^h	11.01	5.59	116,506	.83	3.83	848 ^e
12/31/16	11.18	.45	(.24)	.21	(.49)	(.49)	—	10.90	2.00	105,304	.83 ^g	4.12 ^g	974 ^e
12/31/15	11.90	.40	(.56)	(.16)	(.56)	(.56)	—	11.18	(1.46)	109,874	.81	3.49	868 ^e
12/31/14	11.90	.51	.24	.75	(.75)	(.75)	—	11.90	6.46	124,149	.83	4.25	455 ^e
12/31/13	12.13	.54	(.31)	.23	(.46)	(.46)	—	11.90	1.87	127,828	.84	4.57	254 ^f

* Not annualized.

† Unaudited.

^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 Total return assumes dividend reinvestment.

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

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

^e Portfolio turnover includes TBA purchase and sale commitments.

^f 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	623%

^g Reflects a voluntary waiver of certain fund expenses in effect during the period. As a result of such waiver, the expenses of each class reflect a reduction of less than 0.01% as a percentage of average net assets.

^h Reflects a non-recurring reimbursement pursuant to a settlement between the Securities and Exchange Commission (the SEC) and Barclays Capital, Inc. which amounted to less than \$0.01 per share outstanding on November 20, 2017.

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

Notes to financial statements 6/30/18 (Unaudited)

Within the following Notes to financial statements, references to “State Street” represent State Street Bank and Trust Company, references to “the SEC” represent the Securities and Exchange Commission, references to “Putnam Management” represent Putnam Investment Management, LLC, the fund’s manager, an indirect wholly-owned subsidiary of Putnam Investments, LLC and references to “OTC”, if any, represent over-the-counter. Unless otherwise noted, the “reporting period” represents the period from January 1, 2018 through June 30, 2018.

Putnam VT 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 consistent with what Putnam Management believes to be prudent risk. The fund invests mainly in bonds that are securitized debt instruments (such as mortgage-backed investments) and other obligations of companies and governments worldwide denominated in U.S. dollars, are either investment-grade or below-investment-grade in quality (sometimes referred to as “junk bonds”) and have intermediate- to long-term maturities (three years or longer). 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.

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

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

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

To assess the continuing appropriateness of fair valuations, the Valuation Committee reviews and affirms the reasonableness of such valuations on a regular basis after considering all relevant information that is reasonably available. Such valuations and procedures are reviewed periodically by the Trustees. 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.

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 to hedge 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, to hedge 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 to gain 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.

Credit default contracts The fund entered into OTC and/or centrally cleared credit default contracts to hedge credit risk, to gain liquid exposure to individual names, to hedge market risk and to gain exposure to specific sectors.

In OTC and centrally cleared credit default contracts, the protection buyer typically makes a periodic stream of payments to a counterparty, the protection seller, in exchange for the right to receive a contingent payment upon the occurrence of a credit event on the reference obligation or all other equally ranked obligations of the reference entity. Credit events are contract specific but may include bankruptcy, failure to pay, restructuring and obligation acceleration. For OTC credit default 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. Centrally cleared credit default contracts provide the same rights to the protection buyer and seller except the payments between parties, including upfront premiums, are settled through a central clearing agent through variation margin payments. Upfront and periodic payments received or paid by the fund for OTC and centrally cleared credit default contracts are recorded as realized gains or losses at the reset date or close of the contract. The OTC and centrally cleared credit default contracts are marked to market daily based upon quotations from an independent pricing service or market makers. Any change in value of OTC credit default contracts is recorded as an unrealized gain or loss. Daily fluctuations in the value of centrally cleared credit default contracts are recorded in variation margin on the Statement of assets and liabilities and recorded as unrealized gain or loss. Upon the occurrence of a credit event, the difference between the par value and fair value of the reference obligation, net of any proportional amount of the upfront payment, is recorded as a realized gain or loss.

In addition to bearing the risk that the credit event will occur, the fund could be exposed to market risk due to unfavorable changes in interest rates or in the price of the underlying security or index or the possibility that the fund may be unable to close out its position at the same time or at the same price as if it had purchased the underlying reference obligations. In certain circumstances, the fund may enter into offsetting OTC and centrally cleared credit default contracts which would mitigate its risk of loss. Risks of loss may exceed amounts recognized on the Statement of assets and liabilities. The fund's maximum risk of loss from counterparty risk, either as the protection seller or as the protection buyer, is the fair value of the contract. This risk may be mitigated for OTC credit default contracts by having a master netting arrangement between the fund and the counterparty and

for centrally cleared credit default contracts through the daily exchange of variation margin. Counterparty risk is further mitigated with respect to centrally cleared credit default swap contracts due to the clearinghouse guarantee fund and other resources that are available in the event of a clearing member default. Where the fund is a seller of protection, the maximum potential amount of future payments the fund may be required to make is equal to the notional amount.

OTC and centrally cleared credit default 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 \$1,384,629 on open derivative contracts subject to the Master Agreements. Collateral posted by the fund at period end for these agreements totaled \$1,610,799 and may include amounts related to unsettled agreements.

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

Lines of credit The fund participates, along with other Putnam funds, in a \$317.5 million unsecured committed line of credit and a \$235.5 million unsecured uncommitted line of credit, both provided by State Street. Borrowings may be made for temporary or emergency purposes, including the funding of shareholder redemption requests and trade settlements. Interest is charged to the fund based on the fund's borrowing at a rate equal to 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
\$34,760,218	\$—		\$34,760,218

The aggregate identified cost on a tax basis is \$300,137,087, resulting in gross unrealized appreciation and depreciation of \$3,577,764 and \$15,508,141, respectively, or net unrealized depreciation of \$11,930,377.

Distributions to shareholders Distributions to shareholders from net investment income are recorded by the fund on the ex-dividend date. Distributions from capital gains, if any, are recorded on the ex-dividend date and paid at least annually. The amount and character of income and gains to be distributed are determined in accordance with income tax regulations, which may differ from generally accepted accounting principles. Dividend sources are estimated at the time of declaration. Actual results may vary. Any non-taxable return of capital cannot be determined until final tax calculations are completed after the end of the fund's fiscal year. Reclassifications are made to the fund's capital accounts to reflect income and gains available for distribution (or available capital loss carryovers) under income tax regulations.

Expenses of the Trust Expenses directly charged or attributable to any fund will be paid from the assets of that fund. Generally, expenses of the Trust will be allocated among and charged to the assets of each fund on a basis that the Trustees deem fair and equitable, which may be based on the relative assets of each fund or the nature of the services performed and relative applicability to each fund.

Beneficial interest At the close of the reporting period, insurance companies or their separate accounts were record owners of all but a de minimis number of the shares of the fund. Approximately 30.2% 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 0.195% of the fund's average net assets.

Putnam Management has contractually agreed, through April 30, 2020, to waive fees and/or reimburse the fund's expenses to the extent necessary to limit the cumulative expenses of the fund, exclusive of brokerage, interest, taxes, investment-related expenses, extraordinary expenses, acquired fund fees and expenses and payments under the fund's investor servicing contract, investment management contract and distribution plan, on a fiscal year-to-date basis to an annual rate of 0.20% of the fund's average net assets over such fiscal year-to-date period. During the reporting period, the fund's expenses were not reduced as a result of this limit.

Putnam Investments Limited (PIL), an affiliate of Putnam Management, is authorized by the Trustees to manage a separate portion of the assets of the fund as determined by Putnam Management from time to time. PIL did not manage any portion of the assets of the fund during the reporting period. If Putnam Management were to engage the services of PIL, Putnam Management would pay a quarterly sub-management fee to PIL for its services at an annual rate of 0.25% 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	\$45,745
Class IB	39,232
Total	\$84,977

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 \$284 under the expense offset arrangements.

Each Independent Trustee of the fund receives an annual Trustee fee, of which \$185, as a quarterly retainer, has been allocated to the fund, and an additional fee for each Trustees meeting attended. Trustees also are reimbursed for expenses they incur relating to their services as Trustees.

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

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

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

Note 3 — Purchases and sales of securities

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

	Cost of purchases	Proceeds from sales
Investments in securities, including TBA commitments (Long-term)	\$891,213,182	\$922,296,316
U.S. government securities (Long-term)	—	—
Total	\$891,213,182	\$922,296,316

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

Note 4 — Capital shares

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

	Class IA shares				Class IB shares			
	Six months ended 6/30/18		Year ended 12/31/17		Six months ended 6/30/18		Year ended 12/31/17	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	441,110	\$4,803,699	418,303	\$4,616,465	1,398,981	\$14,982,337	2,609,515	\$28,433,827
Shares issued in connection with reinvestment of distributions	400,873	4,285,332	599,693	6,434,702	315,840	3,347,903	446,039	4,745,856
	841,983	9,089,031	1,017,996	11,051,167	1,714,821	18,330,240	3,055,554	33,179,683
Shares repurchased	(1,050,651)	(11,381,047)	(1,798,572)	(19,806,236)	(1,670,208)	(17,973,338)	(2,134,861)	(23,263,987)
Net increase (decrease)	(208,668)	\$(2,292,016)	(780,576)	\$(8,755,069)	44,613	\$356,902	920,693	\$9,915,696

Note 5 — Affiliated transactions

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

Name of affiliate	Fair value as of 12/31/17	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 6/30/18
Short-term investments					
Putnam Short Term Investment Fund*	\$24,197,310	\$49,378,100	\$49,224,384	\$219,623	\$24,351,026
Total Short-term investments	\$24,197,310	\$49,378,100	\$49,224,384	\$219,623	\$24,351,026

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

Note 6 — Market, credit and other risks

In the normal course of business, the fund trades financial instruments and enters into financial transactions where risk of potential loss exists due to changes in the market (market risk) or failure of the contracting party to the transaction to perform (credit risk). The fund may be exposed to additional credit risk that an institution or other entity with which the fund has unsettled or open transactions will default. The fund may invest in higher-yielding, lower-rated bonds that may

have a higher rate of 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 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)	\$52,700,000
Purchased swap option contracts (contract amount)	\$1,435,000,000
Written TBA commitment option contracts (contract amount)	\$105,400,000
Written swap option contracts (contract amount)	\$1,253,500,000
Futures contracts (number of contracts)	600
Centrally cleared interest rate swap contracts (notional)	\$282,400,000
OTC total return swap contracts (notional)	\$31,800,000
Centrally cleared total return swap contracts (notional)	\$5,400,000
OTC credit default contracts (notional)	\$49,800,000
Centrally cleared credit default contracts (notional)	\$7,400,000

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
Credit contracts	Receivables	\$1,110,676	Payables, Net assets — Unrealized depreciation	\$2,965,988*
Interest rate contracts	Investments, Receivables, Net assets — Unrealized appreciation	8,447,010*	Payables, Net assets — Unrealized depreciation	7,440,160*
Total		\$9,557,686		\$10,406,148

*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 (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
Credit contracts	\$—	\$—	\$469,384	\$469,384
Interest rate contracts	(1,423,332)	(1,730,995)	2,394,968	(759,359)
Total	\$(1,423,332)	\$(1,730,995)	\$2,864,352	\$(289,975)

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
Credit contracts	\$—	\$—	\$1,492,995	\$1,492,995
Interest rate contracts	(477,470)	629,064	551,459	703,053
Total	\$(477,470)	\$629,064	\$2,044,454	\$2,196,048

Note 8 — Offsetting of financial and derivative assets and liabilities

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

	Bank of America N.A.	Barclays Bank PLC	Barclays Capital, Inc. (clearing broker)	Citibank, N.A.	Citigroup Global Markets, Inc.	Credit Suisse International
Assets:						
Centrally cleared interest rate swap contracts [§]	\$—	\$—	\$66,761	\$—	\$—	\$—
OTC Total return swap contracts* [#]	—	161,584	—	30,964	—	14,167
Centrally cleared total return swap contracts [§]	—	—	857	—	—	—
OTC Credit default contracts — protection sold* [#]	—	—	—	—	44	442
OTC Credit default contracts — protection purchased* [#]	—	—	—	—	66,626	365,312
Centrally cleared credit default contracts [§]	—	—	9,726	—	—	—
Futures contracts [§]	—	—	—	—	—	—
Forward premium swap option contracts [#]	715,131	120,909	—	287,153	—	—
Purchased swap options** [#]	1,001,150	161,095	—	338,912	—	405,211
Purchased options** [#]	—	—	—	—	—	—
Total Assets	\$1,716,281	\$443,588	\$77,344	\$657,029	\$66,670	\$785,132
Liabilities:						
Centrally cleared interest rate swap contracts [§]	—	—	53,938	—	—	—
OTC Total return swap contracts* [#]	1,577	4,520	—	—	—	38,311
Centrally cleared total return swap contracts [§]	—	—	715	—	—	—
OTC Credit default contracts — protection sold* [#]	60,373	—	—	—	33,184	685,911
OTC Credit default contracts — protection purchased* [#]	—	—	—	—	—	—
Centrally cleared credit default contracts [§]	—	—	—	—	—	—
Futures contracts [§]	—	—	—	—	—	—
Forward premium swap option contracts [#]	556,618	160,842	—	238,095	—	—
Written swap options [#]	884,042	268,794	—	518,012	—	308,669
Written options [#]	—	—	—	—	—	—
Total Liabilities	\$1,502,610	\$434,156	\$54,653	\$756,107	\$33,184	\$1,032,891
Total Financial and Derivative Net Assets	\$213,671	\$9,432	\$22,691	\$(99,078)	\$33,486	\$(247,759)
Total collateral received (pledged)† [#]	\$213,671	\$(141,493)	\$—	\$(40,857)	\$—	\$(247,759)
Net amount	\$—	\$150,925	\$22,691	\$(58,221)	\$33,486	\$—
<i>Controlled collateral received (including TBA commitments)**</i>	\$237,948	\$—	\$—	\$—	\$—	\$—
<i>Uncontrolled collateral received</i>	\$—	\$—	\$—	\$—	\$—	\$—
<i>Collateral (pledged) (including TBA commitments)**</i>	\$—	\$(141,493)	\$—	\$(40,857)	\$—	\$(265,959)

Goldman Sachs International	JPMorgan Chase Bank N.A.	JPMorgan Securities LLC	Merrill Lynch International	Merrill Lynch, Pierce, Fenner & Smith, Inc.	Morgan Stanley & Co. International PLC	Total
\$—	\$—	\$—	\$—	\$—	\$—	\$66,761
17,060	11,619	14,209	—	—	—	249,603
—	—	—	—	—	—	857
—	—	494	—	—	57	1,037
248,204	—	289,157	96,663	—	43,677	1,109,639
—	—	—	—	—	—	9,726
—	—	—	—	—	—	—
175,221	495,372	—	—	—	48,746	1,842,532
566,380	1,179,314	—	—	—	1,363,448	5,015,510
—	74,472	—	—	—	—	74,472
\$1,006,865	\$1,760,777	\$303,860	\$96,663	\$—	\$1,455,928	\$8,370,137
—	—	—	—	—	—	53,938
22,817	652	5,767	—	—	—	73,644
—	—	—	—	—	—	715
350,397	—	948,861	15,067	—	23,101	2,116,894
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	12,461	—	12,461
181,225	342,791	—	—	—	43,895	1,523,466
568,522	1,213,899	—	—	—	1,659,860	5,421,798
—	63,752	—	—	—	—	63,752
\$1,122,961	\$1,621,094	\$954,628	\$15,067	\$12,461	\$1,726,856	\$9,266,668
\$(116,096)	\$139,683	\$(650,768)	\$81,596	\$(12,461)	\$(270,928)	\$(896,531)
\$(116,096)	\$139,683	\$(616,613)	\$—	\$—	\$(270,928)	
\$—	\$—	\$(34,155)	\$81,596	\$(12,461)	\$—	
\$—	\$220,000	\$—	\$—	\$—	\$—	\$457,948
\$—	\$—	\$—	\$—	\$—	\$—	\$—
\$(208,146)	\$—	\$(616,613)	\$—	\$—	\$(337,731)	\$(1,610,799)

* 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 \$583,845 and \$4,607,963, respectively.

Note 9 — New accounting pronouncement

In March 2017, the Financial Accounting Standards Board issued Accounting Standards Update (ASU) No. 2017-08, *Receivables — Nonrefundable Fees and Other Costs* (Subtopic 310-20): *Premium Amortization on Purchased Callable Debt Securities*. The amendments in the ASU shorten the amortization period for certain callable debt securities held at a premium, to be amortized to the earliest call date. The ASU is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2018. Management is currently evaluating the impact, if any, of applying this provision.

Trustee approval of management contract

General conclusions

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

At the outset of the review process, members of the Board's independent staff and independent legal counsel discussed with representatives of Putnam Management the annual contract review materials furnished to the Contract Committee during the course of the previous year's review, identifying possible changes in these materials that might be necessary or desirable for the coming year. Following these discussions and in consultation with the Contract Committee, the Independent Trustees' independent legal counsel requested that Putnam Management and its affiliates furnish specified information, together with any additional information that Putnam Management considered relevant, to the Contract Committee. Over the course of several months ending in June 2018, the Contract Committee met on a number of occasions with representatives of Putnam Management, and separately in executive session, to consider the information that Putnam Management provided. Throughout this process, the Contract Committee was assisted by the members of the Board's independent staff and by independent legal counsel for The Putnam Funds and the Independent Trustees.

In May 2018, the Contract Committee met in executive session to discuss and consider its recommendations with respect to the continuance of the contracts. At the Trustees' June 2018 meeting, the Contract Committee met in executive session with the other Independent Trustees to review a summary of the key financial, performance and other data that the Contract Committee considered in the course of its review. The Contract Committee then presented its written report, which summarized the key factors that the Committee had considered and set forth its recommendations. The Contract Committee recommended, and the Independent Trustees approved, the continuance of your fund's management and sub-management contracts, effective July 1, 2018. (Because PIL is an affiliate of Putnam Management and Putnam Management remains fully responsible for all services provided by PIL, the Trustees have not attempted to evaluate PIL as a separate entity, and all subsequent references to Putnam Management below should be deemed to include reference to PIL as necessary or appropriate in the context.)

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

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

economies of scale as may exist in the management of the fund at current asset levels.

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

Management fee schedules and total expenses

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

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

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

As in the past, the Trustees also focused on the competitiveness of each fund's total expense ratio. In order to support the effort to have fund expenses meet competitive standards, the Trustees and Putnam Management have implemented certain expense limitations that were in effect during your fund's fiscal year ending in 2017. These expense limitations were: (i) a contractual expense limitation applicable to all open-end funds of 25 basis points on investor servicing fees and expenses and (ii) a contractual expense limitation applicable to specified open-end funds, including your fund, of 20 basis points on so-called "other expenses" (i.e., all expenses exclusive of management fees, distribution fees, investor servicing fees, investment-related expenses, interest, taxes, brokerage commissions, acquired fund fees and expenses and extraordinary

expenses). These expense limitations attempt to maintain competitive expense levels for the funds. Most funds, including your fund, had sufficiently low expenses that these expense limitations were not operative during their fiscal years ending in 2017. Putnam Management has agreed to maintain these expense limitations until at least April 30, 2020. Putnam Management's support for these expense limitation arrangements was an important factor in the Trustees' decision to approve the continuance of your fund's management and sub-management contracts.

The Trustees reviewed comparative fee and expense information for a custom group of competitive funds selected by Broadridge Financial Solutions, Inc. ("Broadridge"). This comparative information included your fund's percentile ranking for effective management fees and total expenses (excluding any applicable 12b-1 fee), which provides a general indication of your fund's relative standing. In the custom peer group, your fund ranked in the first quintile in effective management fees (determined for your fund and the other funds in the custom peer group based on fund asset size and the applicable contractual management fee schedule) and in the fourth quintile in total expenses (excluding any applicable 12b-1 fees) as of December 31, 2017. The first quintile represents the least expensive funds and the fifth quintile the most expensive funds. The fee and expense data reported by Broadridge as of December 31, 2017 reflected the most recent fiscal year-end data available in Broadridge's database at that time.

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

The information examined by the Trustees in connection with their annual contract review for the Putnam funds included information regarding fees charged by Putnam Management and its affiliates to institutional clients, including defined benefit pension and profit-sharing plans and sub-advised mutual funds. This information included, in cases where an institutional product's investment strategy corresponds with a fund's strategy, comparisons of those fees with fees charged to the Putnam funds, as well as an assessment of the differences in the services provided to these different types of clients as compared to the services provided to the Putnam funds. The Trustees observed that the differences in fee rates between these clients and the Putnam funds are by no means uniform when examined by individual asset sectors, suggesting that differences in the pricing of investment management services to these types of clients may reflect, among other things, historical competitive forces operating in separate markets. The Trustees considered the fact that in many cases fee rates across different asset classes are higher on average for mutual funds than for institutional clients, as well as the

differences between the services that Putnam Management provides to the Putnam funds and those that it provides to its other clients. The Trustees did not rely on these comparisons to any significant extent in concluding that the management fees paid by your fund are reasonable.

Investment performance

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

The Trustees considered that 2017 was a strong year for the performance of the Putnam funds, with generally favorable results for most asset classes, including U.S. equity, international and global equity, taxable and tax exempt fixed income, and global asset allocation Funds. In this regard, the Trustees considered that, for the one-year period ended December 31, 2017, the Putnam open-end Funds' performance, on an asset-weighted basis, ranked in the 32nd percentile of their Lipper peers (excluding those Putnam funds that are evaluated based on their total returns and/or comparisons of those returns versus selected investment benchmarks or targeted annual returns). The Trustees observed that this strong performance has continued a positive trend that began in mid-year 2016 across most Putnam funds. They noted that the longer-term performance of the Putnam funds continued to be strong, exemplified by the fact that the Putnam funds were ranked by the Barron's/Lipper Fund Families survey as the 7th-best performing mutual fund complex out of 55 complexes for the five-year period ended December 31, 2017 and the 9th-best performing mutual fund complex out of 50 complexes for the ten-year period ended 2017. In addition, the survey ranked the Putnam funds 7th out of 59 mutual fund complexes for the one-year period ended 2017; the Putnam funds have ranked 1st or 2nd in the survey for the one-year period three times since 2009 (most recently in 2013). They also noted, however, the disappointing investment performance of some funds for periods ended December 31, 2017 and considered information provided by Putnam Management regarding the factors contributing to the underperformance and actions being taken to improve the performance of these particular funds. The Trustees indicated their intention to continue to monitor closely the performance of those funds, including the effectiveness of any efforts Putnam Management has undertaken to address underperformance and whether additional actions to address areas of underperformance are warranted.

For purposes of the Trustees' evaluation of the Putnam Funds' investment performance, the Trustees generally focus on a competitive industry ranking of each fund's total net return over a one-year, three-year and five-year period. For a number of Putnam funds with relatively unique investment mandates for which Putnam Management informed the Trustees that meaningful competitive performance rankings are not considered to be available, the Trustees evaluated performance based on

their total gross and net returns and, in most cases, comparisons of those returns with the returns of selected investment benchmarks. In the case of your fund, the Trustees considered that its class IA share cumulative total return performance at net asset value was in the following quartiles of its Lipper Inc. (“Lipper”) peer group (Lipper VP (Underlying Funds) — Core Bond Funds) for the one-year, three-year and five-year periods ended December 31, 2017 (the first quartile representing the best-performing funds and the fourth quartile the worst-performing funds):

One-year period	Three-year period	Five-year period
1st	2nd	1st

For the one-year and five-year periods ended December 31, 2017, your fund’s performance was in the top decile of its Lipper peer group. Over the one-year, three-year and five-year periods ended December 31, 2017, there were 102, 96 and 92 funds, respectively, in your fund’s Lipper peer group. (When considering performance information, shareholders should be mindful that past performance is not a guarantee of future results.)

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

Brokerage and soft-dollar allocations; investor servicing

The Trustees considered various potential benefits that Putnam Management may receive in connection with the services it provides under the management contract with your fund. These include benefits related

to brokerage allocation and the use of soft dollars, whereby a portion of the commissions paid by a fund for brokerage may be used to acquire research services that are expected to be useful to Putnam Management in managing the assets of the fund and of other clients. Subject to policies established by the Trustees, soft dollars generated by these means are used predominantly to acquire brokerage and research services (including third-party research and market data) that enhance Putnam Management’s investment capabilities and supplement Putnam Management’s internal research efforts. However, the Trustees noted that a portion of available soft dollars continues to be used to pay fund expenses. The Trustees indicated their continued intent to monitor regulatory and industry developments in this area with the assistance of their Brokerage Committee. The Trustees also indicated their continued intent to monitor the allocation of the Putnam funds’ brokerage in order to ensure that the principle of seeking best price and execution remains paramount in the portfolio trading process.

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

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Other important information

Proxy voting

Putnam is committed to managing our mutual funds in the best interests of our shareholders. The Putnam funds' proxy voting guidelines and procedures, as well as information regarding how your fund voted proxies relating to portfolio securities during the 12-month period ended June 30, 2018, are available in the Individual Investors section of putnam.com and on the Securities and Exchange Commission's (SEC) website at 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

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Legal Counsel

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Kenneth R. Leibler, *Chair*
Liaquat Ahamed
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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.

