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Putnam Variable Trust

Putnam VT Mortgage Securities Fund

Semiannual report

6 | 30 | 21

Message from the Trustees

August 6, 2021

Dear Shareholder:

The U.S. economy is much improved from a year ago, or even six months ago. Gross domestic product is growing at a pre-pandemic pace. Stock prices are high and interest rates are low. More and more workers are finding jobs, with millions still open. At the same time, vaccinations in many areas have not yet reached enough people to stop the spread of Covid-19. U.S. and global infection rates have recently risen.

While it is too soon to declare the pandemic over, it is worth taking stock of the economy's transition. Some changes accelerated by the pandemic could be lasting. Dynamic, well-managed companies have adapted to seize new, more sustainable growth opportunities.

An active investment philosophy is well suited to this time. Putnam's research teams are analyzing the fundamentals of what has stayed the same and what has changed to uncover valuable investment insights or potential risks.

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- and asset-backed securities are subject to prepayment risk, which means 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. The fund may have to invest the proceeds from prepaid investments, including mortgage- and asset-backed investments, in other investments with less attractive terms and yields. The fund's investments in mortgage-backed securities and asset-backed securities, and in certain other securities and derivatives, may be or become illiquid. The fund's exposure to privately issued commercial and residential mortgage-backed securities and mortgage-backed securities issued or guaranteed by the U.S. government or its agencies or instrumentalities may make the fund's net asset value more susceptible to economic, market, political and other developments affecting the housing or real estate markets and the servicing of mortgage loans secured by real estate properties. The fund currently has significant investment exposure to commercial mortgage-backed securities, which, during periods of difficult economic conditions, may experience an increase in delinquencies and losses as a result of the effects of those conditions on commercial real estate markets, the ability of commercial tenants to make loan payments, and the ability of a property to attract and retain commercial tenants. Bond investments are subject to interest-rate risk (the risk of bond prices falling if interest rates rise) and credit risk (the risk of an issuer defaulting on interest or principal payments). Interest-rate risk is generally greater for longer-term bonds, and credit risk is generally greater for below-investment-grade bonds. Default risk is generally higher for non-qualified mortgages. 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. The value of investments in the fund's portfolio may fall or fail to rise over extended periods of time for a variety of reasons, including general economic, political, or financial market conditions; investor sentiment and market perceptions; government actions; geopolitical events or changes; and factors related to a specific issuer, geography (such as a region of the United States), industry, or sector, such as the housing or real estate markets. These and other factors may lead to increased volatility and reduced liquidity in the fund's portfolio holdings or in relevant markets. Our investment techniques, analyses, and judgments may not produce the outcome we intend. The investments we select for the fund may not perform as well as other securities that we do not select for the fund. We, or the fund's other service providers, may experience disruptions or operating errors that could have a negative effect on the fund. You can lose money by investing in the fund.

Performance summary (as of 6/30/21)

Investment objective

As high a level of current income as Putnam Investment Management, LLC, (Putnam Management) believes is consistent with preservation of capital

Net asset value June 30, 2021

Class IA: \$8.99	Class IB: \$8.95
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Total return at net asset value

(as of 6/30/21)	Class IA shares*	Class IB shares*	Bloomberg Barclays U.S. MBS Index	Bloomberg Barclays Government Bond-Bloomberg Barclays U.S. MBS Linked Benchmark†
6 months	-0.66%	-0.78%	-0.77%	-0.77%
1 year	4.78	4.43	-0.42	-0.42
5 years	11.11	9.63	11.87	8.41
Annualized	2.13	1.86	2.27	1.63
10 years	24.25	21.12	29.72	28.03
Annualized	2.19	1.93	2.64	2.50
Life	159.02	145.75	165.16	150.68
Annualized	4.54	4.29	4.66	4.38

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

* Class inception date: February 1, 2000.

The Bloomberg Barclays U.S. MBS Index is an unmanaged index of agency mortgage-backed pass-through securities (both fixed rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

† The Bloomberg Barclays Government Bond-Bloomberg Barclays U.S. MBS Linked Benchmark represents performance of the Bloomberg Barclays Government Bond Index from the inception date of the fund, February 1, 2000, through April 29, 2018, and performance of the Bloomberg Barclays U.S. MBS Index from April 30, 2018 through the current period.

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

All Bloomberg Barclays indices provided by Bloomberg Index Services Limited.

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

Portfolio composition

Commercial mortgage-backed securities	45.2%
Agency collateralized mortgage obligations	39.1%
Agency pass-throughs	37.4%
Non-agency residential mortgage-backed securities	22.8%
Asset-backed securities	1.9%
Cash and net other assets	7.3%

Allocations are shown as a percentage of the fund's net assets. Cash and net other assets, if any, represent the market value weights of cash, derivatives, short-term securities, and other unclassified assets in the portfolio. Summary information may differ from the portfolio schedule included in the financial statements due to the inclusion of derivative securities, any interest accruals, the use of different classifications of securities for presentation purposes, and rounding. Allocations may not total 100% because the table includes the notional value of certain derivatives (the economic value for purposes of calculating periodic payment obligations), in addition to the market value of securities. Holdings and allocations may vary over time.

Credit quality

A-1+	16.4%
AAA	74.5%
AA	5.5%
A	6.5%
BBB	10.7%
BB	2.5%
B	4.8%
CCC and below	3.1%
Not rated	-24.0%

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

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

Understanding your fund's expenses

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

Review your fund's expenses

The two left-hand columns of the Expenses per \$1,000 table show the expenses you would have paid on a \$1,000 investment in your fund from 1/1/21 to 6/30/21. 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
Net expenses for the fiscal year ended 12/31/20*	0.50%	0.75%
Total annual operating expenses for the fiscal year ended 12/31/20	0.74%	0.99%
Annualized expense ratio for the six-month period ended 6/30/21	0.50%	0.75%

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.

*Reflects Putnam Management's contractual obligation to limit certain fund expenses through 4/30/22.

Expenses per \$1,000

	Expenses and value for a \$1,000 investment, assuming actual returns for the 6 months ended 6/30/21		Expenses and value for a \$1,000 investment, assuming a hypothetical 5% annualized return for the 6 months ended 6/30/21	
	Class IA	Class IB	Class IA	Class IB
Expenses paid per \$1,000*†	\$2.47	\$3.70	\$2.51	\$3.76
Ending value (after expenses)	\$993.40	\$992.20	\$1,022.32	\$1,021.08

*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 6/30/21. 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 (181); and then dividing that result by the number of days in the year (365). 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 (181); and then dividing that result by the number of days in the year (365).

Your fund's managers



Portfolio Manager **Michael V. Salm** is Chief Investment Officer, Fixed Income. He joined Putnam in 1997 and has been in the investment industry since 1989.

Brett S. Kozlowski, CFA, and Jatin Misra, Ph.D., CFA, are also Portfolio Managers of the fund.

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

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. In other examples, the managers may use options and futures contracts to hedge against a variety of risks by establishing a combination of long and short exposures to specific equity markets or sectors.

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 6/30/21 (Unaudited)

MORTGAGE-BACKED SECURITIES (82.3%)*	Principal amount	Value
Agency collateralized mortgage obligations (38.0%)		
Federal Home Loan Mortgage Corporation		
REMICs IFB Ser. 3408, Class EK, ((-4.024 x 1 Month US LIBOR) + 25.79%), 25.50%, 4/15/37	\$16,225	\$30,016
REMICs IFB Ser. 3072, Class SM, ((-3.667 x 1 Month US LIBOR) + 23.80%), 23.529%, 11/15/35	22,809	40,599
REMICs IFB Ser. 3065, Class DC, ((-3 x 1 Month US LIBOR) + 19.86%), 19.641%, 3/15/35	112,892	158,049
REMICs IFB Ser. 2990, Class LB, ((-2.556 x 1 Month US LIBOR) + 16.95%), 16.759%, 6/15/34	11,956	14,586
REMICs IFB Ser. 4136, Class ES, IO, ((-1 x 1 Month US LIBOR) + 6.25%), 6.177%, 11/15/42	117,788	13,726
REMICs IFB Ser. 4436, Class SC, IO, ((-1 x 1 Month US LIBOR) + 6.15%), 6.077%, 2/15/45	470,026	86,433
REMICs IFB Ser. 5003, Class DS, IO, ((-1 x 1 Month US LIBOR) + 6.10%), 6.009%, 8/25/50	1,021,438	194,851
REMICs IFB Ser. 4933, Class SA, IO, ((-1 x 1 Month US LIBOR) + 6.00%), 5.909%, 12/25/49	982,459	197,006
REMICs Ser. 4122, Class TI, IO, 4.50%, 10/15/42	130,077	15,901
REMICs Ser. 4018, Class DI, IO, 4.50%, 7/15/41	126,101	9,481
REMICs Ser. 4953, Class AI, IO, 4.00%, 2/25/50	1,288,382	197,226
REMICs Ser. 4500, Class GI, IO, 4.00%, 8/15/45	188,428	23,554
REMICs Ser. 4425, IO, 4.00%, 1/15/45	182,948	20,710
REMICs Ser. 4425, Class EI, IO, 4.00%, 1/15/45	272,169	30,151
REMICs Ser. 4452, Class QI, IO, 4.00%, 11/15/44	209,454	30,134
REMICs Ser. 4213, Class GI, IO, 4.00%, 11/15/41	279,714	15,136
REMICs Ser. 4019, Class JI, IO, 4.00%, 5/15/41	213,817	13,163
REMICs Ser. 5065, Class DI, IO, 3.50%, 1/25/51	1,693,006	255,247
REMICs Ser. 4621, Class QI, IO, 3.50%, 10/15/46	306,980	32,534
REMICs Ser. 4165, Class AI, IO, 3.50%, 2/15/43	153,323	22,260
REMICs Ser. 4136, Class IQ, IO, 3.50%, 11/15/42	301,756	38,497
Strips Ser. 304, Class C37, IO, 3.50%, 12/15/27	128,255	7,670
REMICs Ser. 4150, Class DI, IO, 3.00%, 1/15/43	223,809	22,381
REMICs Ser. 4141, Class PI, IO, 3.00%, 12/15/42	213,465	21,639
REMICs Ser. 4158, Class TI, IO, 3.00%, 12/15/42	456,935	34,375
REMICs Ser. 4165, Class TI, IO, 3.00%, 12/15/42	488,956	34,106
REMICs Ser. 4171, Class NI, IO, 3.00%, 6/15/42	312,816	25,088
REMICs Ser. 4183, Class MI, IO, 3.00%, 2/15/42	150,956	9,481
REMICs Ser. 4201, Class JI, IO, 3.00%, 12/15/41	177,767	8,079
REMICs Ser. 3835, Class FO, PO, zero %, 4/15/41	254,522	235,501
REMICs Ser. 3391, PO, zero %, 4/15/37	3,956	3,699
Strips Ser. 315, PO, zero %, 9/15/43	593,597	539,195
Federal National Mortgage Association		
REMICs IFB Ser. 06-62, Class PS, ((-6 x 1 Month US LIBOR) + 39.90%), 39.351%, 7/25/36	12,011	23,062
REMICs IFB Ser. 06-8, Class HP, ((-3.667 x 1 Month US LIBOR) + 24.57%), 24.231%, 3/25/36	21,544	35,564
REMICs IFB Ser. 07-53, Class SP, ((-3.667 x 1 Month US LIBOR) + 24.20%), 23.865%, 6/25/37	22,030	38,773
REMICs IFB Ser. 08-24, Class SP, ((-3.667 x 1 Month US LIBOR) + 23.28%), 22.948%, 2/25/38	81,929	107,648
REMICs IFB Ser. 05-106, Class JC, ((-3.101 x 1 Month US LIBOR) + 20.12%), 19.84%, 12/25/35	28,724	41,650
REMICs IFB Ser. 11-4, Class CS, ((-2 x 1 Month US LIBOR) + 12.90%), 12.717%, 5/25/40	41,502	50,633
REMICs IFB Ser. 11-123, Class KS, IO, ((-1 x 1 Month US LIBOR) + 6.60%), 6.509%, 10/25/41	30,920	3,626
REMICs IFB Ser. 18-47, Class SA, IO, ((-1 x 1 Month US LIBOR) + 6.25%), 6.159%, 7/25/48	452,469	94,856
REMICs IFB Ser. 18-36, Class SD, IO, ((-1 x 1 Month US LIBOR) + 6.25%), 6.159%, 6/25/48	1,162,661	229,982

MORTGAGE-BACKED SECURITIES (82.3%)* cont.	Principal amount	Value
Agency collateralized mortgage obligations cont.		
Federal National Mortgage Association		
REMICs IFB Ser. 18-20, Class SB, IO, ((-1 x 1 Month US LIBOR) + 6.25%), 6.159%, 3/25/48	\$540,326	\$99,392
REMICs IFB Ser. 18-38, Class SP, IO, ((-1 x 1 Month US LIBOR) + 6.20%), 6.109%, 6/25/48	1,351,290	208,812
REMICs IFB Ser. 17-104, Class SL, IO, ((-1 x 1 Month US LIBOR) + 6.15%), 6.059%, 1/25/48	868,269	144,964
REMICs IFB Ser. 16-81, Class SA, IO, ((-1 x 1 Month US LIBOR) + 6.15%), 6.059%, 11/25/46	1,886,570	371,339
REMICs IFB Ser. 20-41, Class SE, IO, ((-1 x 1 Month US LIBOR) + 6.10%), 6.009%, 6/25/50	2,000,620	421,122
REMICs IFB Ser. 16-83, Class BS, IO, ((-1 x 1 Month US LIBOR) + 6.10%), 6.009%, 11/25/46	1,308,705	261,921
REMICs IFB Ser. 16-85, Class SL, IO, ((-1 x 1 Month US LIBOR) + 6.10%), 6.009%, 11/25/46	1,825,567	360,550
REMICs IFB Ser. 16-50, Class SM, IO, ((-1 x 1 Month US LIBOR) + 6.10%), 6.009%, 8/25/46	850,604	155,706
REMICs Ser. 15-58, Class KI, IO, 6.00%, 3/25/37	468,353	102,838
REMICs IFB Ser. 19-45, Class SD, IO, ((-1 x 1 Month US LIBOR) + 6.05%), 5.959%, 8/25/49	637,485	109,378
REMICs IFB Ser. 16-8, Class SA, IO, ((-1 x 1 Month US LIBOR) + 6.05%), 5.959%, 3/25/46	1,282,753	242,763
REMICs IFB Ser. 19-71, Class CS, IO, ((-1 x 1 Month US LIBOR) + 6.00%), 5.909%, 11/25/49	81,368	20,764
REMICs Ser. 16-3, Class MI, IO, 5.50%, 2/25/46	294,960	53,462
REMICs Ser. 15-86, Class MI, IO, 5.50%, 11/25/45	395,409	72,917
REMICs Ser. 10-109, Class IM, IO, 5.50%, 9/25/40	821,194	146,006
REMICs Ser. 18-51, Class BI, IO, 5.50%, 7/25/38	577,345	79,602
REMICs Ser. 17-19, Class IH, IO, 5.00%, 3/25/47	456,563	76,830
REMICs Ser. 12-151, Class IM, IO, 5.00%, 4/25/42	412,267	63,959
REMICs Ser. 20-31, IO, 4.50%, 5/25/50	1,932,204	305,658
REMICs Ser. 17-66, IO, 4.50%, 9/25/47	640,496	95,824
REMICs Ser. 17-32, Class IP, IO, 4.50%, 5/25/47	635,927	129,274
REMICs Ser. 15-83, IO, 4.00%, 10/25/43	369,285	42,653
REMICs Ser. 12-118, Class PI, IO, 4.00%, 6/25/42	348,908	42,033
REMICs Ser. 12-62, Class MI, IO, 4.00%, 3/25/41	119,220	7,749
REMICs Ser. 12-104, Class HI, IO, 4.00%, 9/25/27	245,608	19,392
REMICs Ser. 16-70, Class QI, IO, 3.50%, 10/25/46	693,203	69,078
REMICs Ser. 15-10, Class AI, IO, 3.50%, 8/25/43	176,393	9,573
REMICs Ser. 13-22, Class PI, IO, 3.50%, 10/25/42	243,201	27,049
REMICs Ser. 12-114, Class NI, IO, 3.50%, 10/25/41	273,314	20,951
REMICs Ser. 20-96, IO, 3.00%, 1/25/51	1,425,778	136,062
REMICs Ser. 13-55, Class IK, IO, 3.00%, 4/25/43	173,449	15,787
REMICs Ser. 13-6, Class JI, IO, 3.00%, 2/25/43	378,889	34,100
REMICs Ser. 12-151, Class PI, IO, 3.00%, 1/25/43	166,492	16,090
REMICs Ser. 12-145, Class TI, IO, 3.00%, 11/25/42	83,254	4,624
REMICs Ser. 13-35, Class IP, IO, 3.00%, 6/25/42	125,969	6,380
REMICs Ser. 13-55, Class PI, IO, 3.00%, 5/25/42	168,240	6,410
REMICs Ser. 13-53, Class JI, IO, 3.00%, 12/25/41	200,548	10,885
REMICs Ser. 13-23, Class PI, IO, 3.00%, 10/25/41	80,153	1,487
REMICs Ser. 13-30, Class IP, IO, 3.00%, 10/25/41	119,363	2,461
REMICs Ser. 13-23, Class LI, IO, 3.00%, 6/25/41	72,934	2,008
REMICs Ser. 14-28, Class AI, IO, 3.00%, 3/25/40	172,859	4,883
REMICs Ser. 21-12, Class NI, IO, 2.50%, 3/25/51	843,420	140,219
Trust FRB Ser. 03-W8, Class 3F2, (1 Month US LIBOR + 0.35%), 0.442%, 5/25/42	2,491	2,508
REMICs FRB Ser. 07-95, Class A3, (1 Month US LIBOR + 0.25%), 0.342%, 8/27/36	1,868,618	1,740,140
REMICs Ser. 08-53, Class DO, PO, zero %, 7/25/38	20,863	19,610
REMICs Ser. 07-44, Class CO, PO, zero %, 5/25/37	8,680	7,898

**MORTGAGE-BACKED
SECURITIES (82.3%)* cont.**

Principal amount Value

Agency collateralized mortgage obligations cont.

Government National Mortgage Association

IFB Ser. 13-182, Class SP, IO, ((-1 x 1 Month US LIBOR) + 6.70%), 6.607%, 12/20/43	\$191,239	\$37,800
IFB Ser. 11-156, Class SK, IO, ((-1 x 1 Month US LIBOR) + 6.60%), 6.507%, 4/20/38	532,260	125,103
FRB Ser. 20-112, Class MS, IO, ((-1 x 1 Month US LIBOR) + 6.30%), 6.207%, 8/20/50	2,150,403	466,379
IFB Ser. 18-89, Class LS, IO, ((-1 x 1 Month US LIBOR) + 6.20%), 6.107%, 6/20/48	437,653	66,389
IFB Ser. 17-156, Class SL, IO, ((-1 x 1 Month US LIBOR) + 6.20%), 6.107%, 10/20/47	653,737	119,716
IFB Ser. 13-87, Class SA, IO, ((-1 x 1 Month US LIBOR) + 6.20%), 6.107%, 6/20/43	907,572	177,583
IFB Ser. 19-35, Class SE, IO, ((-1 x 1 Month US LIBOR) + 6.15%), 6.075%, 1/16/44	522,603	92,914
IFB Ser. 19-158, Class AS, IO, ((-1 x 1 Month US LIBOR) + 6.15%), 6.075%, 9/16/43	863,726	158,260
IFB Ser. 19-56, Class SK, IO, ((-1 x 1 Month US LIBOR) + 6.15%), 6.057%, 5/20/49	960,073	138,552
IFB Ser. 18-148, Class GS, IO, ((-1 x 1 Month US LIBOR) + 6.10%), 6.025%, 2/16/46	473,523	91,561
IFB Ser. 19-100, Class JS, IO, ((-1 x 1 Month US LIBOR) + 6.10%), 6.007%, 8/20/49	588,134	87,578
Ser. 16-75, Class LI, IO, 6.00%, 1/20/40	275,587	56,630
IFB Ser. 20-15, Class CS, IO, ((-1 x 1 Month US LIBOR) + 6.05%), 5.957%, 2/20/50	49,784	6,035
IFB Ser. 20-7, Class SK, IO, ((-1 x 1 Month US LIBOR) + 6.05%), 5.957%, 1/20/50	904,384	150,540
IFB Ser. 19-125, Class SG, IO, ((-1 x 1 Month US LIBOR) + 6.05%), 5.957%, 10/20/49	780,240	209,389
IFB Ser. 19-110, Class SQ, IO, ((-1 x 1 Month US LIBOR) + 6.05%), 5.957%, 9/20/49	1,344,077	199,483
IFB Ser. 19-121, Class SD, IO, ((-1 x 1 Month US LIBOR) + 6.00%), 5.907%, 10/20/49	311,873	109,068
Ser. 14-137, Class ID, IO, 5.50%, 9/16/44	303,859	58,898
Ser. 15-89, Class LI, IO, 5.00%, 12/20/44	431,476	78,171
Ser. 14-133, Class IP, IO, 5.00%, 9/16/44	206,936	34,937
Ser. 14-76, IO, 5.00%, 5/20/44	244,144	41,364
Ser. 13-51, Class QI, IO, 5.00%, 2/20/43	184,143	25,072
Ser. 13-3, Class IT, IO, 5.00%, 1/20/43	104,323	18,517
Ser. 13-6, Class OI, IO, 5.00%, 1/20/43	78,656	14,342
Ser. 10-35, Class UI, IO, 5.00%, 3/20/40	112,559	20,651
Ser. 10-9, Class UI, IO, 5.00%, 1/20/40	369,407	68,917
Ser. 09-121, Class UI, IO, 5.00%, 12/20/39	289,108	53,225
Ser. 18-1, IO, 4.50%, 1/20/48	452,094	67,289
Ser. 18-127, Class IB, IO, 4.50%, 6/20/45	54,331	5,536
Ser. 13-34, Class HI, IO, 4.50%, 3/20/43	265,959	41,045
Ser. 13-39, Class IJ, IO, 4.50%, 3/20/43	737,911	123,646
Ser. 12-129, IO, 4.50%, 11/16/42	237,548	43,129
Ser. 12-91, Class IN, IO, 4.50%, 5/20/42	433,692	72,141
Ser. 10-35, Class AI, IO, 4.50%, 3/20/40	248,720	21,902
Ser. 10-35, Class DI, IO, 4.50%, 3/20/40	153,358	25,269
Ser. 10-35, Class QI, IO, 4.50%, 3/20/40	90,194	14,924
Ser. 10-9, Class QI, IO, 4.50%, 1/20/40	73,153	11,251
Ser. 09-121, Class BI, IO, 4.50%, 12/16/39	96,818	17,832
Ser. 09-121, Class CI, IO, 4.50%, 12/16/39	366,237	63,698
Ser. 15-53, Class MI, IO, 4.00%, 4/16/45	282,364	50,826
Ser. 14-100, Class NI, IO, 4.00%, 6/20/43	311,708	21,866
Ser. 13-67, Class IP, IO, 4.00%, 4/16/43	416,021	66,172
Ser. 13-165, Class IL, IO, 4.00%, 3/20/43	81,808	11,592
Ser. 12-56, Class IB, IO, 4.00%, 4/20/42	241,701	37,211
Ser. 12-38, Class MI, IO, 4.00%, 3/20/42	912,441	154,476

**MORTGAGE-BACKED
SECURITIES (82.3%)* cont.**

Principal amount Value

Agency collateralized mortgage obligations cont.

Government National Mortgage Association

Ser. 12-47, Class CI, IO, 4.00%, 3/20/42	\$108,142	\$15,744
Ser. 14-104, IO, 4.00%, 3/20/42	285,282	35,297
Ser. 14-4, Class IK, IO, 4.00%, 7/20/39	30,856	340
Ser. 11-71, Class IK, IO, 4.00%, 4/16/39	50,749	858
Ser. 14-182, Class BI, IO, 4.00%, 1/20/39	414,540	48,031
Ser. 20-175, Class JI, IO, 3.50%, 11/20/50	2,101,334	302,013
Ser. 16-156, Class PI, IO, 3.50%, 11/20/46	84,081	2,001
Ser. 18-127, Class IE, IO, 3.50%, 1/20/46	166,944	16,092
Ser. 13-79, Class PI, IO, 3.50%, 4/20/43	138,042	11,620
Ser. 15-168, Class IG, IO, 3.50%, 3/20/43	189,759	16,749
Ser. 13-37, Class JI, IO, 3.50%, 1/20/43	100,364	10,048
Ser. 13-27, Class PI, IO, 3.50%, 12/20/42	51,052	4,874
Ser. 12-136, IO, 3.50%, 11/20/42	347,150	51,127
Ser. 18-127, Class IA, IO, 3.50%, 4/20/42	444,256	32,351
Ser. 14-102, Class IG, IO, 3.50%, 3/16/41	87,186	5,346
Ser. 15-52, Class KI, IO, 3.50%, 11/20/40	252,518	16,414
Ser. 15-99, Class TI, IO, 3.50%, 4/20/39	66,446	280
Ser. 15-24, Class AI, IO, 3.50%, 12/20/37	215,540	7,077
Ser. 20-176, Class BI, IO, 3.00%, 11/20/50	973,843	138,773
Ser. 14-160, Class IB, IO, 3.00%, 11/20/40	140,049	1,993
Ser. 14-141, Class CI, IO, 3.00%, 3/20/40	53,821	1,480
Ser. 14-174, Class AI, IO, 3.00%, 11/16/29	288,055	21,604
Ser. 16-H18, Class QI, IO, 2.727%, 6/20/66 W	1,067,582	84,415
Ser. 16-H13, Class IK, IO, 2.64%, 6/20/66 W	1,070,326	114,674
Ser. 17-H25, Class AI, IO, 2.576%, 12/20/67 W	420,826	34,447
Ser. 18-H02, IO, 2.539%, 1/20/68 W	351,005	29,312
Ser. 20-138, Class IB, IO, 2.50%, 9/20/50	1,566,794	189,902
Ser. 16-H24, Class KI, IO, 2.479%, 11/20/66 W	616,463	53,834
Ser. 17-H04, Class BI, IO, 2.471%, 2/20/67 W	783,450	68,535
Ser. 17-H08, Class EI, IO, 2.418%, 2/20/67 W	1,074,233	91,523
Ser. 18-H05, Class ID, IO, 2.403%, 3/20/68 W	445,186	38,801
Ser. 16-H04, Class HI, IO, 2.388%, 7/20/65 W	751,327	40,572
Ser. 16-H23, Class NI, IO, 2.369%, 10/20/66 W	1,522,961	114,984
Ser. 16-H27, Class GI, IO, 2.349%, 12/20/66 W	1,314,233	130,920
Ser. 17-H08, Class GI, IO, 2.334%, 2/20/67 W	722,646	78,156
Ser. 18-H02, Class IM, IO, 2.331%, 2/20/68 W	715,036	70,946
Ser. 17-H25, Class CI, IO, 2.307%, 12/20/67 W	1,424,657	142,647
Ser. 18-H01, Class XI, IO, 2.306%, 1/20/68 W	1,055,864	110,409
Ser. 16-H07, Class PI, IO, 2.293%, 3/20/66 W	1,858,967	172,932
FRB Ser. 15-H16, Class XI, IO, 2.273%, 7/20/65 W	649,050	52,768
Ser. 17-H08, Class NI, IO, 2.262%, 3/20/67 W	771,539	58,174
Ser. 17-H14, Class JI, IO, 2.252%, 6/20/67 W	489,702	50,966
Ser. 17-H20, Class AI, IO, 2.228%, 10/20/67 W	1,957,736	176,196
Ser. 17-H06, Class MI, IO, 2.228%, 2/20/67 W	1,320,899	95,912
Ser. 17-H03, Class KI, IO, 2.219%, 1/20/67 W	1,252,546	130,014
Ser. 16-H17, Class DI, IO, 2.216%, 7/20/66 W	1,106,400	78,229
Ser. 16-H24, Class JI, IO, 2.209%, 11/20/66 W	486,458	41,031
Ser. 15-H20, Class CI, IO, 2.197%, 8/20/65 W	1,206,426	98,806
Ser. 17-H25, IO, 2.163%, 11/20/67 W	812,149	64,972
Ser. 16-H24, IO, 2.142%, 9/20/66 W	753,598	69,939
Ser. 17-H14, Class LI, IO, 2.109%, 6/20/67 W	642,893	55,125
Ser. 16-H06, Class HI, IO, 2.075%, 2/20/66 W	940,027	58,426
Ser. 15-H24, Class HI, IO, 2.057%, 9/20/65 W	828,539	31,640
Ser. 15-H25, Class BI, IO, 1.964%, 10/20/65 W	745,380	55,754
Ser. 15-H22, Class AI, IO, 1.961%, 9/20/65 W	1,369,986	102,338
Ser. 15-H13, Class AI, IO, 1.929%, 6/20/65 W	1,043,095	68,216
Ser. 16-H06, Class DI, IO, 1.919%, 7/20/65 W	1,139,374	62,712
Ser. 15-H23, Class TI, IO, 1.905%, 9/20/65 W	850,831	68,322
Ser. 17-H10, Class MI, IO, 1.85%, 4/20/67 W	871,994	55,633
Ser. 17-H09, IO, 1.822%, 4/20/67 W	748,231	45,413

MORTGAGE-BACKED SECURITIES (82.3%)* cont.	Principal amount	Value
Agency collateralized mortgage obligations cont.		
Government National Mortgage Association		
Ser. 16-H03, Class AI, IO, 1.758%, 1/20/66 W	\$1,219,148	\$75,985
Ser. 15-H10, Class HI, IO, 1.752%, 4/20/65 W	1,731,942	116,387
Ser. 14-H25, Class BI, IO, 1.681%, 12/20/64 W	897,403	51,497
Ser. 14-H21, Class AI, IO, 1.667%, 10/20/64 W	1,181,635	75,315
Ser. 17-H16, Class HI, IO, 1.663%, 8/20/67 W	710,842	45,387
Ser. 16-H06, Class AI, IO, 1.631%, 2/20/66 W	597,994	38,638
Ser. 15-H04, Class AI, IO, 1.607%, 12/20/64 W	870,714	49,323
Ser. 17-H06, Class EI, IO, 1.586%, 2/20/67 W	491,669	26,108
Ser. 14-H18, Class CI, IO, 1.575%, 9/20/64 W	827,533	56,615
Ser. 16-H10, Class AI, IO, 1.552%, 4/20/66 W	1,069,527	53,601
Ser. 16-H04, Class KI, IO, 1.527%, 2/20/66 W	1,240,787	62,560
Ser. 16-H08, Class GI, IO, 1.421%, 4/20/66 W	703,690	31,898
FRB Ser. 11-H07, Class FI, IO, 1.23%, 2/20/61 W	1,678,521	42,299
Ser. 10-151, Class KO, PO, zero %, 6/16/37	18,048	16,351
		17,045,929
Commercial mortgage-backed securities (21.5%)		
BANK FRB Ser. 20-BN25, Class C, 3.468%, 1/15/63 W	114,000	119,787
BANK 144A Ser. 17-BNK9, Class D, 2.80%, 11/15/54	101,000	90,520
Barclays Commercial Mortgage Trust 144A Ser. 19-C4, Class E, 3.25%, 8/15/52	111,000	96,007
Bear Stearns Commercial Mortgage Securities Trust FRB Ser. 07-T26, Class AJ, 5.54%, 1/12/45 W	71,000	57,510
Benchmark Mortgage Trust FRB Ser. 18-B1, Class C, 4.251%, 1/15/51 W	47,000	51,338
Benchmark Mortgage Trust 144A Ser. 19-B13, Class D, 2.50%, 8/15/57	123,000	111,930
CD Commercial Mortgage Trust FRB Ser. 17-CD4, Class C, 4.35%, 5/10/50 W	77,000	83,544
CD Commercial Mortgage Trust 144A Ser. 17-CD3, Class D, 3.25%, 2/10/50	140,000	116,357
Citigroup Commercial Mortgage Trust Ser. 13-GC11, Class C, 4.134%, 4/10/46 W	70,000	72,531
COMM Mortgage Trust		
FRB Ser. 12-CR1, Class C, 5.533%, 5/15/45 W	68,000	58,421
FRB Ser. 14-UBS2, Class C, 5.138%, 3/10/47 W	61,000	63,732
FRB Ser. 14-CR16, Class C, 5.09%, 4/10/47 W	95,000	100,322
FRB Ser. 18-COR3, Class C, 4.712%, 5/10/51 W	67,000	73,960
FRB Ser. 15-CR23, Class C, 4.433%, 5/10/48 W	72,000	77,411
Ser. 13-LC6, Class C, 4.242%, 1/10/46 W	117,000	120,295
FRB Ser. 15-CR26, Class D, 3.625%, 10/10/48 W	149,000	148,066
COMM Mortgage Trust 144A		
FRB Ser. 13-LC13, Class D, 5.437%, 8/10/46 W	101,000	95,996
FRB Ser. 14-CR17, Class D, 5.01%, 5/10/47 W	228,000	214,747
FRB Ser. 14-CR17, Class E, 5.01%, 5/10/47 W	124,000	96,720
FRB Ser. 14-UBS3, Class D, 4.927%, 6/10/47 W	104,000	105,089
FRB Ser. 13-CR6, Class D, 4.225%, 3/10/46 W	160,000	150,190
FRB Ser. 18-COR3, Class D, 2.962%, 5/10/51 W	47,000	41,630
CSAIL Commercial Mortgage Trust		
Ser. 19-C15, Class B, 4.476%, 3/15/52	112,000	126,483
FRB Ser. 15-C1, Class C, 4.405%, 4/15/50 W	124,000	118,777
CSAIL Commercial Mortgage Trust 144A		
FRB Ser. 18-C14, Class D, 5.053%, 11/15/51 W	73,000	76,358
Ser. 20-C19, Class D, 2.50%, 3/15/53	96,000	85,689
Ser. 19-C17, Class D, 2.50%, 9/15/52	154,000	137,918
DBUBS Mortgage Trust 144A FRB Ser. 11-LC3A, Class D, 5.605%, 8/10/44 W		
	167,000	164,914

MORTGAGE-BACKED SECURITIES (82.3%)* cont.	Principal amount	Value
Commercial mortgage-backed securities cont.		
FREMF Mortgage Trust 144A		
FRB Ser. 19-KF65, Class B, (1 Month US LIBOR + 2.40%), 2.486%, 7/25/29	\$229,371	\$231,577
FRB Ser. 19-KF66, Class B, (1 Month US LIBOR + 2.40%), 2.486%, 7/25/29	82,555	83,149
GS Mortgage Securities Corp., II 144A		
FRB Ser. 13-GC10, Class D, 4.548%, 2/10/46 W	154,000	140,320
Ser. 13-GC10, Class C, 4.285%, 2/10/46 W	49,000	50,543
GS Mortgage Securities Trust		
FRB Ser. 14-GC18, Class C, 5.155%, 1/10/47 W	155,000	99,200
FRB Ser. 14-GC22, Class C, 4.846%, 6/10/47 W	85,000	88,853
FRB Ser. 15-GC30, Class C, 4.209%, 5/10/50 W	78,000	82,204
GS Mortgage Securities Trust 144A		
FRB Ser. 12-GC6, Class C, 5.86%, 1/10/45 W	62,000	61,874
FRB Ser. 14-GC24, Class D, 4.669%, 9/10/47 W	329,000	203,980
Ser. 12-GCJ9, Class C, 4.448%, 11/10/45 W	139,000	141,713
FRB Ser. 13-GC13, Class D, 4.221%, 7/10/46 W	105,000	54,691
JPMBB Commercial Mortgage Securities Trust		
FRB Ser. 14-C18, Class C, 4.96%, 2/15/47 W	110,000	113,480
FRB Ser. 14-C22, Class C, 4.705%, 9/15/47 W	125,000	117,489
FRB Ser. 13-C12, Class C, 4.235%, 7/15/45 W	87,000	89,518
JPMBB Commercial Mortgage Securities Trust 144A		
FRB Ser. C14, Class D, 4.723%, 8/15/46 W	229,000	162,309
FRB Ser. 14-C25, Class D, 4.095%, 11/15/47 W	139,000	104,898
JPMDB Commercial Mortgage Securities Trust		
Ser. 17-C5, Class C, 4.512%, 3/15/50 W	88,000	85,358
FRB Ser. 17-C7, Class C, 4.302%, 10/15/50 W	93,000	100,285
JPMorgan Chase Commercial Mortgage Securities Trust		
Ser. 06-LDP9, Class AMS, 5.337%, 5/15/47	162,242	140,096
FRB Ser. 13-C16, Class C, 5.189%, 12/15/46 W	55,000	57,902
FRB Ser. 12-CBX, Class B, 5.019%, 6/15/45 W	148,000	150,303
FRB Ser. 13-LC11, Class D, 4.305%, 4/15/46 W	168,000	135,757
Ser. 13-LC11, Class B, 3.499%, 4/15/46	49,000	49,921
JPMorgan Chase Commercial Mortgage Securities Trust 144A		
FRB Ser. 10-C2, Class D, 5.874%, 11/15/43 W	131,000	128,053
FRB Ser. 11-C3, Class D, 5.707%, 2/15/46 W	245,000	148,585
FRB Ser. 12-C8, Class C, 4.777%, 10/15/45 W	200,000	186,254
ML-CFC Commercial Mortgage Trust FRB Ser. 06-4, Class C, 5.324%, 12/12/49 W		
	12,146	12,146
Morgan Stanley Bank of America Merrill Lynch Trust		
FRB Ser. 14-C14, Class C, 5.218%, 2/15/47 W	46,000	49,284
FRB Ser. 13-C9, Class C, 4.16%, 5/15/46 W	77,000	78,610
Morgan Stanley Bank of America Merrill Lynch Trust 144A		
FRB Ser. 14-C15, Class D, 5.063%, 4/15/47 W	180,000	186,926
FRB Ser. 15-C23, Class D, 4.282%, 7/15/50 W	122,000	123,303
FRB Ser. 13-C10, Class F, 4.217%, 7/15/46 W	141,000	45,134
Morgan Stanley Capital I Trust 144A		
FRB Ser. 11-C3, Class E, 5.475%, 7/15/49 W	148,000	121,164
FRB Ser. 19-L3, Class E, 2.50%, 11/15/52	69,000	56,890
Multifamily Connecticut Avenue Securities Trust 144A		
FRB Ser. 20-01, Class M10, 3.842%, 3/25/50	171,000	178,053
FRB Ser. 19-01, Class M10, 3.342%, 10/15/49	446,000	452,218
FRB Ser. 19-01, Class M7, 1.792%, 10/15/49	72,459	72,119

**MORTGAGE-BACKED
SECURITIES (82.3%)* cont.**

	Principal amount	Value
Commercial mortgage-backed securities cont.		
UBS Commercial Mortgage Trust		
FRB Ser. 18-C13, Class C, 5.099%, 10/15/51 W	\$54,000	\$58,474
Ser. 19-C17, Class C, 3.758%, 10/15/52 W	151,000	151,365
UBS Commercial Mortgage Trust 144A		
FRB Ser. 12-C1, Class D, 5.754%, 5/10/45 W	281,000	258,773
FRB Ser. 12-C1, Class E, 5.00%, 5/10/45 W	289,000	106,369
Ser. 18-C10, Class D, 3.00%, 5/15/51	70,000	60,928
UBS-Barclays Commercial Mortgage Trust 144A		
FRB Ser. 12-C4, Class D, 4.616%, 12/10/45 W	109,000	69,080
Ser. 13-C6, Class B, 3.875%, 4/10/46 W	138,000	140,405
UBS-Citigroup Commercial Mortgage Trust 144A FRB		
Ser. 11-C1, Class D, 6.282%, 1/10/45 W	181,000	169,295
Wells Fargo Commercial Mortgage Trust		
FRB Ser. 18-C46, Class C, 5.144%, 8/15/51 W	51,000	57,230
FRB Ser. 15-C29, Class D, 4.354%, 6/15/48 W	56,000	56,675
FRB Ser. 20-C57, Class C, 4.158%, 8/15/53 W	109,000	120,526
FRB Ser. 20-C56, Class C, 3.871%, 6/15/53 W	76,000	80,666
Ser. 16-BNK1, Class C, 3.071%, 8/15/49 W	87,000	80,527
Wells Fargo Commercial Mortgage Trust 144A		
Ser. 12-LC5, Class D, 4.916%, 10/15/45 W	71,000	72,374
FRB Ser. 15-C30, Class D, 4.648%, 9/15/58 W	133,000	137,284
WF-RBS Commercial Mortgage Trust 144A		
FRB Ser. 11-C5, Class C, 5.901%, 11/15/44 W	158,000	158,314
FRB Ser. 12-C6, Class C, 5.85%, 4/15/45 W	113,000	115,155
FRB Ser. 11-C4, Class C, 5.266%, 6/15/44 W	208,000	207,415
FRB Ser. 12-C9, Class D, 4.969%, 11/15/45 W	290,000	280,794

9,622,050

Residential mortgage-backed securities (non-agency) (22.8%)

American Home Mortgage Investment Trust FRB		
Ser. 07-1, Class GA1C, (1 Month US LIBOR + 0.19%), 0.282%, 5/25/47	469,034	251,569
Bayview Financial Mortgage Pass-Through Trust		
Ser. 06-C, Class 1A3, 6.528%, 11/28/36	372,351	376,598
Bear Stearns Alt-A Trust FRB Ser. 05-8, Class 21A1, 2.555%, 10/25/35 W	140,360	124,124
Bellemeade Re, Ltd. 144A FRB Ser. 17-1, Class M2, (1 Month US LIBOR + 3.35%), 3.442%, 10/25/27 (Bermuda)	123,377	124,597
Carrington Mortgage Loan Trust FRB Ser. 06-NC2, Class A4, (1 Month US LIBOR + 0.24%), 0.332%, 6/25/36	490,000	475,469
Chevy Chase Funding, LLC Mortgage-Backed Certificates 144A FRB Ser. 06-4A, Class A2, (1 Month US LIBOR + 0.18%), 0.272%, 11/25/47	202,696	161,045
Citigroup Mortgage Loan Trust, Inc. FRB Ser. 07-AR5, Class 1A1A, 2.887%, 4/25/37 W	229,650	229,477
Countrywide Alternative Loan Trust FRB Ser. 06-OA19, Class A1, (1 Month US LIBOR + 0.18%), 0.273%, 2/20/47	223,884	174,458
Countrywide Asset-Backed Certificates FRB Ser. 07-10, Class 1A1, (1 Month US LIBOR + 0.18%), 0.272%, 6/25/47	303,087	288,976
Eagle Re, Ltd. 144A FRB Ser. 20-1, Class B1, (1 Month US LIBOR + 2.85%), 2.942%, 1/25/30	182,000	172,815
Federal Home Loan Mortgage Corporation		
Structured Agency Credit Risk Debt Notes FRB Ser. 15-HQA1, Class B, (1 Month US LIBOR + 8.80%), 8.892%, 3/25/28	247,133	267,741
Structured Agency Credit Risk Debt FRN Ser. 16-DNA3, Class M3, (1 Month US LIBOR + 5.00%), 5.092%, 12/25/28	283,266	298,106

**MORTGAGE-BACKED
SECURITIES (82.3%)* cont.**

	Principal amount	Value
Residential mortgage-backed securities (non-agency) cont.		
Federal Home Loan Mortgage Corporation		
Structured Agency Credit Risk Debt FRN Ser. 14-HQ3, Class M3, (1 Month US LIBOR + 4.75%), 4.842%, 10/25/24	\$42,574	\$43,009
Seasoned Credit Risk Transfer Trust Ser. 19-3, Class M, 4.75%, 10/25/58 W	50,000	52,602
Structured Agency Credit Risk Debt FRN Ser. 17-DNA2, Class M2, (1 Month US LIBOR + 3.45%), 3.542%, 10/25/29	250,000	261,152
Structured Agency Credit Risk Debt FRN Ser. 17-HQA2, Class M2, (1 Month US LIBOR + 2.65%), 2.742%, 12/25/29	227,761	231,687
Structured Agency Credit Risk Debt FRN Ser. 18-HQA1, Class M2, (1 Month US LIBOR + 2.30%), 2.392%, 9/25/30	203,433	206,096
Federal Home Loan Mortgage Corporation 144A		
Structured Agency Credit Risk Trust FRB Ser. 19-HQA1, Class B2, (1 Month US LIBOR + 12.25%), 12.342%, 2/25/49	50,000	58,076
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-DNA5, Class B2, (US 30 Day Average SOFR + 11.50%), 11.518%, 10/25/50	56,000	75,040
Structured Agency Credit Risk Trust FRB Ser. 18-HQA2, Class B2, (1 Month US LIBOR + 11.00%), 11.092%, 10/25/48	413,000	490,451
Structured Agency Credit Risk Trust FRB Ser. 19-DNA1, Class B2, (1 Month US LIBOR + 10.75%), 10.842%, 1/25/49	32,000	36,514
Structured Agency Credit Risk Trust FRB Ser. 19-DNA2, Class B2, (1 Month US LIBOR + 10.50%), 10.592%, 3/25/49	114,000	129,748
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-DNA4, Class B2, (1 Month US LIBOR + 10.00%), 10.092%, 8/25/50	65,000	79,950
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-HQA3, Class B2, (1 Month US LIBOR + 10.00%), 10.092%, 7/25/50	64,000	77,440
Structured Agency Credit Risk Trust FRB Ser. 19-DNA3, Class B2, (1 Month US LIBOR + 8.15%), 8.242%, 7/25/49	34,000	37,476
Structured Agency Credit Risk Trust FRB Ser. 18-DNA3, Class B2, (1 Month US LIBOR + 7.75%), 7.842%, 9/25/48	431,000	461,226
Structured Agency Credit Risk Trust FRB Ser. 19-DNA4, Class B2, (1 Month US LIBOR + 6.25%), 6.342%, 10/25/49	90,000	93,396
Structured Agency Credit Risk Trust FRB Ser. 19-FTR3, Class FTR3, (1 Month US LIBOR + 4.80%), 4.892%, 9/25/47	29,000	29,000
Seasoned Credit Risk Transfer Trust Ser. 19-2, Class M, 4.75%, 8/25/58 W	69,000	73,106
Seasoned Credit Risk Transfer Trust FRB Ser. 18-3, Class 3, 4.75%, 8/25/57 W	70,000	74,044
Structured Agency Credit Risk Trust FRB Ser. 19-DNA1, Class B1, (1 Month US LIBOR + 4.65%), 4.742%, 1/25/49	95,000	98,210
Structured Agency Credit Risk Trust FRB Ser. 18-HQA2, Class B1, (1 Month US LIBOR + 4.25%), 4.342%, 10/25/48	144,000	150,120
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-HQA2, Class M2, (1 Month US LIBOR + 3.10%), 3.192%, 3/25/50	66,000	66,986
Structured Agency Credit Risk Trust FRB Ser. 19-DNA1, Class M2, (1 Month US LIBOR + 2.65%), 2.742%, 1/25/49	67,389	68,354

MORTGAGE-BACKED SECURITIES (82.3%)* cont.	Principal amount	Value
Residential mortgage-backed securities (non-agency) cont.		
Federal National Mortgage Association		
Connecticut Avenue Securities FRB Ser. 16-C03, Class 1B, (1 Month US LIBOR + 11.75%), 11.842%, 10/25/28	\$155,009	\$190,837
Connecticut Avenue Securities FRB Ser. 16-C02, Class 1M2, (1 Month US LIBOR + 6.00%), 6.092%, 9/25/28	63,456	66,945
Connecticut Avenue Securities FRB Ser. 15-C04, Class 1M2, (1 Month US LIBOR + 5.70%), 5.792%, 4/25/28	40,825	43,250
Connecticut Avenue Securities FRB Ser. 17-C02, Class 2B1, (1 Month US LIBOR + 5.50%), 5.592%, 9/25/29	74,000	80,459
Connecticut Avenue Securities FRB Ser. 16-C03, Class 1M2, (1 Month US LIBOR + 5.30%), 5.392%, 10/25/28	173,137	182,100
Connecticut Avenue Securities FRB Ser. 18-C04, Class 2B1, (1 Month US LIBOR + 4.50%), 4.592%, 12/25/30	371,000	386,931
Connecticut Avenue Securities FRB Ser. 17-C07, Class 2B1, (1 Month US LIBOR + 4.45%), 4.542%, 5/25/30	158,000	164,181
Connecticut Avenue Securities FRB Ser. 17-C06, Class 2B1, (1 Month US LIBOR + 4.45%), 4.542%, 2/25/30	60,000	62,250
Connecticut Avenue Securities FRB Ser. 16-C05, Class 2M2, (1 Month US LIBOR + 4.45%), 4.542%, 1/25/29	16,406	17,151
Connecticut Avenue Securities FRB Ser. 18-C05, Class 1B1, (1 Month US LIBOR + 4.25%), 4.342%, 1/25/31	90,000	94,074
Connecticut Avenue Securities FRB Ser. 17-C06, Class 1B1, (1 Month US LIBOR + 4.15%), 4.242%, 2/25/30	200,000	206,424
Connecticut Avenue Securities FRB Ser. 18-C06, Class 2B1, (1 Month US LIBOR + 4.10%), 4.192%, 3/25/31	59,000	60,750
Connecticut Avenue Securities FRB Ser. 17-C07, Class 1B1, (1 Month US LIBOR + 4.00%), 4.092%, 5/25/30	220,000	229,111
Connecticut Avenue Securities FRB Ser. 17-C05, Class 1B1, (1 Month US LIBOR + 3.60%), 3.692%, 1/25/30	92,000	95,931
Connecticut Avenue Securities FRB Ser. 18-C01, Class 1B1, (1 Month US LIBOR + 3.55%), 3.642%, 7/25/30	108,000	110,700
Connecticut Avenue Securities FRB Ser. 17-C01, Class 1M2, (1 Month US LIBOR + 3.55%), 3.642%, 7/25/29	134,246	139,419
Connecticut Avenue Securities FRB Ser. 17-C03, Class 1M2, (1 Month US LIBOR + 3.00%), 3.092%, 10/25/29	152,422	157,103
Connecticut Avenue Securities FRB Ser. 18-C01, Class 1M2, (1 Month US LIBOR + 2.25%), 2.342%, 7/25/30	17,909	18,146
Connecticut Avenue Securities FRB Ser. 17-C05, Class 1M2C, (1 Month US LIBOR + 2.20%), 2.292%, 1/25/30	130,000	131,722
Federal National Mortgage Association 144A		
Connecticut Avenue Securities Trust FRB Ser. 19-R04, Class 2B1, (1 Month US LIBOR + 5.25%), 5.342%, 6/25/39	420,000	432,075
Connecticut Avenue Securities Trust FRB Ser. 19-R01, Class 2B1, (1 Month US LIBOR + 4.35%), 4.442%, 7/25/31	47,000	48,410

MORTGAGE-BACKED SECURITIES (82.3%)* cont.	Principal amount	Value
Residential mortgage-backed securities (non-agency) cont.		
Federal National Mortgage Association 144A		
Connecticut Avenue Securities Trust FRB Ser. 19-R05, Class 1B1, (1 Month US LIBOR + 4.10%), 4.192%, 7/25/39	\$98,000	\$99,770
Connecticut Avenue Securities Trust FRB Ser. 19-R03, Class 1B1, (1 Month US LIBOR + 4.10%), 4.192%, 9/25/31	236,000	242,771
Connecticut Avenue Securities Trust FRB Ser. 20-SBT1, Class 1M2, (1 Month US LIBOR + 3.65%), 3.742%, 2/25/40	79,000	81,483
Connecticut Avenue Securities Trust FRB Ser. 20-R02, Class 2B1, (1 Month US LIBOR + 3.00%), 3.092%, 1/25/40	35,000	34,774
JPMorgan Alternative Loan Trust FRB Ser. 06-A6, Class 1A1, (1 Month US LIBOR + 0.32%), 0.412%, 11/25/36	99,965	94,994
Legacy Mortgage Asset Trust 144A FRB Ser. 19-GS2, Class A2, 4.25%, 1/25/59	100,000	100,000
Morgan Stanley ABS Capital I, Inc. Trust FRB Ser. 04-HE9, Class M2, (1 Month US LIBOR + 0.93%), 1.022%, 11/25/34	31,794	31,379
Morgan Stanley Re-REMIC Trust 144A FRB Ser. 10-R4, Class 4B, (1 Month US LIBOR + 0.23%), 0.648%, 2/26/37	94,242	90,288
Structured Asset Mortgage Investments II Trust FRB Ser. 07-AR7, Class 1A1, (1 Month US LIBOR + 0.85%), 0.942%, 5/25/47	441,272	389,504
FRB Ser. 06-AR7, Class A1BG, (1 Month US LIBOR + 0.12%), 0.212%, 8/25/36	41,325	39,213
Towd Point Mortgage Trust 144A Ser. 19-2, Class A2, 3.75%, 12/25/58 ^W	102,000	110,701
WaMu Mortgage Pass-Through Certificates Trust FRB Ser. 05-AR8, Class 2AC2, (1 Month US LIBOR + 0.92%), 1.012%, 7/25/45	83,508	80,740
Wells Fargo Home Equity Asset-Backed Securities Trust FRB Ser. 07-2, Class A3, (1 Month US LIBOR + 0.23%), 0.322%, 4/25/37	65,429	63,974
		10,216,218
Total mortgage-backed securities (cost \$38,230,300)		\$36,884,197
U.S. GOVERNMENT AND AGENCY MORTGAGE OBLIGATIONS (70.2%)*		
	Principal amount	Value
U.S. Government Guaranteed Mortgage Obligations (14.5%)		
Government National Mortgage Association		
Pass-Through Certificates		
6.50%, with due dates from 4/15/28 to 7/20/36	\$22,754	\$26,707
6.00%, with due dates from 4/15/28 to 11/20/38	58,025	67,225
5.50%, 4/20/38	83,176	95,863
5.00%, 3/20/50	20,848	23,130
4.70%, 8/20/67	103,702	116,893
4.50%, TBA, 7/1/51	2,000,000	2,131,934
4.50%, with due dates from 2/20/34 to 5/20/48	847,027	934,605
3.00%, TBA, 7/1/51	2,000,000	2,086,447
2.00%, TBA, 7/1/51	1,000,000	1,018,775
		6,501,579
U.S. Government Agency Mortgage Obligations (55.7%)		
Federal Home Loan Mortgage Corporation		
Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 7/1/31	8,872	10,342
7.00%, with due dates from 11/1/26 to 4/1/32	52,374	60,384
5.50%, 12/1/33	10,337	11,817
4.50%, with due dates from 7/1/44 to 8/1/44	108,005	119,534
4.00%, with due dates from 12/1/44 to 9/1/45	458,525	499,951

U.S. GOVERNMENT AND AGENCY MORTGAGE OBLIGATIONS (70.2%)* cont.

	Principal amount	Value
U.S. Government Agency Mortgage Obligations cont.		
Federal National Mortgage Association		
Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 11/1/30	\$6,865	\$7,882
7.00%, with due dates from 12/1/28 to 12/1/35	236,718	275,737
6.50%, 9/1/36	6,792	8,018
6.00%, 1/1/38	63,744	75,583
5.50%, 1/1/38	266,613	305,410
5.00%, 2/1/39	7,265	8,282
4.50%, with due dates from 7/1/44 to 5/1/45	113,491	124,827
3.50%, 6/1/56	587,145	641,389
3.50%, 1/1/47	57,642	61,328
Uniform Mortgage-Backed Securities		
4.50%, TBA, 7/1/51	2,000,000	2,151,717
3.00%, TBA, 7/1/51	6,000,000	6,255,001
2.50%, TBA, 7/1/51	8,000,000	8,274,374
2.00%, TBA, 7/1/51	6,000,000	6,062,433
	24,954,009	

Total U.S. government and agency mortgage obligations (cost \$31,272,800) **\$31,455,588**

ASSET-BACKED SECURITIES (1.9%)*

	Principal amount	Value
1Sharpe Mortgage Trust 144AFRB Ser. 20-1, Class NOTE, (BBA LIBOR USD 3 Month + 2.90%), 3.047%, 7/25/24		
	\$209,000	\$209,000
Mello Warehouse Securitization Trust 144A FRB Ser. 20-1, Class A, (1 Month US LIBOR + 0.90%), 0.992%, 10/25/53		
	50,000	50,000
FRB Ser. 20-2, Class A, (1 Month US LIBOR + 0.80%), 0.892%, 11/25/53		
	30,000	30,000
Mortgage Repurchase Agreement Financing Trust FRB Ser. 20-4, Class A1, (1 Month US LIBOR + 1.35%), 1.427%, 4/23/23		
	100,000	100,048
Mortgage Repurchase Agreement Financing Trust 144A FRB Ser. 20-5, Class A1, (1 Month US LIBOR + 1.00%), 1.077%, 8/10/23		
	73,000	73,080
Station Place Securitization Trust 144A FRB Ser. 20-15, Class A, (1 Month US LIBOR + 1.37%), 1.461%, 12/10/21		
	138,000	138,000
FRB Ser. 21-6, Class A, (1 Month US LIBOR + 0.80%), 0.891%, 4/25/22		
	125,000	125,000
FRB Ser. 21-10, Class A, (1 Month US LIBOR + 0.75%), 0.854%, 8/8/22		
	125,000	125,000

Total asset-backed securities (cost \$850,000) **\$850,128**

PURCHASED SWAP OPTIONS OUTSTANDING(1.5%)*

Counterparty	Fixed right % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Notional/ contract amount	Value
Bank of America N.A.				
0.485/3 month USD-LIBOR-BBA/Jan-25		Jan-24/0.485	\$3,009,000	\$2,828
Morgan Stanley & Co. International PLC				
3.00/3 month USD-LIBOR-BBA/Apr-72		Apr-47/3.00	790,100	202,329
3.00/3 month USD-LIBOR-BBA/Feb-73		Feb-48/3.00	790,100	199,808
2.75/3 month USD-LIBOR-BBA/May-73		May-48/2.75	790,100	169,018

PURCHASED SWAP OPTIONS OUTSTANDING(1.5%)* cont.

Counterparty	Fixed right % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Notional/ contract amount	Value
Morgan Stanley & Co. International PLC cont.				
(1.613)/3 month USD-LIBOR-BBA/Aug-34		Aug-24/1.613	\$951,100	\$56,105
1.613/3 month USD-LIBOR-BBA/Aug-34		Aug-24/1.613	951,100	30,655
Total purchased swap options outstanding (cost \$378,015)				\$660,743

PURCHASED OPTIONS

OUTSTANDING (0.1%)* Counterparty	Expiration date/strike price	Notional amount	Contract amount	Value
JPMorgan Chase Bank N.A.				
Government National Mortgage Association 30 yr 3.50% TBA commitments (Call)	Jul-21/\$105.31	\$7,000,000	\$7,000,000	\$7
Government National Mortgage Association 30 yr 4.00% TBA commitments (Call)	Jul-21/106.44	6,000,000	6,000,000	6
Uniform Mortgage-Backed Securities 30 yr 2.50% TBA commitments (Call)	Aug-21/103.41	6,000,000	6,000,000	17,412
Uniform Mortgage-Backed Securities 30 yr 2.50% TBA commitments (Call)	Aug-21/103.28	4,000,000	4,000,000	14,440
Uniform Mortgage-Backed Securities 30 yr 3.00% TBA commitments (Call)	Jul-21/104.42	10,000,000	10,000,000	1,790
Uniform Mortgage-Backed Securities 30 yr 3.50% TBA commitments (Call)	Jul-21/105.53	19,000,000	19,000,000	19
Uniform Mortgage-Backed Securities 30 yr 4.00% TBA commitments (Call)	Jul-21/106.97	5,000,000	5,000,000	5
Total purchased options outstanding (cost \$161,250)				\$33,679

SHORT-TERM INVESTMENTS (20.5%)*

	Principal amount/ shares	Value
Putnam Short Term Investment Fund Class P 0.09% ^L	Shares 1,870,411	\$1,870,411
U.S. Treasury Bills 0.016%, 10/7/21 # Δ \$	\$1,500,000	1,499,796
U.S. Treasury Bills 0.009%, 7/6/21 # Δ	1,500,000	1,499,992
U.S. Treasury Bills 0.046%, 10/14/21 # Δ \$	200,000	199,972
U.S. Treasury Bills 0.010%, 9/2/21 Δ \$	232,000	231,979
U.S. Treasury Cash Management Bills 0.048%, 10/19/21 Δ	1,000,000	999,832
U.S. Treasury Cash Management Bills 0.020%, 9/28/21 Δ \$	900,000	899,911
U.S. Treasury Cash Management Bills 0.011%, 9/21/21 Δ \$	1,100,000	1,099,880
U.S. Treasury Cash Management Bills 0.015%, 9/7/21 # Δ \$	900,000	899,918
Total short-term investments (cost \$9,202,074)		\$9,201,691
Total investments (cost \$80,094,439)		\$79,086,026

Key to holding's abbreviations

FRB Floating Rate Bonds: the rate shown is the current interest rate at the close of the reporting period. Rates may be subject to a cap or floor. For certain securities, the rate may represent a fixed rate currently in place at the close of the reporting period.

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.
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, 2021 through June 30, 2021 (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 \$44,805,281.

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 \$204,979 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 \$6,228,404 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 \$721,924 and is included in Investments in securities on the Statement of assets and liabilities (Notes 1 and 8).

Ⓐ 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.

Ⓜ 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 \$33,273,098 to cover certain derivative contracts and delayed delivery securities.

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

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

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 6/30/21 (Unaudited)	Number of contracts	Notional amount	Value	Expiration date	Unrealized appreciation/(depreciation)
U.S. Treasury Note 2 yr (Short)	353	\$77,773,070	\$77,773,070	Sep-21	\$134,190
U.S. Treasury Note 5 yr (Short)	38	4,690,328	4,690,328	Sep-21	14,164
U.S. Treasury Note Ultra 10 yr (Short)	15	2,208,047	2,208,047	Sep-21	(32,518)
Unrealized appreciation					148,354
Unrealized (depreciation)					(32,518)
Total					\$115,836

WRITTEN SWAP OPTIONS OUTSTANDING at 6/30/21 (premiums \$2,485,795) (Unaudited)

Counterparty	Expiration date/strike	Notional/contract amount	Value
Fixed Obligation % to receive or (pay)/ Floating rate index/Maturity date			
Bank of America N.A.			
1.8775/3 month USD-LIBOR-BBA/Sep-31	Sep-21/1.8775	\$2,778,800	\$4,807
1.897/3 month USD-LIBOR-BBA/Sep-31	Sep-21/1.897	4,632,100	7,597
0.985/3 month USD-LIBOR-BBA/Jan-25	Jan-24/0.985	3,009,000	17,603
3.195/3 month USD-LIBOR-BBA/Nov-55	Nov-25/3.195	1,981,700	63,771
(3.195)/3 month USD-LIBOR-BBA/Nov-55	Nov-25/3.195	1,981,700	643,656
Citibank, N.A.			
(1.865)/3 month USD-LIBOR-BBA/Oct-39	Oct-29/1.865	721,000	38,415
1.865/3 month USD-LIBOR-BBA/Oct-39	Oct-29/1.865	721,000	50,520
Goldman Sachs International			
2.9425/3 month USD-LIBOR-BBA/Feb-34	Feb-24/2.9425	2,064,300	25,577
(2.9425)/3 month USD-LIBOR-BBA/Feb-34	Feb-24/2.9425	2,064,300	230,520
JPMorgan Chase Bank N.A.			
(0.968)/3 month USD-LIBOR-BBA/Mar-35	Mar-25/0.968	320,000	5,165
(1.07)/3 month USD-LIBOR-BBA/Mar-32	Mar-27/1.07	574,100	7,417
3.229/3 month USD-LIBOR-BBA/Nov-33	Nov-23/3.229	2,042,400	16,339
1.07/3 month USD-LIBOR-BBA/Mar-32	Mar-27/1.07	574,100	31,007
0.968/3 month USD-LIBOR-BBA/Mar-35	Mar-25/0.968	320,000	33,373
(3.229)/3 month USD-LIBOR-BBA/Nov-33	Nov-23/3.229	2,042,400	277,603
Morgan Stanley & Co. International PLC			
3.01/3 month USD-LIBOR-BBA/Feb-36	Feb-26/3.01	891,000	20,190
(1.512)/3 month USD-LIBOR-BBA/Aug-32	Aug-22/1.512	951,100	20,629

WRITTEN SWAP OPTIONS OUTSTANDING at 6/30/21 (premiums \$2,485,795) (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.			
2.97/3 month USD-LIBOR-BBA/Feb-36	Feb-26/2.97	\$891,000	\$20,716
1.512/3 month USD-LIBOR-BBA/Aug-32	Aug-22/1.512	951,100	33,117
2.7875/3 month USD-LIBOR-BBA/Apr-59	Apr-29/2.7875	1,238,600	82,305
(2.97)/3 month USD-LIBOR-BBA/Feb-36	Feb-26/2.97	891,000	97,948
(3.01)/3 month USD-LIBOR-BBA/Feb-36	Feb-26/3.01	891,000	100,362
(2.75)/3 month USD-LIBOR-BBA/May-49	May-25/2.75	790,100	153,967
(3.00)/3 month USD-LIBOR-BBA/Jan-49	Jan-24/3.00	790,100	189,814
(3.00)/3 month USD-LIBOR-BBA/Apr-48	Apr-23/3.00	790,100	191,781
(2.7875)/3 month USD-LIBOR-BBA/Apr-59	Apr-29/2.7875	1,238,600	327,659
Toronto-Dominion Bank			
(1.17)/3 month USD-LIBOR-BBA/Mar-55	Mar-25/1.17	47,500	2,341
1.17/3 month USD-LIBOR-BBA/Mar-55	Mar-25/1.17	94,900	20,751
UBSAG			
(1.9875)/3 month USD-LIBOR-BBA/Oct-36	Oct-26/1.9875	836,400	44,664
1.9875/3 month USD-LIBOR-BBA/Oct-36	Oct-26/1.9875	836,400	46,830
Total			\$2,806,444

WRITTEN OPTIONS OUTSTANDING at 6/30/21 (premiums \$161,250) (Unaudited)

Counterparty	Expiration date/strike price	Notional Amount	Contract amount	Value
JPMorgan Chase Bank N.A.				
Government National Mortgage Association 30 yr 3.50% TBA commitments (Put)	Jul-21/\$105.31	\$7,000,000	\$7,000,000	\$18,382
Government National Mortgage Association 30 yr 4.00% TBA commitments (Put)	Jul-21/106.44	6,000,000	6,000,000	50,748
Uniform Mortgage-Backed Securities 30 yr 2.50% TBA commitments (Put)	Aug-21/103.41	6,000,000	6,000,000	26,790
Uniform Mortgage-Backed Securities 30 yr 2.50% TBA commitments (Put)	Aug-21/103.28	4,000,000	4,000,000	15,680
Uniform Mortgage-Backed Securities 30 yr 3.00% TBA commitments (Put)	Jul-21/104.42	10,000,000	10,000,000	17,410
Uniform Mortgage-Backed Securities 30 yr 3.50% TBA commitments (Put)	Jul-21/105.53	19,000,000	19,000,000	50,483
Uniform Mortgage-Backed Securities 30 yr 4.00% TBA commitments (Put)	Jul-21/106.97	5,000,000	5,000,000	23,825
Total				\$203,318

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 6/30/21 (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.				
2.2275/3 month USD-LIBOR-BBA/May-24 (Purchased)	May-22/2.2275	\$4,806,000	\$(44,335)	\$102,896
(1.275)/3 month USD-LIBOR-BBA/Mar-50 (Purchased)	Mar-30/1.275	671,400	(87,450)	34,852
2.17/3 month USD-LIBOR-BBA/Apr-34 (Purchased)	Apr-24/2.17	3,068,600	(148,213)	31,269
(3.312)/3 month USD-LIBOR-BBA/Nov-38 (Purchased)	Nov-28/3.312	4,197,400	(76,523)	31,145
2.29/3 month USD-LIBOR-BBA/Mar-34 (Purchased)	Mar-24/2.29	1,074,000	(52,825)	17,624
(0.765)/3 month USD-LIBOR-BBA/Sep-31 (Purchased)	Sep-21/0.765	391,200	(9,271)	17,123
(1.76)/3 month USD-LIBOR-BBA/Jan-29 (Purchased)	Jan-28/1.76	2,900,900	(18,747)	4,322
(0.305)/3 month USD-LIBOR-BBA/May-23 (Purchased)	May-22/0.305	6,167,700	(7,401)	4,317
(2.3075)/3 month USD-LIBOR-BBA/Jun-52 (Purchased)	Jun-22/2.3075	503,600	(11,394)	796
1.76/3 month USD-LIBOR-BBA/Jan-29 (Purchased)	Jan-28/1.76	2,900,900	(18,747)	(493)
(2.2875)/3 month USD-LIBOR-BBA/May-32 (Purchased)	May-22/2.2875	1,233,500	(16,036)	(8,622)
0.765/3 month USD-LIBOR-BBA/Sep-31 (Purchased)	Sep-21/0.765	391,200	(9,271)	(9,170)
1.275/3 month USD-LIBOR-BBA/Mar-50 (Purchased)	Mar-30/1.275	671,400	(87,450)	(38,008)
3.312/3 month USD-LIBOR-BBA/Nov-38 (Purchased)	Nov-28/3.312	4,197,400	(593,277)	(40,463)
(2.2275)/3 month USD-LIBOR-BBA/May-24 (Purchased)	May-22/2.2275	4,806,000	(44,335)	(43,494)
(1.5275)/3 month USD-LIBOR-BBA/Sep-31 (Purchased)	Sep-21/1.5275	15,000,000	(202,875)	(58,650)
2.3075/3 month USD-LIBOR-BBA/Jun-52 (Purchased)	Jun-22/2.3075	503,600	(236,781)	(165,453)
1.7875/3 month USD-LIBOR-BBA/May-32 (Written)	May-22/1.7875	616,800	17,270	6,964

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 6/30/21 (Unaudited) cont.

Counterparty Fixed right or obligation % to receive or (pay)/ Floating rate index/Maturity date	Expiration date/strike	Contract amount	Premium receivable/ (payable)	Unrealized appreciation/ (depreciation)
Bank of America N.A. cont.				
(1.115)/3 month USD-LIBOR-BBA/Jan-26 (Written)	Jan-25/1.115	\$2,900,900	\$12,220	\$3,249
0.805/3 month USD-LIBOR-BBA/May-23 (Written)	May-22/0.805	12,335,300	4,009	(1,850)
(1.29)/3 month USD-LIBOR-BBA/Mar-34 (Written)	Mar-24/1.29	1,534,300	23,935	(7,027)
1.115/3 month USD-LIBOR-BBA/Jan-26 (Written)	Jan-25/1.115	2,900,900	12,220	(9,689)
(1.085)/3 month USD-LIBOR-BBA/Apr-34 (Written)	Apr-24/1.085	6,137,300	84,234	(11,538)
(1.5275)/3 month USD-LIBOR-BBA/Sep-31 (Written)	Sep-21/1.5275	15,000,000	202,500	(27,000)
Barclays Bank PLC				
2.232/3 month USD-LIBOR-BBA/Jun-51 (Purchased)	Jun-31/2.232	2,648,900	(320,914)	59,653
(2.232)/3 month USD-LIBOR-BBA/Jun-51 (Purchased)	Jun-31/2.232	2,648,900	(320,914)	(41,826)
Citibank, N.A.				
2.285/3 month USD-LIBOR-BBA/Mar-51 (Purchased)	Mar-41/2.285	1,433,800	(123,809)	22,941
2.689/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.689	237,000	(30,514)	15,159
(1.102)/3 month USD-LIBOR-BBA/Nov-32 (Purchased)	Nov-22/1.102	144,400	(4,588)	4,878
2.427/3 month USD-LIBOR-BBA/Jun-41 (Purchased)	Jun-31/2.427	229,400	(16,712)	3,533
1.504/3 month USD-LIBOR-BBA/Sep-31 (Purchased)	Sep-21/1.504	2,857,400	(39,361)	2,886
1.026/3 month USD-LIBOR-BBA/Sep-22 (Purchased)	Sep-21/1.026	5,138,400	(4,368)	10
1.90/3 month USD-LIBOR-BBA/Jun-28 (Purchased)	Jun-26/1.90	3,281,900	(43,748)	(820)
0.98/3 month USD-LIBOR-BBA/Jul-26 (Purchased)	Jul-21/0.98	4,826,600	(16,652)	(1,158)
(0.98)/3 month USD-LIBOR-BBA/Jul-26 (Purchased)	Jul-21/0.98	4,826,600	(16,652)	(1,979)
(2.427)/3 month USD-LIBOR-BBA/Jun-41 (Purchased)	Jun-31/2.427	229,400	(16,712)	(3,060)
1.102/3 month USD-LIBOR-BBA/Nov-32 (Purchased)	Nov-22/1.102	144,400	(4,588)	(3,123)
(1.90)/3 month USD-LIBOR-BBA/Jun-28 (Purchased)	Jun-26/1.90	3,281,900	(43,748)	(3,610)
(1.504)/3 month USD-LIBOR-BBA/Sep-31 (Purchased)	Sep-21/1.504	2,857,400	(39,361)	(4,743)
(2.285)/3 month USD-LIBOR-BBA/Mar-51 (Purchased)	Mar-41/2.285	1,433,800	(123,809)	(17,779)
(2.689)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.689	237,000	(30,514)	(20,076)
1.245/3 month USD-LIBOR-BBA/Aug-24 (Written)	Aug-22/1.245	3,364,200	30,782	22,708
(1.194)/3 month USD-LIBOR-BBA/Jun-25 (Written)	Jun-23/1.194	3,281,900	24,877	2,133
(1.321)/3 month USD-LIBOR-BBA/Sep-31 (Written)	Sep-21/1.321	586,300	4,229	(66)
1.194/3 month USD-LIBOR-BBA/Jun-25 (Written)	Jun-23/1.194	3,281,900	24,877	(1,214)
(1.245)/3 month USD-LIBOR-BBA/Aug-24 (Written)	Aug-22/1.245	3,364,200	30,782	(4,205)
Goldman Sachs International				
2.8175/3 month USD-LIBOR-BBA/Mar-47 (Purchased)	Mar-27/2.8175	233,300	(29,454)	13,620
1.473/3 month USD-LIBOR-BBA/Aug-31 (Purchased)	Aug-21/1.473	1,735,100	(16,431)	642
1.727/3 month USD-LIBOR-BBA/Jan-55 (Purchased)	Jan-25/1.727	313,700	(28,766)	524
(1.473)/3 month USD-LIBOR-BBA/Aug-31 (Purchased)	Aug-21/1.473	1,735,100	(16,431)	(3,366)
(1.727)/3 month USD-LIBOR-BBA/Jan-55 (Purchased)	Jan-25/1.727	313,700	(46,898)	(4,345)
(2.8175)/3 month USD-LIBOR-BBA/Mar-47 (Purchased)	Mar-27/2.8175	233,300	(29,454)	(16,732)
JPMorgan Chase Bank N.A.				
2.8325/3 month USD-LIBOR-BBA/Feb-52 (Purchased)	Feb-22/2.8325	1,166,600	(162,887)	132,806
2.902/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.902	237,000	(36,640)	16,754
2.50/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.50	395,400	(22,854)	11,676
2.032/3 month USD-LIBOR-BBA/Jan-55 (Purchased)	Jan-25/2.032	301,600	(34,835)	3,870
(1.985)/3 month USD-LIBOR-BBA/Jan-41 (Purchased)	Jan-31/1.985	479,700	(32,907)	2,734
(2.031)/3 month USD-LIBOR-BBA/Feb-41 (Purchased)	Feb-31/2.031	671,500	(45,931)	2,726
2.031/3 month USD-LIBOR-BBA/Feb-41 (Purchased)	Feb-31/2.031	671,500	(45,931)	530
1.985/3 month USD-LIBOR-BBA/Jan-41 (Purchased)	Jan-31/1.985	479,700	(32,907)	(580)
(2.032)/3 month USD-LIBOR-BBA/Jan-55 (Purchased)	Jan-25/2.032	301,600	(34,835)	(4,949)
(2.902)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.902	237,000	(25,430)	(17,258)
(2.50)/3 month USD-LIBOR-BBA/Nov-39 (Purchased)	Nov-29/2.50	395,400	(41,122)	(19,039)
(2.8325)/3 month USD-LIBOR-BBA/Feb-52 (Purchased)	Feb-22/2.8325	1,166,600	(162,887)	(158,623)

FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 6/30/21 (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)
JPMorgan Chase Bank N.A. cont.				
(1.168)/3 month USD-LIBOR-BBA/Jun-37 (Written)	Jun-27/1.168	\$427,800	\$27,529	\$14,648
1.168/3 month USD-LIBOR-BBA/Jun-37 (Written)	Jun-27/1.168	427,800	27,529	(17,364)
Morgan Stanley & Co. International PLC				
3.27/3 month USD-LIBOR-BBA/Oct-53 (Purchased)	Oct-23/3.27	67,100	(7,656)	15,235
2.505/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.505	237,000	(25,501)	13,383
(3.27)/3 month USD-LIBOR-BBA/Oct-53 (Purchased)	Oct-23/3.27	67,100	(7,656)	(6,666)
(2.505)/3 month USD-LIBOR-BBA/Nov-49 (Purchased)	Nov-24/2.505	237,000	(36,308)	(23,551)
Toronto-Dominion Bank				
(1.50)/3 month USD-LIBOR-BBA/Feb-33 (Purchased)	Feb-23/1.50	900,400	(30,951)	8,464
2.405/3 month USD-LIBOR-BBA/Mar-41 (Purchased)	Mar-31/2.405	149,600	(10,435)	2,471
(1.937)/3 month USD-LIBOR-BBA/Feb-36 (Purchased)	Feb-26/1.937	360,200	(18,838)	1,362
1.937/3 month USD-LIBOR-BBA/Feb-36 (Purchased)	Feb-26/1.937	360,200	(18,838)	(349)
(2.405)/3 month USD-LIBOR-BBA/Mar-41 (Purchased)	Mar-31/2.405	149,600	(10,435)	(1,568)
1.50/3 month USD-LIBOR-BBA/Feb-33 (Purchased)	Feb-23/1.50	900,400	(30,951)	(10,535)
1.775/3 month USD-LIBOR-BBA/Mar-32 (Written)	Mar-22/1.775	388,900	10,598	5,343
2.095/3 month USD-LIBOR-BBA/Feb-56 (Written)	Feb-26/2.095	155,600	20,461	3,924
(1.775)/3 month USD-LIBOR-BBA/Mar-32 (Written)	Mar-22/1.775	388,900	10,598	(2,582)
(2.095)/3 month USD-LIBOR-BBA/Feb-56 (Written)	Feb-26/2.095	155,600	20,461	(2,684)
UBSAG				
(0.902)/3 month USD-LIBOR-BBA/Apr-35 (Purchased)	Apr-25/0.902	202,800	(11,347)	11,032
(0.87)/3 month USD-LIBOR-BBA/Apr-28 (Purchased)	Apr-27/0.87	1,690,100	(11,400)	9,397
(0.983)/3 month USD-LIBOR-BBA/Apr-32 (Purchased)	Apr-30/0.983	676,000	(10,715)	7,321
(0.8925)/3 month USD-LIBOR-BBA/Apr-28 (Purchased)	Apr-23/0.8925	507,000	(10,748)	7,240
1.6125/3 month USD-LIBOR-BBA/Aug-34 (Purchased)	Aug-24/1.6125	951,100	(26,089)	4,546
(1.715)/3 month USD-LIBOR-BBA/Feb-53 (Purchased)	Feb-23/1.715	180,100	(16,254)	1,320
1.715/3 month USD-LIBOR-BBA/Feb-53 (Purchased)	Feb-23/1.715	180,100	(16,254)	(4,719)
0.983/3 month USD-LIBOR-BBA/Apr-32 (Purchased)	Apr-30/0.983	676,000	(10,715)	(5,327)
0.87/3 month USD-LIBOR-BBA/Apr-28 (Purchased)	Apr-27/0.87	1,690,100	(11,400)	(6,828)
0.8925/3 month USD-LIBOR-BBA/Apr-28 (Purchased)	Apr-23/0.8925	507,000	(10,748)	(7,995)
0.902/3 month USD-LIBOR-BBA/Apr-35 (Purchased)	Apr-25/0.902	202,800	(11,347)	(8,057)
(1.6125)/3 month USD-LIBOR-BBA/Aug-34 (Purchased)	Aug-24/1.6125	951,100	(69,549)	(13,411)
1.30/3 month USD-LIBOR-BBA/Aug-26 (Written)	Aug-21/1.30	2,021,100	60,039	57,682
(0.958)/3 month USD-LIBOR-BBA/May-30 (Written)	May-25/0.958	405,600	10,779	6,883
0.958/3 month USD-LIBOR-BBA/May-30 (Written)	May-25/0.958	405,600	10,779	(9,978)
(1.30)/3 month USD-LIBOR-BBA/Aug-26 (Written)	Aug-21/1.30	2,021,100	16,157	(15,340)
Wells Fargo Bank, N.A.				
2.2775/3 month USD-LIBOR-BBA/Jul-52 (Purchased)	Jul-22/2.2775	264,700	(22,367)	13,714
(1.405)/3 month USD-LIBOR-BBA/Feb-29 (Purchased)	Feb-24/1.405	1,260,600	(25,811)	10,047
(1.3875)/3 month USD-LIBOR-BBA/Feb-29 (Purchased)	Feb-24/1.3875	900,400	(18,481)	7,554
2.16/3 month USD-LIBOR-BBA/Feb-35 (Purchased)	Feb-25/2.16	532,700	(26,568)	5,194
(2.16)/3 month USD-LIBOR-BBA/Feb-35 (Purchased)	Feb-25/2.16	532,700	(26,568)	(5,338)
1.3875/3 month USD-LIBOR-BBA/Feb-29 (Purchased)	Feb-24/1.3875	900,400	(18,481)	(5,420)
1.405/3 month USD-LIBOR-BBA/Feb-29 (Purchased)	Feb-24/1.405	1,260,600	(25,811)	(7,059)
(2.2775)/3 month USD-LIBOR-BBA/Jul-52 (Purchased)	Jul-22/2.2775	264,700	(22,367)	(15,010)
Unrealized appreciation				781,100
Unrealized (depreciation)				(919,789)
Total				\$(138,689)

TBA SALE COMMITMENTS OUTSTANDING at 6/30/21 (proceeds receivable \$14,415,156) (Unaudited)	Principal amount	Settlement date	Value
Uniform Mortgage-Backed Securities, 3.00%, 7/1/51	\$5,000,000	7/14/21	\$5,212,501
Uniform Mortgage-Backed Securities, 2.50%, 7/1/51	5,000,000	7/14/21	5,171,484
Uniform Mortgage-Backed Securities, 2.00%, 7/1/51	4,000,000	7/14/21	4,041,622
Total			\$14,425,607

CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 6/30/21 (Unaudited)

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments made by fund	Payments received by fund	Unrealized appreciation/ (depreciation)
\$3,267,200	\$412,745	\$(98,505)	3/2/31	3 month USD-LIBOR-BBA — Quarterly	2.7725% — Semiannually	\$343,838
1,039,500	53,264	(210)	12/2/23	3 month USD-LIBOR-BBA — Quarterly	2.536% — Semiannually	55,067
229,300	9,190 ^E	(5)	11/20/39	3 month USD-LIBOR-BBA — Quarterly	2.55% — Semiannually	9,185
705,700	50,458	(10)	12/7/30	2.184% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(51,434)
1,219,900	88,333	—	12/14/30	2.1935% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(89,528)
514,200	72,970 ^E	—	6/14/52	2.4105% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(72,970)
658,600	15,115 ^E	(7)	6/5/29	3 month USD-LIBOR-BBA — Quarterly	2.2225% — Semiannually	15,107
55,100	6,434 ^E	(2)	6/22/52	2.3075% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(6,436)
18,000	1,842 ^E	(1)	7/5/52	2.25% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(1,842)
210,100	12,180	(3)	1/22/31	2.035% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(13,996)
561,600	11,883 ^E	(19)	8/8/52	1.9185% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(11,903)
419,900	21,155 ^E	(14)	9/12/52	1.626% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	21,140
7,210,300	24,587	(20,206)	10/15/21	3 month USD-LIBOR-BBA — Quarterly	1.316% — Semiannually	21,579
7,498,800	31,345	(20,005)	10/21/21	3 month USD-LIBOR-BBA — Quarterly	1.5025% — Semiannually	30,497
33,100	921 ^E	(1)	1/16/55	2.032% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(922)
18,800	283 ^E	(1)	1/24/55	3 month USD-LIBOR-BBA — Quarterly	1.977% — Semiannually	282
236,500	30,799 ^E	(8)	3/4/52	1.265% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	30,791
6,772,000	6,975	(26)	9/8/21	0.68% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(20,889)
14,651,200	18,167	(55)	10/15/21	0.571% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(30,126)
1,169,000	136,703 ^E	(40)	1/27/47	3 month USD-LIBOR-BBA — Quarterly	1.27% — Semiannually	(136,743)
98,700	10,739 ^E	(3)	3/7/50	1.275% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	10,735
177,700	40,045 ^E	(6)	3/10/52	0.8725% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	40,039
132,100	34,737 ^E	(5)	3/11/52	0.717% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	34,733
498,700	25,194 ^E	(7)	3/17/32	3 month USD-LIBOR-BBA — Quarterly	1.03% — Semiannually	(25,201)
3,267,200	408,890	(435,689)	2/18/31	3 month USD-LIBOR-BBA — Quarterly	2.764% — Semiannually	5,811
103,300	4,255 ^E	(1)	3/24/32	3 month USD-LIBOR-BBA — Quarterly	1.07% — Semiannually	(4,256)

CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 6/30/21 (Unaudited) cont.

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments made by fund	Payments received by fund	Unrealized appreciation/ (depreciation)
\$52,000	\$4,589 [£]	\$(1)	3/24/35	3 month USD-LIBOR-BBA — Quarterly	0.968% — Semiannually	\$(4,590)
334,800	25,053 [£]	(5)	4/25/32	0.7925% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	25,048
40,600	3,053 [£]	(1)	6/28/37	3 month USD-LIBOR-BBA — Quarterly	1.168% — Semiannually	(3,054)
3,600,400	70,712	(29)	7/14/25	3 month USD-LIBOR-BBA — Quarterly	0.30% — Semiannually	(67,179)
1,661,800	104,361	(22)	7/15/30	3 month USD-LIBOR-BBA — Quarterly	0.645% — Semiannually	(100,094)
861,900	17,910	(8)	8/31/25	0.3084% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	17,096
2,561,800	55,207	(21)	8/12/25	3 month USD-LIBOR-BBA — Quarterly	0.277% — Semiannually	(53,084)
303,600	47,097 [£]	23,885	9/2/52	3 month USD-LIBOR-BBA — Quarterly	1.188% — Semiannually	(23,213)
3,275,000	68,546	(31)	10/13/25	0.344% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	67,421
3,574,900	965	(13)	9/16/22	3 month USD-LIBOR-BBA — Quarterly	0.214% — Semiannually	3,007
3,461,900	62,730	(28)	10/13/25	0.41% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	61,051
3,264,000	64,921	(49,140)	10/16/25	0.37% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	15,426
4,491,000	254,056	(54,382)	10/16/30	0.75% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	195,060
307,000	44,229	55,607	10/16/50	3 month USD-LIBOR-BBA — Quarterly	1.16% — Semiannually	11,552
443,200	18,504	—	12/7/30	3 month USD-LIBOR-BBA — Quarterly	0.932% — Semiannually	(18,267)
363,400	17,174	—	12/7/30	0.871% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	16,995
3,461,900	57,260	(28)	11/16/25	0.471% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	55,913
129,100	14,166	(4)	12/17/50	1.305% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	14,102
2,155,300	6,272	(14)	12/2/23	0.300% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	5,966
2,340,000	142,834	(45)	12/2/33	3 month USD-LIBOR-BBA — Quarterly	1.02% — Semiannually	(141,203)
3,539,600	68,350	(29)	12/16/25	3 month USD-LIBOR-BBA — Quarterly	0.428% — Semiannually	(67,921)
229,000	9,226	(3)	6/22/31	3 month USD-LIBOR-BBA — Quarterly	1.0025% — Semiannually	(9,180)
36,000	2,186	(1)	1/8/51	3 month USD-LIBOR-BBA — Quarterly	1.509% — Semiannually	(1,943)
36,000	1,864	(1)	1/8/51	3 month USD-LIBOR-BBA — Quarterly	1.546% — Semiannually	(1,615)
3,331,400	47,639	(27)	1/13/26	0.5615% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	40,253
645,500	15,085	(9)	4/15/31	1.165% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	13,742
624,600	16,058 [£]	(9)	7/15/31	1.165% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	16,050
1,735,100	8,155	5,182	4/15/31	3 month USD-LIBOR-BBA — Quarterly	1.465% — Semiannually	18,022
2,106,300	12,217 [£]	(12)	1/31/25	0.735% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	12,205
3,470,200	48,791	(7,923)	3/9/26	0.5996% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	34,656

CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 6/30/21 (Unaudited) *cont.*

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments made by fund	Payments received by fund	Unrealized appreciation/ (depreciation)
\$701,000	\$9,870	\$(6)	2/10/26	0.584% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	\$8,425
573,300	10,245	(8)	2/16/31	1.212% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	7,743
947,000	9,783	(13)	3/2/31	1.51882% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(14,449)
1,900,000	21,983	(25)	3/5/31	3 month USD-LIBOR-BBA — Quarterly	1.5324% — Semiannually	31,174
1,735,100	18,652	(23)	3/15/31	1.525% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(26,375)
257,800	9,933 ^E	(4)	3/20/34	2.29% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(9,937)
3,512,500	4,812	(33)	4/1/26	0.94375% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(11,342)
551,600	629	(1,907)	4/28/26	3 month USD-LIBOR-BBA — Quarterly	0.95% — Semiannually	(542)
3,470,200	20,405	(33)	4/15/26	1.045% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(26,729)
722,200	21,565	(10)	4/15/31	3 month USD-LIBOR-BBA — Quarterly	1.734% — Semiannually	23,915
270,800	24,150	(9)	4/15/51	2.127% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(25,269)
1,735,100	46,553	(23)	4/21/31	1.702% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(51,681)
1,202,000	19,557	(16)	5/5/31	3 month USD-LIBOR-BBA — Quarterly	1.591% — Semiannually	22,180
1,735,100	25,107	(23)	5/17/31	3 month USD-LIBOR-BBA — Quarterly	1.573% — Semiannually	28,082
21,000	255	—	5/10/31	1.5475% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(296)
2,000,000	29,240	(27)	5/12/31	3 month USD-LIBOR-BBA — Quarterly	1.574% — Semiannually	33,054
1,735,100	36,697	(23)	5/21/31	3 month USD-LIBOR-BBA — Quarterly	1.644% — Semiannually	39,549
724,500	13,092	(10)	5/27/31	1.612% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(14,107)
2,404,000	9,880	(23)	6/4/23	3 month USD-LIBOR-BBA — Quarterly	0.857% — Semiannually	(8,600)
38,406,000	68,747 ^E	72,789	9/15/23	3 month USD-LIBOR-BBA — Quarterly	0.30% — Semiannually	4,043
2,481,000	8,559 ^E	9,770	9/15/26	3 month USD-LIBOR-BBA — Quarterly	0.95% — Semiannually	1,211
1,468,000	81,034 ^E	(76,536)	9/15/51	3 month USD-LIBOR-BBA — Quarterly	2.00% — Semiannually	4,784
611,300	9,567 ^E	(9)	9/7/31	1.6275% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(9,576)
1,019,100	17,844 ^E	(14)	9/7/31	1.647% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(17,859)
1,735,100	22,088	(23)	6/16/31	3 month USD-LIBOR-BBA — Quarterly	1.558% — Semiannually	23,106
370,800	14,268 ^E	(13)	6/11/51	2.232% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(14,281)
312,000	543	(1)	6/10/23	3 month USD-LIBOR-BBA — Quarterly	0.2215% — Semiannually	(527)
905,800	3,524	(12)	6/14/31	3 month USD-LIBOR-BBA — Quarterly	1.465% — Semiannually	4,087
793,000	2,823	(11)	6/11/31	1.461% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(3,422)
1,735,100	4,025	(23)	6/23/31	3 month USD-LIBOR-BBA — Quarterly	1.45% — Semiannually	4,508

CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 6/30/21 (Unaudited) cont.

Notional amount	Value	Upfront premium received (paid)	Termination date	Payments made by fund	Payments received by fund	Unrealized appreciation/ (depreciation)
\$360,000	\$3,240	\$(5)	6/21/31	1.52% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	\$(3,383)
1,245,500	5,181	(17)	6/29/31	3 month USD-LIBOR-BBA — Quarterly	1.47% — Semiannually	5,256
1,069,600	1,027	(10)	6/28/26	0.933% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	947
178,600	561	(2)	7/6/31	3 month USD-LIBOR-BBA — Quarterly	1.463% — Semiannually	558
2,196,100	549	(21)	7/6/26	0.963% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(570)
1,193,700	2,889 [£]	(16)	7/9/31	3 month USD-LIBOR-BBA — Quarterly	1.457% — Semiannually	2,873
1,351,200	3,270 [£]	(18)	7/15/31	3 month USD-LIBOR-BBA — Quarterly	1.46% — Semiannually	3,252
831,000	1,389	(11)	7/2/31	1.4365% — Semiannually	3 month USD-LIBOR-BBA — Quarterly	(1,400)
Total		\$(598,340)				\$293,182

[£] Extended effective date.

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/21 (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.						
\$13,225	\$13,213	\$—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	\$153
9,864	9,855	—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	114
Barclays Bank PLC						
122,194	121,843	—	1/12/40	4.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 4.00% 30 year Fannie Mae pools — Monthly	(119)
18,474	18,421	—	1/12/40	4.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 4.00% 30 year Fannie Mae pools — Monthly	(18)
2,456,390	2,447,658	—	1/12/41	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools — Monthly	(3,154)
154,266	153,626	—	1/12/40	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools — Monthly	(286)
146,987	146,617	—	1/12/39	(6.00%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.00% 30 year Fannie Mae pools — Monthly	(19)
2,449,375	2,439,463	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	3,205
735	737	—	1/12/43	3.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	10
12,186	12,186	—	1/12/42	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	152
16,368	16,352	—	1/12/41	(4.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(190)
9,255	9,081	—	1/12/41	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	41

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/21 (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 <i>cont.</i>						
\$9,922	\$9,545	\$—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	\$(256)
14,129	13,626	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(334)
1,004	968	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(24)
Citibank, N.A.						
28,011	27,911	—	1/12/41	5.00% (1 month USD-LIBOR) — Monthly	Synthetic MBX Index 5.00% 30 year Fannie Mae pools — Monthly	(36)
Credit Suisse International						
1,570	1,573	—	1/12/43	3.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 3.50% 30 year Fannie Mae pools — Monthly	21
25,012	24,944	—	1/12/44	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	237
11,327	11,316	—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	131
6,771	6,320	—	1/12/45	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(363)
4,941	4,611	—	1/12/45	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(265)
11,327	11,316	—	1/12/41	(4.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(131)
13,993	13,730	—	1/12/41	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	62
Goldman Sachs International						
8,871	8,835	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	12
23,664	23,568	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	31
65,661	65,395	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	86
174,782	174,075	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	229
239,416	238,447	—	1/12/38	(6.50%) 1 month USD-LIBOR — Monthly	Synthetic MBX Index 6.50% 30 year Fannie Mae pools — Monthly	313
22,300	22,399	—	1/12/44	(3.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 3.00% 30 year Fannie Mae pools — Monthly	(347)
30,242	30,242	—	1/12/42	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	378
30,242	30,242	—	1/12/42	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	378

OTC TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/21 (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.						
\$23,885	\$23,885	\$—	1/12/42	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	\$298
22,382	22,382	—	1/12/42	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	280
20,209	20,209	—	1/12/42	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	253
18,873	18,855	—	1/12/41	(4.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(219)
17,907	17,570	—	1/12/41	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	79
59,841	57,567	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(1,545)
42,008	40,412	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(1,084)
24,797	23,855	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(640)
96	93	—	1/12/39	6.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.00% 30 year Fannie Mae pools — Monthly	(2)
30,902	29,802	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(730)
28,197	27,194	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(666)
27,324	26,352	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(645)
21,753	20,979	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(514)
6,161	5,942	—	1/12/38	6.50% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 6.50% 30 year Fannie Mae pools — Monthly	(145)
JPMorgan Chase Bank N.A.						
10,595	10,586	—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	123
1,556	1,554	—	1/12/41	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	18
17,893	17,556	—	1/12/41	(5.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 5.00% 30 year Fannie Mae pools — Monthly	79
JPMorgan Securities LLC						
13,199	13,163	—	1/12/44	4.00% (1 month USD-LIBOR) — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	125
139,148	139,148	—	1/12/42	(4.00%) 1 month USD-LIBOR — Monthly	Synthetic TRS Index 4.00% 30 year Fannie Mae pools — Monthly	(1,738)
Upfront premium received		—	Unrealized appreciation			6,808
Upfront premium (paid)		—	Unrealized (depreciation)			(13,470)
Total		\$—	Total			\$(6,662)

CENTRALLY CLEARED TOTAL RETURN SWAP CONTRACTS OUTSTANDING at 6/30/21 (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)
\$1,880,000	\$22,710	\$(32)	4/1/31	2.686% — At maturity	USA Non Revised Consumer Price Index-Urban (CPI-U) — At maturity	\$22,679
3,810,000	2,134	(38)	4/15/26	2.79% — At maturity	USA Non Revised Consumer Price Index-Urban (CPI-U) — At maturity	(2,172)
Total		\$(70)				\$20,507

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/21 (Unaudited)

Swap counterparty/ Referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termination date	Payments received by fund	Unrealized appreciation/ (depreciation)
Citigroup Global Markets, Inc.							
CMBX NAA.6 Index	A-/P	\$151	\$1,000	\$85	5/11/63	200 bp — Monthly	\$67
CMBX NAA.6 Index	A-/P	364	3,000	254	5/11/63	200 bp — Monthly	111
CMBX NAA.6 Index	A-/P	1,317	11,000	932	5/11/63	200 bp — Monthly	389
CMBX NAA.6 Index	A-/P	1,667	14,000	1,186	5/11/63	200 bp — Monthly	486
CMBX NAA.6 Index	A-/P	1,791	15,000	1,271	5/11/63	200 bp — Monthly	525
CMBX NAA.6 Index	A-/P	1,903	15,000	1,271	5/11/63	200 bp — Monthly	638
CMBX NAA.6 Index	A-/P	15,540	111,000	9,402	5/11/63	200 bp — Monthly	6,175
CMBX NAA.6 Index	A-/P	15,758	132,000	11,180	5/11/63	200 bp — Monthly	4,621
CMBX NAB.11 Index	BB-/P	12,430	22,000	1,960	11/18/54	500 bp — Monthly	10,488
CMBX NAB.13 Index	BB-/P	1,276	14,000	1,176	12/16/72	500 bp — Monthly	112
CMBX NAB.13 Index	BB-/P	4,899	49,000	4,116	12/16/72	500 bp — Monthly	824
CMBX NAB.13 Index	BB-/P	5,103	56,000	4,704	12/16/72	500 bp — Monthly	445
CMBX NAB.13 Index	BB-/P	8,871	94,000	7,896	12/16/72	500 bp — Monthly	1,053
CMBX NAB.9 Index	B+/P	5,611	10,000	2,212	9/17/58	500 bp — Monthly	3,407
CMBX NABBB-.13 Index	BBB-/P	2,368	27,000	969	12/16/72	300 bp — Monthly	1,412
CMBX NABBB-.13 Index	BBB-/P	11,482	122,000	4,380	12/16/72	300 bp — Monthly	7,163
CMBX NABBB-.14 Index	BBB-/P	966	31,000	530	12/16/72	300 bp — Monthly	451
CMBX NABBB-.14 Index	BBB-/P	12,580	385,000	6,584	12/16/72	300 bp — Monthly	6,189
CMBX NABBB-.14 Index	BBB-/P	17,740	578,000	9,884	12/16/72	300 bp — Monthly	8,145
CMBX NABBB-.6 Index	BB-/P	47,775	195,000	51,578	5/11/63	300 bp — Monthly	(3,705)
CMBX NABBB-.10 Index	BBB-/P	6,982	64,000	5,658	11/17/59	300 bp — Monthly	1,356
CMBX NABBB-.11 Index	BBB-/P	4,385	70,000	2,422	11/18/54	300 bp — Monthly	1,998
CMBX NABBB-.12 Index	BBB-/P	1,210	29,000	1,053	8/17/61	300 bp — Monthly	171
CMBX NABBB-.12 Index	BBB-/P	8,309	141,000	5,118	8/17/61	300 bp — Monthly	3,262
CMBX NABBB-.13 Index	BBB-/P	3,862	76,000	2,728	12/16/72	300 bp — Monthly	1,171
CMBX NABBB-.14 Index	BBB-/P	729	16,000	274	12/16/72	300 bp — Monthly	464
CMBX NABBB-.14 Index	BBB-/P	2,250	45,000	770	12/16/72	300 bp — Monthly	1,503
CMBX NABBB-.6 Index	BB-/P	4,935	75,000	19,838	5/11/63	300 bp — Monthly	(14,865)
CMBX NABBB-.6 Index	BB-/P	6,792	103,000	27,244	5/11/63	300 bp — Monthly	(20,400)
CMBX NABBB-.6 Index	BB-/P	8,101	119,000	31,476	5/11/63	300 bp — Monthly	(23,315)
CMBX NABBB-.6 Index	BB-/P	198,296	3,114,000	823,653	5/11/63	300 bp — Monthly	(623,800)
Credit Suisse International							
CMBX NAB.7 Index	B/P	2,541	19,000	6,589	1/17/47	500 bp — Monthly	(4,032)
CMBX NABBB-.6 Index	BB-/P	245,430	2,612,000	690,874	5/11/63	300 bp — Monthly	(444,138)
Deutsche Bank AG							
CMBX NABBB-.6 Index	BB-/P	53,946	506,000	133,837	5/11/63	300 bp — Monthly	(79,638)
Goldman Sachs International							
CMBX NAA.6 Index	A-/P	870	6,000	508	5/11/63	200 bp — Monthly	364
CMBX NAA.6 Index	A-/P	1,279	11,000	932	5/11/63	200 bp — Monthly	351
CMBX NAA.6 Index	A-/P	3,325	28,000	2,372	5/11/63	200 bp — Monthly	963
CMBX NAA.7 Index	BBB+/P	(54)	37,000	2,076	1/17/47	200 bp — Monthly	(2,117)

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/21 (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 <i>cont.</i>							
CMBX NA BB.13 Index	BB-/P	\$3,943	\$41,000	\$3,444	12/16/72	500 bp — Monthly	\$533
CMBX NA BB.6 Index	B-/P	5,563	38,809	17,305	5/11/63	500 bp — Monthly	(11,710)
CMBX NA BBB-.13 Index	BBB-/P	414	9,000	323	12/16/72	300 bp — Monthly	95
CMBX NA BBB-.13 Index	BBB-/P	4,242	66,000	2,369	12/16/72	300 bp — Monthly	1,906
CMBX NA BBB-.13 Index	BBB-/P	5,971	95,000	3,411	12/16/72	300 bp — Monthly	2,608
CMBX NA BBB-.14 Index	BBB-/P	547	19,000	325	12/16/72	300 bp — Monthly	232
CMBX NA BBB-.14 Index	BBB-/P	2,178	49,000	838	12/16/72	300 bp — Monthly	1,364
CMBX NA BBB-.14 Index	BBB-/P	4,547	99,000	1,693	12/16/72	300 bp — Monthly	2,904
CMBX NA BBB-.6 Index	BB-/P	142	1,000	265	5/11/63	300 bp — Monthly	(122)
CMBX NA BBB-.6 Index	BB-/P	717	14,000	3,703	5/11/63	300 bp — Monthly	(2,979)
CMBX NA BBB-.6 Index	BB-/P	1,416	16,000	4,232	5/11/63	300 bp — Monthly	(2,808)
CMBX NA BBB-.6 Index	BB-/P	1,416	16,000	4,232	5/11/63	300 bp — Monthly	(2,808)
CMBX NA BBB-.6 Index	BB-/P	2,017	24,000	6,348	5/11/63	300 bp — Monthly	(4,319)
CMBX NA BBB-.6 Index	BB-/P	4,881	42,000	11,109	5/11/63	300 bp — Monthly	(6,207)
CMBX NA BBB-.6 Index	BB-/P	2,486	49,000	12,961	5/11/63	300 bp — Monthly	(10,450)
CMBX NA BBB-.6 Index	BB-/P	6,787	51,000	13,490	5/11/63	300 bp — Monthly	(6,677)
CMBX NA BBB-.6 Index	BB-/P	3,030	60,000	15,870	5/11/63	300 bp — Monthly	(12,810)
CMBX NA BBB-.6 Index	BB-/P	24,037	208,000	55,016	5/11/63	300 bp — Monthly	(30,875)
CMBX NA BBB-.6 Index	BB-/P	31,021	309,000	81,731	5/11/63	300 bp — Monthly	(50,555)
CMBX NA BBB-.6 Index	BB-/P	50,168	470,000	124,315	5/11/63	300 bp — Monthly	(73,912)
JPMorgan Securities LLC							
CMBX NAA.13 Index	A-/P	484	6,000	95	12/16/72	200 bp — Monthly	580
CMBX NA BB.10 Index	B+/P	2,006	25,000	6,095	5/11/63	500 bp — Monthly	(4,068)
CMBX NA BB.7 Index	B/P	30,848	63,000	21,848	1/17/47	500 bp — Monthly	9,052
CMBX NA BBB-.13 Index	BBB-/P	2,215	11,000	395	12/16/72	300 bp — Monthly	1,825
CMBX NA BBB-.13 Index	BBB-/P	5,004	25,000	898	12/16/72	300 bp — Monthly	4,119
CMBX NA BBB-.13 Index	BBB-/P	1,175	17,000	610	12/16/72	300 bp — Monthly	573
Merrill Lynch International							
CMBX NA BB.6 Index	B-/P	335	2,911	1,298	5/11/63	500 bp — Monthly	(960)
CMBX NA BB.7 Index	B/P	1,452	12,000	4,162	1/17/47	500 bp — Monthly	(2,699)
CMBX NA BBB-.6 Index	BB-/P	267,292	992,000	262,384	5/11/63	300 bp — Monthly	5,404
Morgan Stanley & Co. International PLC							
CMBX NAA.7 Index	BBB+/P	(2)	2,000	112	1/17/47	200 bp — Monthly	(113)
CMBX NAA.7 Index	BBB+/P	(5)	11,000	617	1/17/47	200 bp — Monthly	(619)
CMBX NAA.7 Index	BBB+/P	656	135,000	7,574	1/17/47	200 bp — Monthly	(6,873)
CMBX NA BB.13 Index	BB-/P	372	4,000	336	12/16/72	500 bp — Monthly	39
CMBX NA BB.13 Index	BB-/P	1,285	14,000	1,176	12/16/72	500 bp — Monthly	121
CMBX NA BB.13 Index	BB-/P	2,693	28,000	2,352	12/16/72	500 bp — Monthly	364
CMBX NA BB.13 Index	BB-/P	5,228	57,000	4,788	12/16/72	500 bp — Monthly	487
CMBX NA BB.13 Index	BB-/P	6,417	68,000	5,712	12/16/72	500 bp — Monthly	762
CMBX NA BB.13 Index	BB-/P	8,839	97,000	8,148	12/16/72	500 bp — Monthly	771
CMBX NA BB.13 Index	BB-/P	10,622	115,000	9,660	12/16/72	500 bp — Monthly	1,058
CMBX NA BB.6 Index	B-/P	36,496	83,439	37,205	5/11/63	500 bp — Monthly	(640)
CMBX NA BB.6 Index	B-/P	197,820	456,973	203,764	5/11/63	500 bp — Monthly	(5,563)
CMBX NA BBB-.13 Index	BBB-/P	1,625	8,000	287	12/16/72	300 bp — Monthly	1,342
CMBX NA BBB-.13 Index	BBB-/P	1,575	10,000	359	12/16/72	300 bp — Monthly	1,221
CMBX NA BBB-.14 Index	BBB-/P	547	18,000	308	12/16/72	300 bp — Monthly	248
CMBX NA BBB-.14 Index	BBB-/P	1,748	62,000	1,060	12/16/72	300 bp — Monthly	718
CMBX NA BBB-.12 Index	BBB-/P	3,418	58,000	2,105	8/17/61	300 bp — Monthly	1,342
CMBX NA BBB-.12 Index	BBB-/P	4,852	113,000	4,102	8/17/61	300 bp — Monthly	806
CMBX NA BBB-.6 Index	BB-/P	752	9,000	2,381	5/11/63	300 bp — Monthly	(1,624)
CMBX NA BBB-.6 Index	BB-/P	2,377	36,000	9,522	5/11/63	300 bp — Monthly	(7,127)
CMBX NA BBB-.6 Index	BB-/P	2,364	36,000	9,522	5/11/63	300 bp — Monthly	(7,140)
CMBX NA BBB-.6 Index	BB-/P	4,206	43,000	11,374	5/11/63	300 bp — Monthly	(7,146)

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 6/30/21 (Unaudited) *cont.*

Swap counterparty/ Referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termination date	Payments received by fund	Unrealized appreciation/ (depreciation)
Morgan Stanley & Co. International PLC <i>cont.</i>							
CMBX NA BBB-.6 Index	BB-/P	\$429,729	\$6,486,500	\$1,715,679	5/11/63	300 bp — Monthly	\$(1,282,707)
CMBX NA BBB-.7 Index	BB/P	74	1,000	178	1/17/47	300 bp — Monthly	(103)
CMBX NA BBB-.7 Index	BB/P	23,003	338,000	60,096	1/17/47	300 bp — Monthly	(36,925)
Upfront premium received		1,935,866					104,778
Upfront premium (paid)		(61)					(2,796,549)
Total		\$1,935,805		Total			\$(2,691,771)

* 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, 2021. 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 6/30/21 (Unaudited)

Swap counterparty/ Referenced debt*	Upfront premium received (paid)**	Notional amount	Value	Termination date	Payments (paid) by fund	Unrealized appreciation/ (depreciation)
Citigroup Global Markets, Inc.						
CMBX NA BB.10 Index	\$(22,695)	\$89,000	\$21,698	11/17/59	(500 bp) — Monthly	\$(1,071)
CMBX NA BB.10 Index	(1,252)	12,000	2,926	11/17/59	(500 bp) — Monthly	1,663
CMBX NA BB.10 Index	(987)	9,000	2,194	11/17/59	(500 bp) — Monthly	1,200
CMBX NA BB.11 Index	(2,672)	37,000	3,297	11/18/54	(500 bp) — Monthly	594
CMBX NA BB.11 Index	(1,031)	15,000	1,337	11/18/54	(500 bp) — Monthly	293
CMBX NA BB.11 Index	(1,131)	12,000	1,069	11/18/54	(500 bp) — Monthly	(72)
CMBX NA BB.11 Index	(357)	7,000	624	11/18/54	(500 bp) — Monthly	261
CMBX NA BB.11 Index	(363)	7,000	624	11/18/54	(500 bp) — Monthly	255
CMBX NA BB.7 Index	(9,339)	183,000	63,464	1/17/47	(500 bp) — Monthly	53,973
CMBX NA BB.7 Index	(1,077)	16,000	5,549	1/17/47	(500 bp) — Monthly	4,459
CMBX NA BB.8 Index	(2,980)	23,167	8,319	10/17/57	(500 bp) — Monthly	5,320
CMBX NA BBB-.10 Index	(54,160)	315,000	27,846	11/17/59	(300 bp) — Monthly	(26,472)
CMBX NA BBB-.10 Index	(17,178)	74,000	6,542	11/17/59	(300 bp) — Monthly	(10,673)
CMBX NA BBB-.10 Index	(12,167)	51,000	4,508	11/17/59	(300 bp) — Monthly	(7,684)
CMBX NA BBB-.10 Index	(8,077)	37,000	3,271	11/17/59	(300 bp) — Monthly	(4,824)
CMBX NA BBB-.10 Index	(7,182)	33,000	2,917	11/17/59	(300 bp) — Monthly	(4,281)
CMBX NA BBB-.12 Index	(12,736)	185,000	6,716	8/17/61	(300 bp) — Monthly	(6,113)
CMBX NA BBB-.12 Index	(8,800)	39,000	1,416	8/17/61	(300 bp) — Monthly	(7,404)
CMBX NA BBB-.12 Index	(2,116)	31,000	1,125	8/17/61	(300 bp) — Monthly	(1,006)
CMBX NA BBB-.10 Index	(6,851)	56,000	4,950	11/17/59	(300 bp) — Monthly	(1,929)
CMBX NA BBB-.10 Index	(6,246)	49,000	4,332	11/17/59	(300 bp) — Monthly	(1,939)
CMBX NA BBB-.10 Index	(1,657)	13,000	1,149	11/17/59	(300 bp) — Monthly	(514)
CMBX NA BBB-.11 Index	(16,668)	52,000	1,799	11/18/54	(300 bp) — Monthly	(14,895)
CMBX NA BBB-.11 Index	(8,529)	26,000	900	11/18/54	(300 bp) — Monthly	(7,642)
CMBX NA BBB-.11 Index	(3,680)	25,000	865	11/18/54	(300 bp) — Monthly	(2,827)
CMBX NA BBB-.11 Index	(6,208)	19,000	657	11/18/54	(300 bp) — Monthly	(5,560)
CMBX NA BBB-.11 Index	(2,155)	15,000	519	11/18/54	(300 bp) — Monthly	(1,643)
CMBX NA BBB-.12 Index	(21,043)	63,000	2,287	8/17/61	(300 bp) — Monthly	(18,788)
CMBX NA BBB-.12 Index	(18,075)	52,000	1,888	8/17/61	(300 bp) — Monthly	(16,213)
CMBX NA BBB-.12 Index	(11,951)	34,000	1,234	8/17/61	(300 bp) — Monthly	(10,734)
CMBX NA BBB-.12 Index	(4,010)	12,000	436	8/17/61	(300 bp) — Monthly	(3,580)
CMBX NA BBB-.13 Index	(1,137)	15,000	539	12/16/72	(300 bp) — Monthly	(606)
CMBX NA BBB-.7 Index	(4,375)	20,000	3,556	1/17/47	(300 bp) — Monthly	(829)
CMBX NA BBB-.8 Index	(22,031)	141,000	19,514	10/17/57	(300 bp) — Monthly	(2,587)
CMBX NA BBB-.8 Index	(14,226)	90,000	12,456	10/17/57	(300 bp) — Monthly	(1,815)
CMBX NA BBB-.8 Index	(14,282)	90,000	12,456	10/17/57	(300 bp) — Monthly	(1,871)
CMBX NA BBB-.8 Index	(10,955)	70,000	9,688	10/17/57	(300 bp) — Monthly	(1,302)

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION PURCHASED at 6/30/21 (Unaudited) *cont.*

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. <i>cont.</i>						
CMBX NA BBB-.8 Index	\$(6,298)	\$44,000	\$6,090	10/17/57	(300 bp) — Monthly	\$(230)
CMBX NA BBB-.9 Index	(1,183)	5,000	389	9/17/58	(300 bp) — Monthly	(796)
Credit Suisse International						
CMBX NA BB.10 Index	(2,854)	24,000	5,851	11/17/59	(500 bp) — Monthly	2,977
CMBX NA BB.10 Index	(3,202)	24,000	5,851	11/17/59	(500 bp) — Monthly	2,629
CMBX NA BB.10 Index	(1,616)	13,000	3,169	11/17/59	(500 bp) — Monthly	1,543
Goldman Sachs International						
CMBX NAA .6 Index	(66)	1,000	85	5/11/63	(200 bp) — Monthly	18
CMBX NA BB.8 Index	(6,660)	18,341	6,586	10/17/57	(500 bp) — Monthly	(89)
CMBX NA BB.8 Index	(6,671)	18,341	6,586	10/17/57	(500 bp) — Monthly	(101)
CMBX NA BB.8 Index	(906)	7,722	2,773	10/17/57	(500 bp) — Monthly	1,860
CMBX NA BB.9 Index	(3,674)	23,000	5,088	9/17/58	(500 bp) — Monthly	1,395
CMBX NA BBB-.10 Index	(3,500)	16,000	1,414	11/17/59	(300 bp) — Monthly	(2,093)
CMBX NA BBB-.13 Index	(3,107)	41,000	1,472	12/16/72	(300 bp) — Monthly	(1,656)
CMBX NA BBB-.13 Index	(1,524)	25,000	898	12/16/72	(300 bp) — Monthly	(639)
CMBX NA BBB-.6 Index	(90,743)	333,000	88,079	5/11/63	(300 bp) — Monthly	(2,831)
CMBX NA BBB-.8 Index	(3,293)	21,000	2,906	10/17/57	(300 bp) — Monthly	(397)
JPMorgan Securities LLC						
CMBX NA BB.11 Index	(5,148)	9,702	4,326	5/11/63	(500 bp) — Monthly	(830)
CMBX NA BB.11 Index	(545)	1,000	89	11/18/54	(500 bp) — Monthly	(457)
CMBX NA BB.8 Index	(16,356)	31,855	11,439	10/17/57	(500 bp) — Monthly	(4,943)
CMBX NA BBB-.10 Index	(3,793)	23,000	2,033	11/17/59	(300 bp) — Monthly	(1,771)
CMBX NA BBB-.10 Index	(11,268)	40,000	3,536	11/17/59	(300 bp) — Monthly	(7,752)
CMBX NA BBB-.10 Index	(9,534)	32,000	2,829	11/17/59	(300 bp) — Monthly	(6,721)
CMBX NA BBB-.12 Index	(547)	14,000	508	8/17/61	(300 bp) — Monthly	(46)
CMBX NA BBB-.12 Index	(1,048)	3,000	109	8/17/61	(300 bp) — Monthly	(940)
CMBX NA BBB-.7 Index	(56,108)	239,000	42,494	1/17/47	(300 bp) — Monthly	(13,734)
Merrill Lynch International						
CMBX NA BB.10 Index	(1,366)	24,000	5,851	11/17/59	(500 bp) — Monthly	4,466
CMBX NA BB.9 Index	(14,998)	385,000	85,162	9/17/58	(500 bp) — Monthly	69,843
CMBX NA BBB-.10 Index	(6,933)	32,000	2,829	11/17/59	(300 bp) — Monthly	(4,121)
Morgan Stanley & Co. International PLC						
CMBX NA BB.10 Index	(1,259)	12,000	2,926	11/17/59	(500 bp) — Monthly	1,657
CMBX NA BB.8 Index	(9,393)	18,341	6,586	10/17/57	(500 bp) — Monthly	(2,822)
CMBX NA BB.8 Index	(3,160)	8,688	3,120	10/17/57	(500 bp) — Monthly	(48)
CMBX NA BB.9 Index	(23,827)	179,000	39,595	9/17/58	(500 bp) — Monthly	15,619
CMBX NA BB.9 Index	(24,315)	179,000	39,595	9/17/58	(500 bp) — Monthly	15,130
CMBX NA BB.9 Index	(22,969)	168,000	37,162	9/17/58	(500 bp) — Monthly	14,052
CMBX NA BB.9 Index	(22,860)	152,000	33,622	9/17/58	(500 bp) — Monthly	10,636
CMBX NA BB.9 Index	(20,671)	137,000	30,304	9/17/58	(500 bp) — Monthly	9,519
CMBX NA BB.9 Index	(20,232)	130,000	28,756	9/17/58	(500 bp) — Monthly	8,416
CMBX NA BB.9 Index	(11,669)	81,000	17,917	9/17/58	(500 bp) — Monthly	6,181
CMBX NA BB.9 Index	(12,260)	81,000	17,917	9/17/58	(500 bp) — Monthly	5,589
CMBX NA BB.9 Index	(1,270)	36,000	7,963	9/17/58	(500 bp) — Monthly	6,663
CMBX NA BB.9 Index	(2,309)	27,000	5,972	9/17/58	(500 bp) — Monthly	3,641
CMBX NA BB.9 Index	(3,633)	24,000	5,309	9/17/58	(500 bp) — Monthly	1,656
CMBX NA BB.9 Index	(676)	9,000	1,991	9/17/58	(500 bp) — Monthly	1,307
CMBX NA BBB-.8 Index	(18,512)	119,000	16,470	10/17/57	(300 bp) — Monthly	(2,102)
CMBX NA BBB-.8 Index	(9,409)	60,000	8,304	10/17/57	(300 bp) — Monthly	(1,135)
CMBX NA BBB-.10 Index	(9,946)	59,000	5,216	11/17/59	(300 bp) — Monthly	(4,760)
CMBX NA BBB-.10 Index	(8,751)	37,000	3,271	11/17/59	(300 bp) — Monthly	(5,499)
CMBX NA BBB-.10 Index	(7,801)	32,000	2,829	11/17/59	(300 bp) — Monthly	(4,989)
CMBX NA BBB-.10 Index	(4,005)	23,000	2,033	11/17/59	(300 bp) — Monthly	(1,984)
CMBX NA BBB-.10 Index	(4,362)	19,000	1,680	11/17/59	(300 bp) — Monthly	(2,692)

OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION PURCHASED at 6/30/21 (Unaudited) *cont.*

Swap counterparty/ Referenced debt*	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments (paid) by fund	Unrealized appreciation/ (depreciation)
Morgan Stanley & Co. International PLC <i>cont.</i>						
CMBX NA BBB-.10 Index	\$(3,929)	\$18,000	\$1,591	11/17/59	(300 bp) — Monthly	\$(2,347)
CMBX NA BBB-.10 Index	(2,168)	10,000	884	11/17/59	(300 bp) — Monthly	(1,289)
CMBX NA BBB-.10 Index	(1,946)	9,000	796	11/17/59	(300 bp) — Monthly	(1,155)
CMBX NA BBB-.12 Index	(5,797)	28,000	1,016	8/17/61	(300 bp) — Monthly	(4,795)
CMBX NA BBB-.12 Index	(2,921)	14,000	508	8/17/61	(300 bp) — Monthly	(2,420)
CMBX NA BBB-.10 Index	(19,618)	159,000	14,056	11/17/59	(300 bp) — Monthly	(5,642)
CMBX NA BBB-.10 Index	(11,034)	87,000	7,691	11/17/59	(300 bp) — Monthly	(3,387)
CMBX NA BBB-.10 Index	(3,171)	25,000	2,210	11/17/59	(300 bp) — Monthly	(973)
CMBX NA BBB-.11 Index	(5,981)	38,000	1,315	11/18/54	(300 bp) — Monthly	(4,685)
CMBX NA BBB-.12 Index	(1,237)	4,000	145	8/17/61	(300 bp) — Monthly	(1,093)
CMBX NA BBB-.13 Index	(4,807)	78,000	2,800	12/16/72	(300 bp) — Monthly	(2,046)
CMBX NA BBB-.7 Index	(4,063)	64,000	11,379	1/17/47	(300 bp) — Monthly	7,284
CMBX NA BBB-.8 Index	(10,734)	75,000	10,380	10/17/57	(300 bp) — Monthly	(392)
CMBX NA BBB-.8 Index	(9,141)	59,000	8,166	10/17/57	(300 bp) — Monthly	(1,005)
CMBX NA BBB-.8 Index	(9,069)	58,000	8,027	10/17/57	(300 bp) — Monthly	(1,057)
Upfront premium received	—				Unrealized appreciation	260,099
Upfront premium (paid)	(942,225)				Unrealized (depreciation)	(273,338)
Total	\$(942,225)		Total			\$(13,239)

* 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:

	Valuation inputs		
Investments in securities:	Level 1	Level 2	Level 3
Asset-backed securities	\$—	\$641,128	\$209,000
Mortgage-backed securities	—	36,884,197	—
Purchased options outstanding	—	33,679	—
Purchased swap options outstanding	—	660,743	—
U.S. government and agency mortgage obligations	—	31,455,588	—
Short-term investments	—	9,201,691	—
Totals by level	\$—	\$78,877,026	\$209,000

	Valuation inputs		
Other financial instruments:	Level 1	Level 2	Level 3
Futures contracts	\$115,836	\$—	\$—
Written options outstanding	—	(203,318)	—
Written swap options outstanding	—	(2,806,444)	—
Forward premium swap option contracts	—	(138,689)	—
TBA sale commitments	—	(14,425,607)	—
Interest rate swap contracts	—	891,522	—
Total return swap contracts	—	13,915	—
Credit default contracts	—	(3,698,590)	—
Totals by level	\$115,836	\$(20,367,211)	\$—

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

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

Statement of assets and liabilities

6/30/21 (Unaudited)

Assets	
Investment in securities, at value (Notes 1 and 8):	
Unaffiliated issuers (identified cost \$78,224,028)	\$77,215,615
Affiliated issuers (identified cost \$1,870,411) (Notes 1 and 5)	1,870,411
Cash	288,261
Interest and other receivables	347,759
Receivable for shares of the fund sold	25,610
Receivable for investments sold	235,205
Receivable for sales of TBA securities (Note 1)	9,331,660
Receivable from Manager (Note 2)	10,852
Receivable for variation margin on centrally cleared swap contracts (Note 1)	188,562
Unrealized appreciation on forward premium swap option contracts (Note 1)	781,100
Unrealized appreciation on OTC swap contracts (Note 1)	371,685
Premium paid on OTC swap contracts (Note 1)	942,286
Total assets	91,609,006
Liabilities	
Payable for investments purchased	228,142
Payable for purchases of TBA securities (Note 1)	22,864,825
Payable for shares of the fund repurchased	32,611
Payable for custodian fees (Note 2)	31,412
Payable for investor servicing fees (Note 2)	5,341
Payable for Trustee compensation and expenses (Note 2)	58,772
Payable for administrative services (Note 2)	149
Payable for distribution fees (Note 2)	4,666
Payable for variation margin on futures contracts (Note 1)	17,856
Payable for variation margin on centrally cleared swap contracts (Note 1)	143,511
Unrealized depreciation on OTC swap contracts (Note 1)	3,083,357
Premium received on OTC swap contracts (Note 1)	1,935,866
Unrealized depreciation on forward premium swap option contracts (Note 1)	919,789
Written options outstanding, at value (premiums \$2,647,045) (Note 1)	3,009,762
TBA sale commitments, at value (proceeds receivable \$14,415,156) (Note 1)	14,425,607
Other accrued expenses	42,059
Total liabilities	46,803,725
Net assets	\$44,805,281
Represented by	
Paid-in capital (Unlimited shares authorized) (Notes 1 and 4)	\$61,331,402
Total distributable earnings (Note 1)	(16,526,121)
Total — Representing net assets applicable to capital shares outstanding	\$44,805,281
Computation of net asset value Class IA	
Net assets	\$22,513,178
Number of shares outstanding	2,504,888
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$8.99
Computation of net asset value Class IB	
Net assets	\$22,292,103
Number of shares outstanding	2,489,672
Net asset value, offering price and redemption price per share (net assets divided by number of shares outstanding)	\$8.95

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

Statement of operations

Six months ended 6/30/21 (Unaudited)

Investment income

Interest (including interest income of \$556 from investments in affiliated issuers) (Note 5)	\$1,104,214
Total investment income	1,104,214

Expenses

Compensation of Manager (Note 2)	90,962
Investor servicing fees (Note 2)	16,832
Custodian fees (Note 2)	27,883
Trustee compensation and expenses (Note 2)	1,082
Distribution fees (Note 2)	28,596
Administrative services (Note 2)	439
Auditing and tax fees	30,437
Other	11,623
Fees waived and reimbursed by Manager (Note 2)	(59,804)
Total expenses	148,050
Expense reduction (Note 2)	(10)
Net expenses	148,040
Net investment income	956,174

Realized and unrealized gain (loss)

Net realized gain (loss) on:	
Securities from unaffiliated issuers (Notes 1 and 3)	303,099
Net increase from payments by affiliates (Note 2)	1,016
Futures contracts (Note 1)	(124,242)
Swap contracts (Note 1)	(1,648,055)
Written options (Note 1)	(439,944)
Total net realized loss	(1,908,126)
Change in net unrealized appreciation (depreciation) on:	
Securities from unaffiliated issuers and TBA sale commitments	(1,496,935)
Futures contracts	207,571
Swap contracts	1,509,308
Written options	380,381
Total change in net unrealized appreciation	600,325
Net loss on investments	(1,307,801)
Net decrease in net assets resulting from operations	\$(351,627)

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

Statement of changes in net assets

	Six months ended 6/30/21*	Year ended 12/31/20
Decrease in net assets		
Operations:		
Net investment income	\$956,174	\$1,897,746
Net realized gain (loss) on investments	(1,908,126)	2,587,161
Change in net unrealized appreciation (depreciation) of investments	600,325	(5,799,763)
Net decrease in net assets resulting from operations	(351,627)	(1,314,856)
Distributions to shareholders (Note 1):		
From ordinary income		
Net investment income		
Class IA	—	(2,587,503)
Class IB	—	(2,096,557)
Net realized short-term gain on investments		
Class IA	—	(64,947)
Class IB	—	(53,689)
From return of capital		
Class IA	—	(71,902)
Class IB	—	(58,260)
Decrease from capital share transactions (Note 4)	(1,590,321)	(5,791,898)
Total decrease in net assets	(1,941,948)	(12,039,612)
Net assets:		
Beginning of period	46,747,229	58,786,841
End of period	\$44,805,281	\$46,747,229

* Unaudited.

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

INVESTMENT OPERATIONS:					LESS DISTRIBUTIONS:						RATIOS AND SUPPLEMENTAL DATA:			
Period ended	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	From net realized gain on investments	From return of capital	Total distributions	Net asset value, end of period	Total return at net asset value (%) ^{b,c}	Net assets, end of period (in thousands)	Ratio of expenses to average net assets (%) ^{b,d}	Ratio of net investment income (loss) to average net assets (%)	Portfolio turnover (%) ^e
Class IA														
6/30/21†	\$9.05	.19	(.25)	(.06)	—	—	—	—	\$8.99	(.66)*	\$22,513	.25*f	2.05*f	446*
12/31/20	10.18	.35	(.57)	(.22)	(.87)	(.02)	(.02)	(.91)	9.05	(1.29)	26,269	.50f	3.89f	895
12/31/19	9.21	.36	.85	1.21	(.24)	—	—	(.24)	10.18	13.36	31,822	.50f	3.68f	1,171
12/31/18	9.55	.35	(.41)	(.06)	(.28)	—	—	(.28)	9.21	(.62)	31,249	.56f	3.80f	1,142
12/31/17	9.59	.27	(.06)	.21	(.25)	—	—	(.25)	9.55	2.27	35,852	.66	2.85	1,188
12/31/16	9.76	.24	(.20)	.04	(.21)	—	—	(.21)	9.59	.36	40,362	.64g	2.43g	1,028
Class IB														
6/30/21†	\$9.02	.18	(.25)	(.07)	—	—	—	—	\$8.95	(.78)*	\$22,292	.37*f	1.92*f	446*
12/31/20	10.16	.33	(.58)	(.25)	(.85)	(.02)	(.02)	(.89)	9.02	(1.68)	20,478	.75f	3.64f	895
12/31/19	9.18	.33	.86	1.19	(.21)	—	—	(.21)	10.16	13.20	26,965	.75f	3.44f	1,171
12/31/18	9.52	.33	(.41)	(.08)	(.26)	—	—	(.26)	9.18	(.90)	23,232	.81f	3.54f	1,142
12/31/17	9.56	.25	(.07)	.18	(.22)	—	—	(.22)	9.52	1.96	27,524	.91	2.60	1,188
12/31/16	9.72	.21	(.19)	.02	(.18)	—	—	(.18)	9.56	.20	33,301	.89g	2.18g	1,028

Before April 30, 2018, the fund was managed with a materially different investment strategy and may have achieved materially different performance results under its current investment strategy from that shown for periods before this date.

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

^c Total return assumes dividend reinvestment.

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

^e Portfolio turnover includes TBA purchase and sale commitments.

^f Reflects an involuntary contractual expense limitation in effect during the period. As a result of such limitation, the expenses of each class reflect the following reductions as a percentage of average net assets.

	% of average net assets
June 30, 2021	0.12%
December 31, 2020	0.24
December 31, 2019	0.22
December 31, 2018	0.25

^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.

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

Notes to financial statements 6/30/21 (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, 2021 through June 30, 2021.

Putnam VT Mortgage Securities 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 as high a level of current income as Putnam Management believes is consistent with preservation of capital. The fund invests mainly in mortgages, mortgage-related fixed income securities and related derivatives that are either investment-grade or below-investment-grade in quality (sometimes referred to as “junk bonds”). Under normal circumstances, the fund invests at least 80% of its net assets (plus any borrowings for investment purposes) in mortgages, mortgage-related fixed income securities and related derivatives (i.e., derivatives used to acquire exposure to, or whose underlying securities are, mortgages or mortgage-related securities). The fund generally uses the net unrealized gain or loss, or market value, of mortgage-related derivatives for purposes of this policy, but may use the notional value of a derivative if that is determined to be a more appropriate measure of the fund’s investment exposure. This policy may be changed only after 60 days’ notice to shareholders.

The fund expects to invest in mortgage-backed investments that are obligations of U.S. government agencies and instrumentalities and accordingly are backed by the full faith and credit of the United States (e.g., Ginnie Mae mortgage-backed bonds) as well as in mortgage-backed investments that are backed by only the credit of a federal agency or government-sponsored entity (e.g., Fannie Mae and Freddie Mac mortgage-backed bonds), and that have short- to long-term maturities. The fund currently has significant investment exposure to commercial mortgage-backed securities.

The fund also expects to invest in lower-rated, higher-yielding mortgage-backed securities, including non-agency residential mortgage-backed securities (which may be backed by non-qualified or “sub-prime” mortgages), commercial mortgage-backed securities, and collateralized mortgage obligations (including interest only, principal only, and other prepayment derivatives). Non-agency (i.e., privately issued) securities typically are lower-rated and higher yielding than securities issued or backed by agencies such as Ginnie Mae, Fannie Mae or Freddie Mac. While the fund’s emphasis will be on mortgage-backed securities, it may also invest to a lesser extent in other types of asset-backed securities.

Putnam Management may consider, among other factors, credit, interest rate, prepayment and liquidity risks, as well as general market conditions, when deciding whether to buy or sell investments.

The fund typically uses to a significant extent derivatives, including interest rate swaps, swaptions, forward delivery contracts, total return swaps, and options on mortgage-backed securities and indices, for both hedging and non-hedging purposes, including to obtain or adjust exposure to mortgage-backed investments.

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

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

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

Under the fund’s Amended and Restated Agreement and Declaration of Trust, any claims asserted against or on behalf of the Putnam Funds, including claims

against Trustees and Officers, must be brought in state and federal courts located within the Commonwealth of Massachusetts.

Note 1 — Significant accounting policies

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

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

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

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

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.

Certain investments, including certain restricted and illiquid securities and derivatives, are also valued at fair value following procedures approved by the Trustees. These valuations consider such factors as significant market or specific security events such as interest rate or credit quality changes, various relationships with other securities, discount rates, U.S. Treasury, U.S. swap and credit yields, index levels, convexity exposures, recovery rates, sales and other multiples and resale restrictions. These securities are classified as Level 2 or as Level 3 depending on the priority of the significant inputs.

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

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

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

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

Interest income, net of any applicable withholding taxes, if any, and including amortization and accretion of premiums and discounts on debt securities, is recorded on the accrual basis.

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

Stripped securities The fund may invest in stripped securities which represent a participation in securities that may be structured in classes with rights to receive different portions of the interest and principal. Interest-only securities receive all of the interest and principal-only securities receive all of the principal. If the interest-only securities experience greater than anticipated prepayments of principal, the fund may fail to recoup fully its initial investment in these securities. Conversely, principal-only securities increase in value if prepayments are greater than anticipated and decline if prepayments are slower than anticipated. The fair value of these securities is highly sensitive to changes in interest rates.

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

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

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

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

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

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

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

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

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

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

An OTC and centrally cleared interest rate swap can be purchased or sold with an upfront premium. For OTC interest rate swap contracts, an upfront payment received by the fund is recorded as a liability on the fund's books. An upfront payment made by the fund is recorded as an asset on the fund's books. OTC and centrally cleared interest rate swap contracts are marked to market daily based upon quotations from an independent pricing service or market makers. Any change is recorded as an unrealized gain or loss on OTC interest rate swaps. Daily fluctuations in the value of centrally cleared interest rate swaps are settled through a central clearing agent and are recorded in variation margin on the Statement of assets and liabilities and recorded as unrealized gain or loss. Payments, including upfront premiums, received or made are recorded as realized gains or losses at the reset date or the closing of the contract. Certain OTC and centrally cleared interest rate swap contracts may include extended effective dates. Payments related to these swap contracts are accrued based on the terms of the contract.

The fund could be exposed to credit or market risk due to unfavorable changes in the fluctuation of interest rates or if the counterparty defaults, in the case of OTC interest rate contracts, or the central clearing agency or a clearing member defaults, in the case of centrally cleared interest rate swap contracts, on its respective obligation to perform under the contract. The fund's maximum risk of loss from counterparty risk or central clearing risk is the fair value of the contract. This risk may be mitigated for OTC interest rate swap contracts by having a master netting arrangement between the fund and the counterparty and for centrally cleared interest rate swap contracts through the daily exchange of variation margin. There is minimal counterparty risk with respect to centrally cleared interest rate swap contracts due to the clearinghouse guarantee fund and other resources that are available in the event of a clearing member default. Risk of loss may exceed amounts recognized on the Statement of assets and liabilities.

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

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

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

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

Credit default contracts The fund entered into OTC and/or centrally cleared credit default contracts to hedge credit risk, to hedge market risk and for gaining 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 pledged to the fund is held in a segregated account by the fund's custodian and, with respect to those amounts which can be sold or repledged, 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 \$6,215,687 on open derivative contracts subject to the Master Agreements. Collateral pledged by the fund at period end for these agreements totaled \$6,228,404 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 Bank Funding Rate for the committed line of credit and 1.30% plus the higher of (1) the Federal Funds rate and (2) the Overnight Bank Funding Rate for the uncommitted line of credit. A closing fee equal to 0.04% of the committed line of credit and 0.04% of the uncommitted line of credit has been paid by the participating funds. In addition, a commitment fee of 0.21% per annum on any unutilized portion of the committed line of credit is allocated to the participating funds based on their relative net assets and paid quarterly. During the reporting period, the fund had no borrowings against these arrangements.

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

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

Tax cost of investments includes adjustments to net unrealized appreciation (depreciation) which may not necessarily be final tax cost basis adjustments, but closely approximate the tax basis unrealized gains and losses that may be realized and distributed to shareholders. The aggregate identified cost on a tax basis is \$61,920,199, resulting in gross unrealized appreciation and depreciation of \$6,286,905 and \$9,372,453, respectively, or net unrealized depreciation of \$3,085,548.

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, 2020, 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
\$12,488,621	—	\$12,488,621

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 31.3% of the fund is owned by accounts of one insurance company.

Note 2 — Management fee, administrative services and other transactions

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

0.550%	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 0.189% of the fund's average net assets.

Putnam Management has contractually agreed, through April 30, 2023, 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 plans, on a fiscal year-to-date basis to an annual rate of 0.20% of the fund's average net assets over such fiscal year-to-date period. During the reporting period, the fund's expenses were reduced by \$23,581 as a result of this limit.

Putnam Management has also contractually agreed to waive fees (and, to the extent necessary, bear other expenses) of the fund through April 30, 2023, to the extent that total expenses of the fund (excluding brokerage, interest, taxes, investment-related expenses, payments under distribution plans, extraordinary expenses and acquired fund fees and expenses) would exceed an annual rate of 0.50% of the fund's average net assets. During the reporting period, the fund's expenses were reduced by \$36,223 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.

Putnam Management voluntarily reimbursed the fund \$1,016 for a trading error which occurred during the reporting period. The effect of the loss incurred and the reimbursement by Putnam Management of such amounts had no material impact on total return.

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	\$8,745
Class IB	8,087
Total	\$16,832

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 \$10 under the expense offset arrangements.

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

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

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

Statement of operations. Accrued pension liability is included in Payable for Trustee compensation and expenses in the Statement of assets and liabilities. The Trustees have terminated the Pension Plan with respect to any Trustee first elected after 2003.

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

Note 4 — Capital shares

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

	Class IA shares				Class IB shares			
	Six months ended 6/30/21		Year ended 12/31/20		Six months ended 6/30/21		Year ended 12/31/20	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Shares sold	55,533	\$513,083	86,929	\$799,049	743,486	\$6,872,679	916,814	\$8,823,591
Shares issued in connection with reinvestment of distributions	—	—	327,053	2,724,352	—	—	265,445	2,208,506
	55,533	513,083	413,982	3,523,401	743,486	6,872,679	1,182,259	11,032,097
Shares repurchased	(453,773)	(4,166,853)	(636,247)	(5,720,755)	(522,918)	(4,809,230)	(1,568,265)	(14,626,641)
Net increase (decrease)	(398,240)	\$(3,653,770)	(222,265)	\$(2,197,354)	220,568	\$2,063,449	(386,006)	\$(3,594,544)

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 12/31/20	Purchase cost	Sale proceeds	Investment income	Shares outstanding and fair value as of 6/30/21
Short-term investments					
Putnam Short Term Investment Fund*	\$—	\$7,730,913	\$5,860,502	\$556	\$1,870,411
Total Short-term investments	\$—	\$7,730,913	\$5,860,502	\$556	\$1,870,411

*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 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.

On July 27, 2017, the United Kingdom's Financial Conduct Authority ("FCA"), which regulates LIBOR, announced a desire to phase out the use of LIBOR by the end of 2021. On March 5, 2021, the FCA and LIBOR's administrator, ICE Benchmark Administration, announced that most LIBOR settings will no longer be published after the end of 2021 and a majority of U.S. dollar LIBOR settings will no longer be published after June 30, 2023. LIBOR has historically been a common benchmark interest rate index used to make adjustments to variable-rate loans. It is used throughout global banking and financial industries to determine interest rates for a variety of financial instruments and borrowing arrangements. The transition process might lead to increased volatility and illiquidity in markets that currently rely on LIBOR to determine interest rates. It could also lead to a reduction in the value of some LIBOR-based investments and reduce the effectiveness of new hedges placed against existing LIBOR-based investments. While some LIBOR-based instruments may contemplate a scenario where LIBOR is no longer available by providing for an alternative rate-setting methodology, not all may have such provisions and there may be significant uncertainty regarding the effectiveness of any such alternative methodologies. Since the usefulness of LIBOR as a benchmark could deteriorate during the transition period, these effects could occur prior to the date on which the applicable rate ceases to be published.

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

Note 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)	\$248,102,840	\$240,697,860
U.S. government securities (Long-term)	—	—
Total	\$248,102,840	\$240,697,860

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 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)	\$79,000,000
Purchased swap option contracts (contract amount)	\$126,800,000
Written TBA commitment option contracts (contract amount)	\$79,000,000
Written swap option contracts (contract amount)	\$100,900,000
Futures contracts (number of contracts)	400
Centrally cleared interest rate swap contracts (notional)	\$183,600,000
OTC total return swap contracts (notional)	\$7,100,000
Centrally cleared total return swap contracts (notional)	\$6,500,000
OTC credit default contracts (notional)	\$27,500,000

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	\$929,082	Payables	\$4,627,672
Interest rate contracts	Investments, Receivables, Net assets — Unrealized appreciation	3,886,980*	Payables, Net assets — Unrealized depreciation	5,319,736*
Total		\$4,816,062		\$9,947,408

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

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

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

Derivatives not accounted for as hedging instruments under ASC 815	Options	Futures	Swaps	Total
Credit contracts	\$—	\$—	\$(1,107,944)	\$(1,107,944)
Interest rate contracts	66,069	(124,242)	(540,111)	\$(598,284)
Total	\$66,069	\$(124,242)	\$(1,648,055)	\$(1,706,228)

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	\$—	\$—	\$961,922	\$961,922
Interest rate contracts	(1,010,175)	207,571	547,386	\$(255,218)
Total	\$(1,010,175)	\$207,571	\$1,509,308	\$706,704

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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	Deutsche Bank AG
Assets:							
Centrally cleared interest rate swap contracts [§]	\$—	\$—	\$188,562	\$—	\$—	\$—	\$—
OTC Total return swap contracts* [#]	267	3,408	—	—	—	451	—
Centrally cleared total return swap contracts [§]	—	—	—	—	—	—	—
OTC Credit default contracts — protection sold* [#]	—	—	—	—	—	—	—
OTC Credit default contracts — protection purchased* [#]	—	—	—	—	249,978	14,821	—
Futures contracts [§]	—	—	—	—	—	—	—
Forward currency contracts [#]	—	—	—	—	—	—	—
Forward premium swap option contracts [#]	254,557	59,653	—	74,248	—	—	—
Purchased swap options** [#]	2,828	—	—	—	—	—	—
Purchased options** [#]	—	—	—	—	—	—	—
Total Assets	\$257,652	\$63,061	\$188,562	\$74,248	\$249,978	\$15,272	\$—
Liabilities:							
Centrally cleared interest rate swap contracts [§]	—	—	138,854	—	—	—	—
OTC Total return swap contracts* [#]	—	4,400	—	36	—	759	—
Centrally cleared total return swap contracts [§]	—	—	4,657	—	—	—	—
OTC Credit default contracts — protection sold* [#]	—	—	—	—	1,038,902	696,141	133,584
OTC Credit default contracts — protection purchased* [#]	—	—	—	—	—	—	—
Futures contracts [§]	—	—	—	—	—	—	—
Forward premium swap option contracts [#]	421,457	41,826	—	61,833	—	—	—
Written swap options [#]	737,434	—	—	88,935	—	—	—
Written options [#]	—	—	—	—	—	—	—
Total Liabilities	\$1,158,891	\$46,226	\$143,511	\$150,804	\$1,038,902	\$696,900	\$133,584
Total Financial and Derivative Net Assets	\$(901,239)	\$16,835	\$45,051	\$(76,556)	\$(788,924)	\$(681,628)	\$(133,584)
Total collateral received (pledged)† [#]	\$(813,952)	\$—	\$—	\$(76,556)	\$(788,924)	\$(681,628)	\$(110,989)
Net amount	\$(87,287)	\$16,835	\$45,051	\$—	\$—	\$—	\$(22,595)
<i>Controlled collateral received (including TBA commitments)**</i>	\$—	\$—	\$—	\$—	\$—	\$—	\$—
<i>Uncontrolled collateral received</i>	\$—	\$—	\$—	\$—	\$—	\$—	\$—
<i>Collateral (pledged) (including TBA commitments)**</i>	\$(813,952)	\$—	\$—	\$(120,988)	\$(842,916)	\$(684,948)	\$(110,989)

* 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 \$204,979 and \$721,924, respectively.

Goldman Sachs International	JPMorgan Chase Bank N.A.	JPMorgan Securities LLC	Merrill Lynch International	Morgan Stanley & Co. International PLC	Toronto-Dominion Bank	UBS AG	Wells Fargo Bank, N.A.	Total
\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$188,562
2,337	220	125	—	—	—	—	—	6,808
—	—	—	—	—	—	—	—	—
—	—	96	—	—	—	—	—	96
115,611	—	67,153	93,485	387,938	—	—	—	928,986
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
14,786	185,744	—	—	28,618	21,564	105,421	36,509	781,100
—	—	—	—	657,915	—	—	—	660,743
—	33,679	—	—	—	—	—	—	33,679
\$132,734	\$219,643	\$67,374	\$93,485	\$1,074,471	\$21,564	\$105,421	\$36,509	\$2,599,974
—	—	—	—	—	—	—	—	138,854
6,537	—	1,738	—	—	—	—	—	13,470
—	—	—	—	—	—	—	—	4,657
367,972	—	29,747	267,334	2,093,992	—	—	—	4,627,672
—	—	—	—	—	—	—	—	—
—	—	17,856	—	—	—	—	—	17,856
24,443	217,813	—	—	30,217	17,718	71,655	32,827	919,789
256,097	370,904	—	—	1,238,488	23,092	91,494	—	2,806,444
—	203,318	—	—	—	—	—	—	203,318
\$655,049	\$792,035	\$49,341	\$267,334	\$3,362,697	\$40,810	\$163,149	\$32,827	\$8,732,060
\$(522,315)	\$(572,392)	\$18,033	\$(173,849)	\$(2,288,226)	\$(19,246)	\$(57,728)	\$3,682	\$(6,132,086)
\$(522,315)	\$(564,959)	\$—	\$(111,989)	\$(2,288,226)	\$—	\$(19,998)	\$—	
\$—	\$(7,433)	\$18,033	\$(61,860)	\$—	\$(19,246)	\$(37,730)	\$3,682	
\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
\$(605,901)	\$(564,959)	\$—	\$(111,989)	\$(2,351,764)	\$—	\$(19,998)	\$—	\$(6,228,404)

Note 9 — New accounting pronouncements

In March 2020, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2020-04, Reference Rate Reform (Topic 848) — *Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. The amendments in ASU 2020-04 provide optional temporary financial reporting relief from the effect of certain types of contract modifications due to the planned discontinuation of LIBOR and other interbank-offered based reference rates as of the end of 2021. The discontinuation of LIBOR was subsequently extended to June 30, 2023. ASU 2020-04 is effective for certain reference rate-related contract modifications that occur during the period March 12, 2020 through December 31, 2022. 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 considered any possible changes to the annual contract review materials furnished to the Contract Committee during the course of the previous year's review and, as applicable, identified those changes to Putnam Management. 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 2021, 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 2021, 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 2021 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, 2021. (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 any

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 certain exceptions primarily involving newly launched or repositioned funds, the current fee arrangements under the vast majority of the funds' 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. Under its management contract, your fund has the benefit of breakpoints in its management fee schedule that provide shareholders with reduced fee levels as assets under management in the Putnam family of funds increase. 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. (Two 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 schedule for your fund would be appropriate at this time.

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 and the funds' investor servicing agent, Putnam Investor Services, Inc. ("PSERV"), have implemented expense limitations that were in effect during your fund's fiscal year ending in 2020. These expense limitations were: (i) a contractual expense limitation applicable to specified open-end funds, including your fund, 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 had sufficiently low expenses that these expense limitations were not operative during their fiscal years ending in 2020. However, in the case of your fund, the second expense limitation applied during its fiscal year ending in 2020. Putnam Management and PSERV have agreed to maintain these expense limitations until at least April 30, 2023. In addition, Putnam Management contractually agreed to waive fees and/or reimburse expenses of your fund to the extent that expenses of the fund (excluding payments under the fund's distribution plans, brokerage, interest, taxes, investment-related expenses, extraordinary expenses, and acquired fund fees and expenses) would exceed an annual rate of 0.50% of its average net assets through at least April 30, 2023. During its fiscal year ending in 2020, your fund's expenses were reduced as a result of this expense limitation. The support of Putnam Management and PSERV 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 fees), 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 second quintile in total expenses (excluding any applicable 12b-1 fees) as of December 31, 2020. 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, 2020 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 the revenues, expenses and profitability of Putnam Management and its affiliates, 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 for the Putnam funds, including the fee schedule for your fund, represented reasonable compensation for the services being provided and represented an appropriate sharing between fund shareholders and Putnam Management of any 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 services provided and fees charged by Putnam Management and its affiliates to other clients, including defined benefit pension and profit-sharing plans, sub-advised mutual funds, private funds sponsored by affiliates of Putnam Management, model-only separately managed accounts and Putnam Management's newly launched exchange-traded funds. This information included, in cases where a 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 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 marketplaces. The Trustees considered the fact that in many cases fee rates across different asset classes are higher on average for mutual funds than for other clients, and the Trustees also considered 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 Putnam Management's 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 individual portfolio managers and with senior management 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, in the aggregate, The Putnam Funds generally performed well in 2020, which Putnam Management characterized as a challenging year with significant volatility and varied market dynamics. On an asset-weighted basis, the Putnam funds ranked in the second quartile of their peers as determined by Lipper Inc. ("Lipper") for the year ended December 31, 2020, and, on an asset-weighted-basis, delivered a gross return that was 2.3% ahead of their benchmarks in 2020. In addition to the performance of the individual Putnam funds, the Trustees considered, as they had in prior years, the performance of The Putnam Fund complex versus competitor fund complexes. In this regard, the Trustees observed that The Putnam Funds' relative performance, as reported in the Barron's/Lipper Fund Families survey, continued to be exceptionally strong over the long term, with The Putnam Funds ranking as the 3rd best performing mutual fund complex out of 44 complexes for the ten-year period, with 2020 marking the fourth consecutive year that The Putnam Funds have ranked in the top ten fund complexes for the ten-year period. The Trustees noted that The Putnam Funds' performance was solid over the one- and five-year periods, with The Putnam Funds ranking 22nd out of 53 complexes and 14th out of 50 complexes, respectively. In addition to the Barron's/Lipper Fund Families Survey, the Trustees also considered the funds' ratings assigned by Morningstar Inc., noting that 26 of the funds were four- or five-star rated at the end of 2020 (representing an increase of four funds year-over-year) and that this included seven funds that had achieved a five-star rating (representing an increase of two funds year-over-year). They also noted, however, the disappointing investment performance of some funds for periods ended December 31, 2020, 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 and evaluate whether additional actions to address areas of underperformance may be 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 comparisons of those returns to 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 peer group (Lipper VP (Underlying Funds) — U.S. Mortgage Funds) for the one-year, three-year, and five-year periods ended December 31, 2020 (the first quartile representing the best-performing funds and the fourth quartile the worst-performing funds):

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

Over the one-year, three-year and five-year periods ended December 31, 2020, there were 13, 13, and 11 funds, respectively, in your fund’s Lipper peer group. (When considering performance information, shareholders should be mindful that past performance is not a guarantee of future results.)

The Trustees expressed concern about your fund’s fourth quartile performance over the one-year and five-year periods ended December 31, 2020, and considered the circumstances that may have contributed to this disappointing performance. The Trustees considered Putnam Management’s observation that the fund’s underperformance over the one-year period was driven by significant underperformance in the securitized sector in 2020, which resulted from the outsized impact of the COVID-19 pandemic on the commercial mortgage space. The Trustees also noted Putnam Management’s view that the commercial real estate sector was not supported by monetary and fiscal policies to the same extent as other sectors and did not recover as strongly from the downturn in March 2020. The Trustees considered Putnam Management’s observation that the fund’s prepayment and term structure strategies had performed well in 2020.

In addition, the Trustees noted the fund’s strong performance since its repositioning from Putnam VT American Government Income Fund to Putnam VT Mortgage Securities Fund in April 2018 until the onset of the COVID-19 pandemic, as well as the fund’s solid performance since the fund was repositioned through March 31, 2021. The Trustees considered Putnam Management’s observation that the fund’s term structure and prepayment positioning and the rebound in commercial mortgage-backed investments contributed to the fund’s top quintile performance year to date, as of March 31, 2021. The Trustees noted that Putnam Management remained confident in the fund’s portfolio managers. The Trustees also considered Putnam Management’s continued efforts to support fund performance through certain initiatives, including structuring compensation for portfolio managers 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 had made selective hires and internal promotions in 2020 to strengthen its investment team.

As a general matter, the Trustees believe that cooperative efforts between the Trustees and Putnam Management represent the most effective way to address investment performance concerns that may arise from time to time. The Trustees noted that investors in the Putnam funds have, in effect, placed their trust in the Putnam organization, under the oversight of the funds’ Trustees, to make appropriate decisions regarding the management of the funds. Based on Putnam Management’s willingness to take appropriate measures to address fund performance issues and Putnam Management’s responsiveness to Trustee concerns about investment performance, the Trustees concluded that it continued to be advisable to seek change within Putnam Management to address performance shortcomings. In the Trustees’ view, the alternative of engaging a new investment adviser for an underperforming fund, with all the attendant risks and disruptions, would not likely provide any greater assurance of improved investment performance.

Brokerage and soft-dollar allocations; investor servicing

The Trustees considered various potential benefits that Putnam Management may receive in connection with the services it provides under the management contract with your fund. These include benefits related to brokerage allocation and the use of soft dollars, whereby a portion of the commissions paid by a fund for brokerage may be used to acquire research services that are expected to be useful to Putnam Management in managing the assets of the fund and of other clients. Subject to policies established by the Trustees, soft dollars generated by these means are used predominantly to acquire brokerage and research services (including third-party research and market data) that enhance Putnam Management’s investment capabilities and supplement Putnam Management’s internal research efforts. The Trustees indicated their continued intent to monitor regulatory and industry developments in this area with the assistance of their Brokerage Committee. In addition, with the assistance of their Brokerage Committee, the Trustees 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 PSERV and its distributor’s contract 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 investor services provided by PSERV were required for the operation of the funds, and that they were of a quality at least equal to those provided by other providers.

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, 2021, 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

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

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

Liquidity risk management program

Putnam, as the administrator of the fund's liquidity risk management program (appointed by the Board of Trustees), presented the most recent annual report on the program to the Trustees in April 2021. The report covered the structure of the program, including the program documents and related policies and procedures adopted to comply with Rule 22e-4 under the Investment Company Act of 1940, and reviewed the operation of the program from January 2020 through December 2020. The report included a description of the annual liquidity assessment of the fund that Putnam performed in November 2020. The report noted that there were no material compliance exceptions identified under Rule 22e-4 during the period. The report included a review of the governance of the program and the methodology for classification of the fund's investments. The report also included a discussion of liquidity monitoring during the period, including during the market liquidity challenges caused by the Covid-19 pandemic, and the impact those challenges had on the liquidity of the fund's investments. Putnam concluded that the program has been operating effectively and adequately to ensure compliance with Rule 22e-4.

Fund information

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Investment Sub-Advisor

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Marketing Services

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George Putnam, III
Robert L. Reynolds
Manoj P. Singh
Mona K. Sutphen

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