

# Putnam VT Mortgage Securities Fund

## The fund's portfolio

9/30/23 (Unaudited)

### U.S. GOVERNMENT AND AGENCY MORTGAGE OBLIGATIONS (143.5%)(a)

	Principal amount	Value
<b>U.S. Government Guaranteed Mortgage Obligations (28.7%)</b>		
Government National Mortgage Association Pass-Through Certificates		
6.50%, with due dates from 4/15/28 to 7/20/36	\$14,786	\$15,131
6.00%, with due dates from 4/15/28 to 11/20/38	35,701	36,274
5.50%, TBA, 10/1/53	1,000,000	970,504
5.50%, 4/20/38	50,682	50,594
4.50%, TBA, 10/1/53	1,000,000	923,664
4.50%, 5/20/48	65,218	61,105
4.00%, TBA, 10/1/53	1,000,000	900,973
3.50%, TBA, 10/1/53	1,000,000	876,054
3.00%, TBA, 10/1/53	1,000,000	847,446
2.50%, TBA, 10/1/53	2,000,000	1,634,284
2.00%, TBA, 10/1/53	2,000,000	1,581,627
		<b>7,897,656</b>
<b>U.S. Government Agency Mortgage Obligations (114.8%)</b>		
Federal Home Loan Mortgage Corporation Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 7/1/31	6,149	6,370
7.00%, with due dates from 11/1/26 to 4/1/32	33,075	34,088
Federal National Mortgage Association Pass-Through Certificates		
7.50%, with due dates from 9/1/30 to 11/1/30	2,836	2,914
7.00%, with due dates from 12/1/28 to 12/1/35	122,743	127,650
6.50%, 9/1/36	5,982	6,162
Uniform Mortgage-Backed Securities		
6.50%, TBA, 10/1/53	2,000,000	2,009,560
6.00%, TBA, 10/1/53	7,000,000	6,909,489
5.50%, TBA, 10/1/53	2,000,000	1,933,126
4.50%, TBA, 10/1/53	2,000,000	1,836,640
4.00%, TBA, 10/1/53	2,000,000	1,781,249
3.50%, TBA, 10/1/53	3,000,000	2,579,531
3.00%, TBA, 10/1/53	2,000,000	1,653,516
2.50%, TBA, 10/1/53	6,000,000	4,758,981
2.50%, TBA, 10/1/38	1,000,000	880,234
2.00%, TBA, 10/1/53	7,000,000	5,321,054
2.00%, TBA, 10/1/38	1,000,000	856,422
1.50%, TBA, 10/1/38	1,000,000	832,350

31,529,336

Total U.S. government and agency mortgage obligations (cost \$40,385,275)

\$39,426,992

**MORTGAGE-BACKED SECURITIES (81.7%)(a)**

	Principal amount	Value
<b>Agency collateralized mortgage obligations (28.3%)</b>		
Federal Home Loan Mortgage Corporation		
REMICs Ser. 4018, Class DI, IO, 4.50%, 7/15/41	\$47,485	\$2,755
REMICs Ser. 4953, Class AI, IO, 4.00%, 2/25/50	712,555	152,715
REMICs Ser. 23-5349, Class IB, IO, 4.00%, 12/15/46	300,000	55,319
REMICs Ser. 4019, Class JI, IO, 4.00%, 5/15/41	78,758	5,461
REMICs IFB Ser. 3408, Class EK, ((-4.024 x US 30 Day Average SOFR) + 25.33%), 3.952%, 4/15/37	10,389	11,203
REMICs IFB Ser. 3065, Class DC, ((-3 x US 30 Day Average SOFR) + 19.52%), 3.577%, 3/15/35	74,522	72,048
REMICs Ser. 5050, Class IM, IO, 3.50%, 10/25/50	565,350	103,266
REMICs Ser. 5080, Class IQ, IO, 3.50%, 4/25/50	699,461	145,003
REMICs Ser. 4136, Class IQ, IO, 3.50%, 11/15/42	194,466	26,937
Strips Ser. 304, Class C37, IO, 3.50%, 12/15/27	39,793	1,314
REMICs Ser. 5071, Class IV, IO, 3.00%, 12/25/50	1,063,971	183,146
REMICs Ser. 23-5349, Class IA, IO, 3.00%, 12/15/42	700,000	60,997
REMICs IFB Ser. 5003, Class DS, IO, ((-1 x US 30 Day Average SOFR) + 5.99%), 0.671%, 8/25/50	637,757	63,084
REMICs IFB Ser. 4915, Class SD, IO, ((-1 x US 30 Day Average SOFR) + 5.94%), 0.621%, 9/25/49	457,992	37,452
REMICs IFB Ser. 4933, Class SA, IO, ((-1 x US 30 Day Average SOFR) + 5.89%), 0.571%, 12/25/49	664,384	64,566
REMICs Ser. 3391, PO, zero %, 4/15/37	2,553	2,065
Federal National Mortgage Association		
REMICs Ser. 15-58, Class KI, IO, 6.00%, 3/25/37	291,092	50,809
Trust FRB Ser. 03-W8, Class 3F2, (US 30 Day Average SOFR + 0.46%), 5.779%, 5/25/42	1,768	1,755
REMICs Ser. 15-86, Class MI, IO, 5.50%, 11/25/45	245,900	39,555
REMICs Ser. 18-51, Class BI, IO, 5.50%, 7/25/38	282,418	24,131
REMICs Ser. 17-19, Class IH, IO, 5.00%, 3/25/47	269,759	38,379
REMICs Ser. 20-31, IO, 4.50%, 5/25/50	1,182,457	238,883
REMICs Ser. 23-49, Class IC, IO, 4.00%, 11/25/49	200,000	32,313
REMICs Ser. 12-104, Class HI, IO, 4.00%, 9/25/27	78,223	3,079
REMICs Ser. 21-25, Class IJ, IO, 3.50%, 5/25/51	457,875	86,085
REMICs Ser. 20-62, Class MI, IO, 3.50%, 5/25/49	1,134,051	200,808

REMICs Ser. 23-49, Class IB, IO, 3.50%, 3/25/47	600,000	91,162
REMICs IFB Ser. 08-24, Class SP, ((-3.667 x US 30 Day Average SOFR) + 22.86%), 3.375%, 2/25/38	25,435	24,568
REMICs Ser. 20-96, IO, 3.00%, 1/25/51	835,900	136,912
REMICs Ser. 23-49, Class IA, IO, 3.00%, 8/25/46	600,000	68,135
REMICs Ser. 21-12, Class NI, IO, 2.50%, 3/25/51	703,912	114,083
REMICs Ser. 21-3, Class IB, IO, 2.50%, 2/25/51	727,789	118,084
REMICs Ser. 21-3, Class NI, IO, 2.50%, 2/25/51	542,747	72,790
REMICs IFB Ser. 11-123, Class KS, IO, ((-1 x US 30 Day Average SOFR) + 6.49%), 1.171%, 10/25/41	16,569	1,013
REMICs IFB Ser. 18-20, Class SB, IO, ((-1 x US 30 Day Average SOFR) + 6.14%), 0.821%, 3/25/48	332,095	23,081
REMICs IFB Ser. 18-38, Class SP, IO, ((-1 x US 30 Day Average SOFR) + 6.09%), 0.771%, 6/25/48	682,778	60,336
REMICs IFB Ser. 20-41, Class SE, IO, ((-1 x US 30 Day Average SOFR) + 5.99%), 0.671%, 6/25/50	1,264,162	116,339
REMICs IFB Ser. 16-50, Class SM, IO, ((-1 x US 30 Day Average SOFR) + 5.99%), 0.671%, 8/25/46	523,626	26,577
REMICs IFB Ser. 16-8, Class SA, IO, ((-1 x US 30 Day Average SOFR) + 5.94%), 0.621%, 3/25/46	747,921	61,762
REMICs IFB Ser. 19-71, Class CS, IO, ((-1 x US 30 Day Average SOFR) + 5.89%), 0.571%, 11/25/49	64,105	7,455
REMICs Ser. 08-53, Class DO, PO, zero %, 7/25/38	12,512	9,854
Government National Mortgage Association		
Ser. 16-75, Class LI, IO, 6.00%, 1/20/40	166,075	27,926
Ser. 20-167, Class IT, IO, 5.00%, 9/20/47	447,279	88,832
Ser. 15-89, Class LI, IO, 5.00%, 12/20/44	275,546	54,161
Ser. 14-76, IO, 5.00%, 5/20/44	153,652	30,417
Ser. 13-51, Class QI, IO, 5.00%, 2/20/43	112,742	15,156
Ser. 13-6, Class OI, IO, 5.00%, 1/20/43	50,110	9,264
Ser. 10-35, Class UI, IO, 5.00%, 3/20/40	71,549	14,626
Ser. 10-9, Class UI, IO, 5.00%, 1/20/40	232,487	47,878
Ser. 09-121, Class UI, IO, 5.00%, 12/20/39	181,980	37,206
Ser. 18-1, IO, 4.50%, 1/20/48	257,518	51,001
Ser. 13-34, Class HI, IO, 4.50%, 3/20/43	166,349	30,193
Ser. 13-39, Class IJ, IO, 4.50%, 3/20/43	460,763	85,678
Ser. 10-35, Class AI, IO, 4.50%, 3/20/40	157,160	26,676
Ser. 10-35, Class DI, IO, 4.50%, 3/20/40	95,484	17,407
Ser. 10-35, Class QI, IO, 4.50%, 3/20/40	54,930	9,518
Ser. 09-121, Class CI, IO, 4.50%, 12/16/39	221,504	40,578
Ser. 15-53, Class MI, IO, 4.00%, 4/16/45	194,233	35,797
Ser. 14-100, Class NI, IO, 4.00%, 6/20/43	117,094	7,278
Ser. 13-165, Class IL, IO, 4.00%, 3/20/43	49,537	7,626
Ser. 12-56, Class IB, IO, 4.00%, 4/20/42	152,504	25,884
Ser. 12-38, Class MI, IO, 4.00%, 3/20/42	609,177	102,725
Ser. 14-182, Class BI, IO, 4.00%, 1/20/39	257,945	25,009
Ser. 21-177, Class IG, IO, 3.50%, 10/20/51	1,451,407	213,131
Ser. 20-175, Class JI, IO, 3.50%, 11/20/50	1,549,358	269,376
Ser. 15-168, Class IG, IO, 3.50%, 3/20/43	96,170	12,500
Ser. 12-136, IO, 3.50%, 11/20/42	248,097	35,532

Ser. 14-102, Class IG, IO, 3.50%, 3/16/41	33,135	1,461
Ser. 15-52, Class KI, IO, 3.50%, 11/20/40	88,681	5,525
Ser. 21-176, Class GI, IO, 3.00%, 10/20/51	873,756	126,249
Ser. 21-188, Class IU, IO, 3.00%, 10/20/51	594,724	116,431
Ser. 21-188, Class IW, IO, 3.00%, 10/20/51	609,254	97,392
Ser. 21-76, Class NI, IO, 3.00%, 8/20/50	1,256,681	196,419
Ser. 14-174, Class AI, IO, 3.00%, 11/16/29	141,296	6,895
Ser. 16-H13, Class IK, IO, 2.66%, 6/20/66 <sup>(WAC)</sup>	589,200	48,047
Ser. 21-7, Class MI, IO, 2.50%, 1/20/51	1,044,650	141,701
Ser. 21-8, Class IP, IO, 2.50%, 1/20/51	1,271,435	175,327
Ser. 20-162, Class UI, IO, 2.50%, 10/20/50	928,703	120,349
Ser. 20-138, Class IB, IO, 2.50%, 9/20/50	1,135,132	146,611
Ser. 16-H04, Class HI, IO, 2.357%, 7/20/65 <sup>(WAC)</sup>	332,072	8,866
Ser. 16-H07, Class PI, IO, 2.293%, 3/20/66 <sup>(WAC)</sup>	1,244,206	81,512
Ser. 16-H24, IO, 2.156%, 9/20/66 <sup>(WAC)</sup>	610,948	46,179
IFB Ser. 23-66, Class PS, ((-2.5 x US 30 Day Average SOFR) + 15.38%), 2.089%, 5/20/53	195,371	183,669
Ser. 15-H23, Class TI, IO, 1.88%, 9/20/65 <sup>(WAC)</sup>	589,393	24,106
IFB Ser. 23-20, Class SP, IO, ((-1 x US 30 Day Average SOFR) + 7.00%), 1.686%, 2/20/53	2,374,878	133,604
Ser. 14-H25, Class BI, IO, 1.608%, 12/20/64 <sup>(WAC)</sup>	595,661	15,450
IFB Ser. 23-84, Class UA, ((-2 x US 30 Day Average SOFR) + 12.00%), 1.371%, 6/20/53	140,933	115,236
IFB Ser. 13-182, Class SP, IO, ((-1 x CME Term SOFR 1 Month) + 6.59%), 1.261%, 12/20/43	121,796	10,776
IFB Ser. 11-156, Class SK, IO, ((-1 x CME Term SOFR 1 Month) + 6.49%), 1.161%, 4/20/38	370,236	33,699
Ser. 17-H14, Class LI, IO, 0.983%, 6/20/67 <sup>(WAC)</sup>	425,312	19,307
IFB Ser. 21-98, Class SK, IO, ((-1 x CME Term SOFR 1 Month) + 6.19%), 0.861%, 6/20/51	885,909	88,662
IFB Ser. 20-112, Class MS, IO, ((-1 x CME Term SOFR 1 Month) + 6.19%), 0.861%, 8/20/50	1,438,628	147,474
Ser. 17-H20, Class AI, IO, 0.848%, 10/20/67 <sup>(WAC)</sup>	1,272,766	47,124
IFB Ser. 13-87, Class SA, IO, ((-1 x CME Term SOFR 1 Month) + 6.09%), 0.761%, 6/20/43	572,238	43,386
Ser. 15-H20, Class CI, IO, 0.749%, 8/20/65 <sup>(WAC)</sup>	837,380	41,450
FRB Ser. 16-H19, Class AI, IO, 0.73%, 9/20/66 <sup>(WAC)</sup>	1,056,551	39,492
FRB Ser. 15-H16, Class XI, IO, 0.724%, 7/20/65 <sup>(WAC)</sup>	457,766	21,698
IFB Ser. 19-56, Class SK, IO, ((-1 x CME Term SOFR 1 Month) + 6.04%), 0.711%, 5/20/49	400,656	30,859
IFB Ser. 19-158, Class AS, IO, ((-1 x CME Term SOFR 1 Month) + 6.04%), 0.705%, 9/16/43	553,934	42,804
Ser. 15-H14, Class AI, IO, 0.692%, 6/20/65 <sup>(WAC)</sup>	1,201,875	42,647
IFB Ser. 18-148, Class GS, IO, ((-1 x CME Term SOFR 1 Month) + 5.99%), 0.655%, 2/16/46	308,113	22,883
IFB Ser. 23-56, Class SK, IO, ((-1 x CME Term SOFR 1 Month) + 5.94%), 0.611%, 4/20/51	1,131,018	90,489
IFB Ser. 20-7, Class SK, IO, ((-1 x CME Term SOFR 1 Month) + 5.94%), 0.611%, 1/20/50	564,943	46,560

IFB Ser. 19-125, Class SG, IO, ((-1 x CME Term SOFR 1 Month) + 5.94%), 0.611%, 10/20/49	622,367	64,310
IFB Ser. 19-110, Class SQ, IO, ((-1 x CME Term SOFR 1 Month) + 5.94%), 0.611%, 9/20/49	650,149	53,148
Ser. 16-H18, Class QI, IO, 0.57%, 6/20/66 <sup>(WAC)</sup>	659,701	28,277
IFB Ser. 19-121, Class SD, IO, ((-1 x CME Term SOFR 1 Month) + 5.89%), 0.561%, 10/20/49	254,856	27,271
IFB Ser. 20-47, Class SA, IO, ((-1 x CME Term SOFR 1 Month) + 5.89%), 0.561%, 5/20/44	463,202	31,590
IFB Ser. 23-40, Class SP, IO, ((-1 x US 30 Day Average SOFR) + 5.65%), 0.336%, 3/20/53	3,459,958	106,901
IFB Ser. 23-43, Class S, IO, ((-1 x US 30 Day Average SOFR) + 5.60%), 0.286%, 3/20/53	4,493,247	125,569
IFB Ser. 22-209, Class SG, IO, ((-1 x US 30 Day Average SOFR) + 5.60%), 0.286%, 12/20/52	3,600,689	161,380
Ser. 15-H13, Class AI, IO, 0.246%, 6/20/65 <sup>(WAC)</sup>	603,850	23,291
Ser. 17-H08, Class GI, IO, 0.229%, 2/20/67 <sup>(WAC)</sup>	474,965	37,807
Ser. 17-H03, Class KI, IO, 0.178%, 1/20/67 <sup>(WAC)</sup>	785,148	60,770
Ser. 18-H01, Class XI, IO, 0.107%, 1/20/68 <sup>(WAC)</sup>	731,027	43,759
Ser. 16-H27, Class GI, IO, 0.102%, 12/20/66 <sup>(WAC)</sup>	913,753	40,729
Ser. 15-H22, Class AI, IO, 0.098%, 9/20/65 <sup>(WAC)</sup>	840,001	37,464
Ser. 17-H25, Class CI, IO, 0.097%, 12/20/67 <sup>(WAC)</sup>	885,457	49,507
Ser. 16-H24, Class JI, IO, 0.091%, 11/20/66 <sup>(WAC)</sup>	338,774	15,663
Ser. 15-H10, Class HI, IO, 0.075%, 4/20/65 <sup>(WAC)</sup>	1,183,244	42,360
Ser. 16-H06, Class DI, IO, 0.07%, 7/20/65 <sup>(WAC)</sup>	700,929	13,194
Ser. 17-H06, Class MI, IO, 0.064%, 2/20/67 <sup>(WAC)</sup>	799,275	24,924
Ser. 18-H02, Class IM, IO, 0.059%, 2/20/68 <sup>(WAC)</sup>	519,545	27,876
Ser. 14-H21, Class AI, IO, 0.052%, 10/20/64 <sup>(WAC)</sup>	821,516	22,369
Ser. 17-H04, Class BI, IO, 0.038%, 2/20/67 <sup>(WAC)</sup>	514,391	18,478
Ser. 16-H03, Class AI, IO, 0.034%, 1/20/66 <sup>(WAC)</sup>	727,021	22,648
Ser. 16-H24, Class BI, IO, 0.032%, 11/20/66 <sup>(WAC)</sup>	1,847,019	62,006
Ser. 16-H23, Class NI, IO, 0.03%, 10/20/66 <sup>(WAC)</sup>	979,109	36,717
Ser. 17-H25, IO, 0.027%, 11/20/67 <sup>(WAC)</sup>	564,297	17,528
Ser. 15-H04, Class AI, IO, 0.023%, 12/20/64 <sup>(WAC)</sup>	538,702	13,864
Ser. 17-H10, Class MI, IO, 0.021%, 4/20/67 <sup>(WAC)</sup>	572,866	15,066
Ser. 17-H08, Class NI, IO, 0.019%, 3/20/67 <sup>(WAC)</sup>	501,627	14,798
Ser. 17-H09, IO, 0.014%, 4/20/67 <sup>(WAC)</sup>	512,928	12,090
Ser. 16-H10, Class AI, IO, zero %, 4/20/66 <sup>(WAC)</sup>	689,686	10,147

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**7,778,494**

**Commercial mortgage-backed securities (29.7%)**

BANK 144A Ser. 18-BN11, Class D, 3.00%, 3/15/61	59,000	34,605
Barclays Commercial Mortgage Trust 144A		
Ser. 19-C4, Class E, 3.25%, 8/15/52	111,000	62,957
Ser. 19-C3, Class D, 3.00%, 5/15/52	65,000	40,905
Benchmark Mortgage Trust FRB Ser. 18-B1, Class C, 4.329%, 1/15/51 <sup>(WAC)</sup>	59,000	41,175
Benchmark Mortgage Trust 144A		

FRB Ser. 18-B3, Class D, 3.176%, 4/10/51 <sup>(WAC)</sup>	218,000	118,293
Ser. 19-B11, Class D, 3.00%, 5/15/52	115,000	70,049
Ser. 18-B1, Class E, 3.00%, 1/15/51 <sup>(WAC)</sup>	108,000	56,575
Ser. 19-B13, Class D, 2.50%, 8/15/57	105,000	57,908
BWAY Mortgage Trust 144A FRB Ser. 22-26BW, Class F, 5.029%, 2/10/44 <sup>(WAC)</sup>	138,000	82,161
CD Commercial Mortgage Trust		
FRB Ser. 17-CD3, Class C, 4.696%, 2/10/50 <sup>(WAC)</sup>	134,000	72,145
Ser. 17-CD3, Class B, 3.984%, 2/10/50 <sup>(WAC)</sup>	60,000	38,873
CD Commercial Mortgage Trust 144A		
Ser. 17-CD3, Class D, 3.25%, 2/10/50	140,000	62,674
Ser. 19-CD8, Class D, 3.00%, 8/15/57	84,000	52,038
Citigroup Commercial Mortgage Trust FRB Ser. 15- GC27, Class C, 4.566%, 2/10/48 <sup>(WAC)</sup>	116,000	102,562
Citigroup Commercial Mortgage Trust 144A		
FRB Ser. 15-GC27, Class D, 4.566%, 2/10/48 <sup>(WAC)</sup>	70,000	59,858
Ser. 15-P1, Class D, 3.225%, 9/15/48	157,000	125,450
Ser. 15-GC27, Class E, 3.00%, 2/10/48	150,000	95,227
COMM Mortgage Trust		
FRB Ser. 14-CR16, Class C, 5.08%, 4/10/47 <sup>(WAC)</sup>	119,000	100,156
FRB Ser. 13-CR13, Class C, 4.95%, 11/10/46 <sup>(WAC)</sup>	99,000	89,290
FRB Ser. 18-COR3, Class C, 4.711%, 5/10/51 <sup>(WAC)</sup>	67,000	45,865
FRB Ser. 15-CR23, Class C, 4.443%, 5/10/48 <sup>(WAC)</sup>	72,000	62,102
Ser. 13-CR12, Class AM, 4.30%, 10/10/46	106,000	92,290
Ser. 15-DC1, Class B, 4.035%, 2/10/48 <sup>(WAC)</sup>	85,000	73,790
FRB Ser. 15-CR26, Class D, 3.614%, 10/10/48 <sup>(WAC)</sup>	165,000	109,789
COMM Mortgage Trust 144A		
FRB Ser. 13-LC13, Class D, 5.387%, 8/10/46 <sup>(WAC)</sup>	101,000	88,159
FRB Ser. 14-CR17, Class D, 5.006%, 5/10/47 <sup>(WAC)</sup>	228,000	206,359
FRB Ser. 14-CR17, Class E, 5.006%, 5/10/47 <sup>(WAC)</sup>	124,000	82,510
FRB Ser. 15-LC19, Class E, 4.354%, 2/10/48 <sup>(WAC)</sup>	115,000	86,376
FRB Ser. 13-CR6, Class D, 3.988%, 3/10/46 <sup>(WAC)</sup>	160,000	112,017
Ser. 12-CR4, Class B, 3.703%, 10/15/45	123,000	75,192
Ser. 17-COR2, Class D, 3.00%, 9/10/50	113,000	76,840
FRB Ser. 18-COR3, Class D, 2.961%, 5/10/51 <sup>(WAC)</sup>	112,000	57,225
Credit Suisse Mortgage Trust 144A FRB Ser. 22- NWPT, Class A, 8.475%, 9/9/24	111,000	111,827
CSAIL Commercial Mortgage Trust		
FRB Ser. 15-C3, Class C, 4.497%, 8/15/48 <sup>(WAC)</sup>	56,000	40,575
FRB Ser. 15-C1, Class C, 4.392%, 4/15/50 <sup>(WAC)</sup>	124,000	93,654
FRB Ser. 15-C2, Class C, 4.314%, 6/15/57 <sup>(WAC)</sup>	69,000	52,103
FRB Ser. 15-C2, Class D, 4.314%, 6/15/57 <sup>(WAC)</sup>	199,000	112,590
CSAIL Commercial Mortgage Trust 144A		

FRB Ser. 18-C14, Class D, 5.064%, 11/15/51 <sup>(WAC)</sup>	73,000	47,156
Ser. 19-C17, Class D, 2.50%, 9/15/52	138,000	72,601
DBUBS Mortgage Trust 144A FRB Ser. 11-LC3A, Class D, 5.537%, 8/10/44 <sup>(WAC)</sup>	121,683	107,871
Federal Home Loan Mortgage Corporation 144A Multifamily Structured Credit Risk FRB Ser. 21-MN3, Class M2, 9.315%, 11/25/51	148,000	140,448
GS Mortgage Securities Corp., II 144A FRB Ser. 13- GC10, Class D, 4.688%, 2/10/46 <sup>(WAC)</sup>	154,000	133,197
GS Mortgage Securities Trust		
FRB Ser. 14-GC18, Class C, 5.234%, 1/10/47 <sup>(WAC)</sup>	155,000	85,250
FRB Ser. 14-GC22, Class C, 4.842%, 6/10/47 <sup>(WAC)</sup>	68,000	51,793
FRB Ser. 15-GC30, Class C, 4.204%, 5/10/50 <sup>(WAC)</sup>	40,000	36,184
GS Mortgage Securities Trust 144A		
FRB Ser. 14-GC24, Class D, 4.657%, 9/10/47 <sup>(WAC)</sup>	292,000	125,636
FRB Ser. 13-GC13, Class D, 3.965%, 7/10/46 <sup>(WAC)</sup>	105,000	45,355
Ser. 17-GS5, Class D, 3.509%, 3/10/50 <sup>(WAC)</sup>	61,000	28,733
JPMBB Commercial Mortgage Securities Trust FRB Ser. 14-C22, Class C, 4.70%, 9/15/47 <sup>(WAC)</sup>	125,000	108,408
JPMBB Commercial Mortgage Securities Trust 144A		
FRB Ser. C14, Class D, 4.385%, 8/15/46 <sup>(WAC)</sup>	229,000	118,950
FRB Ser. 14-C25, Class D, 4.081%, 11/15/47 <sup>(WAC)</sup>	139,000	71,814
JPMDB Commercial Mortgage Securities Trust		
FRB Ser. 18-C8, Class C, 4.923%, 6/15/51 <sup>(WAC)</sup>	33,000	26,400
Ser. 17-C5, Class C, 4.512%, 3/15/50 <sup>(WAC)</sup>	88,000	62,012
JPMDB Commercial Mortgage Securities Trust 144A		
FRB Ser. 16-C2, Class D, 3.481%, 6/15/49 <sup>(WAC)</sup>	157,000	94,640
JPMorgan Chase Commercial Mortgage Securities Trust		
Ser. 06-LDP9, Class AMS, 5.337%, 5/15/47	102,022	96,095
FRB Ser. 13-LC11, Class D, 4.261%, 4/15/46 <sup>(WAC)</sup>	168,000	103,526
FRB Ser. 13-C10, Class C, 4.25%, 12/15/47 <sup>(WAC)</sup>	80,320	70,017
Ser. 13-LC11, Class B, 3.499%, 4/15/46	49,000	42,802
JPMorgan Chase Commercial Mortgage Securities Trust 144A FRB Ser. 11-C3, Class D, 5.71%, 2/15/46 <sup>(WAC)</sup>	145,000	98,640
Morgan Stanley Bank of America Merrill Lynch Trust		
FRB Ser. 15-C25, Class C, 4.668%, 10/15/48 <sup>(WAC)</sup>	122,000	106,884
FRB Ser. 14-C16, Class B, 4.438%, 6/15/47 <sup>(WAC)</sup>	114,000	104,196
FRB Ser. 15-C22, Class C, 4.341%, 4/15/48 <sup>(WAC)</sup>	98,000	85,842
FRB Ser. 17-C34, Class C, 4.314%, 11/15/52 <sup>(WAC)</sup>	60,000	47,723
Ser. 14-C19, Class C, 4.00%, 12/15/47	69,000	62,337
FRB Ser. 13-C9, Class C, 3.884%, 5/15/46 <sup>(WAC)</sup>	58,000	46,400
Morgan Stanley Bank of America Merrill Lynch Trust 144A		

FRB Ser. 14-C15, Class D, 5.013%, 4/15/47 <sup>(WAC)</sup>	180,000	164,739
FRB Ser. 12-C5, Class E, 4.771%, 8/15/45 <sup>(WAC)</sup>	63,000	56,564
FRB Ser. 12-C6, Class E, 4.531%, 11/15/45 <sup>(WAC)</sup>	124,000	80,600
FRB Ser. 15-C24, Class E, 4.468%, 5/15/48 <sup>(WAC)</sup>	104,000	76,024
FRB Ser. 15-C23, Class D, 4.276%, 7/15/50 <sup>(WAC)</sup>	103,000	86,605
FRB Ser. 13-C10, Class F, 4.095%, 7/15/46 <sup>(WAC)</sup>	141,000	7,080
Morgan Stanley Capital I Trust		
FRB Ser. 18-H3, Class C, 5.013%, 7/15/51 <sup>(WAC)</sup>	125,000	100,292
FRB Ser. 15-MS1, Class C, 4.158%, 5/15/48 <sup>(WAC)</sup>	172,000	152,428
Morgan Stanley Capital I Trust 144A FRB Ser. 11-C3, Class E, 5.109%, 7/15/49 <sup>(WAC)</sup>	53,094	49,563
Multifamily Connecticut Avenue Securities Trust 144A FRB Ser. 19-01, Class M10, 8.679%, 10/25/49	412,084	401,393
Ready Capital Mortgage Financing, LLC 144A FRB Ser. 22-FL9, Class A, 7.787%, 6/25/37	71,136	71,081
RIAL Issuer, Ltd. 144A FRB Ser. 22-FL8, Class B, 8.581%, 1/19/37 (Bermuda)	109,000	104,095
UBS Commercial Mortgage Trust		
FRB Ser. 18-C13, Class C, 5.145%, 10/15/51 <sup>(WAC)</sup>	54,000	43,532
FRB Ser. 18-C11, Class C, 5.035%, 6/15/51 <sup>(WAC)</sup>	117,000	86,709
FRB Ser. 17-C3, Class C, 4.535%, 8/15/50 <sup>(WAC)</sup>	202,000	161,523
UBS Commercial Mortgage Trust 144A		
FRB Ser. 12-C1, Class E, 5.00%, 5/10/45 <sup>(WAC)</sup>	216,661	160,979
FRB Ser. 18-C11, Class D, 3.00%, 6/15/51 <sup>(WAC)</sup>	216,000	131,060
Wells Fargo Commercial Mortgage Trust		
FRB Ser. 16-NXS5, Class D, 5.143%, 1/15/59 <sup>(WAC)</sup>	51,000	27,272
FRB Ser. 18-C46, Class C, 5.136%, 8/15/51 <sup>(WAC)</sup>	51,000	40,682
FRB Ser. 15-SG1, Class B, 4.601%, 9/15/48 <sup>(WAC)</sup>	138,000	120,704
FRB Ser. 15-C29, Class D, 4.359%, 6/15/48 <sup>(WAC)</sup>	99,000	84,898
FRB Ser. 20-C57, Class C, 4.157%, 8/15/53 <sup>(WAC)</sup>	23,000	18,066
Ser. 15-C31, Class D, 3.852%, 11/15/48	81,000	60,937
Ser. 16-BNK1, Class C, 3.071%, 8/15/49 <sup>(WAC)</sup>	65,000	36,846
Wells Fargo Commercial Mortgage Trust 144A		
FRB Ser. 15-C31, Class E, 4.748%, 11/15/48 <sup>(WAC)</sup>	118,000	68,889
FRB Ser. 15-C30, Class D, 4.648%, 9/15/58 <sup>(WAC)</sup>	98,000	73,132
Ser. 17-RB1, Class D, 3.401%, 3/15/50	107,000	48,384
Ser. 16-C33, Class D, 3.123%, 3/15/59	122,000	86,884
Ser. 20-C55, Class D, 2.50%, 2/15/53	100,000	49,534
WF-RBS Commercial Mortgage Trust Ser. 14-C21, Class C, 4.234%, 8/15/47 <sup>(WAC)</sup>	167,000	140,093
WF-RBS Commercial Mortgage Trust 144A		
FRB Ser. 13-UBS1, Class E, 5.206%, 3/15/46 <sup>(WAC)</sup>	128,000	123,881
FRB Ser. 11-C4, Class C, 4.993%, 6/15/44 <sup>(WAC)</sup>	43,675	40,499
FRB Ser. 12-C9, Class D, 4.876%, 11/15/45 <sup>(WAC)</sup>	54,852	52,152

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**8,170,194**



**Residential mortgage-backed securities (non-agency) (23.7%)**

American Home Mortgage Investment Trust FRB Ser. 07-1, Class GA1C, (CME Term SOFR 1 Month + 0.30%), 5.624%, 5/25/47	378,028	220,619
Bayview Financial Mortgage Pass-Through Trust Ser. 06-C, Class 1A3, 6.528%, 11/28/36	184,855	171,637
Carrington Mortgage Loan Trust FRB Ser. 06-NC2, Class A4, (CME Term SOFR 1 Month + 0.59%), 5.914%, 6/25/36	394,742	371,587
Chevy Chase Funding, LLC Mortgage-Backed Certificates 144A FRB Ser. 06-4A, Class A2, (CME Term SOFR 1 Month + 0.29%), 5.614%, 11/25/47	129,248	95,225
Countrywide Alternative Loan Trust FRB Ser. 06-OA19, Class A1, (CME Term SOFR 1 Month + 0.29%), 5.619%, 2/20/47	159,674	120,905
Countrywide Asset-Backed Certificates FRB Ser. 07-10, Class 1A1, (CME Term SOFR 1 Month + 0.29%), 5.614%, 6/25/47	209,076	193,459
CSMC Trust 144A FRB Ser. 20-RPL2, Class A12, 3.513%, 2/25/60(WAC)	112,924	113,183
Eagle Re, Ltd. 144A FRB Ser. 20-1, Class B1, (ICE LIBOR USD 1 Month + 2.85%), 8.284%, 1/25/30 (Bermuda)	182,000	182,036
Federal Home Loan Mortgage Corporation		
Structured Agency Credit Risk Debt FRN Ser. 15-HQA1, Class B, (US 30 Day Average SOFR + 8.91%), 14.229%, 3/25/28	246,749	254,281
Structured Agency Credit Risk Debt FRN Ser. 16-DNA3, Class M3, (US 30 Day Average SOFR + 5.11%), 10.429%, 12/25/28	130,189	138,981
Seasoned Credit Risk Transfer Trust Ser. 19-3, Class M, 4.75%, 10/25/58(WAC)	50,000	45,484
Federal Home Loan Mortgage Corporation 144A		
Structured Agency Credit Risk Trust FRB Ser. 19-HQA1, Class B2, (US 30 Day Average SOFR + 12.36%), 17.679%, 2/25/49	222,000	274,511
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-DNA5, Class B2, (US 30 Day Average SOFR + 11.50%), 16.815%, 10/25/50	56,000	72,006
Structured Agency Credit Risk Trust FRB Ser. 18-HQA2, Class B2, (US 30 Day Average SOFR + 11.11%), 16.429%, 10/25/48	413,000	507,368
Structured Agency Credit Risk Trust FRB Ser. 19-DNA1, Class B2, (US 30 Day Average SOFR + 10.86%), 16.179%, 1/25/49	32,000	39,120
Structured Agency Credit Risk Trust FRB Ser. 19-DNA2, Class B2, (US 30 Day Average SOFR + 10.61%), 15.929%, 3/25/49	114,000	133,843
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-DNA4, Class B2, (US 30 Day Average SOFR + 10.11%), 15.429%, 8/25/50	65,000	83,159
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-HQA3, Class B2, (US 30 Day Average SOFR + 10.11%), 15.429%, 7/25/50	64,000	79,920
Structured Agency Credit Risk Trust REMICs FRB Ser. 22-DNA3, Class B2, (US 30 Day Average SOFR + 9.75%), 15.065%, 4/25/42	50,000	53,974

Structured Agency Credit Risk Trust FRB Ser. 18-DNA3, Class B2, (US 30 Day Average SOFR + 7.86%), 13.179%, 9/25/48	431,000	477,643
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-HQA3, Class B1, (US 30 Day Average SOFR + 5.86%), 11.179%, 7/25/50	200,687	218,599
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-HQA4, Class B1, (US 30 Day Average SOFR + 5.36%), 10.679%, 9/25/50	42,273	45,621
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-DNA5, Class B1, (US 30 Day Average SOFR + 4.80%), 10.115%, 10/25/50	205,000	222,969
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-HQA2, Class B1, (US 30 Day Average SOFR + 4.21%), 9.529%, 3/25/50	124,000	134,604
Structured Agency Credit Risk Trust REMICs FRB Ser. 20-HQA2, Class M2, (US 30 Day Average SOFR + 3.21%), 8.529%, 3/25/50	23,031	23,749
Seasoned Credit Risk Transfer Trust Ser. 19-2, Class M, 4.75%, 8/25/58 <sup>(WAC)</sup>	69,000	61,250
Seasoned Credit Risk Transfer Trust Ser. 17-3, Class M2, 4.75%, 7/25/56 <sup>(WAC)</sup>	138,000	128,883
Seasoned Credit Risk Transfer Trust FRB Ser. 18-3, Class 3, 4.75%, 8/25/57 <sup>(WAC)</sup>	70,000	61,217
Federal National Mortgage Association		
Connecticut Avenue Securities FRB Ser. 16-C03, Class 1B, (US 30 Day Average SOFR + 11.86%), 17.179%, 10/25/28	154,764	180,283
Connecticut Avenue Securities FRB Ser. 16-C03, Class 1M2, (US 30 Day Average SOFR + 5.41%), 10.729%, 10/25/28	30,371	32,170
Connecticut Avenue Securities FRB Ser. 17-C07, Class 2B1, (US 30 Day Average SOFR + 4.56%), 9.879%, 5/25/30	158,000	171,015
Connecticut Avenue Securities FRB Ser. 17-C06, Class 1B1, (US 30 Day Average SOFR + 4.26%), 9.579%, 2/25/30	200,000	213,716
Federal National Mortgage Association 144A		
Connecticut Avenue Securities Trust FRB Ser. 22-R02, Class 2B1, (US 30 Day Average SOFR + 4.50%), 9.815%, 1/25/42	35,000	35,788
Connecticut Avenue Securities Trust FRB Ser. 19-R01, Class 2B1, (US 30 Day Average SOFR + 4.46%), 9.779%, 7/25/31	211,000	223,792
Connecticut Avenue Securities Trust FRB Ser. 19-R05, Class 1B1, (US 30 Day Average SOFR + 4.21%), 9.529%, 7/25/39	75,323	77,751
Connecticut Avenue Securities Trust FRB Ser. 19-R03, Class 1B1, (US 30 Day Average SOFR + 4.21%), 9.529%, 9/25/31	63,000	66,178
Connecticut Avenue Securities Trust FRB Ser. 20-SBT1, Class 1M2, (US 30 Day Average SOFR + 3.76%), 9.079%, 2/25/40	79,000	82,204
Connecticut Avenue Securities Trust FRB Ser. 20-R02, Class 2B1, (US 30 Day Average SOFR + 3.11%), 8.429%, 1/25/40	35,000	35,034
Connecticut Avenue Securities Trust FRB Ser. 22-R02, Class 2M2, (US 30 Day Average SOFR +	292,000	294,099

3.00%), 8.315%, 1/25/42		
JPMorgan Alternative Loan Trust FRB Ser. 06-A6, Class 1A1, (CME Term SOFR 1 Month + 0.43%), 5.754%, 11/25/36	66,721	55,194
Morgan Stanley ABS Capital I, Inc. Trust FRB Ser. 04-HE9, Class M2, (CME Term SOFR 1 Month + 1.04%), 6.364%, 11/25/34	8,552	7,977
Morgan Stanley Re-REMIC Trust 144A FRB Ser. 10-R4, Class 4B, (CME Term SOFR 1 Month + 0.34%), 2.696%, 2/26/37	63,241	51,252
Structured Asset Mortgage Investments II Trust		
FRB Ser. 07-AR7, Class 1A1, (CME Term SOFR 1 Month + 0.96%), 6.284%, 5/25/47	363,836	289,664
FRB Ser. 06-AR7, Class A1BG, (CME Term SOFR 1 Month + 0.23%), 5.554%, 8/25/36	22,016	18,781
Towd Point Mortgage Trust 144A Ser. 19-2, Class A2, 3.75%, 12/25/58(WAC)	102,000	87,210
WaMu Mortgage Pass-Through Certificates Trust FRB Ser. 05-AR8, Class 2AC2, (CME Term SOFR 1 Month + 1.03%), 6.354%, 7/25/45	61,633	54,646
		<u>6,502,587</u>
<b>Total mortgage-backed securities (cost \$25,540,990)</b>		<b>\$22,451,275</b>

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**ASSET-BACKED SECURITIES (0.3%)(a)**

	Principal amount	Value
Mello Warehouse Securitization Trust 144A FRB Ser. 21-3, Class D, (CME Term SOFR 1 Month + 2.11%), 7.434%, 10/22/24	\$94,000	\$92,766
<b>Total asset-backed securities (cost \$89,886)</b>		<u><b>\$92,766</b></u>

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**PURCHASED OPTIONS OUTSTANDING (—%)(a)**

Counterparty	Expiration date/ strike price	Notional amount	Contract amount	Value

**JPMorgan Chase Bank N.A.**

Uniform Mortgage-Backed Securities 30 yr  
5.00% TBA commitments (Call) Oct-23/\$96.06 \$18,872,668 \$20,000,000 \$8,460

**Total purchased options outstanding (cost \$150,000) \$8,460**

**SHORT-TERM INVESTMENTS (19.9%)<sup>(a)</sup>**

		Principal amount/shares	Value
Putnam Short Term Investment Fund Class P 5.57% <sup>(AFF)</sup>	Shares	2,771,016	\$2,771,016
State Street Institutional U.S. Government Money Market Fund, Premier Class 5.29% <sup>(P)</sup>	Shares	704,000	704,000
U.S. Treasury Bills 5.327%, 11/16/23 <sup>(SEG)(SEGSF)(SEGTBA)</sup>		\$700,000	695,367
U.S. Treasury Bills 5.453%, 10/26/23 <sup>(SEGSF)</sup>		600,000	597,887
U.S. Treasury Bills 5.329%, 11/2/23 <sup>(SEG)(SEGSF)(SEGTBA)</sup>		600,000	597,267
U.S. Treasury Bills 5.270%, 11/9/23 <sup>(SEGSF)(SEGTBA)</sup>		100,000	99,440
<b>Total short-term investments (cost \$5,464,972)</b>			<b>\$5,464,977</b>

**TOTAL INVESTMENTS**

**Total investments (cost \$71,631,123) \$67,444,470**

**FUTURES CONTRACTS OUTSTANDING at 9/30/23 (Unaudited)**

	Number of contracts	Notional amount	Value	Expiration date	Unrealized appreciation/ (depreciation)
U.S. Treasury Note 2 yr (Short)	107	\$21,690,070	\$21,690,070	Dec-23	\$83,353
U.S. Treasury Note Ultra 10 yr (Short)	105	11,714,063	11,714,063	Dec-23	344,396
<b>Unrealized appreciation</b>					<b>427,749</b>
<b>Unrealized (depreciation)</b>					<b>—</b>

**Total****\$427,749****WRITTEN OPTIONS OUTSTANDING at 9/30/23 (premiums \$150,000) (Unaudited)**

<b>Counterparty</b>	<b>Expiration date/ strike price</b>	<b>Notional amount</b>	<b>Contract amount</b>	<b>Value</b>
<b>JPMorgan Chase Bank N.A.</b>				
Uniform Mortgage-Backed Securities 30 yr 5.00% TBA commitments (Put)	Oct-23/\$96.06	\$18,872,668	\$20,000,000	\$341,940
<b>Total</b>				<b>\$341,940</b>

**FORWARD PREMIUM SWAP OPTION CONTRACTS OUTSTANDING at 9/30/23 (Unaudited)**

<b>Counterparty Fixed right or obligation % to receive or (pay)/Floating rate index/Maturity date</b>	<b>Expiration date/strike</b>	<b>Notional/Contract amount</b>	<b>Premium receivable/(payable)</b>	<b>Unrealized appreciation/(depreciation)</b>
<b>Bank of America N.A.</b>				
(0.7988)/US SOFR/Apr-34 (Written)	Apr-24/0.7988	\$6,137,300	\$7,578	\$7,242
(3.63)/US SOFR/Mar-26 (Written)	Mar-24/3.63	4,239,200	52,778	44,427
3.63/US SOFR/Mar-26 (Written)	Mar-24/3.63	4,239,200	52,778	(32,303)
(3.073)/US SOFR/Jun-37 (Written)	Jun-27/3.073	3,734,100	271,656	140,925
3.073/US SOFR/Jun-37 (Written)	Jun-27/3.073	3,734,100	271,656	(139,693)
1.8838/US SOFR/Apr-34 (Purchased)	Apr-24/1.8838	3,068,600	(22,444)	(20,866)
(3.32)/US SOFR/Oct-39 (Purchased)	Oct-29/3.32	2,791,800	(221,948)	76,104
3.32/US SOFR/Oct-39 (Purchased)	Oct-29/3.32	2,791,800	(221,948)	(80,292)

(3.1625)/US SOFR/Mar-37 (Written)	Mar-27/3.1625	2,037,900	140,615	68,861
3.1625/US SOFR/Mar-37 (Written)	Mar-27/3.1625	2,037,900	140,615	(71,530)
(1.0035)/US SOFR/Mar-34 (Written)	Mar-24/1.0035	1,534,300	2,324	2,240
(3.18)/US SOFR/Dec-35 (Purchased)	Dec-25/3.18	1,487,900	(75,139)	63,831
2.68/US SOFR/Dec-35 (Purchased)	Dec-25/2.68	1,487,900	(75,139)	(49,785)
(3.101)/US SOFR/Jun-39 (Written)	Jun-29/3.101	1,478,700	115,486	49,670
3.101/US SOFR/Jun-39 (Written)	Jun-29/3.101	1,478,700	115,486	(54,623)
(3.49)/US SOFR/May-40 (Purchased)	May-30/3.49	1,433,500	(106,796)	36,640
3.49/US SOFR/May-40 (Purchased)	May-30/3.49	1,433,500	(106,796)	(27,050)
(3.03)/US SOFR/Feb-33 (Written)	Feb-28/3.03	1,289,800	89,935	18,844
3.03/US SOFR/Feb-33 (Written)	Feb-28/3.03	1,289,800	89,935	(32,916)
2.0035/US SOFR/Mar-34 (Purchased)	Mar-24/2.0035	1,074,000	(8,341)	(7,926)
(3.095)/US SOFR/Mar-36 (Written)	Mar-26/3.095	903,300	59,798	34,976
3.095/US SOFR/Mar-36 (Written)	Mar-26/3.095	903,300	59,798	(31,561)
(3.03)/US SOFR/Mar-36 (Purchased)	Mar-26/3.03	883,600	(56,506)	35,680
3.03/US SOFR/Mar-36 (Purchased)	Mar-26/3.03	883,600	(56,506)	(33,594)
(2.558)/US SOFR/Dec-57 (Purchased)	Dec-27/2.558	679,500	(100,430)	63,078
2.558/US SOFR/Dec-57 (Purchased)	Dec-27/2.558	679,500	(100,430)	(57,941)
(0.9876)/US SOFR/Mar-50 (Purchased)	Mar-30/0.9876	671,400	(216,835)	46,481
0.9876/US SOFR/Mar-50 (Purchased)	Mar-30/0.9876	671,400	(14,584)	(6,130)
(3.857)/US SOFR/Sep-38 (Written)	Sep-28/3.857	666,800	45,909	5,721
(3.887)/US SOFR/Sep-40 (Written)	Sep-30/3.887	666,800	50,143	5,048
3.887/US SOFR/Sep-40 (Written)	Sep-30/3.887	666,800	50,143	(8,202)
3.857/US SOFR/Sep-38 (Written)	Sep-28/3.857	666,800	45,909	(9,169)
(3.17)/US SOFR/Dec-35 (Purchased)	Dec-25/3.17	510,600	(79,763)	21,481

2.67/US SOFR/Dec-35 (Purchased)	Dec-25/2.67	510,600	(78,229)	(17,381)
(2.47)/US SOFR/Dec-57 (Purchased)	Dec-27/2.47	392,200	(58,242)	40,004
2.47/US SOFR/Dec-57 (Purchased)	Dec-27/2.47	392,200	(58,242)	(34,910)
(1.405)/US SOFR/Dec-58 (Purchased)	Dec-28/1.405	153,500	(23,543)	33,635
1.405/US SOFR/Dec-58 (Purchased)	Dec-28/1.405	153,500	(23,543)	(16,646)
<b>Barclays Bank PLC</b>				
(1.945)/US SOFR/Jun-51 (Purchased)	Jun-31/1.945	2,648,900	(561,567)	160,364
1.945/US SOFR/Jun-51 (Purchased)	Jun-31/1.945	2,648,900	(142,776)	(49,402)
<b>Citibank, N.A.</b>				
(1.99)/US SOFR/Feb-42 (Purchased)	Feb-32/1.99	1,951,300	(153,665)	163,324
1.99/US SOFR/Feb-42 (Purchased)	Feb-32/1.99	1,951,300	(153,665)	(83,418)
(2.00)/US SOFR/Mar-51 (Purchased)	Mar-41/2.00	1,433,800	(166,894)	32,361
2.00/US SOFR/Mar-51 (Purchased)	Mar-41/2.00	1,433,800	(94,057)	(18,166)
(1.826)/US SOFR/Jan-42 (Purchased)	Jan-32/1.826	1,062,800	(78,488)	101,359
1.826/US SOFR/Jan-42 (Purchased)	Jan-32/1.826	1,062,800	(78,488)	(43,564)
(3.49)/US SOFR/Oct-33 (Purchased)	Oct-23/3.49	694,400	(12,291)	30,970
4.05/US SOFR/Oct-33 (Written)	Oct-23/4.05	694,400	2,778	(10,777)
3.77/US SOFR/Oct-33 (Written)	Oct-23/3.77	694,400	5,972	(21,825)
(2.14)/US SOFR/Jun-41 (Purchased)	Jun-31/2.14	229,400	(29,602)	9,745
2.14/US SOFR/Jun-41 (Purchased)	Jun-31/2.14	229,400	(8,901)	(3,212)
<b>Deutsche Bank AG</b>				
(2.98)/US SOFR/Mar-35 (Written)	Mar-30/2.98	5,048,800	233,759	93,504
2.98/US SOFR/Mar-35 (Written)	Mar-30/2.98	5,048,800	233,759	(116,122)
(3.19)/US SOFR/Mar-38 (Written)	Mar-28/3.19	332,400	23,152	9,709
3.19/US SOFR/Mar-38 (Written)	Mar-28/3.19	332,400	23,152	(12,478)
<b>Goldman Sachs International</b>				

(2.525)/US SOFR/Mar-47 (Purchased)	Mar-27/2.525	233,300	(32,895)	17,791
2.525/US SOFR/Mar-47 (Purchased)	Mar-27/2.525	233,300	(13,730)	(6,896)
<b>JPMorgan Chase Bank N.A.</b>				
(1.70)/US SOFR/Jan-29 (Written)	Jan-24/1.70	1,709,200	36,470	35,859
1.70/US SOFR/Jan-29 (Written)	Jan-24/1.70	1,709,200	36,470	(157,776)
(3.0175)/US SOFR/Dec-42 (Purchased)	Dec-32/3.0175	1,359,100	(114,504)	46,196
3.0175/US SOFR/Dec-42 (Purchased)	Dec-32/3.0175	1,359,100	(114,504)	(41,045)
(3.115)/US SOFR/Mar-43 (Written)	Mar-33/3.115	1,242,200	104,842	34,496
3.115/US SOFR/Mar-43 (Written)	Mar-33/3.115	1,242,200	104,842	(37,129)
(1.75)/US SOFR/Feb-41 (Purchased)	Feb-31/1.75	1,151,200	(179,472)	49,214
1.75/US SOFR/Feb-41 (Purchased)	Feb-31/1.75	1,151,200	(28,435)	(8,945)
(3.0925)/US SOFR/Mar-43 (Written)	Mar-33/3.0925	691,100	58,052	19,309
3.0925/US SOFR/Mar-43 (Written)	Mar-33/3.0925	691,100	58,052	(21,390)
(3.1525)/US SOFR/Mar-40 (Written)	Mar-30/3.1525	339,100	26,874	10,458
3.1525/US SOFR/Mar-40 (Written)	Mar-30/3.1525	339,100	26,874	(11,763)
(1.81)/US SOFR/Jan-37 (Written)	Jan-27/1.81	263,500	15,573	11,726
1.81/US SOFR/Jan-37 (Written)	Jan-27/1.81	263,500	15,573	(31,525)
<b>Toronto-Dominion Bank</b>				
(2.118)/US SOFR/Mar-41 (Purchased)	Mar-31/2.118	149,600	(19,835)	6,180
2.118/US SOFR/Mar-41 (Purchased)	Mar-31/2.118	149,600	(4,982)	(1,577)
<b>Unrealized appreciation</b>				<b>1,627,453</b>
<b>Unrealized (depreciation)</b>				<b>(1,409,528)</b>
<b>Total</b>				<b>\$217,925</b>



**TBA SALE COMMITMENTS OUTSTANDING at 9/30/23 (proceeds receivable \$16,203,125) (Unaudited)**

<b>Agency</b>	<b>Principal amount</b>	<b>Settlement date</b>	<b>Value</b>
Uniform Mortgage-Backed Securities, 5.50%, 10/1/53	\$1,000,000	10/12/23	\$966,563
Uniform Mortgage-Backed Securities, 5.00%, 10/1/53	15,000,000	10/12/23	14,154,501
Uniform Mortgage-Backed Securities, 2.50%, 10/1/53	1,000,000	10/12/23	793,164
<b>Total</b>			<b>\$15,914,228</b>

**CENTRALLY CLEARED INTEREST RATE SWAP CONTRACTS OUTSTANDING at 9/30/23 (Unaudited)**

<b>Notional amount</b>	<b>Value</b>	<b>Upfront premium received (paid)</b>	<b>Termination date</b>	<b>Payments made by fund</b>	<b>Payments received by fund</b>	<b>Unrealized appreciation/ (depreciation)</b>
\$751,000	\$25,459	\$(6)	1/6/28	3.5615% — Annually	US SOFR — Annually	\$33,289
163,000	27,971	(6)	1/25/53	3.007% — Annually	US SOFR — Annually	30,214
306,000	14,924	(4)	2/23/33	US SOFR — Annually	3.6405% — Annually	(17,589)
138,000	5,871	(2)	3/3/33	US SOFR — Annually	3.723% — Annually	(6,973)
447,000	35,876	(6)	3/15/33	3.234% — Annually	US SOFR — Annually	40,508
236,000	17,827	(3)	3/24/33	US SOFR — Annually	3.2975% — Annually	(20,114)
460,000	43,829	(6)	4/6/33	3.45% — Annually	US SOFR — Annually	48,610
424,000	32,703	(6)	4/20/33	US SOFR — Annually	3.283% — Annually	(36,348)
355,000	28,286	(5)	5/3/33	3.253% — Annually	US SOFR — Annually	31,177
377,000	17,941	(3)	5/17/28	US SOFR — Annually	3.261% — Annually	(20,747)
573,000	29,613	(7)	5/23/30	US SOFR — Annually	3.4095% — Annually	(33,388)
12,135,000	98,415	(3,726)	6/23/25	US SOFR — Annually	4.625% — Annually	(122,921)

11,549,000	317,020	6,123	6/23/28	3.753% — Annually	US SOFR — Annually	370,894
1,898,000	119,726	2,979	6/23/33	3.475% — Annually	US SOFR — Annually	132,018
2,720,000	391,000	(12,236)	6/23/53	US SOFR — Annually	3.17% — Annually	(418,887)
416,000	16,108	(6)	7/12/33	US SOFR — Annually	3.786% — Annually	(17,502)
196,000	7,613	(3)	8/4/33	US SOFR — Annually	3.7865% — Annually	(8,101)
184,000	3,766	(2)	8/21/33	US SOFR — Annually	4.018% — Annually	(4,041)
154,000	2,330	(1)	9/5/28	4.041% — Annually	US SOFR — Annually	2,470
18,949,000	3,600 (E)	(14,192)	12/20/25	4.80% — Annually	US SOFR — Annually	(10,592)
3,357,000	13,126 (E)	14,073	12/20/28	4.40% — Annually	US SOFR — Annually	947
1,661,000	31,659 (E)	26,748	12/20/33	US SOFR — Annually	4.00% — Annually	(4,911)
40,000	2,608 (E)	(2,367)	12/20/53	3.60% — Annually	US SOFR — Annually	240
104,000	791	(4)	9/27/53	US SOFR — Annually	3.965% — Annually	(810)
527,000	4,732	(18)	9/28/53	3.957% — Annually	US SOFR — Annually	4,774
276,000	1,540	(4)	9/29/33	4.2035% — Annually	US SOFR — Annually	1,553
1,459,000	350	(5)	9/29/25	US SOFR — Annually	4.99% — Annually	319
336,000	4,479	(10)	9/29/53	3.9315% — Annually	US SOFR — Annually	4,495
<b>Total</b>		<b>\$17,295</b>				<b>\$(21,416)</b>

(E) *Extended effective date.*

**OTC CREDIT DEFAULT CONTRACTS OUTSTANDING — PROTECTION SOLD at 9/30/23 (Unaudited)**

Swap counterparty/ referenced debt*	Rating***	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments received by fund	Unrealized appreciation/ (depreciation)
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Citigroup Global Markets, Inc.

CMBX NA A.6 Index	A+/P	\$151	\$297	\$48	5/11/63	200 bp — Monthly	\$104
CMBX NA A.6 Index	A+/P	364	891	143	5/11/63	200 bp — Monthly	221
CMBX NA A.6 Index	A+/P	1,667	4,157	667	5/11/63	200 bp — Monthly	1,001
CMBX NA A.6 Index	A+/P	1,791	4,454	714	5/11/63	200 bp — Monthly	1,078
CMBX NA A.6 Index	A+/P	1,903	4,454	714	5/11/63	200 bp — Monthly	1,190
CMBX NA A.6 Index	A+/P	11,341	28,211	4,525	5/11/63	200 bp — Monthly	6,825
CMBX NA A.6 Index	A+/P	15,540	32,962	5,287	5/11/63	200 bp — Monthly	10,264
CMBX NA BB.11 Index	BB-/P	12,430	22,000	8,375	11/18/54	500 bp — Monthly	4,073
CMBX NA BB.13 Index	BB-/P	1,276	14,000	5,670	12/16/72	500 bp — Monthly	(4,382)
CMBX NA BB.13 Index	BB-/P	4,899	49,000	19,845	12/16/72	500 bp — Monthly	(14,905)
CMBX NA BB.13 Index	BB-/P	5,103	56,000	22,680	12/16/72	500 bp — Monthly	(17,531)
CMBX NA BB.13 Index	BB-/P	8,871	94,000	38,070	12/16/72	500 bp — Monthly	(29,121)
CMBX NA BB.6 Index	B/P	38,463	57,347	18,208	5/11/63	500 bp — Monthly	20,303
CMBX NA BB.9 Index	B/P	1,425	7,000	2,771	9/17/58	500 bp — Monthly	(1,340)
CMBX NA BB.9 Index	B/P	5,611	10,000	3,959	9/17/58	500 bp — Monthly	1,660
CMBX NA BB.9 Index	B/P	13,070	64,000	25,338	9/17/58	500 bp — Monthly	(12,214)
CMBX NA BBB-.10 Index	BB+/P	5,211	42,000	11,600	11/17/59	300 bp — Monthly	(6,368)
CMBX NA BBB-.10 Index	BB+/P	6,982	64,000	17,677	11/17/59	300 bp — Monthly	(10,663)
CMBX NA BBB-.11 Index	BBB-/P	4,385	70,000	14,035	11/18/54	300 bp — Monthly	(9,615)
CMBX NA BBB-.13 Index	BBB-/P	4,413	24,000	6,674	12/16/72	300 bp — Monthly	(2,249)
CMBX NA BBB-.13 Index	BBB-/P	8,094	86,000	23,917	12/16/72	300 bp — Monthly	(15,780)
CMBX NA BBB-.14 Index	BBB-/P	31	1,000	242	12/16/72	300 bp — Monthly	(210)
CMBX NA BBB-.14 Index	BBB-/P	1,993	61,000	14,738	12/16/72	300 bp — Monthly	(12,714)
CMBX NA BBB-.15 Index	BBB-/P	267	1,000	239	11/18/64	300 bp — Monthly	29
CMBX NA BBB-.15 Index	BBB-/P	209	2,000	477	11/18/64	300 bp — Monthly	(267)
CMBX NA BBB-.15Index	BBB-/P	1,529	9,000	2,148	11/18/64	300 bp — Monthly	(615)

CMBX NA BBB-.16 Index	BBB-/P	18,640	82,000	19,500	4/17/65	300 bp — Monthly	(819)
<b>Credit Suisse International</b>							
CMBX NA BB.7 Index	B-/P	2,541	18,572	6,814	1/17/47	500 bp — Monthly	(4,257)
<b>Goldman Sachs International</b>							
CMBX NA A.7 Index	BBB+/P	(54)	26,858	2,108	1/17/47	200 bp — Monthly	(2,153)
CMBX NA BB.14 Index	BB/P	6,816	54,000	21,346	12/16/72	500 bp — Monthly	(14,485)
CMBX NA BB.6 Index	B/P	556	2,389	759	5/11/63	500 bp — Monthly	(200)
CMBX NA BB.6 Index	B/P	11,600	20,310	6,449	5/11/63	500 bp — Monthly	5,169
CMBX NA BB.6 Index	B/P	52,374	94,980	30,156	5/11/63	500 bp — Monthly	22,297
CMBX NA BB.7 Index	B-/P	4,751	13,684	5,021	1/17/47	500 bp — Monthly	(258)
CMBX NA BB.7 Index	B-/P	6,389	18,572	6,814	1/17/47	500 bp — Monthly	(410)
CMBX NA BB.7 Index	B-/P	7,560	23,459	8,607	1/17/47	500 bp — Monthly	(1,027)
CMBX NA BBB-.16 Index	BBB-/P	13,237	55,000	13,079	4/17/65	300 bp — Monthly	185
CMBX NA BBB-.16 Index	BBB-/P	17,160	66,000	15,695	4/17/65	300 bp — Monthly	1,498
<b>JPMorgan Securities LLC</b>							
CMBX NA A.13 Index	A-/P	81	1,000	103	12/16/72	200 bp — Monthly	(22)
CMBX NA BB.10 Index	B/P	2,006	25,000	11,195	5/11/63	500 bp — Monthly	(9,168)
CMBX NA BB.7 Index	B-/P	1,370	3,910	1,435	1/17/47	500 bp — Monthly	(61)
CMBX NA BB.7 Index	B-/P	30,848	61,579	22,593	1/17/47	500 bp — Monthly	8,306
CMBX NA BBB-.8 Index	BB-/P	6,549	42,000	7,993	10/17/57	300 bp — Monthly	(1,422)
<b>Merrill Lynch International</b>							
CMBX NA A.13 Index	A-/P	11,339	87,000	8,987	12/16/72	200 bp — Monthly	2,381
CMBX NA A.13 Index	A-/P	11,581	87,000	8,987	12/16/72	200 bp — Monthly	2,623
CMBX NA A.15 Index	A-/P	65	4,000	398	11/18/64	200 bp — Monthly	(332)
CMBX NA BB.6 Index	B/P	335	1,792	569	5/11/63	500 bp — Monthly	(232)
CMBX NA BB.7 Index	B-/P	1,452	11,729	4,304	1/17/47	500 bp — Monthly	(2,842)

**Morgan Stanley & Co. International PLC**

CMBX NA A.7 Index	BBB+/P	(2)	1,452	114	1/17/47	200 bp — Monthly	(115)
CMBX NA A.7 Index	BBB+/P	(5)	7,985	627	1/17/47	200 bp — Monthly	(629)
CMBX NA A.7 Index	BBB+/P	656	97,996	7,693	1/17/47	200 bp — Monthly	(7,004)
CMBX NA BB.13 Index	BB-/P	184	2,000	810	12/16/72	500 bp — Monthly	(625)
CMBX NA BB.13 Index	BB-/P	275	3,000	1,215	12/16/72	500 bp — Monthly	(937)
CMBX NA BB.13 Index	BB-/P	372	4,000	1,620	12/16/72	500 bp — Monthly	(1,245)
CMBX NA BB.13 Index	BB-/P	369	4,000	1,620	12/16/72	500 bp — Monthly	(1,247)
CMBX NA BB.13 Index	BB-/P	1,793	19,000	7,695	12/16/72	500 bp — Monthly	(5,886)
CMBX NA BB.13 Index	BB-/P	4,636	25,000	10,125	12/16/72	500 bp — Monthly	(5,468)
CMBX NA BB.13 Index	BB-/P	4,374	48,000	19,440	12/16/72	500 bp — Monthly	(15,026)
CMBX NA BB.6 Index	B/P	11,037	19,116	6,069	5/11/63	500 bp — Monthly	4,984
CMBX NA BB.6 Index	B/P	36,496	51,373	16,311	5/11/63	500 bp — Monthly	20,228
CMBX NA BB.6 Index	B/P	136,920	194,740	61,830	5/11/63	500 bp — Monthly	75,252
CMBX NA BB.7 Index	B-/P	11,747	34,211	12,552	1/17/47	500 bp — Monthly	(777)
CMBX NA BBB-.15 Index	BBB-/P	1,261	8,000	1,910	11/18/64	300 bp — Monthly	(644)
CMBX NA BBB-.15 Index	BBB-/P	6,795	40,000	9,548	11/18/64	300 bp — Monthly	(2,733)
CMBX NA BBB-.16 Index	BBB-/P	1,591	7,000	1,665	4/17/65	300 bp — Monthly	(70)
CMBX NA BBB-.7 Index	BB/P	74	865	164	1/17/47	300 bp — Monthly	(90)
CMBX NA BBB-.7 Index	BB/P	23,003	292,451	55,566	1/17/47	300 bp — Monthly	(32,417)
CMBX NA BBB-.9 Index	BB/P	194	2,000	432	9/17/58	300 bp — Monthly	(237)

**Upfront premium received** 606,046

**Unrealized appreciation** 189,671

**Upfront premium (paid)** (61)

**Unrealized (depreciation)** (250,812)

**Total** \$605,985

**Total** \$(61,141)

\* *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 September 30, 2023. 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 9/30/23  
(Unaudited)**

Swap counterparty/ referenced debt*	Upfront premium received (paid)**	Notional amount	Value	Termi- nation date	Payments (paid) by fund	Unrealized appreciation/ (depreciation)
<b>Citigroup Global Markets, Inc.</b>						
CMBX NA BB.10 Index	\$(22,695)	\$89,000	\$39,854	11/17/59	(500 bp) — Monthly	\$17,085
CMBX NA BB.10 Index	(6,028)	25,000	11,195	11/17/59	(500 bp) — Monthly	5,147
CMBX NA BB.10 Index	(1,252)	12,000	5,374	11/17/59	(500 bp) — Monthly	4,111
CMBX NA BB.10 Index	(987)	9,000	4,030	11/17/59	(500 bp) — Monthly	3,036
CMBX NA BB.11 Index	(357)	7,000	2,665	11/18/54	(500 bp) — Monthly	2,302
CMBX NA BB.11 Index	(363)	7,000	2,665	11/18/54	(500 bp) — Monthly	2,296
CMBX NA BB.11 Index	(505)	7,000	2,665	11/18/54	(500 bp) — Monthly	2,154
CMBX NA BB.7 Index	(9,339)	178,873	65,628	1/17/47	(500 bp) — Monthly	56,140
CMBX NA BB.7 Index	(808)	11,729	4,304	1/17/47	(500 bp) — Monthly	3,486
CMBX NA BB.8 Index	(12,059)	33,823	14,838	10/17/57	(500 bp) — Monthly	2,751
CMBX NA BBB-.10 Index	(29,745)	173,000	47,783	11/17/59	(300 bp) — Monthly	17,951
CMBX NA BBB-.10 Index	(6,246)	49,000	13,534	11/17/59	(300 bp) — Monthly	7,263
CMBX NA BBB-.10 Index	(1,101)	9,000	2,486	11/17/59	(300 bp) — Monthly	1,380
CMBX NA BBB-.10 Index	(1,670)	7,000	1,933	11/17/59	(300 bp) — Monthly	260
CMBX NA BBB-.11 Index	(9,616)	30,000	6,015	11/18/54	(300 bp) — Monthly	(3,616)
CMBX NA BBB-.11 Index	(3,680)	25,000	5,013	11/18/54	(300 bp) — Monthly	1,320
CMBX NA BBB-.12 Index	(12,736)	185,000	51,449	8/17/61	(300 bp) — Monthly	38,620
CMBX NA BBB-.12 Index	(19,039)	57,000	15,852	8/17/61	(300 bp) — Monthly	(3,216)
CMBX NA BBB-.12 Index	(16,684)	48,000	13,349	8/17/61	(300 bp) — Monthly	(3,360)
CMBX NA BBB-.12 Index	(8,800)	39,000	10,846	8/17/61	(300 bp) — Monthly	2,026

CMBX NA BBB-.12 Index	(2,116)	31,000	8,621	8/17/61	(300 bp) — Monthly	6,490
CMBX NA BBB-.12 Index	(4,077)	24,000	6,674	8/17/61	(300 bp) — Monthly	2,585
CMBX NA BBB-.7 Index	(4,375)	17,305	3,288	1/17/47	(300 bp) — Monthly	(1,096)
CMBX NA BBB-.8 Index	(10,050)	67,000	12,750	10/17/57	(300 bp) — Monthly	2,667
CMBX NA BBB-.8 Index	(6,298)	44,000	8,373	10/17/57	(300 bp) — Monthly	2,054
CMBX NA BBB-.8 Index	(5,828)	42,000	7,993	10/17/57	(300 bp) — Monthly	2,144
CMBX NA BBB-.8 Index	(4,579)	33,000	6,280	10/17/57	(300 bp) — Monthly	1,685
CMBX NA BBB-.8 Index	(3,728)	28,000	5,328	10/17/57	(300 bp) — Monthly	1,587
CMBX NA BBB-.8 Index	(2,188)	14,000	2,664	10/17/57	(300 bp) — Monthly	470
CMBX NA BBB-.8 Index	(317)	2,000	381	10/17/57	(300 bp) — Monthly	62
CMBX NA BBB-.9 Index	(1,183)	5,000	1,081	9/17/58	(300 bp) — Monthly	(104)
<b>Credit Suisse International</b>						
CMBX NA BB.10 Index	(3,202)	24,000	10,747	11/17/59	(500 bp) — Monthly	7,525
CMBX NA BB.10 Index	(2,854)	24,000	10,747	11/17/59	(500 bp) — Monthly	7,873
CMBX NA BB.10 Index	(1,616)	13,000	5,821	11/17/59	(500 bp) — Monthly	4,195
<b>Goldman Sachs International</b>						
CMBX NA A.6 Index	(4,583)	13,957	2,239	5/11/63	(200 bp) — Monthly	(2,348)
CMBX NA A.6 Index	(1,482)	5,048	810	5/11/63	(200 bp) — Monthly	(674)
CMBX NA A.6 Index	(1,031)	3,564	572	5/11/63	(200 bp) — Monthly	(461)
CMBX NA A.6 Index	(629)	2,376	381	5/11/63	(200 bp) — Monthly	(249)
CMBX NA A.6 Index	(333)	1,188	191	5/11/63	(200 bp) — Monthly	(143)
CMBX NA A.6 Index	(248)	891	143	5/11/63	(200 bp) — Monthly	(105)
CMBX NA A.6 Index	(244)	891	143	5/11/63	(200 bp) — Monthly	(102)
CMBX NA A.6 Index	(165)	594	95	5/11/63	(200 bp) — Monthly	(70)
CMBX NA A.6 Index	(163)	594	95	5/11/63	(200 bp) — Monthly	(68)
CMBX NA A.6 Index	(193)	594	95	5/11/63	(200 bp) — Monthly	(97)
CMBX NA A.6 Index	(66)	297	48	5/11/63	(200 bp) — Monthly	(19)
CMBX NA BB.8 Index	(3,862)	10,630	4,663	10/17/57	(500 bp) — Monthly	792
CMBX NA BB.8 Index	(227)	1,933	848	10/17/57	(500 bp) — Monthly	620
CMBX NA BBB-.12 Index	(4,465)	25,000	6,953	8/17/61	(300 bp) — Monthly	2,475
<b>JPMorgan Securities LLC</b>						
CMBX NA A.15 Index	(364)	4,000	398	11/18/64	(200 bp) — Monthly	32
CMBX NA A.6 Index	(162)	594	95	5/11/63	(200 bp) — Monthly	(67)
CMBX NA A.6 Index	(81)	297	48	5/11/63	(200 bp) — Monthly	(34)
CMBX NA BB.11 Index	(5,148)	5,974	1,897	5/11/63	(500 bp) — Monthly	(3,256)
CMBX NA BB.11 Index	(545)	1,000	381	11/18/54	(500 bp) — Monthly	(166)
CMBX NA BBB-.14 Index	(10,479)	62,000	14,979	12/16/72	(300 bp) — Monthly	4,469

CMBX NA BBB-.7 Index	(56,108)	206,792	39,290	1/17/47	(300 bp) — Monthly	(16,921)
<b>Merrill Lynch International</b>						
CMBX NA BB.10 Index	(455)	8,000	3,582	11/17/59	(500 bp) — Monthly	3,121
<b>Morgan Stanley &amp; Co. International PLC</b>						
CMBX NA A.6 Index	(5,038)	15,442	2,477	5/11/63	(200 bp) — Monthly	(2,566)
CMBX NA A.6 Index	(3,218)	9,800	1,572	5/11/63	(200 bp) — Monthly	(1,649)
CMBX NA A.6 Index	(2,124)	6,533	1,048	5/11/63	(200 bp) — Monthly	(1,079)
CMBX NA A.6 Index	(1,626)	5,048	810	5/11/63	(200 bp) — Monthly	(818)
CMBX NA A.6 Index	(1,199)	4,157	667	5/11/63	(200 bp) — Monthly	(533)
CMBX NA A.6 Index	(503)	1,782	286	5/11/63	(200 bp) — Monthly	(217)
CMBX NA A.6 Index	(490)	1,782	286	5/11/63	(200 bp) — Monthly	(205)
CMBX NA BB.10 Index	(10,024)	33,000	14,777	11/17/59	(500 bp) — Monthly	4,726
CMBX NA BB.8 Index	(2,174)	5,798	2,544	10/17/57	(500 bp) — Monthly	365
CMBX NA BB.9 Index	(4,754)	33,000	13,065	9/17/58	(500 bp) — Monthly	8,283
CMBX NA BB.9 Index	(2,309)	27,000	10,689	9/17/58	(500 bp) — Monthly	8,358
CMBX NA BB.9 Index	(2,188)	16,000	6,334	9/17/58	(500 bp) — Monthly	4,134
CMBX NA BB.9 Index	(757)	5,000	1,980	9/17/58	(500 bp) — Monthly	1,219
CMBX NA BBB-.10 Index	(19,618)	159,000	43,916	11/17/59	(300 bp) — Monthly	24,218
CMBX NA BBB-.10 Index	(3,464)	40,000	11,048	11/17/59	(300 bp) — Monthly	7,564
CMBX NA BBB-.10 Index	(3,171)	25,000	6,905	11/17/59	(300 bp) — Monthly	3,722
CMBX NA BBB-.10 Index	(4,005)	23,000	6,353	11/17/59	(300 bp) — Monthly	2,336
CMBX NA BBB-.10 Index	(1,993)	19,000	5,248	11/17/59	(300 bp) — Monthly	3,245
CMBX NA BBB-.10 Index	(731)	3,000	829	11/17/59	(300 bp) — Monthly	96
CMBX NA BBB-.11 Index	(2,361)	15,000	3,008	11/18/54	(300 bp) — Monthly	639
CMBX NA BBB-.12 Index	(5,797)	28,000	7,787	8/17/61	(300 bp) — Monthly	1,976
CMBX NA BBB-.12 Index	(835)	4,000	1,112	8/17/61	(300 bp) — Monthly	276
CMBX NA BBB-.13 Index	(1,233)	20,000	5,562	12/16/72	(300 bp) — Monthly	4,319
CMBX NA BBB-.7 Index	(4,063)	55,375	10,521	1/17/47	(300 bp) — Monthly	6,430
CMBX NA BBB-.8 Index	(4,688)	30,000	5,709	10/17/57	(300 bp) — Monthly	1,007
CMBX NA BBB-.8 Index	(3,951)	29,000	5,519	10/17/57	(300 bp) — Monthly	1,553
CMBX NA BBB-.8 Index	(2,713)	20,000	3,806	10/17/57	(300 bp) — Monthly	1,084
CMBX NA BBB-.8 Index	(2,660)	19,000	3,616	10/17/57	(300 bp) — Monthly	946
CMBX NA BBB-.8 Index	(2,576)	18,000	3,425	10/17/57	(300 bp) — Monthly	840
CMBX NA BBB-.8 Index	(1,013)	8,000	1,522	10/17/57	(300 bp) — Monthly	337



Upfront premium received	—	Unrealized appreciation	305,847
Upfront premium (paid)	(408,430)	Unrealized (depreciation)	(43,239)
<b>Total</b>	<b>\$(408,430)</b>	<b>Total</b>	<b>\$262,608</b>

\* *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.*

### **Key to holding's abbreviations**

CME Chicago Mercantile Exchange

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.

ICE Intercontinental Exchange

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

LIBOR London Interbank Offered Rate

PO Principal Only

REMICs Real Estate Mortgage Investment Conduits

SOFR Secured Overnight Financing Rate

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, 2023 through September 30, 2023 (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, references to "ASC 820" represent Accounting Standards Codification 820 *Fair Value Measurements and Disclosures* and references to "OTC", if any, represent over-the-counter.

(a) Percentages indicated are based on net assets of \$27,466,454.

(AFF) Affiliated company. For investments in Putnam Short Term Investment Fund, the rate quoted in the security description is the annualized 7-day yield of the fund at the close of the reporting period. Transactions during the period with any company which is under common ownership or control were as follows:

Name of affiliate	Fair value as of 12/31/22	Purchase cost	Sale Investment proceeds	Investment income	Shares outstanding and fair
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value as of  
9/30/23

**Short-term  
investments**

Putnam Short Term Investment Fund*	\$4,038,650	\$18,568,435	\$19,836,069	\$101,165	\$2,771,016
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**Total Short-term  
investments**

	<b>\$4,038,650</b>	<b>\$18,568,435</b>	<b>\$19,836,069</b>	<b>\$101,165</b>	<b>\$2,771,016</b>
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\* 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.

(SEG) 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 \$454,156.

(SEGSF) 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 \$700,953.

(SEGTBA) This security, in part or in entirety, was pledged and segregated with the custodian for collateral on certain TBA commitments at the close of the reporting period. Collateral at period end totaled \$324,064.

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

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

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

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

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

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

**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.

**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 used 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 options 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.

For the fund's average contract amount on options contracts, see the appropriate table at the end of these footnotes.

**Futures contracts:** The fund used 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. 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".

For the fund's average number of futures contracts, see the appropriate table at the end of these footnotes.

**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 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.

For the fund's average notional amount on interest rate swap contracts, see the appropriate table at the end of these footnotes.

At close of the reporting period, the fund has deposited cash valued at \$524,994 in a segregated account to cover margin requirements on open centrally cleared interest rate swap contracts.

**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 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. 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.

For the fund's average notional amount on credit default contracts, see the appropriate table at the end of these footnotes.

**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.

**Master agreements:** The fund is a party to ISDA (International Swaps and Derivatives Association, Inc.) Master Agreements that govern OTC derivative and foreign exchange contracts and Master Securities Forward Transaction Agreements that govern transactions involving mortgage-backed and other asset-backed securities that may result in delayed delivery (Master Agreements) with certain counterparties entered into from time to time. The Master Agreements may contain provisions regarding, among other things, the parties' general obligations, representations, agreements, collateral requirements, events of default and early termination. With respect to certain counterparties, in accordance with the terms of the Master Agreements, collateral posted to the fund is held in a segregated account by the fund's custodian and, with respect to those amounts which can be sold or repledged, are presented in the fund's portfolio.

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

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

terminating party. Any decision by one or more of the fund's counterparties to elect early termination could impact the fund's future derivative activity.

At the close of the reporting period, the fund had a net liability position of \$596,990 on open derivative contracts subject to the Master Agreements. Collateral posted by the fund at period end for these agreements totaled \$700,953 and may include amounts related to unsettled agreements.

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		
<b>Investments in securities:</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Asset-backed securities	\$—	\$92,766	\$—
Mortgage-backed securities	—	22,451,275	—
Purchased options outstanding	—	8,460	—
U.S. government and agency mortgage obligations	—	39,426,992	—
Short-term investments	704,000	4,760,977	—
	<hr/>	<hr/>	<hr/>
<b>Totals by level</b>	<b>\$704,000</b>	<b>\$66,740,470</b>	<b>\$—</b>

	Valuation inputs		
<b>Other financial instruments:</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Futures contracts	\$427,749	\$—	\$—
Written options outstanding	—	(341,940)	—
Forward premium swap option contracts	—	217,925	—
TBA sale commitments	—	(15,914,228)	—
Interest rate swap contracts	—	(38,711)	—
Credit default contracts	—	3,912	—
	<hr/>	<hr/>	<hr/>
<b>Totals by level</b>	<b>\$427,749</b>	<b>\$(16,073,042)</b>	<b>\$—</b>

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

Purchased TBA commitment option contracts (contract amount)	\$21,000,000
Purchased swap option contracts (contract amount)	\$68,800,000
Written TBA commitment option contracts (contract amount)	\$21,000,000
Written swap option contracts (contract amount)	\$54,400,000

Futures contracts (number of contracts)	200
Centrally cleared interest rate swap contracts (notional)	\$127,400,000
OTC credit default contracts (notional)	\$6,000,000

For additional information regarding the fund please see the fund's most recent annual or semiannual shareholder report filed on the Securities and Exchange Commission's Web site, [www.sec.gov](http://www.sec.gov), or visit Putnam's Individual Investor Web site at [www.putnaminvestments.com](http://www.putnaminvestments.com)